



# Young Americans Center for Financial Education Impacts Evaluation

June 2020



## Table of Contents

1. Executive Summary.....	3
2. Recommendations .....	4
3. Individual Impact.....	5
3.1 Personal Finance.....	5
3.2 Civism.....	9
3.3 Business Mindset .....	11
3.4 Emotional Intelligence .....	13
3.5 Hard and Soft Skill Development.....	15
3.6 Impact on Adults.....	16
4. Organizational Impact.....	20
4.1 Teacher Endorsements .....	22
5. Community Impact.....	24
6. Logistics for Summer Camps .....	26
Appendix .....	28
A. Methods .....	28
B. Additional Results.....	29
C. Research Questions and Constructs .....	38
D. Research Overview.....	41
E. Works Cited .....	47



## 1. Executive Summary

- **Student participants made statistically significant gains in Personal Finance (a 7.05% gain) due to gains in valuing careers over employment (a 9.13% gain), social emotional mobility improvements (4.5%), improvements in financial literacy (a 7.14% gain), and becoming more responsible (a 3.17% gain).**
- **Participants made statistically significant gains in Civism (a 6.21% gain) between the beginning and the end of the program, largely due to increases in civic mindedness (6.27%) and philanthropy (6.08%).** Students could practice these skills during Towne by running for elected office, engaging with campaigns, voting in the election, and making donations.
- **Students made the largest gains between the curriculum phase and then end of the program. The expertise of the classroom teachers administering the Young AmeriTowne curriculum, along with the experiential learning opportunity offered by Young AmeriTowne, are both required for the students to learn.** The structure of the Young AmeriTowne program leads to dramatic improvements by first presenting information to the participants during the pre-program phase, then giving them a chance to practice those lessons in Towne.
- **Students holding leadership positions made larger financial literacy and personal finance gains than students who do not hold leadership positions.** While both groups make important gains, the difference is likely due to students in leadership positions needing to internalize these lessons more completely to be successful in their jobs.
- **Families started using a budget (an increase from 80% to 90%) and checking it more regularly (monthly) after their child participated in Young AmeriTowne (an increase from 25% to 60%).** Parents overwhelmingly felt children learn better with hands-on experiences (93.9%) and the Young AmeriTowne program is a strong project-based learning program (93.3%). In addition, they feel the topic is of interest to their children (92.1%) and that elementary school is a good time to teach the basics to children.
- **Low-income students made larger gains in financial literacy (10.18% compared to 5.09%), personal finance (8.23% compared to 6.17%), and business mindset (6.26% compared to 3.51%) compared to their high-income counterparts,** suggesting that Young AmeriTowne was filling a void in their education – possibly caused by differences in family dynamics for low- and high-income families (how often money is discussed and encouragement to take positive risks).
- **Overall, Young AmeriTowne schools have a gain of 14.5% in reading and 13.8% in math.** In low-income schools, gains in reading and math proficiency levels were strong and statistically significant, 38.5% and 10.5% respectively. Gains for high-income schools were much smaller for reading (7.5%) and similar for math (13.7%). Young AmeriTowne Schools also saw a 30% improvement from the 4th to the 5th grade in reading proficiency and a 12% improvement in math. All of these improvements in proficiency scores are based on data



collected and reported by the Colorado Department of Education indicating that the Young AmeriTowne program contributes to student academic success.

- 🌐 **Teachers thoroughly endorse the pedagogy of the program, as many indicate their students learn better with hands-on experiences** (96.8% of teachers). Ninety-two percent of teachers said their students learn to apply themselves during the AmeriTowne program.

## 2. Recommendations

- 🌐 Students were able to practice decision-making during the Towne. Observers should examine how decision-making evolves during the course of the event. If students are learning from each decision-making opportunity, the Young AmeriTowne program should make an effort to build in more decision-making moments. This is especially important for students who do not hold leadership positions who have fewer chances to practice decision-making.
- 🌐 Parents have observed that their children continue to talk about important principles of the program after it concluded. Guidance (and education) for parents about how to continue reinforcing the lessons of Towne well after the conclusion of the event will maintain and help grow the gains students made. Topics to emphasize include:
  - Decision-making
  - Personal finance
  - Entrepreneurism
  - Emotional intelligence
  - Civic engagement
  - Hard and soft-skill development, especially for later career pursuits
- 🌐 The connection between democracy, civism and the free market should be more emphasized during the program. Students and parents did not make strong connections between a thriving market and a healthy democracy.
- 🌐 One-quarter of parents expressed concerns with the accessibility of Towne. AmeriTowne On the Road, the portable version which travels the state, should help alleviate these concerns, however, the changing realities with COVID-19 will need to be considered when crafting programming moving forward.

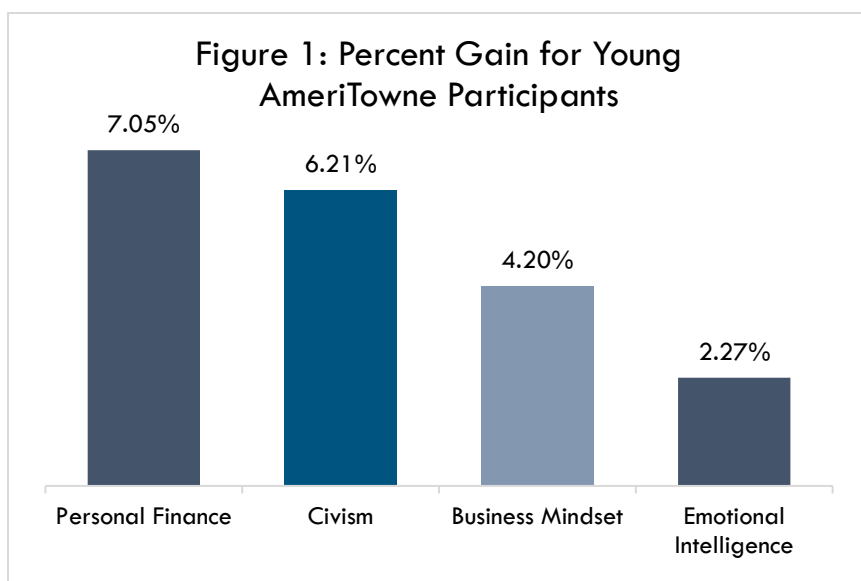


### 3. Individual Impact

The primary focus of this section is impact on the participants in the Young AmeriTowne program. However, impacts beyond the participants including their parents and staff are also described. Impact is considered in terms of the four pillars of the Young AmeriTowne program: Personal Finance, Civism, Business Mindset, and Emotional Intelligence (for more on the components of these constructs, see Appendix C). Comparing results from the pre-program, mid-program, and post-program surveys, it is clear that participating students made extensive gains in all four constructs (see Figure 1). They made their largest gains in Personal Finance and Civism,<sup>1</sup> indicating that Young AmeriTowne’s programming improved these students’ personal finance attitudes, understanding of their role in the community, and their impact within the community. The limited gain in Emotional Intelligence can be attributed to the young age of participants, as they are still maturing (Psychology Today, 2019).

Throughout this section, the impact of the program is gauged by (1) gains made by participants as they went through the program (comparing pre-program, mid-program, and post-program scores), (2) gains program participants have compared to their peers – other high-income and low-income students in the Denver area, (3) differences between students holding leadership positions during

the program compared to students who did not hold leadership positions, and (4) differences between low-income participants and high-income participants. Only notable differences are discussed in the body of the report. All data not discussed here is presented in Appendix B.



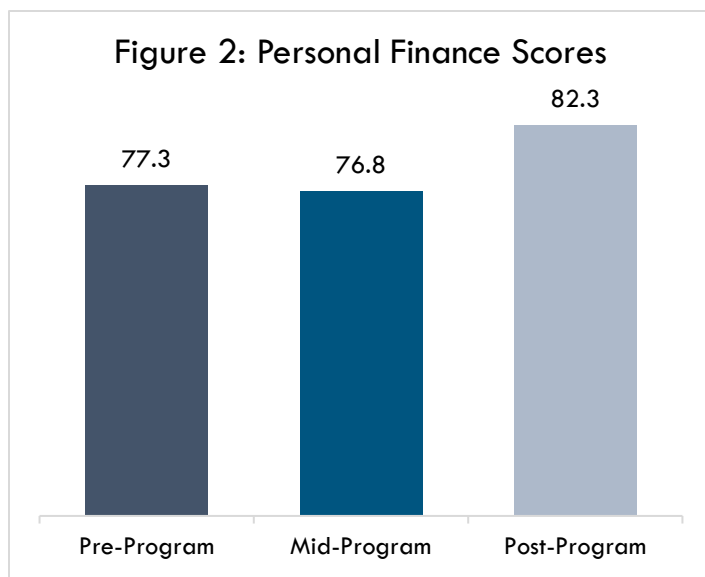
#### 3.1 Personal Finance

Participants in the Young AmeriTowne program made statistically significant gains in the Personal Finance construct at the end of the program. Participants’ scores did not change from the pre-program to the mid-program, but by the end of the program their scores rose from 77% to 82% (shown in Figure 2, next page).

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<sup>1</sup> These two gains were found to be statistically significant ( $p < .05$ ).

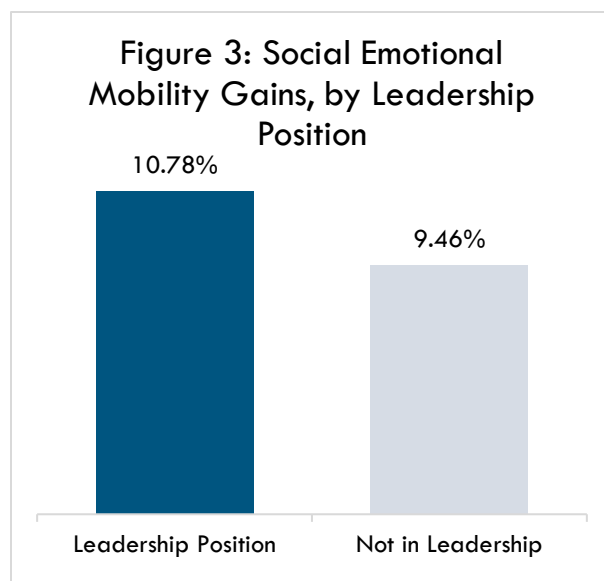




The mid-to post gain (7.4%) was due in part to large improvements in sub-constructs for socio-economic mobility in the mid- to –post-program (9.13% valuing careers over employment<sup>2</sup>, financial literacy (a 7.14% gain), and responsibility (3.17% gain). These data indicate that the Young AmeriTowne program challenges participants’ pre-existing knowledge and generates improvements after a personal experience. Demonstrating that the Zone of Proximal Development theory is transpiring, a small initial drop from Pre-Program to Mid-Program occurred,

followed by a significant increase during the Post-Program phase. The expertise of the classroom teachers administering the Young AmeriTowne curriculum, along with the experiential learning opportunity offered by the Young AmeriTowne simulation, are both required for the students to learn personal finance. It is the experience itself and not the preparation for the Young AmeriTowne simulation that leads to improvements<sup>3</sup>. The literature suggests that experiential learning events cause students to reflect critically on their own situations, allowing them to focus on the most important components (McLeod, 2019; University of North Texas, Center for Learning Experimentation, Application and Research, 2020).

In the Personal Finance construct, the largest gain was in Social-Emotional Mobility, (statistically significant gain of 4.5%) where participants learned how to develop skills that could help them climb the social and economic ladders. While all groups of students made gains in SE-mobility subconstruct, the most discernible improvement was among



<sup>2</sup> There was a 7% gain among from the pre-program to post-program surveys agreeing with the statement, “Young AmeriTowne provides students with real-life experience in different careers.” This underscores how Young AmeriTowne is helping students learn about pursuing careers over simply employment.

<sup>3</sup> The scores between the Pre-Program and Post-Program groups for Personal Finance were found to be statistically significant at  $p < .01$  using a Chi-Square Goodness of Fit test.

students in leadership positions (see Figure 3). Those not in leadership positions also made significant gains, demonstrating that they valued what they were doing, even though they were not in charge.

Students in all populations made gains in Leadership and Responsibility (see Figure 4). However, students who were from higher-income schools (light green) made the largest and only significant gain out of all of these groups. This finding suggests that higher-income students realized that others depended on them and that they were integral members of a team.

Student also made gains in Financial Literacy where they learned about budgeting, the value

of money, and how to distinguish between needs and wants.<sup>4</sup> As shown in Figure 5, students in leadership positions posted gains that were more than double those who were not in leadership

Figure 4: Responsibility Gains

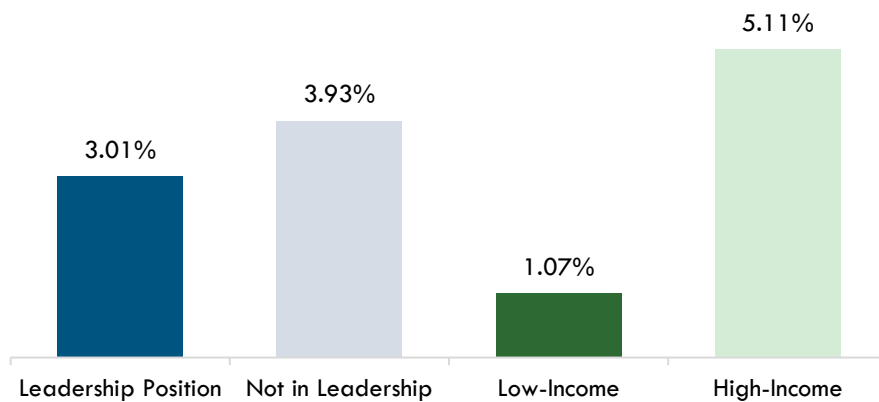


Figure 5: Financial Literacy Gains

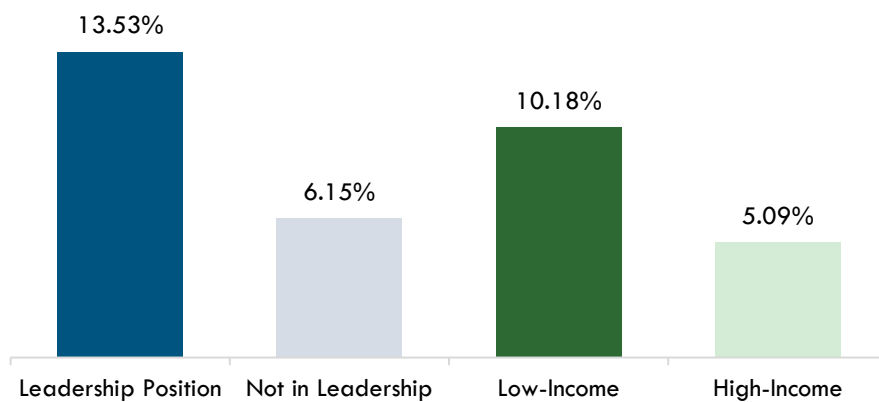
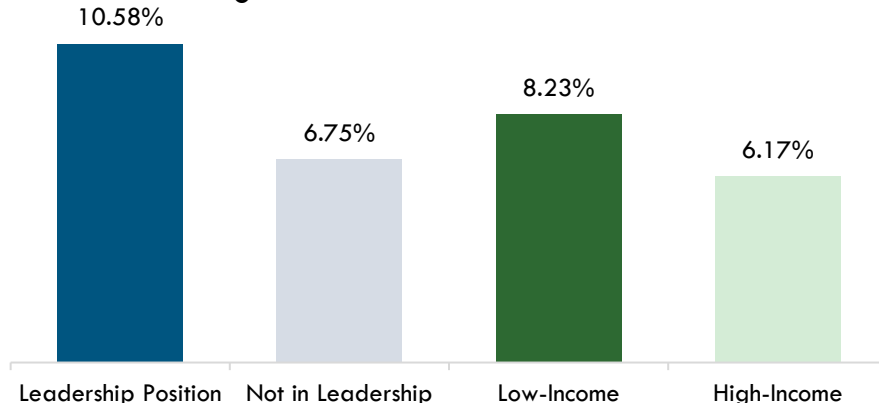


Figure 6: Personal Finance Gains



<sup>4</sup> The gain made in Personal Finance was found to be statistically significant ( $p < .05$ ).

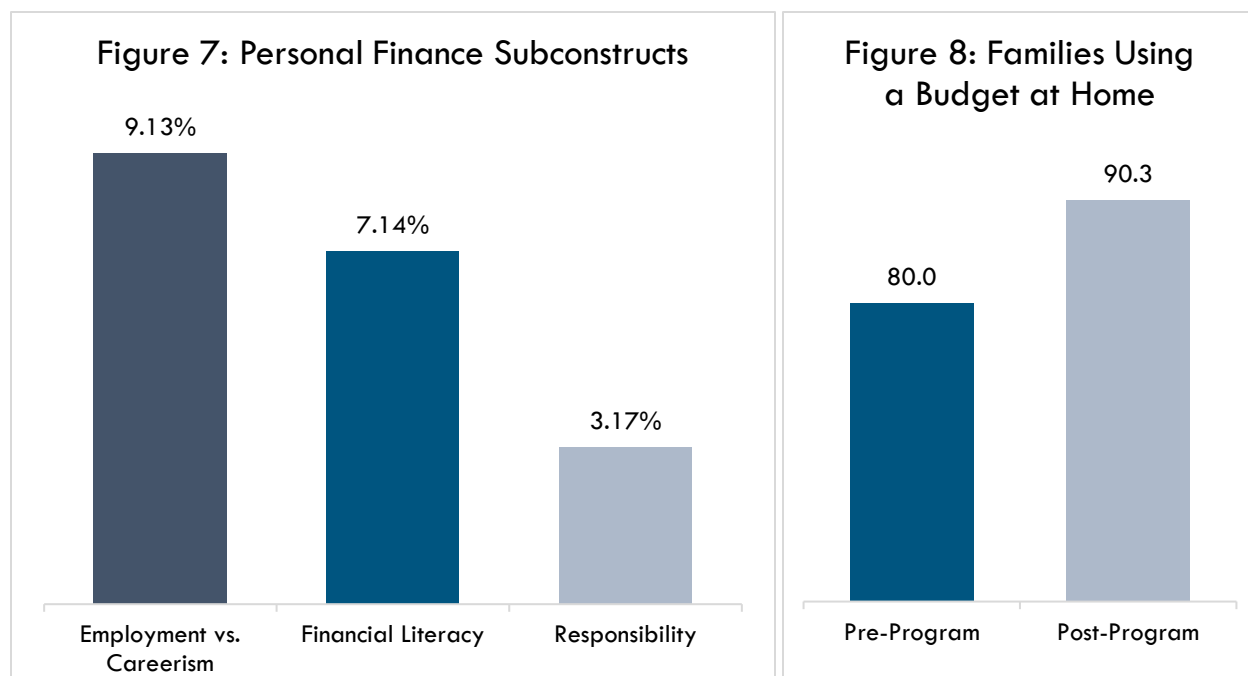


(13.53% compared to 6.15%, respectively), which demonstrates engagement and buy-in to the program<sup>5</sup>. Similarly, low-income students' financial literacy gains were double those made by high-income students (10.18% compared to 5.09% respectively), highlighting the importance of this program for participants who likely do not have financial literacy modeled at home (Luhr, 2018).

Students' gains in Personal Finance followed a similar pattern, although the differences between leadership and non-leadership, as well as low-income and high-income students, were less pronounced (see Figure 6, previous page).

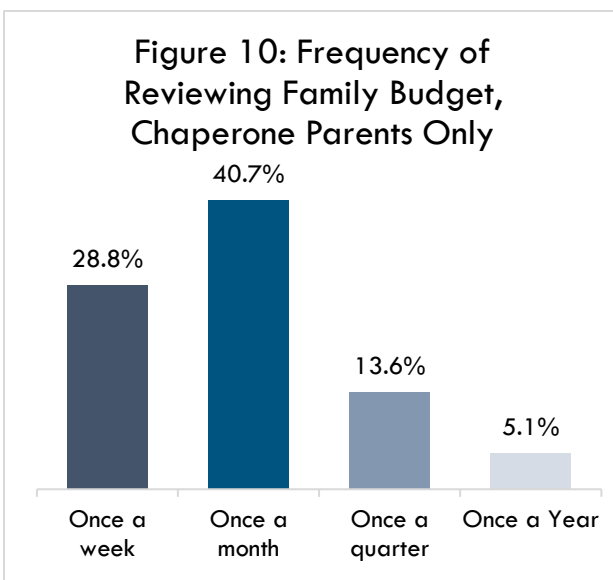
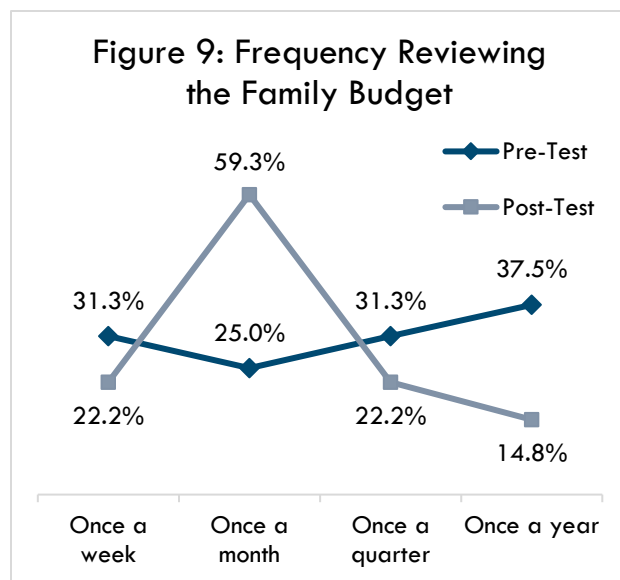
Students made gains in the subconstructs of Employment vs. Careerism and Financial Literacy (see Figure 7). They also made a moderate gain (3.17%) in Responsibility, which assessed the students' beliefs about their responsibilities and their ability to make decisions, which helped explain these students' realization of what they could and could not do.

Parents were surveyed on personal finance questions, and it was found that parents talked more about money at home by the end of the Young AmeriTowne program (81.7% said yes in the post-survey compared to 77.5% in the pre-survey). Young AmeriTowne helped transform the conversation around this issue, which many parents might have felt was too complicated for their children. According to Wells Fargo (2020), 71% of adults learned about savings from parents, but only one-third of today's parents say they talk about money with their children regularly. Ten percent more families reported using a family budget at home, with 90.3% of families reporting this in the post-program survey (see Figure 8).



<sup>5</sup> Students in leadership positions take on a larger role in the program and likely have more investment in outcomes than students not in leadership.





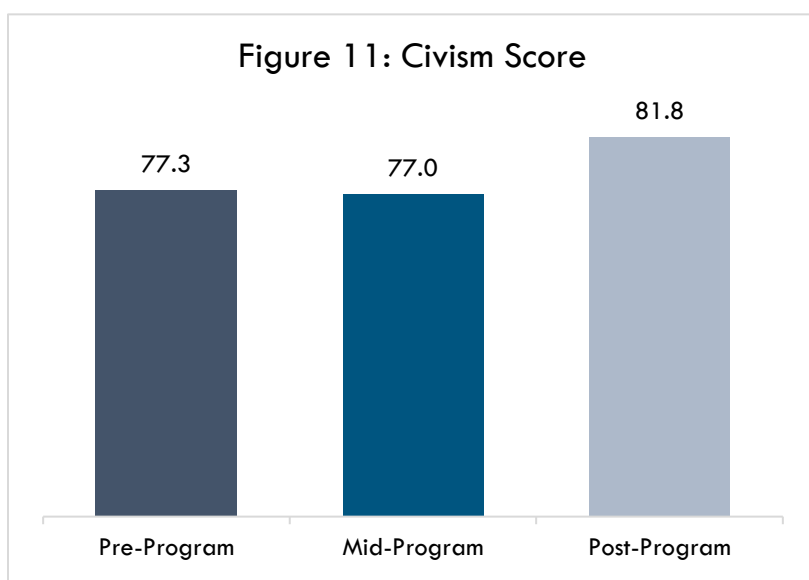
Families reviewed their budgets on a more regular basis after their child attended Young AmeriTowne, with a 137% increase in families doing this on a monthly basis and a decrease in families reviewing their budgets weekly, quarterly, and yearly. This change represents a more stable approach to finances where families are not constantly worried about finances (weekly checks) and are staying on top of their regular budget (monthly vs. yearly checks).

Chaperones also show a healthy pattern of reviewing their budgets with the largest percentage of chaperones reviewing their budgets monthly (40.7%).

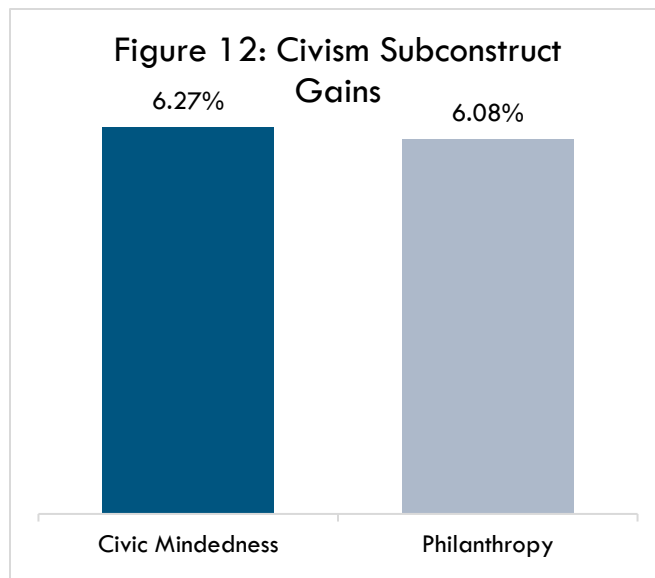
These results echo what staff said during a focus group: that the main goal of the program is to give children an opportunity to practice adult skills, especially financial skills like managing money and balancing a budget.

### 3.2 Civism

Young AmeriTowne participants began their experience with high Civism scores (77 out of 100), and by the end of the program they scored 5 points higher (82 out of 100). Similar to the statistically significant gain students made in Personal Finance, Civism improvements were demonstrated at the end of the program rather than the middle. This reinforces the fact that students need a chance to



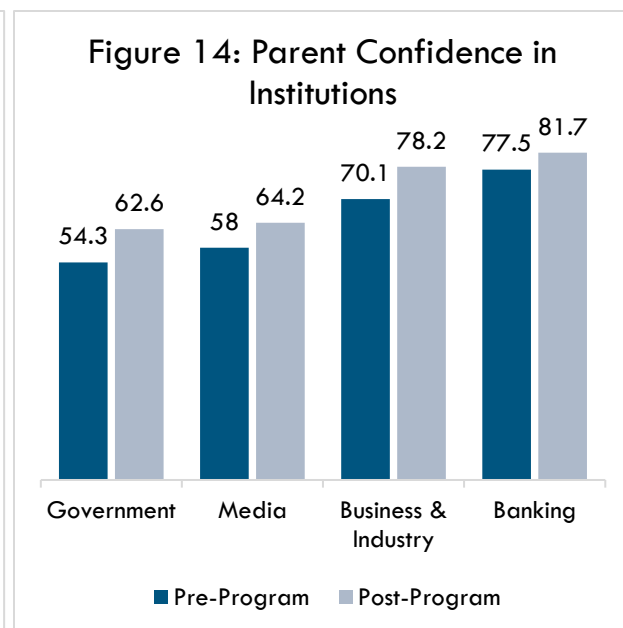
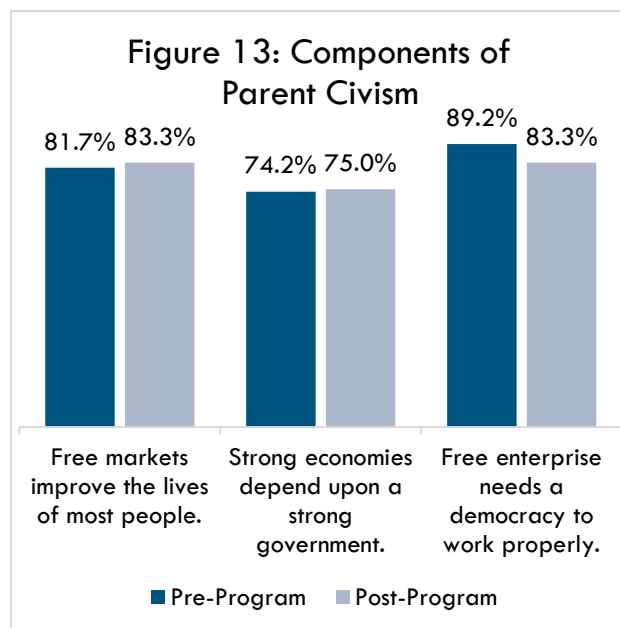
practice what they learned in the classroom with the Young AmeriTowne staff in order to fully integrate the lessons. This finding aligns with the Zone of Proximal Development – where students are exposed to a concept initially difficult for them to master. Despite any preconceived notions they may have on the subject, they require experience and a teacher to achieve proficiency (McLeod, 2019). In this case, the teacher is not the curriculum, but the teachers and staff at Young AmeriTowne. The curriculum introduces the topic, then the site visit provides the focus and the educational opportunities.



The subconstructs of Civic Mindedness and Philanthropy showed the largest gains, explaining much of the change in Civism overall (see Figure 12).

Young AmeriTowne staff observed that civic participation (like campaigning for elected positions) and philanthropy (donations participants make) are two parts of the program students enjoy the most.

41% of parents reported that their children continued to talk about civics after the conclusion of Young AmeriTowne. As children tend to discuss topics of high interest or fascination (Biggs, 2003), having prolonged conversations about economics or democratic practices is an extremely strong indicator of YAT's impact. 93% of parents reported that they saw it as their responsibility to educate their children about how society works. Thus, these conversations help parents achieve that goal by reinforcing lessons learned at Young AmeriTowne or clarifying any lingering questions their children had.



The program also effects the participants' parents. Large majorities of parents began the program with high scores for the three components listed in Figure 13. Parents believed in the influence of free markets and the relationship between the economy and the government. While the overall gains are small, it is because these values were high to begin with, leaving little room to change minds.

There was a slight decline in agreement with the statement "Free enterprise needs a democracy to work properly." Part of this change may be parents thinking more critically about the state of democracy in the US today, with increased polarization and more extreme policy proposals from the political left and right. However, parent confidence in institutions grew for banking, business and industry, media, and the government (see Figure 14, previous page).

### 3.3 Business Mindset

For the Business Mindset construct, students entered the program with high scores (80 out of 100) and maintained that throughout. At the post-program survey, students posted a gain of 3.7 points.

There were differences for subgroups of students. Low-income students and students in leadership positions posted the largest gains in Business Mindset, improving by 6.3% and 5.6% respectively (see Figure 16). Students who were not in leadership positions had higher overall scores than students who were in charge on both the Pre-Program and Post-Program surveys, so they started off with more business knowledge and made similarly impressive—if somewhat smaller—gains in this construct.

Participants made impressive and statistically significant gains in the Decision Making subconstruct, improving by 5.9% by the end of the program (see Figure 17). Like many of the gains posted by participants, the biggest jump came between the

Figure 15: Business Mindset

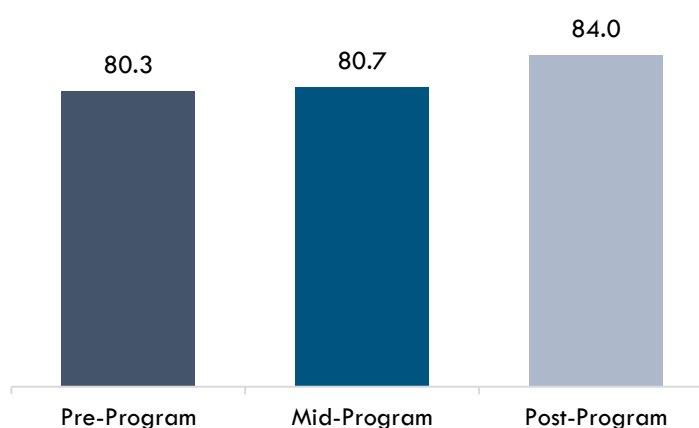
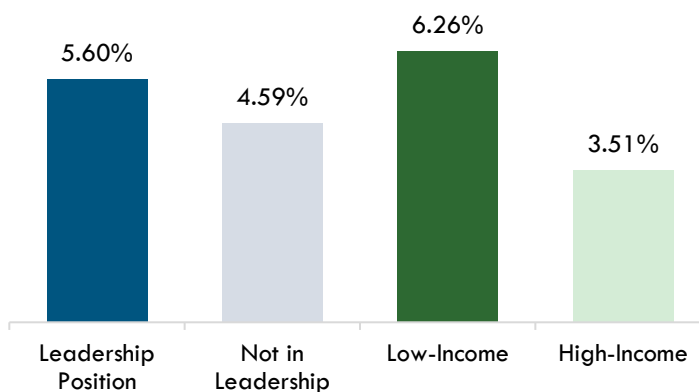


Figure 16: Business Mindset Gains by Subgroup



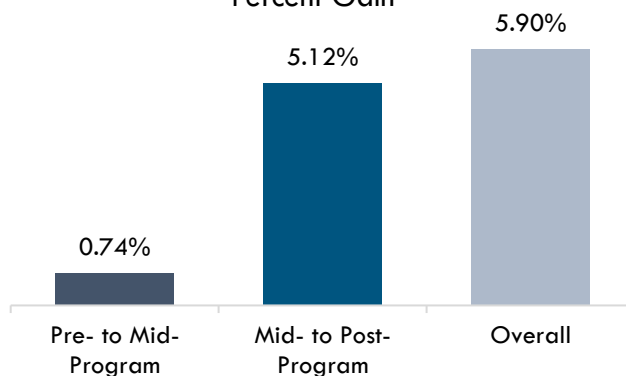
mid-program and post-program surveys, indicating that it was the act of putting the curriculum into practice that had the greatest impact for participants.<sup>6</sup>

The improvement in Decision Making is a reflection of the need for students to continue practicing other skills like entrepreneurialism, developing business tactics, and considering the impact of their decisions. These are difficult skills that require a long time to develop. Interestingly, 76.2% of students said during the pre-program period that anyone can start their own business, which increased to 80.6% at mid-program and dropped back to 76.8% at the post-program. This change in attitudes (although slight) shows that the Young AmeriTowne program's curriculum helps students see that entrepreneurialism is possible, albeit difficult. The actual experience in the Towne likely leads to some students realizing that starting a business requires specific skills that not everyone possesses.

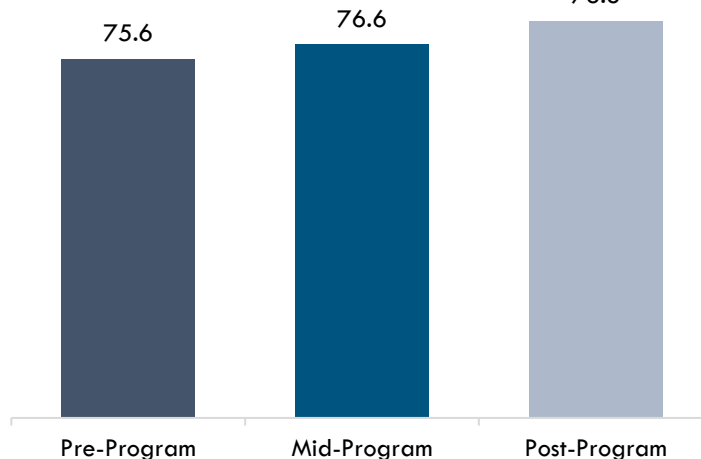
Parents indicated that their children continued to speak about the business lessons of the program after their experience at Young AmeriTowne, with 37.9% saying their children continued to talk about Free Enterprise after the conclusion of the program and 31.0% saying their children continued to talk about Economics.

Parents also felt that the program provided real-life exposure to careers. 86% of respondents said this at the pre-program survey and 91.7% said so at the post-program survey, a gain of nearly 7 percentage points. 92% of parents said that the program provided sound exposure to business (a rate that was

**Figure 17: Decision Making  
Percent Gain**



**Figure 18: Emotional Intelligence Score**



<sup>6</sup> Gains between the Post-Test and the Pre-Curriculum groups were found to be statistically significant at  $p < .01$  using a Chi-Square Goodness of Fit test.

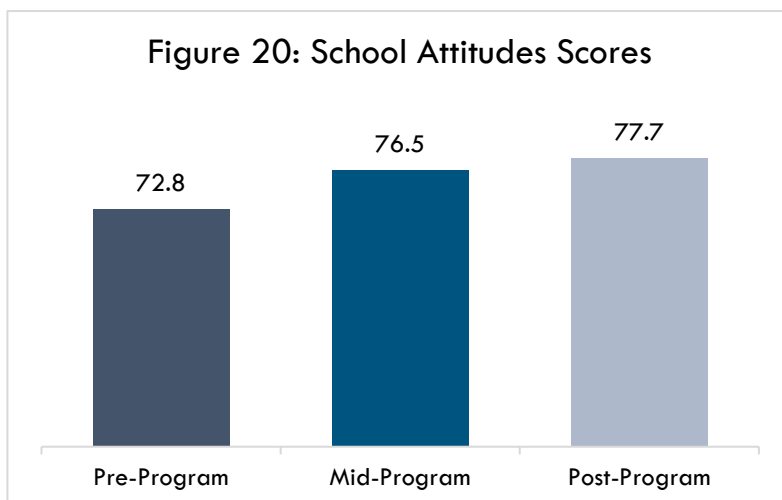
maintained through the pre-program and post-program surveys, reflecting the positive reputation of the Young AmeriTowne program).

### 3.4 Emotional Intelligence

Students' Emotional Intelligence scores pre-program were high (76 out of 100) and remained at that high level throughout the Young AmeriTowne experience. As this construct captured complex emotional development factors like School Attitudes, Individual Confidence, Future-Orientation, Social Attitudes, etc. (see Appendix C for breakdown of constructs), it is not surprising that students showed small and steady gains over a period of weeks. However, during the focus group discussion with staff – several of whom were program alumni – it was clear that attendance at Young AmeriTowne changed their long-term attitudes. Several reported that this program gave them the confidence to pursue job applications, manage their money, and consider entrepreneurial enterprises. These data suggest that students make small, steady gains during the program that lead to the long-term, slow development of emotional intelligence all students go through.

Looking at the subconstructs within Emotional Intelligence, there are small gains for School Attitudes and Confidence, Positive and Future Attitudes, and Social Attitudes (see Figure 19). The students demonstrated a degree of realism towards their future and current circumstances. Social Attitudes measured their adaptability to situations, level of confidence, and ability to work with their peers. School Attitudes improved but were likely limited due to the fact that the Post-Test took place in the last month of the academic year. Personal Connections and Character grew as well, but the gains were not large enough that they could be attributed to the program.

One of the primary components of Emotional Intelligence is School Attitudes, which increased at a statistically significant level from the Pre-Program to the Mid-Program and then again to the Post- Program (see Figure 20). Overall, students' school attitudes saw a 5% gain between the pre-program and the mid-program, and the gain between the pre-program and post-program was 6.7%.<sup>7</sup>



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<sup>7</sup> Student gains on School Attitudes for both the pre-program and post-program were statistically significant at  $p < .01$  using a Chi-Square Goodness of Fit test.

Parent survey results produced interesting – and somewhat conflicting – results within the Emotional Intelligence construct (see Figure 21). More parents supported a Young AmeriTowne-like program for adults at the end of the program but fewer believed economics was an important part of high school curriculum. It is unclear if parents were attempting to voice support for teaching economics earlier, thus negating the need for economics curriculum in high school. The data indicate that parents feel elementary school is a good time to teach the basics to children, and this perception is backed by research. According to Laney and Schug

(1998), students in elementary school were able to learn economic concepts successfully. Furthermore, the researchers found the younger the child, the more important it was to provide experiential learning experiences so the student would both learn and retain the information. Similarly, there was a 3.2% increase in parents saying Young AmeriTowne is a strong project-based learning program and a similar number (2.0% percent decrease) of parents saying hands-on experience is necessary for learning financial literacy. These results demonstrate an opportunity for Young AmeriTowne to educate parents about the importance of financial literacy, economics education, and experiential learning. Furthermore, 78.3% of parents felt Young AmeriTowne was strongly aligned with state education standards, indicating that a large majority of parents see alignment between what children experience in the program and their classrooms.

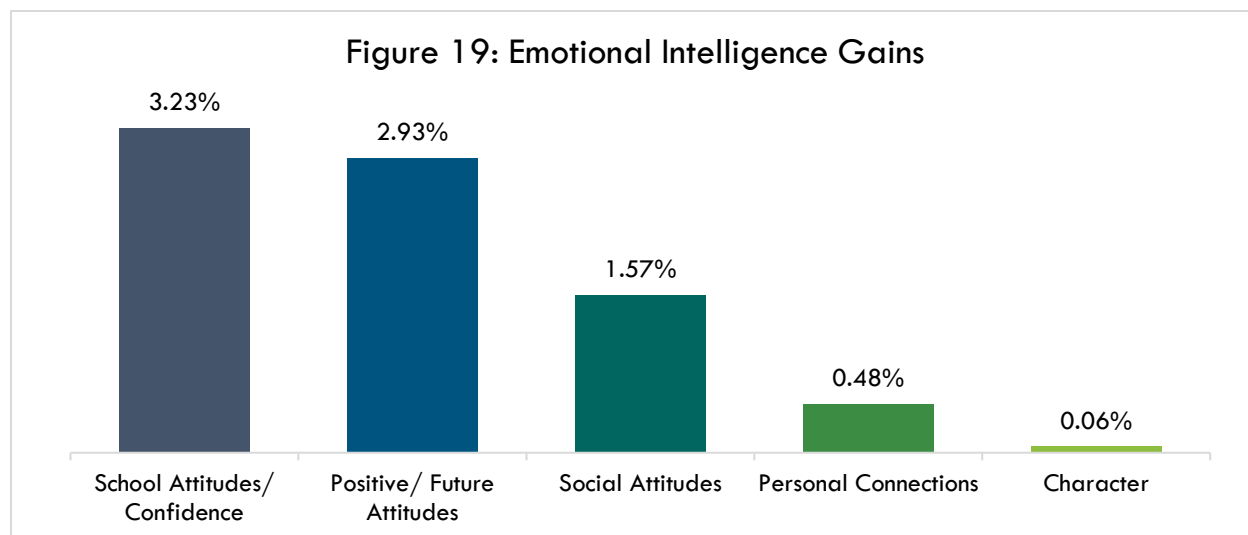
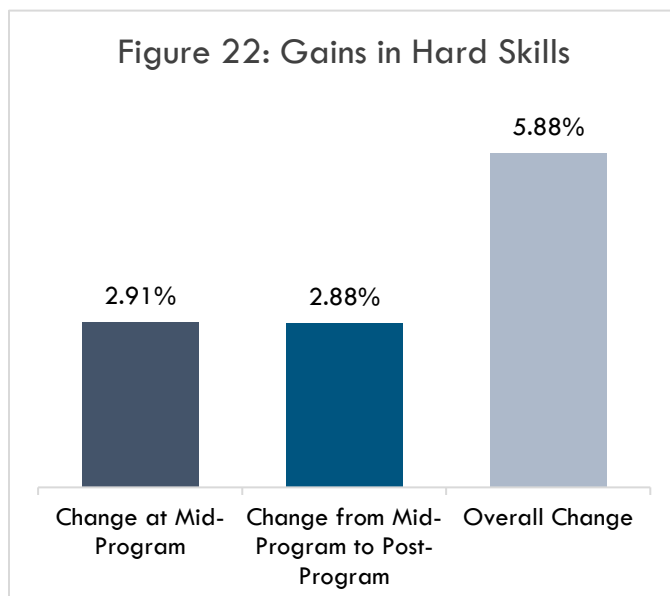


Figure 21: Parent Survey Emotional Intelligence Subconstructs

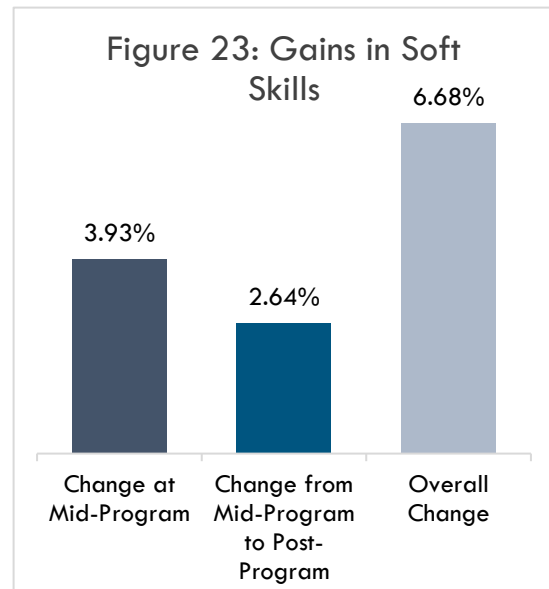
Item	Pre- to Post-Program Change
There should be an AmeriTowne program for adults.	7.1%
It's difficult for my child(ren) to see the value of getting an education.	3.5%
It is a strong project-based learning program.	3.2%
Children learn better with hands-on experiences.	0.6%
Hands-on experience is necessary when educating students about financial literacy.	-2.0%
Economics should be taught at the high school level.	-7.4%

QREM researchers observed students developing character traits including honesty, integrity, management and teamwork while running the town.

### 3.5 Hard and Soft Skill Development

Beyond the four constructs examined, Young AmeriTowne influenced student's growth in hard and soft skills. Hard skills are skills and expertise required for employment, and they include strategies and techniques necessary for successful saving and budgeting of money, money management, and entrepreneurial attitudes (see Appendix B for full list of results<sup>8</sup>). As shown in Figure 22, there was a 5.88% gain in hard skills for students from the pre-program to the post program, with equal gains in the pre- to mid-program and mid- to post-program stages (statistically significant at a  $p < 0.10$  level).

Students also posted significant gains for soft skills, increasing 3.93% from the pre-program to the mid-program and an additional 2.64% from the mid- to post-programs (see Figure 23). Soft skills mostly include interpersonal relationships for students at this age. Developing interpersonal relationship-building skills at this age leads to more soft skills later in life including teamwork and adaptability – attributes that can take decades to develop (Ergüner-Tekinalp and Crabtree-Groff, 2014; Fertman and van Linden, 1999).



<sup>8</sup> Questions were matched to hard skills based on the definition provided by Alison Doyle (2020) published in The Balance Careers.

### 3.6 Impact on Adults

Young AmeriTowne's impacts are largely felt among the participating students, but it has a powerful effect on proximal individuals as well, including Young AmeriTowne staff and parents.

#### 3.6a Staff Impacts

Staff impacts were gauged through focus group meetings. Below is a snapshot of the impacts felt by staff:

- 🌐 Staff describe work as fulfilling, especially when they encounter opportunities to interact with the kids who are learning something or who have realized they can achieve something (like balancing their budget, managing supply and demand through pricing, etc).
- 🌐 Staff experience is split between financial/business backgrounds and teaching/working with children backgrounds. More were from teaching/working with children backgrounds; satisfaction with work is tied to working with kids for this group.
- 🌐 Staff realize that they are making an impact wider than the kids who attend AmeriTowne. Staff members pointed to impacts on teachers, parent volunteers, parents of kids who attend, and themselves as individuals who benefit from thinking and talking about financial lessons wrapped up in the AmeriTowne experience.
- 🌐 A theme that emerged was the importance of kids talking to their parents about finances. Staff acknowledged that it is somewhat taboo to talk about finances in our society, so some kids do not have the conversations with their parents about budgeting, financial planning, etc.
- 🌐 Staff acknowledged that their own finances were likely in better shape than if they did not work for AmeriTowne. Several said they used lessons to inform their own budgeting and financial planning decisions.

#### 3.6b Parent Impacts

Parents of the participants also experience positive impacts from the program through their children. In our survey of parents, only 7.3% of parents attended Young AmeriTowne as children. Therefore the effects found here can be attributed to the secondary impact of their child participating in the program. One quarter of parents (exactly 25%) had their child attend Young AmeriTowne as part of a class and 52.5% had their child attend during the summer. (In fact, 83.9% of parents expressed interest in an adult version of Young AmeriTowne.)

In addition to the results discussed above for each dimension of the program (Personal Finance, Civism, Business Mindset, and Emotional Intelligence), parent chaperones were asked a series of questions about the values taught during the program<sup>9</sup>. As shown in Figure 24, chaperones believe in the importance of economics education; the connection between free enterprise and voting, innovation,

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<sup>9</sup> Only a small number of chaperones were teachers: 8 of 120 respondents.





and democracy; the value of free markets; and investment in communities from public dollars and non-profits.

Figure 24: Chaperone Opinions on Free Enterprise System

Component	Chaperones	Teachers
Economics should be taught at the high school level.	92.5%	84.4%
Voting is an important aspect of free enterprise.	86.4%	81.3%
Innovation and free enterprise go hand in hand.	83.8%	87.5%
Free enterprise needs a democracy to work properly.	81.4%	75.0%
Free markets improve the lives of most people.	79.9%	78.1%
Communities need public dollars to flourish.	79.3%	78.1%
Non-profit organizations are part of the free enterprise system.	76.3%	78.1%
Most adults don't understand economics.	75.9%	78.1%
Strong economies depend on a strong government.	75.5%	62.5%
We live in a free enterprise society.	75.5%	84.4%
Capitalism and free enterprise are the same thing.	65.8%	62.5%
Smaller communities suffer from a lack of competition.	62.5%	71.9%
Innovative services and products should have the approval of the government.	58.5%	50.0%
A strong economy is a direct result of government action.	58.2%	56.3%
Purchasing power is determined by the government.	55.3%	65.6%
Most new businesses fail through no fault of their own.	50.5%	53.1%
A strong economy is a direct result of government action.	N/A	62.5%

Figure 25: Chaperone Perspectives on Free Enterprise

Component	Chaperones	Teachers
Supply & demand	83.3%	75.0%
Entrepreneurialism	81.5%	100.0%
Competition	74.1%	100.0%
Investment	66.7%	75.0%
Capitalism	64.8%	62.5%
Cooperation between individuals	57.4%	87.5%
Private property	48.1%	87.5%
Voting/democratic systems	46.3%	62.5%
Wealth	46.3%	75.0%
Limited regulation	44.4%	37.5%

Most chaperones felt that the components that made up the free enterprise system comprised of supply and demand, entrepreneurialism, and competition. Interestingly, a higher percentage of teachers than chaperones linked democracy with free enterprise, a potential consequence of the education requirements teachers have. The US education system's role to socialize students reaffirms the

values of American democracy (Conway, Damico, and Damico, 1996).



**Figure 26: Adults' Understanding of Free Enterprise Principles**

<b>Component</b>	<b>Chaperones</b>	<b>Teachers</b>
Open opportunity	90.7%	87.5%
Competition	66.7%	62.5%
Supply & Demand	61.1%	75.0%
Entrepreneurialism	57.4%	87.5%
Profit motive	40.7%	12.5%
Private property	20.4%	25.0%
Cooperation between individuals	20.4%	37.5%
Voting/democratic systems	20.4%	37.5%
Legal equality	16.7%	12.5%
Wealth	14.8%	25.0%

Chaperones felt the top principles of free enterprise comprised of open opportunity, followed by competition and supply and demand.

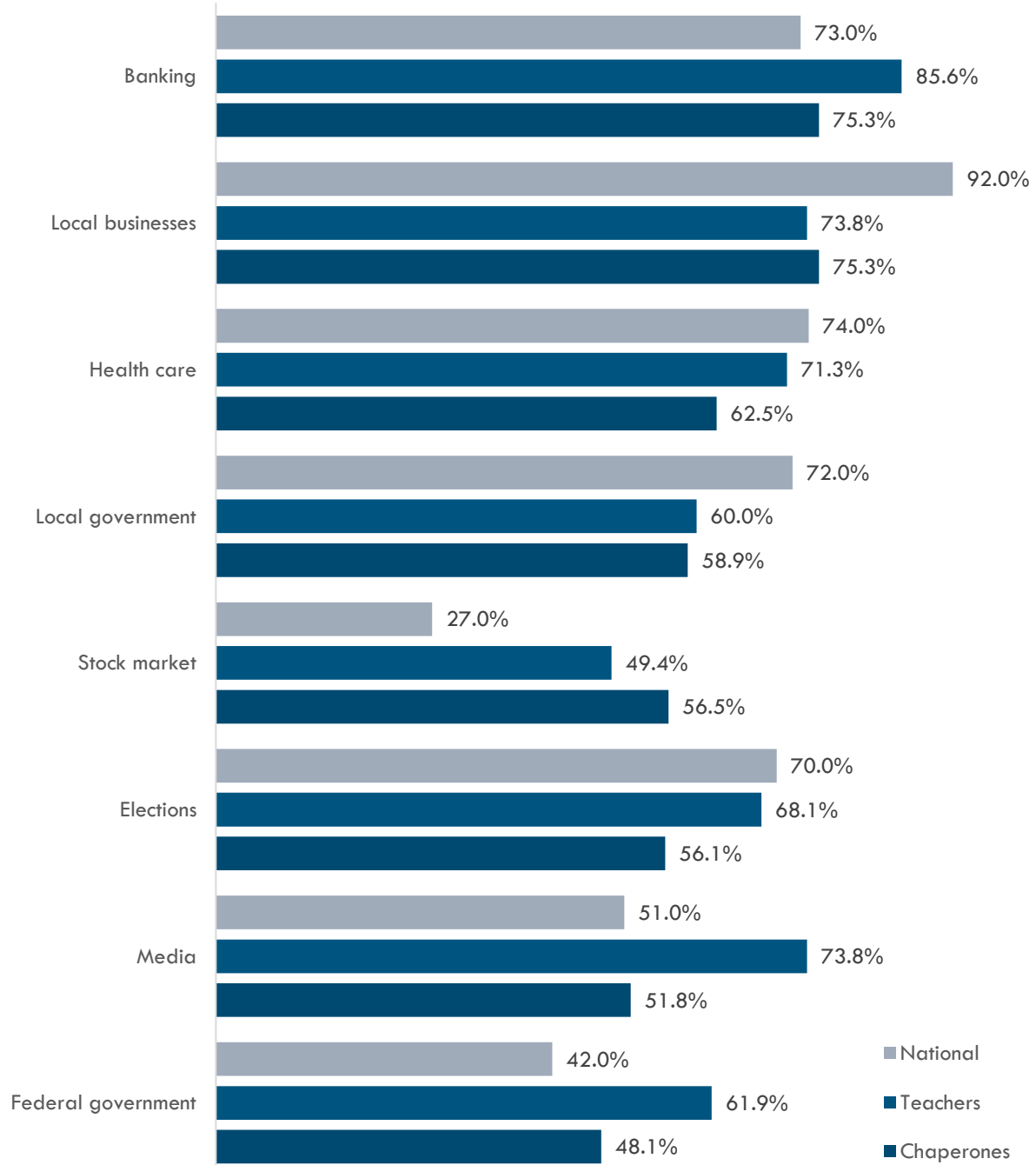
**Figure 27: Adults' Understanding of Free Enterprise System**

<b>Component</b>	<b>Chaperones</b>	<b>Teachers</b>
People/individuals decide what to make, sell, trade and/or buy	94.8%	87.5%
People own property and decide what to do with it	79.3%	87.5%
Investors decide what to do with their money/resources	79.3%	87.5%
There is competition for the same products/services	79.3%	75.0%
Risk-taking	67.2%	75.0%
Small businesses	65.5%	62.5%
Individual liberty	65.5%	87.5%
Big business	56.9%	37.5%
Government's role is to ensure a fair/level playing field	44.8%	37.5%
Concentration of wealth	31.0%	12.5%

Chaperones and teachers were also asked about their confidence in US institutions (see Figure 28, next page). These findings illustrate the level of confidence chaperones and teachers have in these specific institutions compared to the national average, as presented by Gallup (Gallup, 2019; McCarthy, 2018). Teachers and chaperones have greater confidence in the federal government, banking, and the stock market than the national average. At the same time, they have lower confidence in local businesses, health care, and elections than the national average. Teachers and Chaperones expressed their highest level of confidence in banking and local businesses – two institutions Young AmeriTowne does the most to educate participants on.

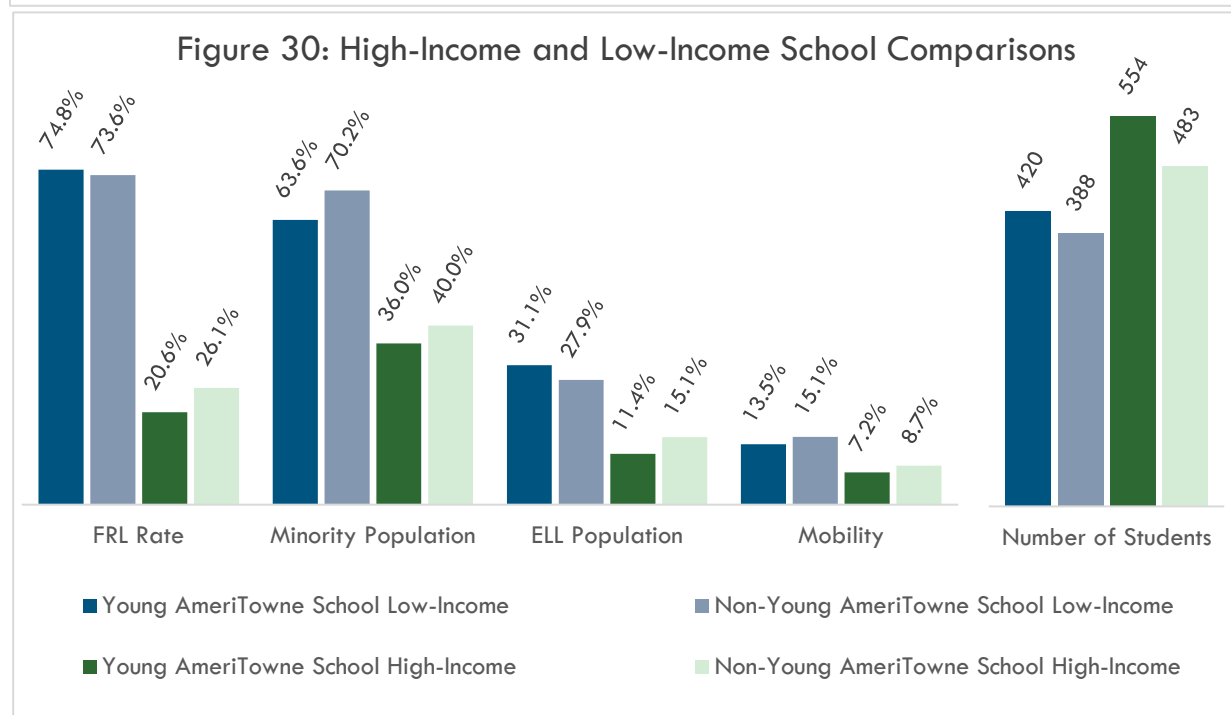
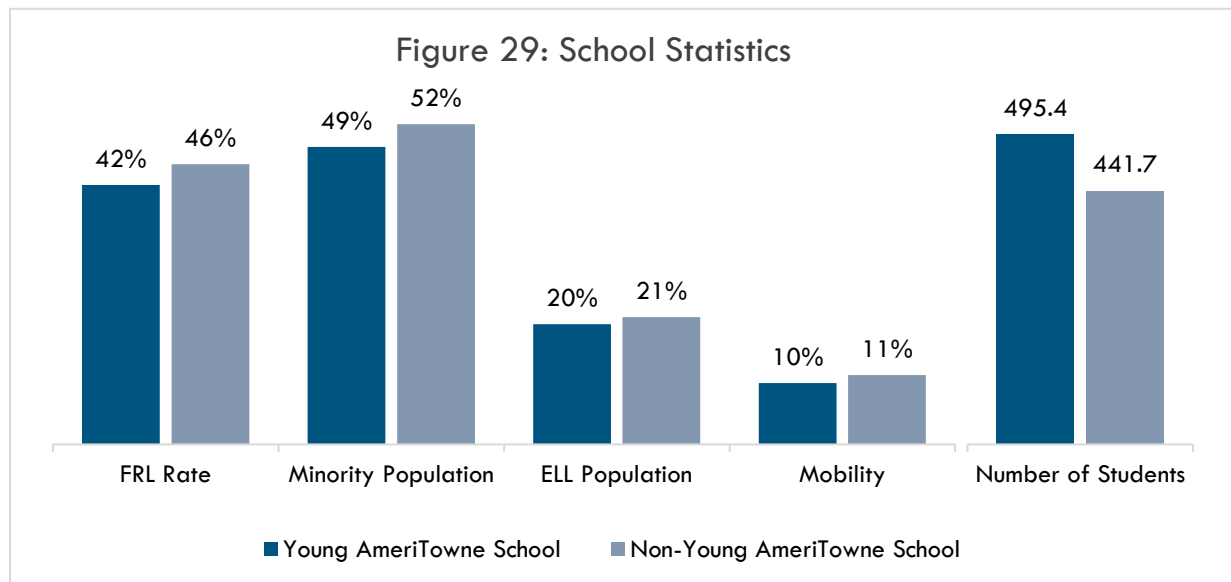


Figure 28: Confidence in Institutions



## 4. Organizational Impact

Young AmeriTowne impacts participants' schools. As shown in Figure 29, Young AmeriTowne schools are comparable to the non-Young AmeriTowne group in terms of Free and Reduced Lunch (FRL) rate<sup>10</sup>, minority population, English Language Learners (ELL) population, and mobility rate. Young AmeriTowne schools have slightly larger school populations with close to 500 students compared to 442 for the comparison group.



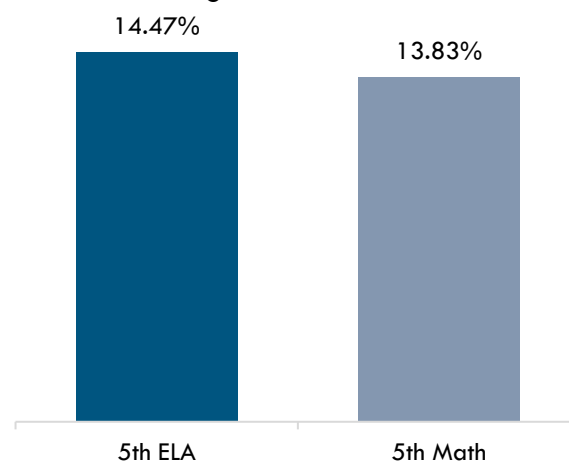
<sup>10</sup> This is a good proxy measure for a low-income school.



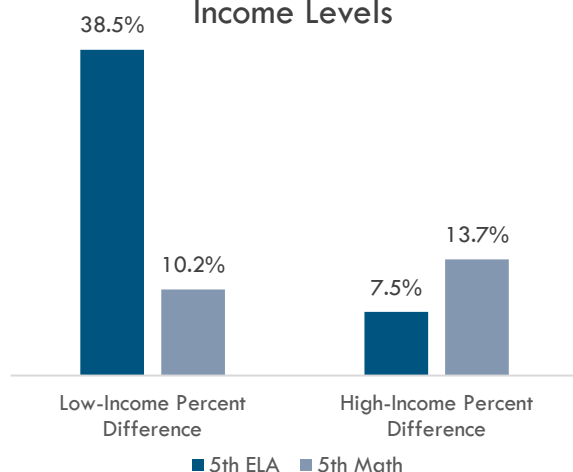
The dataset was split to compare high-income and low-income schools. As shown in Figure 30, there are differences between low-income schools (both Young AmeriTowne and non-Young AmeriTowne schools) and high-income schools. The demographic differences between Young AmeriTowne schools and non-Young AmeriTowne schools are not statistically significant differences (tested using an ANOVA test of variance, all assumptions met).

Students attend Young AmeriTowne during their 5<sup>th</sup> grade year. To look for the impact of participation on the school<sup>11</sup>, gains for reading and math proficiency scores were examined. Overall, Young AmeriTowne schools have a gain from the fourth to the fifth grades of 14.5% in English Language Arts (ELA) or reading proficiency levels and 13.8% in math proficiency levels<sup>12</sup>, shown in Figure 31 (significant at a  $p < 0.05$  level). However, when low- and high-income schools were compared separately, there are distinct differences in gains (See Figure 32). Among low-income schools, gains in

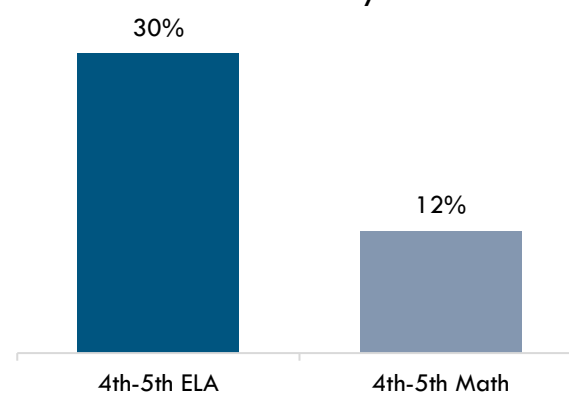
**Figure 31: Difference in Proficiency Levels between Young AmeriTowne Schools and Non-Young AmeriTowne Schools**



**Figure 32: 5th Grade Percentage Difference in ELA and Math Proficiency Levels, by Income Levels**



**Figure 33: Percent Improvement for Young AmeriTowne Schools Compared to Peers, 4th to 5th Grade Proficiency Scores**



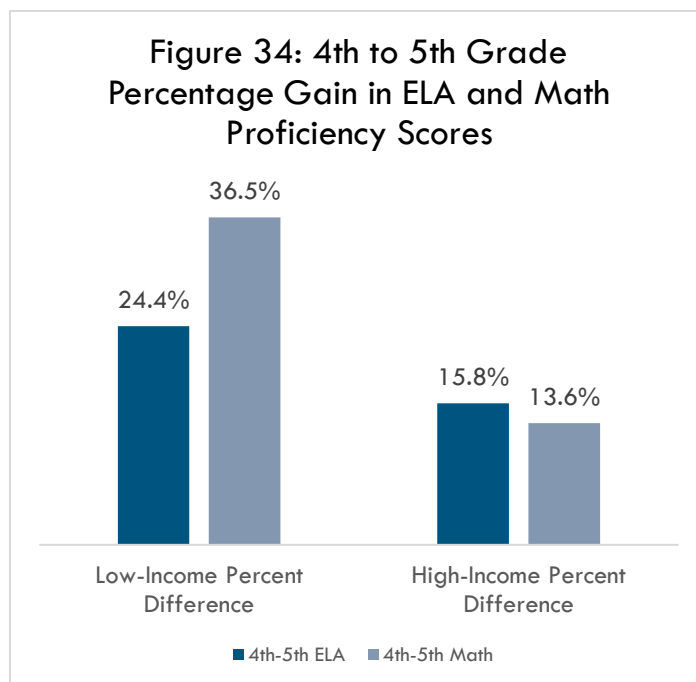
<sup>11</sup> We would expect school-wide effects if the Young AmeriTowne program inspired teachers to change their teaching habits and encouraged students to be more engaged at school.

<sup>12</sup> Gains represent improvements in proficiency levels for Young AmeriTowne schools over non-Young AmeriTowne schools, representing the advantage these schools have by attending the program.



ELA proficiency were close to four times that seen in math (38.5% compared to 10.2%, significant at a  $p < 0.05$  level). Gains for high-income schools were much smaller for ELA (7.5%) and similar for math (13.7%) (gains are significant at a  $p < 0.10$  level). The differences in percentage gain between high-income and low-income schools are stark.

Next, proficiency scores for 4<sup>th</sup> and 5<sup>th</sup> grade students were examined in order to determine if these schools had particularly strong 5<sup>th</sup> grade programs (explaining the differences instead of Young AmeriTowne). Differences between Young AmeriTowne schools and non-Young AmeriTowne schools indicate that the program contributes to higher proficiency scores<sup>13</sup> (see Figure 33, previous page). Young AmeriTowne Schools saw a 30% improvement from the 4<sup>th</sup> to the 5<sup>th</sup> grade in reading and a 12% improvement in math (significant at a  $p < 0.05$  level).



Looking at low-income and high-income schools separately, we see gains for low-income schools outstrip those for high-income schools (see Figure 34). This indicates that the Young AmeriTowne's experiential learning program has positive effects on test scores, especially for low-income students.

#### 4.1 Teacher Endorsements

Teachers whose students attended the Young AmeriTowne program were asked about the benefits of the program (Figures 35 and 36, next page). Teachers thoroughly endorse the pedagogy of the program, as many indicate their students learn better through experiential experiences (96.8% in the post-program survey). These teachers also recognized this program would benefit older students beyond the fifth grade, notably high school students (77.2% in the post-program survey). This aligns with the findings presented by other teachers, who believe this program would benefit older students and possibly adults as well.

<sup>13</sup> Mobility rates for low income schools are slightly higher in low-income schools (14% compared to 7.5%), a high percentage of students remained in each school from the 2018 to 2019 testing periods.



Figure 35: Learning Methods

Components	Pre-Program	Post-Program	Gain
Economics should be taught at the high school level.	72.2%	77.2%	7.0%
Students learn better with hands-on experiences.	90.7%	96.8%	6.7%
The students with the greatest need require most of my time/resources.	70.4%	74.7%	6.1%
Students with novel research ideas tend to get better grades.	67.6%	67.5%	-0.1%
My job is to help students understand how society works.	79.6%	79.2%	-0.6%
My most creative students are my best students.	56.5%	55.9%	-1.0%
The better students get more privileges.	58.3%	57.7%	-1.1%

Figure 36: Opinions on Learning

Components	Pre-Program	Post-Program	Gain
I encourage students to try new approaches with their assignments.	83.3%	86.5%	3.8%
I know students learn to apply themselves through programs like AmeriTowne.	89.2%	91.0%	2.1%
Young AmeriTowne motivated me to design new types of lesson plans.	71.7%	72.1%	0.6%
The roles my students have at AmeriTowne fit their capabilities.	85.8%	86.2%	0.4%
I encourage students to use technology for their assignments.	83.3%	83.3%	0.0%
The roles my students have at AmeriTowne fit their personalities.	85.0%	84.9%	-0.1%
I encourage students to make decisions based on the circumstance.	82.5%	81.5%	-1.2%

The results from the teacher surveys reinforce the influence of the Young AmeriTowne program to encourage teachers to integrate the program into their teaching. Approximately three-quarters of teachers (72.1%) said the program motivated them to design new lesson plans, 91% said it helped their students learn to apply themselves, 86.2% said their students' roles fit their capabilities and 84.9% said they fit their personalities.



## 5. Community Impact

Young AmeriTowne's impact lasts beyond the short time students spend in the program. If Young AmeriTowne is successful, participants take the hard and soft skills they began developing (or refining) in the program into the workforce. To gauge how impactful Young AmeriTowne is, members of the Colorado Bankers

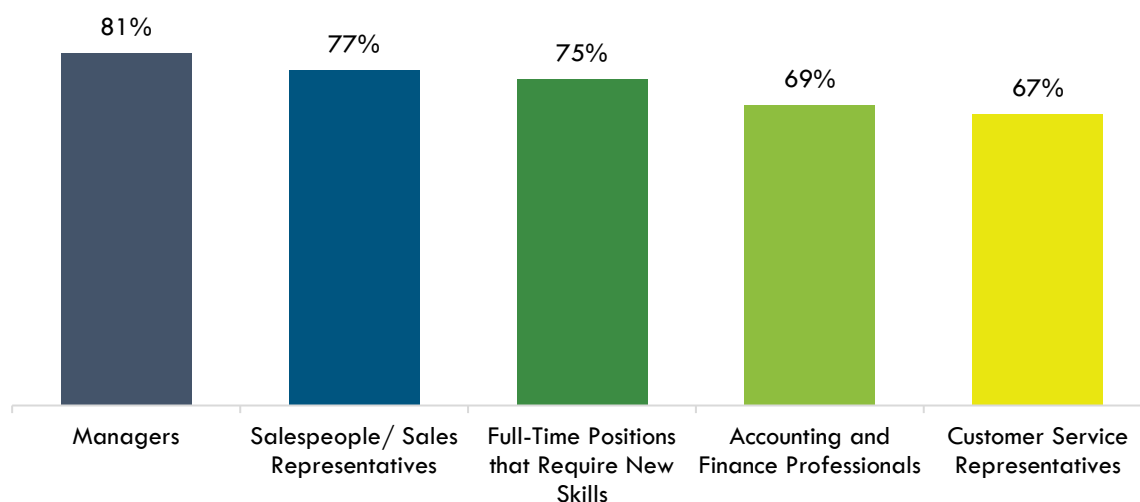
Association (CBA) were surveyed on their hiring process and decisions, training, and attitudes about the soft skills and hard skills necessary for employees in their businesses.

When asked about hiring practices, CBA members said that they prioritize finding people who fit in socially and culturally and who have experience (see Figure 37). They also stressed the importance of finding people who will work for the offered salary, who have soft skills (customer service, communications, etc.), and who are professional and have a strong work ethic. Additionally, many said it is difficult to find employees with particular skills, such as reading comprehension and understanding of science, as well as soft skills like communication and ability to collaborate with others (see Figure 38). The main exceptions are in basic computer skills and creativity/innovativeness (see Figure 39, next page).

Figure 37: Reasons Influencing Hiring Decisions

	Primary Reason	Secondary Reason	Tertiary or Lower Reason
Fit	43%	23%	16%
Experience	21%	15%	8%
Professionalism/Work Ethic	14%	4%	25%
Need at Salary Level	11%	24%	5%
Soft Skills	7%	12%	25%
Hard Skills	4%	19%	16%
Leadership/Team Player	0%	4%	4%

Figure 38: Difficulty Hiring at Different Positions





**Figure 39: Employee Skills Identified by CBA Members**

Writing in English	75.2%
Basic computer skills	84.6%
Speaking properly in English	66.1%
Reading comprehension	60.6%
Mathematics/computation	71.1%
Foreign languages	51.3%
Science	45.7%

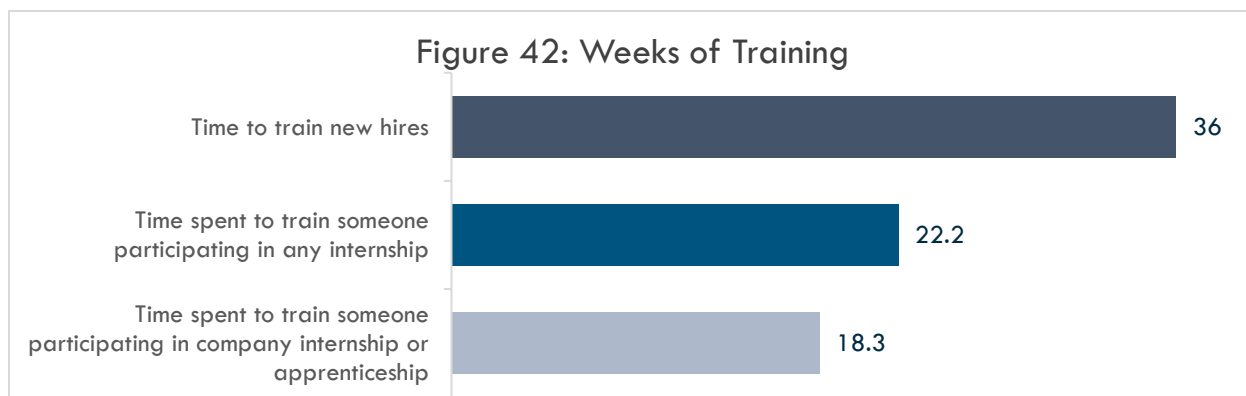
**Figure 40: CBA Members' Attitudes about Finding Employees with Soft Skills**

	<b>Sees Shortages in New Hires</b>	<b>Difficulty in Finding Individuals with These Skills</b>
Critical thinking/problem solving	76.2%	65.0%
Professionalism/work ethic	77.7%	67.5%
Leadership	77.6%	67.2%
Written communications	74.4%	69.5%
Teamwork/collaborating with others	73.3%	69.3%
Oral communications	60.0%	69.4%
Use and apply information	67.6%	66.6%
Use communications technology	66.8%	71.9%
Lifelong learning	53.3%	57.7%
Work in a diverse environment	62.2%	65.5%
Be creative/innovative	59.9%	48.2%
Ethics/social responsibility	52.2%	59.0%

**Figure 41: CBA Members' Attitudes on Internships and Apprenticeships**

Internships/apprenticeships are good recruiting tools.	83.3%
Internships/apprenticeships provide a valuable educational experience.	85.0%
Interns/apprenticeships lead to full-time jobs with our company.	93.3%
I am satisfied with our interns/apprentices.	78.6%
Training interns/apprentices is time consuming.	76.7%

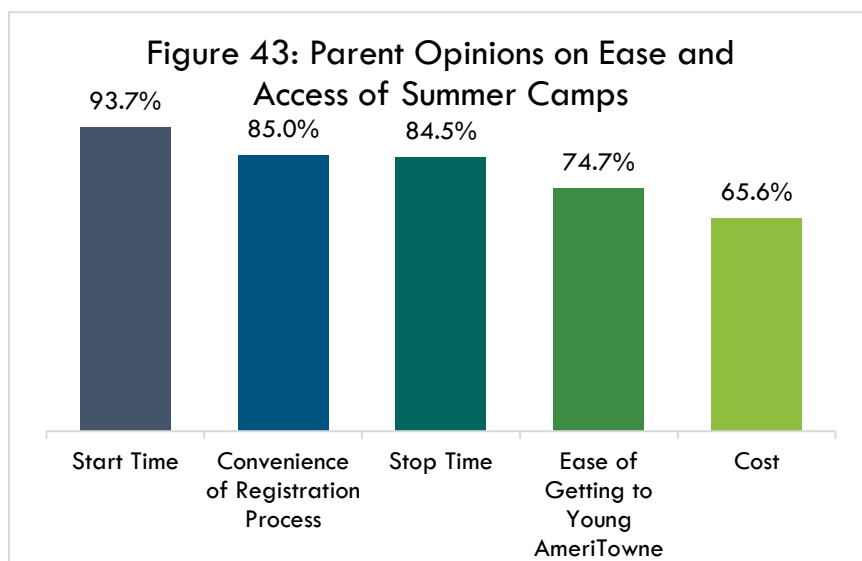




Respondents indicated that it takes about 9 months to fully train a new hire, though working in any internship reduced that to about 5.5 months, and an internship or apprenticeship with the company reduced it to 4.5 months. Overall, CBA members believe that internships and apprenticeships are a good gateway into a job, and they are satisfied with their interns (see Figure 41, previous page).

## 6. Logistics for Summer Camps

Parents and staff commented on the logistics of Young AmeriTowne. Parents overall found the program to be well run and convenient (see Figure 43) with easy start and stop times, a convenient registration process, and easy to get to. Two-thirds said that it was affordable.



Parents said that the program was interesting to both their child and to themselves.

There was a 14% increase in

the number of parents saying the program was interesting to their child from 80.7% to 92.1%, but the results of how many parents were interested in the program stayed the same from the pre-program survey to the post-program survey (83.3%).

Another interesting result was the percentage of parents reporting that their child had friends attending the program, with

**Figure 44: Parent Survey Interest in Program**

Item	Pre-Program	Post-Program
The topic was interesting to my child.	80.7%	92.1%
The topic was interesting to me.	83.3%	83.3%
It was a convenient program.	64.0%	71.1%
My child had friends attending the program.	56.1%	49.1%



56.1% saying so at the beginning and only 49.1% at the end. This suggests that about seven percent of parents assumed their children were attending the program with a friend and found out that they were not. (However, this does show that parents are discussing the experience with their child.)

Staff commented on the logistics of the program and felt that expanding the number of students who get to experience AmeriTowne was an important goal. Those staff members who had completed the program as children were especially enthusiastic about making sure as many students as possible had access to the program. Staff suggested strategies for achieving this that were varied and depended on the role the staff member had in the overall organization. AmeriTowne On the Road staff were interested in expanding to more locations, Denver Towne staff were interested in expanding the number of schools that could participate, etc. Staff also commented on how promising the curriculum update would be. The general consensus was that it would make the partnership with teachers easier, making the overall outcomes of the program more successful for participants. Finally, staff echoed parents in discussing how the location of Young AmeriTowne might contribute to difficulties in accessing it. They pointed out that some students could not make it due to limited busing opportunities (like Larimer County students) or had to leave early because of bus schedules (like Aurora Public Schools).



## Appendix

### A. Methods

The Young AmeriTowne program has two components. First, students attend an in-school curriculum administered by teachers (or for summer by Young AmeriTowne staff). The center provides all teacher training and teaching materials including teaching slides, student workbooks, and 26 lessons covering banking, personal finance, investing, business basics, civics, and ethics. These lessons are aligned with Colorado grade level standards. The second portion is the event – the day in Towne. Students in teams run businesses and take on roles in the Towne like doctors, bankers, accountants, store managers, etc. Approximately 40% of the students take on a leadership like business manager, business accountant, or civic leaders (mayor or judge). The event is facilitated by staff.

Data were collected from participants, parents, chaperones (including some chaperone-teachers), teachers (mostly 5<sup>th</sup> grade instructors) and members of the Colorado Bankers Association. The table below shows the number of respondents for each of these groups. The numbers were determined to be a representative sample for each of these groups. Data were collected from participants and adults involved in the program (chaperones, parents, and teachers) at three points during the program: pre-program, mid-program, and post-program. Pre-program describes the time before students received any Young AmeriTowne curriculum. Mid-program describes the time after the students completed the Young AmeriTowne curriculum, but before they had the experience in Towne. Post-program describes the time after students attended Towne.

During analysis of the data, student populations were compared by the FRL rate, mobility rate, and minority rate. Schools were compared by choosing schools with similar student populations to schools in the YAT study.

Figure A1: Surveys and Number of Respondents

Group	Type of Survey	Number of Respondents
Participants	Online, Pre-program	268
	Online, Mid-program	1006
	Online, Post-program	353
Parents	Online, Pre-Program	22
	Paper, Post-Program	31
Teachers	Online, Pre-Program	70
	Online, Post-Program	193
Chaperones <sup>o</sup>	Paper, Day of YAT Visit	120
Colorado Bankers Association Members	Online	44

<sup>o</sup>112 respondents were parent chaperones and 8 were teacher chaperones

Surveys were attempted for Alumni (multiple groups from multiple attempts) with exceedingly low response rates. None of these data were included in the analysis.



Qualitative data were collected by QREM researchers conducting focus groups with Young AmeriTowne staff members as well as completing observations of an actual event. Quantitative data were also collected by school. Schools that participate in the Young AmeriTowne program were randomly selected. These schools were split into two groups: high-income and low-income groups using the percentage of FRL qualifying students. The characteristics of the Young AmeriTowne schools were used to determine a matched set of schools were for district, mobility rate, percentage English Language Learners, percentage FRL, and percentage minority students.

Quantitative data were analyzed using statistical software (SPSS, Excel, and R) to determine differences between groups using appropriate statistical tests (ANOVAs and t-tests primarily). Qualitative data from focus groups and observations were analyzed for themes using inductive content analysis techniques.

*All data remain the property of Young AmeriTowne and were analyzed according to the ethics and standards outlined and promoted by the American Evaluation Association (AEA). QREM researchers, as members in good standing with AEA, conduct all data gathering, analyses and reporting in accordance with the ethics and guidelines outlined by the association.*

## B. Additional Results

Figure A2: Additional Parent Results

Item	Pre- to Post- Change	Pre- Program	Post- Program
There should be an AmeriTowne program for adults.	7.1%	78.3%	83.9%
It's difficult for my child(ren) to see the value of getting an education.	3.5%	31.7%	32.8%
It is a strong project-based learning program.	3.2%	90.5%	93.3%
Children learn better with hands-on experiences.	0.6%	93.3%	93.9%
Most new businesses fail through no fault of their own.	-1.4%	40.8%	39.4%
Hands-on experience is necessary when educating students about financial literacy.	-2.0%	95.2%	93.3%
Most adults I know do not understand economics.	-2.6%	63.3%	61.7%
Economics should be taught at the high school level.	-7.4%	94.2%	87.2%



Figure A3: Hard Skills

	Type	Pre-Program	Mid-Program	Post-Program
Anyone can start their own business	Financial	76.2%	80.6%	76.8%
My friends get good grades	Reflective of Training	73.8%	78.1%	75.3%
Our household uses a budget	Bookkeeping	69.1%	77.1%	69.9%
This past year, I saved my money for something special	Budgeting	69.6%	72.0%	70.4%
People in my household talk a lot about money	Bookkeeping	54.7%	59.6%	62.8%
Changing your goals is the same as failing to reach them	Analytical	54.2%	58.0%	60.0%
I save my money whenever I can	Budgeting	78.9%	77.8%	78.2%
I spend money as soon as I get it	Budgeting	46.4%	47.8%	49.7%
It's hard to stick to a budget	Bookkeeping	66.8%	54.8%	61.3%
We spend money on things we really don't need	Bookkeeping	58.7%	54.5%	60.3%

Figure A4: Soft Skills

	Matched	Pre-Program	Mid-Program	Post-Program
Kids my age shouldn't make decisions	Persuasion	41.4%	41.0%	42.4%
I like some of the weird kids, but I don't want anyone else to know	Adaptability	73.5%	77.8%	80.4%
My friends say I enjoy being with all types of people	Collaboration	76.9%	78.5%	78.1%
Students help decide what goes on in my school	Persuasion	64.3%	68.8%	68.8%
I have lots of good conversations with adults	Adaptability & Emotional Intelligence	75.0%	76.3%	79.1%
Business owners can do whatever they want	Emotional Intelligence	40.5%	43.4%	45.5%
I spend money as soon as I get it	Emotional Intelligence	46.4%	47.8%	49.7%



Figure A5: Growth

	All Young AmeriTowne Participants <sup>°</sup>	All Young AmeriTowne Participants <sup>†</sup>	Low-Income Students <sup>†</sup>	Student is in a Leadership role <sup>•</sup>
<b>Personal Finance</b>	3.5	7.1	8.2	10.6
Financial literacy	2.7	7.1	10.2	13.5
Personal responsibility	4.3	3.2	1.1	3.0
Social-economic mobility	4.5	9.1	8.8	10.8
<b>Civism</b>	1.2	6.2	5.6	7.7
Civic engagement	-0.6	6.3	6.5	6.6
School/Home/ Community Relationships	4.7	3.2	2.4	2.6
Philanthropy	4.7	6.1	4.0	9.6
<b>Business Mindset</b>	3.5	4.2	6.3	5.6
Salesmanship	0.6	3	1.6	3.9
Entrepreneurialism	4.7	3.2	2.9	4.8
Career choice	N/A	4.5	5.8	30.3
Hard skill development	5.9	2.9	1.8	-1.6
<b>Emotional Intelligence</b>	3.7	2.3	2.1	2.0
Soft skill development	2.6	6.7	-3.6	-2.2
Leadership	N/A	2.5	-9.4	10.6
Educational attitudes	6.7	1.6	2.4	1.4
Decision making	5.9	5.1	8	7.0

<sup>°</sup> Pre-program to post-program comparisons

<sup>†</sup> Mid-program to post-program comparisons

<sup>•</sup> Mid-program to post-program comparisons, students were not assigned a position until the day of Towne



Figure A6: Data by School

Young Ameritowne School	County	School	District	Students	FRL %	Minority Population	ELL Population	Mobility	2017 -18 ELA	2017-18 Math	2018 -19 ELA	2018-19 Math
Yes	Denver	Barnum Elementary School	Denver County 1	421	95%	95%	56.1%	12%	15	18.7	20.3	29.8
Yes	Arapahoe	Bellevue Elementary School	Cherry Creek 5	640	17%	53%	21.3%	15.40%	65.9	63.1	63.2	65.1
Yes	Jefferson	Belmar Integrated Arts	Jefferson County R-1	232	59%	48.7%	18.1%	11.70%	34.8	20.4	33.3	20.8
Yes	Adams	Brantner Elementary	School District 27j	693	15%	40.4%	10.2%	4.90%	51.30	55.30	48.2	43.1
Yes	Arapahoe	Canyon Creek Elementary School	Cherry Creek 5	496	27%	44%	10.3%	10.40%	54.1	46.8	56.4	42.4
Yes	Garfield	Carbondale Middle School	Roaring Fork Re-1	356	49%	60%	36.2%	1.50%	43.5	31.4	46.8	36.4
Yes	Adams	Centennial Elementary School	Adams 12 Five Star Schools	513	64%	60%	32.0%	10%	33.6	19.3	35.4	15.8
Yes	Adams	Colorado Stem Academy	Westminster Public Schools	418	36%	62.9%	9.6%	5%	58.6	50.7	62.1	51.1
Yes	Arapahoe	Dakota Valley Elementary School	Cherry Creek 5	541	21%	44%	11.3%	8%	46.8	40.7	42.5	35.7
Yes	Arapahoe	Dalton Elementary School	Adams-Arapahoe 28j	480	54%	66%	21.9%	13.10%	35.5	30.6	35.4	19.7
Yes	Eagle	Eagle County Charter Academy	Eagle County Re 50	347	N/A	9%	3.7%	2.30%	73.1	56.2	74.9	56.1





Figure A6: Data by School

Young Ameritowne School	County	School	District	Students	FRL %	Minority Population	ELL Population	Mobility	2017-18 ELA	2017-18 Math	2018-19 ELA	2018-19 Math
Yes	Grand	Fraser Valley Elementary School	East Grand 2	264	20%	16%	10.2%	6.60%	64.6	49.2	61.1	39.7
Yes	Adams	Glacier Peak Elementary School	Adams 12 Five Star Schools	451	32%	51%	12.0%	10.40%	47.4	27.8	50.4	27.7
Yes	Arapahoe	High Plains Elementary School	Cherry Creek 5	608	20%	38%	12.2%	9%	66.7	58	61.6	58.6
Yes	Denver	Holm Elementary School	Denver County 1	480	82%	80%	51.0%	15.10%	44.9	38.4	40.6	34.6
Yes	Adams	Leroy Drive Elementary School	Adams 12 Five Star Schools	414	64%	69%	25.6%	18.30%	18.9	13.6	16.3	8.1
Yes	Jefferson	Lumberg Elementary School	Jefferson County R-1	438	84%	78%	40.0%	16.70%	15.4	9.1	20.3	11.8
Yes	Denver	Marrama	Denver County 1	491	86%	92.7%	54.0%	20.50%	34.4	24.7	23	22.1
Yes	El Paso	Monument Charter Academy	Lewis-Palmer 38	1000	6%	19%	2.1%	2.70%	41	34.8	43.6	33.7
Yes	Jefferson	Peck Elementary	Jefferson County R-1	241	59%	46.1%	6.6%	12.40%	34.1	29.3	45.2	27.2
Yes	Douglas	Pioneer Elementary School	Douglas County Re 1	473	17%	24%	5.5%	9.70%	47.7	41.7	55.4	41.1
Yes	Douglas	Platte River Canyon	Douglas County Re 1	565	N/A	23.9%	N/A	4.90%	77.3	59.8	76.3	65.9
Yes	Adams	Skyline Vista Elementary School	Westminster Public Schools	376	86%	88%	39.1%	16.60%	32.3	19.5	36.6	24



Figure A6: Data by School

Young Ameritowne School	County	School	District	Students	FRL %	Minority Population	ELL Population	Mobility	2017-18 ELA	2017-18 Math	2018-19 ELA	2018-19 Math
Yes	Douglas	Summit View Elementary School	Douglas County Re 1	527	4%	19%	3.4%	4%	70.3	61.2	71.5	59.2
Yes	Jefferson	Three Creek K-8 School	Jefferson County R-1	688	6%	21%	5.7%	5%	63.5	48.2	62.8	48.9
Yes	Jefferson	Weber Elementary School	Jefferson County R-1	383	41%	30%	5.7%	10%	43.7	28.6	45.6	26.6
Yes	Jefferson	Westgate	Jefferson County R-1	465	67%	57.0%	8.0%	15.30%	32.2	21.9	20.6	15.1
Yes	Boulder	Whittier Elementary	Boulder Valley RE-2	400	32%	36%	27.0%	8%	59.8	45.5	64.7	47.9
Yes	Arapahoe	Willow Creek Elementary School	Cherry Creek 5	558	6%	33%	9.1%	5.70%	71.3	68.5	71	68.1
Yes	Jefferson	Woodrow Wilson Charter Academy	Jefferson County R-1	925	3%	20%	1.4%	6.30%	51.6	45.3	59	48.7
Yes	Arapahoe	Yale Elementary School	Adams-Arapahoe 28j	474	79%	80%	39.5%	19.60%	24.1	18.4	26.6	19.7
No	Jefferson	Addenbrooke Classical Grammar School	Jefferson County R-1	449	10%	28.5%	3.6%	3.6%	46.80	20.5	53.7	35.1
No	Jefferson	Allendale Elementary School	Jefferson County R-1	168	61%	42.3%	10.7%	14.8%	19.30	14	28.4	16
No	Arapahoe	Arkansas Elementary School	Adams-Arapahoe 28j	418	76%	81.1%	34.2%	15.9%	26.10	12.5	22.6	16.3
No	Garfield	Basalt Elementary School	Roaring Fork Re-1	564	49%	62.6%	47.5%	10.1%	37.70	35.8	35.8	29



Figure A6: Data by School

Young Ameritowne School	County	School	District	Students	FRL %	Minority Population	ELL Population	Mobility	2017 -18 ELA	2017-18 Math	2018 -19 ELA	2018-19 Math
No	Jefferson	Campbell Elementary School	Jefferson County R-1	225	42%	21.3%	N/A	7.7%	44.40	28.8	42.2	28.2
No	Douglas	Castle Rock Elementary School	Douglas County Re 1	424	30%	32.3%	9.9%	12.6%	32.40	18.8	36.4	29.2
No	Arapahoe	Coyote Hills Elementary School	Cherry Creek 5	565	12%	35.4%	7.6%	7.9%	61.80	47.5	63.8	57.3
No	Eagle	Eagle Valley Elementary School	Eagle County Re 50	422	29%	55.0%	32.2%	9.8%	31.50	18.2	34	17.2
No	Denver	Eagleton Elementary School	Denver County 1	309	95%	93.9%	48.2%	12.0%	15.80	13.8	25.2	20.3
No	Jefferson	Eiber Elementary School	Jefferson County R-1	314	87%	73.2%	34.1%	27.1%	20.80	12.6	24.6	16.2
No	Denver	Ellis Elementary School	Denver County 1	388	79%	72.7%	40.5%	15.8%	30.20	16.4	14.8	10.5
No	Boulder	Emerald Elementary School	Boulder Valley Re-2	429	47%	52.2%	18.9%	9.4%	45.00	34.6	51.9	41.7
No	Jefferson	Fitzmorris Elementary School	Jefferson County R-1	211	61%	45.0%	8.1%	13.1%	19.10	8.5	24.4	13
No	El Paso	Gold Camp Elementary School	Cheyenne Mountain 12	472	10%	21.4%	N/A	4.7%	67.40	60.1	71.5	58.7
No	Denver	Gust Elementary School	Denver County 1	630	88%	91.7%	40.8%	14.1%	26.90	29.1	26.6	27.8
No	Adams	Henderson Elementary School	School District 27j	362	45%	61.9%	19.3%	17.9%	35.00	31.1	29.1	27.3
No	Arapahoe	Heritage Heights Academy	Cherry Creek 5	327	12%	48.3%	19.9%	6.8%	57.90	39.5	54.8	37.9



Figure A6: Data by School

Young Ameritowne School	County	School	District	Students	FRL %	Minority Population	ELL Population	Mobility	2017 -18 ELA	2017-18 Math	2018 -19 ELA	2018-19 Math
No	Adams	Hunters Glen Elementary School	Adams 12 Five Star Schools	471	27%	46.7%	8.7%	10.4%	44.80	28.2	47.3	35.6
No	Jefferson	Jefferson Academy Elementary	Jefferson County R-1	749	14%	23.2%	3.1%	2.0%	61.50	49.8	56.3	42.2
No	Adams	John E. Flynn A Marzano Academy	Westminster Public Schools	291	70%	73.5%	28.2%	8.7%	17.80	17.8	16.5	21.8
No	Adams	Josephine Hodgkins Leadership Academy	Westminster Public Schools	651	83%	82.9%	36.4%	20.1%	23.80	14.5	25.3	16.1
No	Jefferson	Lawrence Elementary School	Jefferson County R-1	287	69%	49.8%	11.1%	14.7%	42.90	20.8	42.7	31.8
No	Douglas	Legacy Point Elementary School	Douglas County Re 1	358	15%	24.0%	5.9%	12.8%	39.90	35	45.5	31.5
No	Adams	Malley Drive Elementary School	Adams 12 Five Star Schools	444	66%	65.3%	22.7%	14.5%	19.80	6.5	23.5	7.7
No	Arapahoe	Murphy Creek K-8 School	Adams-Arapahoe 28j	724	41%	63.0%	19.1%	10.8%	57.50	44.3	55.9	47.7
No	Adams	North Mor Elementary School	Adams 12 Five Star Schools	451	69%	75.6%	25.5%	12.7%	23.60	22.2	24.9	20.3
No	Douglas	North Star Academy	Douglas County Re 1	667	4%	32.1%	6.6%	5.3%	72.9	58.2	71.1	54

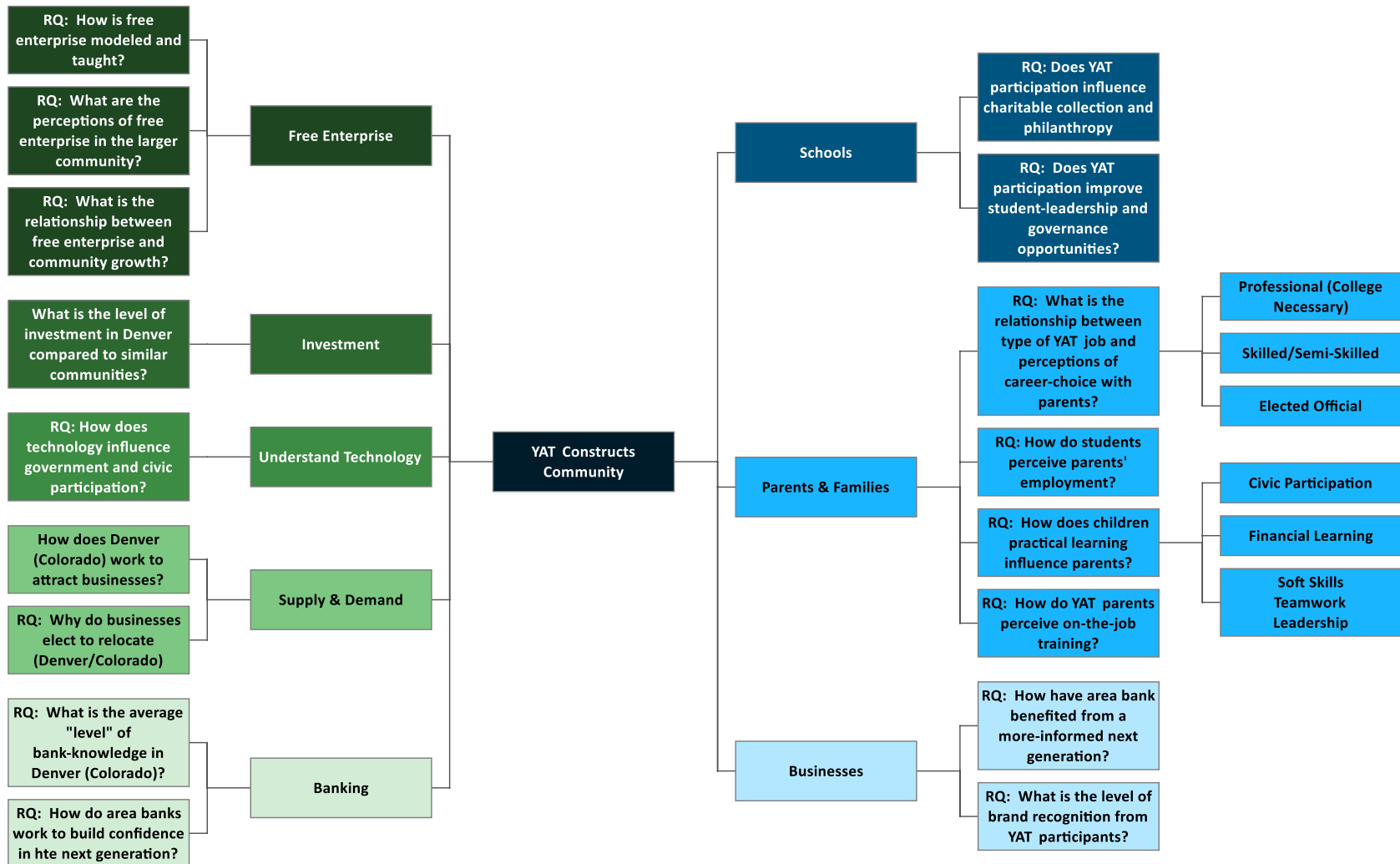


Figure A6: Data by School

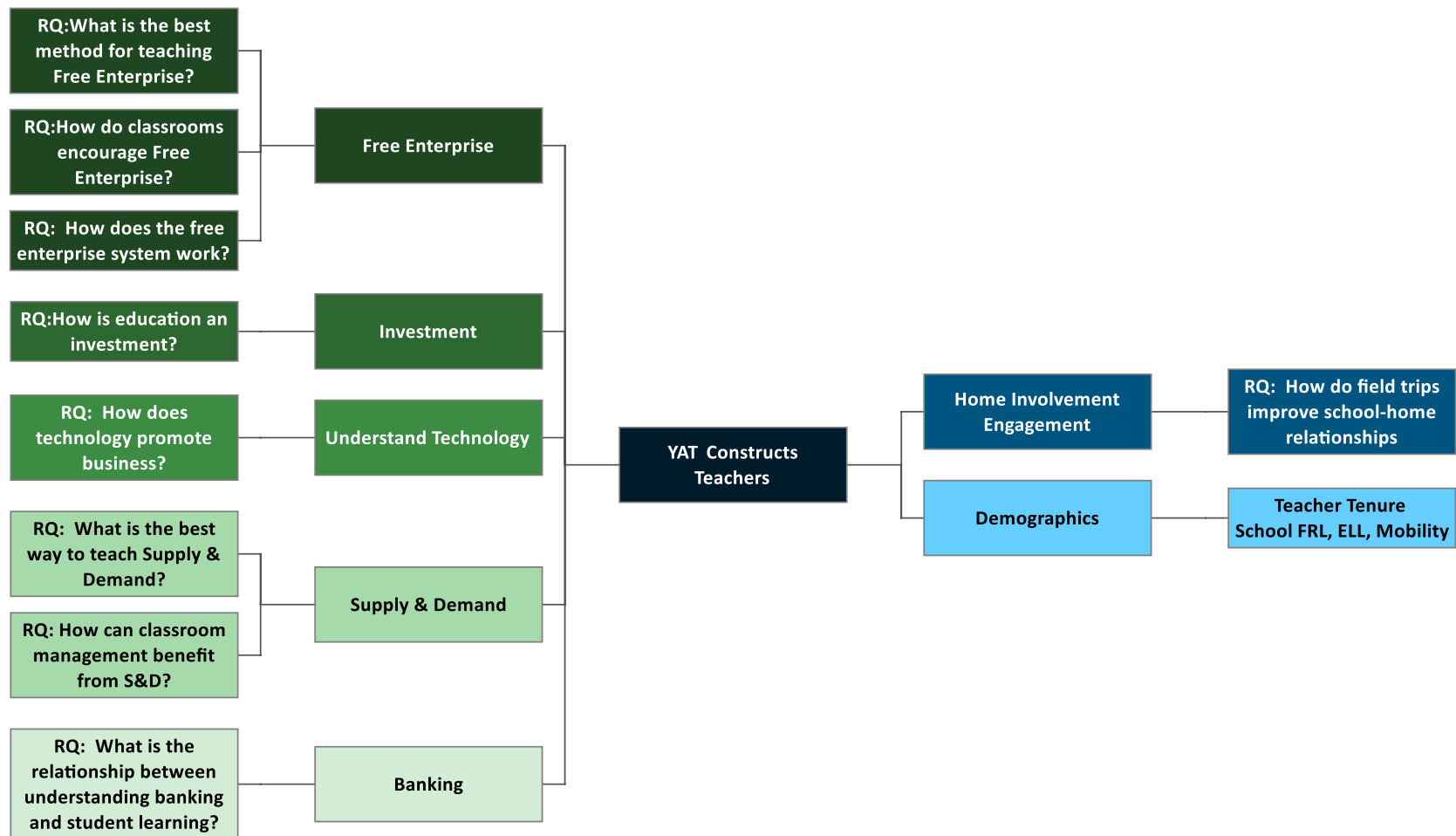
Young Ameritowne School	County	School	District	Students	FRL %	Minority Population	ELL Population	Mobility	2017 -18 ELA	2017-18 Math	2018 -19 ELA	2018-19 Math
No	Arapahoe	Peakview Elementary School	Cherry Creek 5	572	23%	39.2%	10.8%	7.5%	55.40	42.1	51.7	42.9
No	Arapahoe	Timberline Elementary School	Cherry Creek 5	613	22%	41.4%	8.6%	5.8%	57.40	46.3	53.6	43.9
No	Grand	West Grand Elementary And Middle School	West Grand 1-JT	296	37%	32.1%	19.3%	11.7%	38.00	27.1	36	22.6



## C. Research Questions and Constructs









## **D. Research Overview**

### **D.1 Financial Literacy**

Jonson and Sherraden (2007) define financial literacy as “the ability to read, analyze, manage and communicate about the personal financial conditions that affect the material well-being. This includes, but is not limited to, the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond completely to life events that affect every day financial decisions, which also includes events in the general economy,” (Jonson and Sherraden, 2007 – as cited by Williams et al., 2011, p. 246-247).

Williams et al. (2011) also point to research showing that poor financial knowledge has an adverse effect on people’s ability to plan and make decisions regarding their budgets/expenses, including buying a home, paying for a child’s education, or saving for retirement (Avard et al., 2005). They argue that financial literacy is best taught through experiential learning, allowing students to make decisions, make and fix mistakes, and learn about rules. For example, they note that when parents give their children an allowance, those children learn how to manage their money and ultimately become more effective and responsible with it (Pliner et al., 1996).

According to Burrus et al. (2018), teaching young people adulthood preparation skills, including financial literacy, is generally shown to improve well-being and limit adverse incidents later in life. While the authors note that research on financial literacy and risk behaviors is lacking, the studies that exist suggests that financial literacy and is linked with greater financial stability. Henager and Cude (2016) find that objective and subjective financial literacy (or confidence) are both linked with better short-term and long-term financial behaviors. Among younger age groups, subjective financial knowledge was particularly important, as the authors write:

“...if younger adults had a higher level of confidence in financial knowledge, they were more likely to engage in both the long- and the short-term behaviors...This research suggests that the younger cohorts may engage in positive financial behaviors if they think they can, where the older cohorts may rely on their actual knowledge,” (Henager and Cude, 2016, p. 15).

Jorgensen and Savla (2010) find that “perceived parental influence” has a direct impact on financial attitudes and an indirect impact on financial behavior. However, it had no influence on financial knowledge. According to research cited by Jorgensen and Savla, students learn mainly through trial and error—which is not enough to make them informed consumers (Lachance and Choquette-Berneir, 2004; Norvilitis et al., 2003)—and while children do learn from their parents, many parents’ financial knowledge is also inadequate (Moschis, 1985). They also write:

“Strong parenting practices such as explicitly teaching and demonstrating financial concepts can influence financial literacy from a young age through the teen years (Clarke et al., 2005). Direct influences such as family discussions and keeping track of allowance or gift income could lead to an increase in knowledge and the formation of attitudes, values, and behaviors toward money (Allen et al., 2007; Moore and Stephens, 1975; Moschis, 1985; Moschis, Prahasto, & Mitchell, 1986),” Jorgensen and Savla, 2010, p. 468).

Class is also important for predicting parents influence on their child's financial education. According to Luhr (2018), middle-class parents tend to be more proactive in teaching these skills compared to working-class parents. This is partly because working-class parents feel that they lack the ability to teach these skills and also because they are more likely to want to protect their children from worrying about financial issues. It can also shape young people's perceptions about their financial security, as Luhr writes:

"It is conceivable that parents in different social class positions teach their children differently because they are preparing them for very different economic futures. Middle class parents in this sample generally expected—and had the resources—to support their children for a longer period of time than those in the working-class, meaning that they may prime their children for a future where they can count on their parents for financial support. Although no middle-class children openly admitted that they expect to depend on their parents through their 20s, they did feel considerably more relaxed about their futures than those in the working-class. It is therefore possible that the relaxed attitudes surrounding debt and loans expressed by middle-class adolescents stem in part from knowing that they can count on their parents' support," (2018, p. 469).

Kim and Chatterjee's (2013) research sheds more light on the role of parenting. They find that children who had bank accounts and whose parents monitored their spending had a better chance of possessing financial assets and positive attitudes about their personal finance in early adulthood.

However, Drever et al. (2015) argue that while financial education is important, it is better to allow pre-school children to develop executive function first, as they are necessarily for learning financial literacy later on. Financial socialization should then be taught to elementary and middle school students, while financial skills may be better saved for high school students and young adults. They note that other research demonstrates how teaching financial knowledge is not enough, as other skills are needed to effectively manage money, including self-control (Moffitt et al., 2011) and confidence or "financial self-efficacy" (Danes, Huddleston-Cases, and Boyce, 1999). Moreover, timely financial education—when young people are particularly interested or in need of the knowledge, such as prior to making a major purchase—can be effective as well (Fernandes, Lynch, and Netemeyer, 2014).

## **D.2 Dimensions of Entrepreneurialism**

Nica, Grayson, and Gray (2015) note that much of the literature shows that entrepreneurship is linked with a variety of positive economic outcomes, including economic growth, job creation, and wealth creation. They show that entrepreneurial activity has been connected to a wide range of demographic factors and personality traits, including gender, personal income, prior knowledge, creativity, self-efficacy, motivation, humor, and willingness to take risks. Traits they discovered in multiple models of entrepreneurship include conscientiousness, emotional stability, agreeableness, and extraversion.





Entrepreneurship requires various forms of capital, especially human and intellectual capital as education, experience, health, and other factors are considered prerequisites for success (Klein and Cook, 2006). Social and financial capital are also crucial for entrepreneurial success. Social capital entails support from a social network and the ability to navigate and influence these networks. Financial



capital, or money, is important for obvious reasons (start-up costs, etc.), but it also makes it easier to acquire other forms of capital. Summing up the importance of various forms of capital, Nica et al. write:

“A person’s stocks of capitals at the moment when becoming an entrepreneur are clearly important. However, the ability to accumulate capital (for example, the speed of accumulating capital) might or might not influence the process (apart from the age of the entrepreneur). Indeed, an individual who has a superior ability to accumulate capital might be able to become an entrepreneur in less time than an individual with an inferior ability. Nonetheless, both become entrepreneurs when they have acquired the necessary capitals,” (2015, p. 136).

In a 2011 study, Broome looked at a Montessori middle school where students started and operated a store and worked in different positions (cashier, manager, etc.) to learn economic skills. A number of themes emerged from the study, including:

-  Social interaction helps economic learning
-  Students who take on leadership roles learn more
-  Student entrepreneurs learned more about economics
-  Students who felt some ownership in their product (i.e., it was their idea and not suggested by a parent or teacher) learned more about economic concepts

Similarly, Code (2006) finds that elementary school students who participated in an entrepreneurial program better understood economic and entrepreneurial concepts. This is consistent with previous research, as Code writes:

“Brickell and Scott noted that as student knowledge about a particular field of study increases, a change in study attitudinal dispositions usually occurs (Brickell and Scott, 1976). This dispositional change can be particularly important at the elementary level as the development of positive dispositions can establish the foundation for future learning in the subject and possibly contribute to increased understanding and learning (Walstad, 1980). Another study showed that students’ prior knowledge of economics, their gender, their compatibility with the teaching environment, and their level of effort were statistically significant (Becker, 1997),” (2006, p. 80).

Code also points to research showing that the most critical entrepreneurial characteristics of students who participated in a simulated economy were academic ability, creativity, and persistence (Kourilsky, 1995).

According to the theory of planned behavior, individual behavior later in life can be predicted by understanding current intentions (Ajzen and Fishbein, 1980; Ajzen and Fishbein, 2000; Krueger and Carsrud, 1993). Fayolle, Gailly, and Lassas-Clerc (2006) applied the theory of planned behavior to entrepreneurship education programs and found that students who sought out management courses (e.g. those who were not required to take the courses) became entrepreneurs at higher rates. They believe it was a combination of the impetus to take the courses and the material learned in the course. Intention, education entrepreneurial education and entrepreneurial behavior are linked in the literature by several authors (Kolvereid and Moen, 1997; Tkachev and Kolvereid, 1999).



### D.3 Financial Education

In a 2015 study, Testa and Frasier looked at entrepreneurial education programs in secondary schools to look for mistakes that might make them ineffective. The researchers stress the importance of these programs because of the changing nature of work in contemporary society, writing:

“Future generations will face a more uncertain work environment, with multiple job shifts during a career and greater prospects of becoming self-employed (Frank, Korunka, Lueger, and Mugler, 2005). We need to make them aware that while previous generations had to ‘find’ a job, the future generations will have to ‘invent’ a job (Friedman, 2013). Inventing a job could entail providing a job only to the ‘job inventor’ (solo entrepreneur or self-employed) but also employing other people,” (Testa and Frasier, 2015, p. 11).

They add that earlier research shows that youth need to be taught a wide range of skills so they can adapt to changing conditions, and entrepreneurial programs should begin during earlier childhood/adolescence.

However, Testa and Frasier surveyed students between 16 and 19 years old who did and did not participate in entrepreneurial education programs to gauge their interest, fear of failure, and perceptions about luck and whether entrepreneurs are born. The results showed that the programs were largely unsuccessful, as the researchers write:

“The new evidence collected showed that the effect of the EE programs on how entrepreneurship is understood and perceived was insignificant and the effect on the intention to become an entrepreneur was even negative (comparison with a control group guarantees the internal validity of the study i.e. it confirms that results are not due to school selection bias). Comparing such outcomes with the ex-ante fixed goals it can be argued that the EE programs under investigation were ineffective,” (Testa and Frasier, 2015, p. 13).

The survey results prompted the researchers to take a closer look using a qualitative approach, and they found that many students feared failure, being too young or inexperienced, not being able to get financing, not having good ideas, and being swindled. The entrepreneurial programs that these students participated in either did not address these concerns, or they were insufficient to overcome them. Testa and Frasier point out that the most common method of teaching entrepreneurialism appears to be traditional face-to-face lessons, research shows that the most effective methods are action-oriented, including competitions, having students run small companies, start-up simulations, workshops, and more.

Bridges and Casavant (2002) find that while students who learned economics in high school enter college with more knowledge, the effect diminishes when they do not study it more in college, and students who have more opportunities to study economics learn more. Additionally, a student’s major is influential but gender, natural ability, maturity, or taking economics in high school are not.

Sorgman and Parkinson (2008) find that teachers need to understand entrepreneurship and economic concepts in order to teach them to students. Therefore, programs that improve teachers’ comfort and knowledge with these subjects are important.



## D.4 Youth Leadership

McElravy and Hastings (2014) write that while there has been significant research into personality traits that are connected with leadership in adults, there has been little research into this topic with youth. After examining this connection, they find that emotional intelligence and age are the best predictors of young people's self-perceived leadership. Emotional intelligence was the best predictor after controlling for age, gender, ethnicity, and socioeconomic status. The researchers suggest that youth leadership programming should focus on, or at least include, material on emotional intelligence.

Leadership training may also produce other benefits, as Ricketts (2005) finds that there is a link between experience with leadership training and critical thinking skills. Moreover, vulnerable young people have a heightened risk of missing crucial milestones on the way to adulthood, which put them at increased risk of negative social and health outcomes, according to Burrus et al. (2018).

However, other experiences can also build young people's leadership skills. As Hancock, Dyk, and Jones (2012) find, participation in extracurricular activities with positive support from adults is linked with higher self-perceived leadership skills. This may be especially beneficial for female students, as Hancock et al. write:

"Interestingly, the current research findings suggest that females in sport activities had significantly more positive perceptions of their leadership skills than males. Further, our research findings suggest that participation in sport extracurricular activities is more likely to influence the perception of leadership skills among female adolescents who serve in leadership roles than males," (2012, p. 96).

## D.5 Youth Attitudes About Service/Philanthropy

Research suggests that empathy is a critical factor that precedes helping others (Batson et al., 1981). However, it is also something that takes time to develop. Barr and Higgins-D'Alessandro summarize the literature on the development of empathy, writing that research shows that empathy increases with age because the cognitive and affective facets of taking others' perspectives and considering how behavior affects others are complex. Most people obtain the ability to imagine multiple perspectives and adjust their behavior accordingly by late adolescence (Barr and Higgins-D'Alessandro, 2009).

In their study, Barr and Higgins-D'Alessandro, looked at how school culture influences empathy and prosocial behavior. They compared traditional high schools to a Just Community school and found that there was no difference between the two groups. However, they did find that changes in a school's culture were associated with changes in empathy (but not prosocial behavior).

School-connectedness may also play a role in empathy development, but the effect may differ for boys and girls, according to Batanova and Loukas (2012). For boys, reports of school connectedness with linked with improvements in empathy and perspective-taking a year later. For girls though, it served as a protective factor against decreased perspective taking resulting from conflict with parents, but did not seem lead to improvements independently of that.

Parker and Franco (1999) surveyed youth about volunteering and found that their views were generally positive and that it was important for solving social problems. Less than half of the survey participants



had volunteered in the previous year, but those who had volunteered had participated in many different activities. Those who had not volunteered cited not seeing how it would benefit them, not wanting to volunteer alone, or not knowing how to find opportunities. Based on their findings, Parker and Franco write that there are three factors to think about with encouraging youth in volunteering:

“...(1) Opportunities should be relevant and meaningful for youths, (2) attention must be placed on removing the barriers youths report for not participating in service activities rather than only why youths do participate, and (3) there must be a strong connection among schools, agencies specifically designed to promote youth service, and organizations using youth volunteers,” (1999, p. 172).

Additionally, youth who knew someone who had benefitted from their service or who needed that service were more likely to continue volunteering even after they had fulfilled requirements for a college application.



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