
EVALUATION OF SELECT JUNIOR ACHIEVEMENT HIGH SCHOOL PROGRAMS

Submitted to

THE ASSOCIATION OF JUNIOR ACHIEVEMENT AREAS OF
TEXAS

Submitted by

WLH Analytics, LLC

March 2, 2018

EXECUTIVE SUMMARY

This evaluation uses multiple analytical approaches based upon student survey data to capture the effects of student participation in the following high school Junior Achievement (JA) programs: JA BE ENTREPRENEURIAL, JA CAREER SUCCESS, JA JOB SHADOW, and JA PERSONAL FINANCE. The first approach is a difference analysis of constructs derived from items common to pre- and post-JA survey administrations using a matched-pair sample. This methodology allows for an investigation of the relationship between student participation and the *change* in these constructs, leading to stronger inferences of causality.¹ Second, an analysis of post-only survey items reflects student attitudes and perspectives towards the JA volunteer and curriculum.

There is a cumulative effect of student participation in Junior Achievement

With some exceptions, students who had prior experience with JA benefited more from their latest participation than did students for whom this was their first exposure to JA. This suggests that the full potential of JA to positively impact students is reached when there is an on-going engagement between JA and schools as compared to one-time visits.

Participation in JA Increases Work Readiness, Financial Literacy, and Knowledge about Entrepreneurship

Each JA program is focused on particular content that is assessed prior to and after the program is taught to the students. Participating students demonstrated remarkable gains in the content knowledge. Over 80 percent of students in JA CAREER SUCCESS with prior JA experience demonstrated gains in the knowledge and skills necessary to earn and keep a job in a high growth career industry. Approximately 77 percent of participants in JA BE ENTREPRENEURIAL with no prior JA experience gained in their knowledge about the essential elements of business planning and starting an entrepreneurial venture. In JA JOB SHADOW, over 40 percent of first-time students gained in their knowledge about how to gain and be successful in employment.

Participation in JA Improved Attitudes Towards School

Almost 30 percent of students in JA CAREER SUCCESS improved in their attitudes towards school followed by 28 percent for JA PERSONAL FINANCE and 25 percent among experienced² students in JA BE ENTREPRENEURIAL. Approximately 8 percent of students in JA JOB SHADOW demonstrated an improvement in attitudes towards school, which is not surprising given the workplace nature of the program.

Participation in JA Improved Attitudes Towards the Future

Attitudes towards the future reflect the extent to which students are goal-oriented as well as the extent to which they feel in control to achieve those goals. In contrast to changes in

¹ The content knowledge data for JA PERSONAL FINANCE was not valid. Results are presented, but not interpreted or presented in the summary.

² Hereafter 'experienced' refers to students with prior JA experience.

attitudes towards school, JA JOB SHADOW had the highest impact on attitudes towards the future with 45 percent of students with no prior JA experience demonstrating an improvement, followed by 41 percent among their peers who did have prior JA experience. This is because of the first-hand exposure that JA JOB SHADOW provides its participants into their future as labor market participants. Just over 30 percent of participants in JA PERSONAL FINANCE demonstrated gains in their attitudes towards the future, followed by 24 percent of experienced students in JA CAREER SUCCESS and 20 percent of experienced students in JA BE ENTREPRENEURIAL.

Participation in JA BE ENTREPRENEURIAL Improved Students' 21st Century Skills

Seventy-five percent of participants with prior JA experience reported that they are better decision-makers, 70 percent are better prepared to work in a team, over 60 percent report that they are better problem-solvers, and over 40 percent report that they are able to think more critically.

Participation in JA BE ENTREPRENEURIAL Improved Goal Setting, Confidence to Compete in the Workforce, and Knowledge and Interest in Entrepreneurship

Almost 80 percent of participants with prior JA experience were more confident in the ability to compete in the workforce after completing JA BE ENTREPRENEURIAL, and approximately 70 percent knew more about, and were more interested in, owning their own business. Almost 60 percent of experienced students are more likely to develop education and career goals as a result of their participation.

Participation in JA PERSONAL FINANCE Improved Budgeting Practices, Financial Goal Setting, and Safe-Computing Practices

Over 70 percent of participants with prior JA experience better track how they spend their money and are more likely to use a budget for their personal expenses. Sixty-three percent are more likely to set, and speak with their parents about, financial goals, as well as take actions to protect themselves from identity theft.

Participants Realized the Relevance of JA and their School Work to the Real World

While participants in all four programs appreciated the relevance of JA to the real world, those of JA JOB SHADOW were particularly convinced. One-hundred percent of experienced participants reported that what they learned will be important in the future, help them get a good job, help them be successful, connected their classroom with the real world, and taught them how to manage money. This is truly a remarkable result.

Participants Improved in their Dispositions towards School

One-hundred percent of experienced JA JOB SHADOW students reported that the program made school more interesting to them, will help them do better in school, look forward to school more on JA days, and made them realize the importance of staying in school. The same response holds true to a lesser degree for the other programs. Approximately 85 of experienced JA BE ENTREPRENEURIAL students looked forward to going to school more on JA days, 65 percent reported that JA made school more interesting and helped them stay out of trouble out of school. Fifty percent of students in JA CAREER SUCCESS and 40 percent of students in JA BE ENTREPRENEURIAL and JA PERSONAL FINANCE agreed or strongly agreed that participation helped them stay out of trouble in school.

Overall JA Experience

Perhaps the most compelling result is that 100 percent of the participants in all four programs would recommend JA to their friends. Unanimous evaluative items such as these are exceedingly rare and speak to the power of the JA experience to the diverse student population of high schools across Texas. In addition, almost 70 percent of experienced students in JA PERSONAL FINANCE felt that their opinions were respected by their peers during the program and that the volunteer made them feel important. The same was true among almost 80 percent of JA BE ENTREPRENEURIAL participants. Over 90 percent of JA JOB SHADOW participants reported that the volunteer made them feel important. Over 90 percent of experienced JA BE ENTREPRENEURIAL participants thought that JA was fun.

TABLE OF CONTENTS

The Association of Junior Achievement Areas of Texas.....	1
Table of Contents.....	v
List of Tables.....	vi
List of Figures.....	vi
About Junior Achievement	7
Methodology	8
Analytical Strategy	10
Results.....	13
Changes in Content Knowledge.....	14
Changes in Attitudes Towards School	18
Changes in Attitudes Towards the Future	19
Changes in Behaviors for JA PERSONAL FINANCE	20
Impact on Skills for JA BE ENTREPRENEURIAL.....	20
Evaluation	22
JA BE ENTREPRENEURIAL.....	22
JA CAREER SUCCESS.....	25
JA JOB SHADOW	27
JA PERSONAL FINANCE	29

LIST OF TABLES

Table 1: Number of Matched-Pair Surveys by JA Program	9
Table 2: Grade Level and Prior JA Experience by JA Program	9
Table 3: Constructs and their Corresponding Survey Items.....	11
Table 4: Content Items for each JA Program	13
Table 5: Means of Content Knowledge: Pre- and Post-Tests.....	17

LIST OF FIGURES

Figure 1: Percent of Students who Demonstrated Gains in Content Knowledge by Prior JA Experience.....	15
Figure 2: Percent of Students who Demonstrated Gains in Content Knowledge Across JA Regions.....	16
Figure 3: Changes in Attitudes Towards School by Prior JA Experience.....	18
Figure 4: Changes in Attitudes Towards the Future by Prior JA Experience.....	19
Figure 5: Changes in Budgeting Practices, Setting Financial Goals, and Safe Computing by Prior JA Experience among JA PERSONAL FINANCE Students.....	20
Figure 6: Impact on 21 st Century Goals for JA BE ENTREPRENEURIAL by Prior JA Experience.....	21
Figure 7: Impact on Goals, Workforce Readiness, and Entrepreneurship for JA BE ENTREPRENEURIAL by Prior JA Experience.....	22
Figure 8: Evaluation Results – JA BE ENTREPRENEURIAL and the Real World.	23
Figure 9: Evaluation Results – JA BE ENTREPRENEURIAL and Schooling	24
Figure 10: Evaluation Results – JA BE ENTREPRENEURIAL and Overall Experience.	25
Figure 11: Evaluation Results – JA CAREER SUCCESS and the Real World.	26
Figure 12: Evaluation Results – JA CAREER SUCCESS and Schooling.....	26
Figure 13: Evaluation Results – JA CAREER SUCCESS and Overall Experience.....	27
Figure 14: Evaluation Results – JA JOB SHADOW and the Real World.....	28
Figure 15: Evaluation Results – JA JOB SHADOW and Schooling.....	28
Figure 16: Evaluation Results – JA JOB SHADOW and Overall Experience.....	29
Figure 17: Evaluation Results – JA PERSONAL FINANCE and the Real World.....	30
Figure 18: Evaluation Results – JA PERSONAL FINANCE and Schooling.....	30
Figure 19: Evaluation Results – JA PERSONAL FINANCE and Overall Experience.....	31

ABOUT JUNIOR ACHIEVEMENT

Founded in 1919, Junior Achievement (JA) is a unique private-public technical assistance model with a global presence of over 470,000 volunteers serving more than 10 million students in over 100 countries. JA utilizes trained volunteers primarily from the private sector to deliver research-based lessons in classrooms at all grade levels in the K-12 system. In the United States, over 230,000 volunteers deliver JA content annually to over 4.8 million students in over 200,000 classrooms.³

The Three Pillars of JA programs are Entrepreneurship, Work Readiness and Financial Literacy. The Junior Achievement curriculum satisfies the “Three R’s” that research shows are necessary to impact student learning: rigor, relevance, and relationships. The curriculum is aligned to the Texas Essential Knowledge and Skills across multiple content areas including mathematics, language arts, science, social studies such as economics, geography, history, government, and career and technical courses; it makes abstract academic content relevant to students by using real-world applications and utilizing pedagogical techniques consistent with recent findings in cognitive science; and, it gives students an opportunity to build relationships with the volunteers. This aspect of the JA model is especially promising for minority and economically disadvantaged students who are less likely to have sustained exposure to role models who have achieved educational and economic success.

The JA model includes many of the artifacts that research has identified as critical in improving student learning. The curriculum is sequenced vertically from kindergarten through 12th grade. Its alignment with the Texas Essential Knowledge and Skills means that it contributes to the focus on the curriculum, the most important driver of decisions regarding instruction in the standards-based environment. This focus on the curriculum also means that the JA model is complementary to other existing high quality initiatives, especially at the high school level. Furthermore, all Junior Achievement programs support the skills and competencies identified by the Partnership for 21st Century Skills.⁴

This evaluation focuses on four high school JA programs. JA BE ENTREPRENEURIAL “...introduces students to the essential elements of a practical business plan and then challenges them to start an entrepreneurial venture while still in high school.”⁵ Students learn about advertising, competitive advantages, financial marketing, and product development.

³ See <https://www.juniorachievement.org/web/ja-usa/fact-sheet>.

⁴See

<http://www.uschamberfoundation.org/sites/default/files/publication/edu/Life%20in%20the%2021st%20Century%20Workforce.pdf> for a summary and explanation of these skills.

⁵<https://www.juniorachievement.org/web/ja-usa/ja-programs;jsessionid=A4E3A96D296B4D02A8B27C3DF5C47AC0>

JA CAREER SUCCESS “...equips students with the tools and skills required to earn and keep a job in high growth career industries.”⁶ Its objectives are to teach students to use problem-solving techniques to solve problems in real-life work scenarios, apply critical-thinking skills to work-based problems, and recognize that decisions made in the workplace have consequences. Its topics include critical thinking, communication, collaboration, and creativity; strong soft skills; work priorities; high growth industries in areas such as science, technology, engineering, and manufacturing; and resumes, cover letters, interviews, and digital profiles.

JA JOB SHADOW “...prepares students to be entrepreneurial thinkers in their approach to work. In-class sessions prepare students for a visit to a professional work environment, where they face a series of challenges administered by their hosts. Students learn to research career opportunities needed to land and keep their dream job.”

JA PERSONAL FINANCE “...focuses on earning money; spending money wisely through budgeting; saving and investing money; using credit cautiously; and protecting one's personal finances.”⁷ It teaches students to recognize the fundamental elements of smart personal finances and to apply those elements to a personal financial plan that allows them to set specific goals for their lifelong financial needs and desired quality of life.

METHODOLOGY

This report includes findings from pre- and post-test surveys administered to JA high school program participants in Texas during the 2016-17 academic year. JA staff and volunteers distributed and collected the surveys at the onset of the JA program and again upon completion. Table 1 shows that there are 643 matched pre- and post-surveys, 75 percent of which are from JA PERSONAL FINANCE, 13 percent from JA CAREER SUCCESS, 7 percent from JA JOB SHADOW, and 5 percent from JA BE ENTREPRENEURIAL. The surveys were distributed to students at eight high schools in four JA regions (Chisholm Trail, Dallas, East Texas, and South Texas) across Texas. Note that the content responses in the JA PERSONAL FINANCE surveys were invalid and were not included in the content gain analysis. These students were, however, included in the other analyses.

⁶<https://www.juniorachievement.org/web/ja-usa/ja-programs;jsessionid=A4E3A96D296B4D02A8B27C3DF5C47AC0>

⁷<https://www.juniorachievement.org/web/ja-usa/ja-programs;jsessionid=A4E3A96D296B4D02A8B27C3DF5C47AC0>

TABLE 1: NUMBER OF MATCHED-PAIR SURVEYS BY JA PROGRAM

JA Program	Number of Matched Pre- and Post-Surveys	Percent
JA BE ENTREPRENEURIAL	29	5%
JA CAREER SUCCESS	86	13%
JA JOB SHADOW	43	7%
JA PERSONAL FINANCE	476*	75%
Total	634	100%

* Invalid content data, but all other item responses valid.

Table 2 indicates that 81 percent of the analytic sample consisted of seniors due largely to the large sample from JA PERSONAL FINANCE, with the rest being fairly evenly distributed among the lower high school grades. Although 72 percent of the students overall had not previously experienced JA, a slight majority of students (52 percent) in JA BE ENTREPRENEURIAL had prior experience with JA in marked contrast with the reverse in the other programs.

TABLE 2: GRADE LEVEL AND PRIOR JA EXPERIENCE BY JA PROGRAM

Grade Level	JA BE ENTREPRENEURIAL (%)	JA CAREER SUCCESS (%)	JA JOB SHADOW (%)	JA PERSONAL FINANCE (%)	Total (%)	State* (%)
9	45	27	0	1	6	28
10	17	10	0	4	5	26
11	10	6	23	4	6	24
12	21	57	70	90	81	22
Missing	7	0	7	1	2	0
Total	100	100	100	100	100	100
Previous JA Experience						
No	45	80	72	72	72	N/A
Yes	52	20	28	5	11	N/A
Missing	3	0	0	23	17	N/A
Total	100	100	100	100	100	100

* Source: TEA Texas Academic Performance Report 2016-17 State Profile.

ANALYTICAL STRATEGY

Table 3 lists the constructs from the student surveys and their corresponding survey items. “Changes in Content Knowledge” includes items that capture student understanding of the content that is specific to each program. The content items for each program are presented in Table 4 in the discussion of the results. The items are the same for both the pre- and the post-survey administrations and serve as a basis for the matched-pair analysis.

The next three constructs in Table 3 reflect overall goals and objectives that are common across the four JA programs. Since they are included in both the pre- and post-surveys, a gain analysis is conducted, which is the percent of students who demonstrated an improvement in at least one of the constituent items. Unless otherwise noted, survey items use a Likert-scale code of 1 for “Strongly Disagree”, 2 for “Disagree”, 3 for “Don’t Know”, 4 for “Agree”, and 5 for “Strongly Agree”. “Attitudes Towards School” captures the student perspective on whether school is important as well as expectations about graduating from high school and enrolling in college. “Attitudes Towards the Future” reveals the extent to which the student has set future goals and feels in control of her ability to achieve them. “Self-Esteem” consists of just one item and reflects whether students feel good about themselves.

“Budgeting Practices” applies only to JA PERSONAL FINANCE and consists of items that relate directly to the focus of this program on the need to use budgets to track how money is spent. Similarly, “Financial Goals” consists of items that correspond directly to the focus of JA PERSONAL FINANCE on the process of setting financial goals in collaboration with parents; “Safe Computing” reflects the goal of the program to raise awareness among students about the problem of identity theft and how to prevent it. A gain analysis is conducted on these constructs since their items are included on both the pre- and the post-surveys.

There were a number of constructs that were captured by the surveys distributed only to students in JA BE ENTREPRENEURIAL. Since these items were on the post-survey only, a gain analysis is not possible for these constructs. “Education and Work Goals” reflects student views on the extent to which participation led to education and career goals as well as a higher confidence to compete in the workforce. “21st Century Skills” reflects student views on how participation has improved their ability to solve problems, think critically, be a good decision maker, and work in a team. “Entrepreneurship” reflects student views on how participation increased their knowledge and interest about owning their own business.

The surveys conclude with a number of post-survey items that reflect student opinions about their experience in JA. These items are common across all programs with two exceptions that are noted in their analysis. The analysis includes item-tabulation of the percentile distribution across the Likert-scale for each program. “JA and the Real World” reflects student opinions on whether JA relates to the future, getting a good job, being a success, relevant to real life, and their ability to manage money. “Stay in School” consists

of items that capture their interest in school, interest in doing better, enjoying school, importance of staying in school participation and the ability of students to avoid trouble both in and out of school. “Overall Positive Experience” consists of a number of items, ranging from whether their opinions were respected among their student peers, views on the JA volunteer, whether JA made school more appealing, whether the experience was fun, and whether the participant would recommend JA to their friends.

TABLE 3: CONSTRUCTS AND THEIR CORRESPONDING SURVEY ITEMS

Construct	Survey Items	Survey
Changes in Content Knowledge	Program-specific.	Pre and Post
Attitude Towards School	<ul style="list-style-type: none"> • Doing well in school is important to me. • I expect to graduate from high school. • I plan to enroll in some type of post-secondary education. 	Pre and Post
Attitudes Towards the Future	<ul style="list-style-type: none"> • I have set goals for my future. • I feel in control over how my future will turn out. 	Pre and Post
Self-Esteem	<ul style="list-style-type: none"> • I feel good about myself. 	Pre and Post
Budgeting Practices (JA PERSONAL FINANCE Only)	<ul style="list-style-type: none"> • I track how I spend my money regularly. • I use a personal budget to plan how I spend money. 	Pre and Post
Financial Goals (JA PERSONAL FINANCE Only)	<ul style="list-style-type: none"> • I talk to my parents or guardians about financial goals. • I set personal goals for myself. 	Pre and Post
Safe Computing (JA PERSONAL FINANCE Only)	<ul style="list-style-type: none"> • I take actions to protect myself from identity theft. 	Pre and Post
Education and Career Goals (JA BE ENTREPRENEURIAL Only)	<ul style="list-style-type: none"> • I have developed education goals for myself. • I have developed careers goals for myself. • I am more confident in my ability to successfully compete in the workforce in the future. 	Post Only
21 st Century Skills (JA BE ENTREPRENEURIAL Only)	<ul style="list-style-type: none"> • Solve Problems • Think critically • Be a good decision maker. • Work in a team. 	Post Only
Entrepreneurship (JA BE ENTREPRENEURIAL Only)	<ul style="list-style-type: none"> • I know more about owning my own business. • I am more interested in owning my own business. 	Post Only
Student Evaluation: JA and the Real World	<ul style="list-style-type: none"> • The things I learned in JA will be important later in the future. • The things I learned in JA will help me get a good job. • The things I learned in JA will help me be successful 	Post Only

Construct	Survey Items	Survey
	in life. • Junior Achievement connected what I learned in the classroom with real life. • Junior Achievement taught me how to manage my money.	
Student Evaluation: JA and School	• JA made school more interesting to me. • The things I learn in JA will help me do better in school. • I look forward to going to school more on the days JA takes place. • My involvement in JA has helped me stay out of trouble in school. • My involvement in JA has helped me stay out of trouble out of school. • JA made me realize the importance of staying in school.	Post Only
Student Evaluation: Overall Positive Experience	• I feel like my opinions are respected by my peers in JA. • My JA volunteer makes me feel important. • Junior Achievement was fun. • Would you recommend this program to a friend?	Post Only

RESULTS

The results are presented by construct in the order shown in Table 3. Table 4 includes the content knowledge items that reflect the JA curriculum. The items are multiple-choice and administered to the students prior to the JA program and immediately upon completion. Some of the items in the table have been shortened for the sake of parsimony. For the same reason, the answer choices for multiple choice responses are not included.

TABLE 4: CONTENT ITEMS FOR EACH JA PROGRAM

JA BE ENTREPRENEURIAL	
I T E M S	<ol style="list-style-type: none"> 1. Which of the following are sources for successful product and service ideas? 2. Which of the following is the best definition of demographic? 3. Gloria has designed a new line of jewelry and wants to begin marketing her jewelry in her town. 4. Which of the following is the best definition of competitive advantage? 5. When Walt Disney created Disneyland in 1954, he was trying to create a more family-oriented and cleaner version of that era's local carnivals. Walt Disney is an example of an entrepreneur who used which of the following product development sources? 6. There are several internet providers in Mark's town. He researches all of the companies and finds that Eureka! has the lowest rates. However, several friends tell him that they had awful service with Eureka! and switched to Seeker, which has excellent customer service. Mark decides to sign a contract with Seeker because they have better customer service. In this example, Seeker...
JA CAREER SUCCESS	
I T E M S	<ol style="list-style-type: none"> 1. Studies show that employers want employees who have skills known as the "4 Cs". Which of the following is not one of those skills? 2. Which of the following is the first step in effective problem-solving? 3. Imagine you are in a conflict with a co-worker who is angry and raises her voice at you. Which conflict management technique should you try first? 4. Which of the following is an important characteristic of the members of a "high performance team" in the workplace? 5. Which of the following is NOT considered a "soft skill"? 6. In a job interview, what is the most effective way to show the interviewer you have the skills needed? 7. The physical and social conditions in your place of work that affect the quality of the job are known as: 8. Which of the following is not expected to be in high demand in the future? 9. The expression of who you are and what makes you unique in the job market is known as:

(Table 4 Continued)

JA JOB SHADOW	
I T E M S	1. Perseverance, responsibility, initiative, teamwork, motivation, and problem solving are examples of ___ skills valued by employers. Which of the following is the first step in effective problem-solving?
	2. Personal abilities not directly tied to a specific job are also needed in most jobs. These are called ___.
	3. During a job interview, candidates will be assessed on a combination of ___ and soft skills.
	4. A(n) ___ is a technique used to summarize information and to promote a product, company, or a person.
	<u>Which of the following three are appropriate for a job interview?</u>
	a. Please describe your family planning goals. b. Have you ever been convicted of a felony? c. Please describe a difficult experience at school and how you handled it.
	5. A well designed resume should include which of the following:
	6. When describing my strengths during an interview it is acceptable to also describe:
JA PERSONAL FINANCE	
I T E M S	1. Of the following steps, which would be the FIRST step in financial planning?
	2. True or False: The best predictor of how much money you will make in the future is the education you choose.
	3. Which of the following should you remember when developing a savings plan?
	4. All of the following are elements of financial planning except one. Which one?
	5. Alan has created a new budget. Which of the following should he NOT do?
	6. Match each term to the correct definition: Income
	7. Match each term to the correct definition: Expenses
	8. Match each term to the correct definition: Fixed expense
	9. Match each term to the correct definition: Variable expense
	10. Match each term to the correct definition: Opportunity cost
	11. Which of the following statements about credit is FALSE?
	12. Which of the following statements is NOT good advice for risk management?

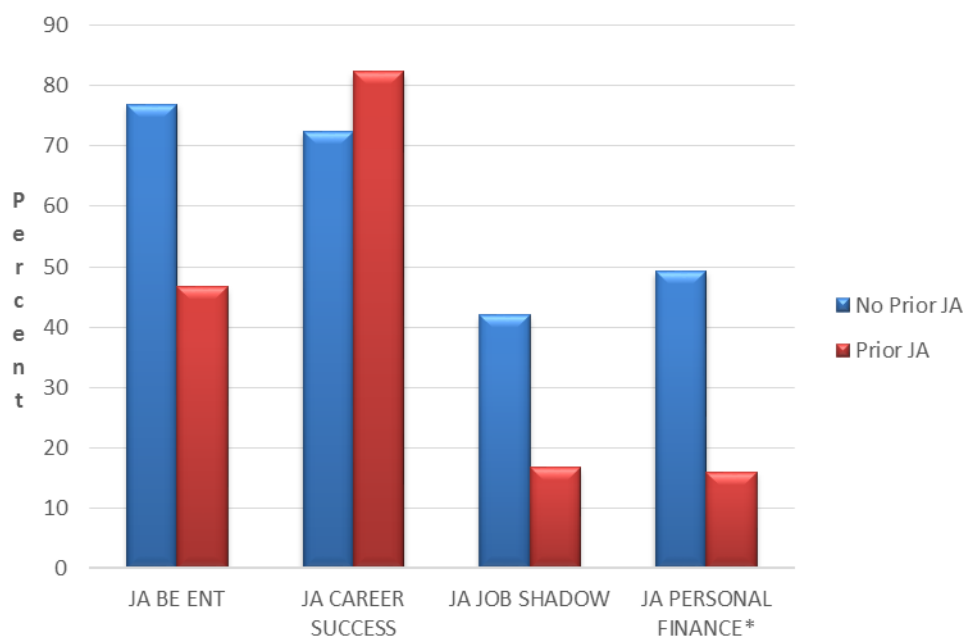
CHANGES IN CONTENT KNOWLEDGE

The percent correct on the content questions for each program were calculated for both the pre- and post-surveys. Figure 1 shows the percent of students in each program who scored higher on the post-survey score than on the pre-survey. Across the board, students gained in content knowledge. The percent of students who scored higher on the post-survey relative to the pre-survey is notably high, ranging from a remarkable 82 percent of students in JA CAREER SUCCESS with prior JA experience, to a low of 8 percent of students in JA PERSONAL FINANCE who had prior JA experience.

Prior JA experience did not make as much of a difference among students in JA CAREER SUCCESS. However, in all other programs, initial exposure to JA resulted in a notably higher percentage of students who exhibited gains in content knowledge relative to their counterparts who had prior experience in JA. As the footnote to Figure 1 indicates, results of the content analysis of JA PERSONAL FINANCE data should be interpreted cautiously

due to suspect data. In addition to the issue with East Texas data discussed in Table 1, a more detailed analysis behind the results of Table 5 below indicates that the data from the Dallas region is also suspect.

FIGURE 1: PERCENT OF STUDENTS WHO DEMONSTRATED GAINS IN CONTENT KNOWLEDGE BY PRIOR JA EXPERIENCE.



* Caution in interpreting results from JA PERSONAL FINANCE due to invalid data.

Figure 2 reflects that the percentage of students that gain in content knowledge varies across region. The differences in the results across region can be attributed to a number of reasons that are not captured in the data and should not be interpreted as a reflection of quality of implementation of the JA program. They are intended, instead, to be a starting point in the discussion among JA staff to determine the underlying causes in the differences in results, some of which indeed may indeed lead to improvement in results if clear implications for changes in practice emerge.

JA CAREER SUCCESS and JA PERSONAL FINANCE were administered in more than one region. Over 80 percent of the JA CAREER SUCCESS students in Region 4 experienced a gain in content knowledge compared to 60 percent of JA CAREER SUCCESS students in Region 1. The JA PERSONAL FINANCE data are suspect, particularly from Region 1, however 33 percent of students gained in knowledge from Region 2 compared to 48 percent in Region 4.

FIGURE 2: PERCENT OF STUDENTS WHO DEMONSTRATED GAINS IN CONTENT KNOWLEDGE ACROSS JA REGIONS.

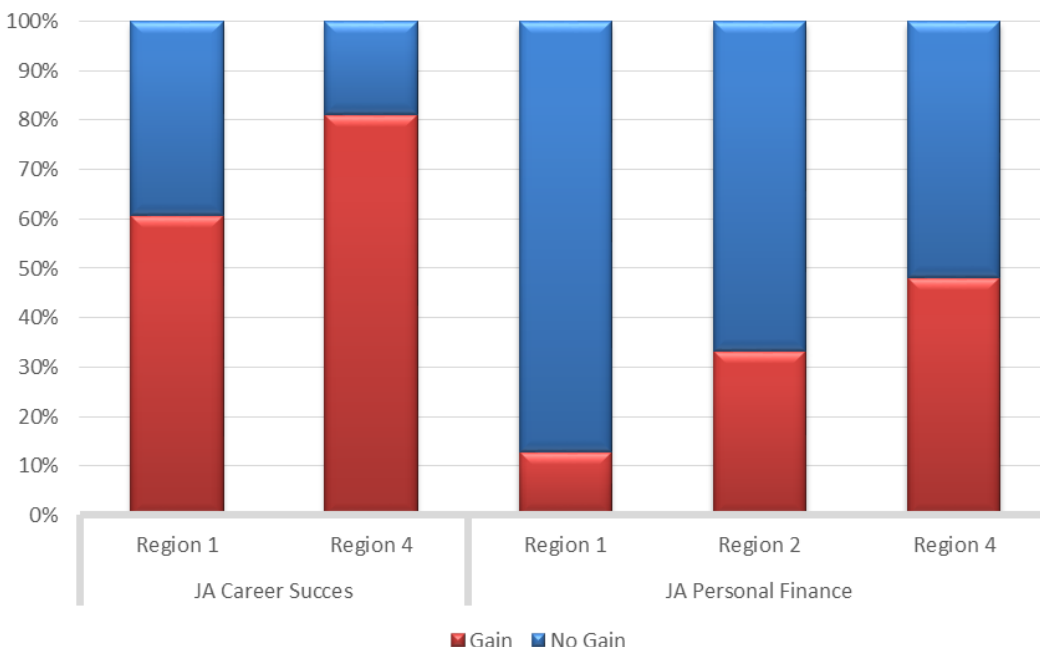


Table 5 includes the mean scores on the post- and pre-surveys. Gains in content knowledge among students in JA BE ENTREPRENEURIAL (16 percentage points) and JA CAREER SUCCESS (20 percentage points) outpaced those of JA JOB SHADOW and JA PERSONAL FINANCE which did not show any gains on average. The largest gains (26 percentage points) were among JA CAREER SUCCESS students who had prior JA experience, followed by JA BE ENTREPRENEURIAL students with no prior experience at 23 percentage points. Across all four programs, the average score on the pre-surveys among students with prior JA experience is higher than their counterparts with no prior JA experience. This suggests that the knowledge that students gain from JA stays with them over time and is remarkable given that the data do not reflect the JA programs in which the students previously participated.

Although not statistically significant, JA JOB SHADOW students with no prior JA experience scored on average two percentage points higher in content knowledge after the program relative to before the program. Similarly, JA PERSONAL FINANCE students with no prior experience experienced a gain of three percentage points.

Although not statistically significant, students with prior JA experience in JA JOB SHADOW scored lower (3 percentage points) on the post-survey relative to the pre-survey. Among JA PERSONAL FINANCE students, the difference was 15 points less, which is substantially inconsistent with not only the results from other programs, but also the results from the analyses of JA PERSONAL FINANCE in previous years. More detailed analysis not shown here reveals that the data from the Dallas region may also be invalid, showing a 46 percentage point decrease in the average score. In consideration of these issues, it is not valid to interpret the findings from the content section of JA PERSONAL FINANCE data.

TABLE 5: MEANS OF CONTENT KNOWLEDGE: PRE- AND POST-TESTS

	ALL STUDENTS		PRIOR JA	
			Prior JA	No Prior JA
JA BE ENTREPRENEURIAL				
Average Score: Pretest	55		57	51
Average Score: Posttest	71		67	74
Percentage Difference	16***		10*	23**
JA CAREER SUCCESS#				
Average Score: Pretest	52		54	51
Average Score: Posttest	72		80	70
Percentage Difference	20***		26***	19***
JA JOB SHADOW				
Average Score: Pretest	62		60	53
Average Score: Posttest	62		57	55
Percentage Difference	0		-3	2
JA PERSONAL FINANCE (Not interpretable due to invalid data)				
Average Score: Pretest	55		68	65
Average Score: Posttest	55		53	68
Percentage Difference	0		-15	3

* Statistically significant at the .1 level

** Statistically significant at the .01 level

*** Statistically significant at the .001 level

Does not include East Texas due to invalid data.

CHANGES IN ATTITUDES TOWARDS SCHOOL

The items that constitute “Attitudes Towards School” are listed in Table 3. Figure 3 shows the percent of students who experienced an improvement in any of the items on the post-survey compared to the pre-survey. Participation in JA improved attitudes towards school at higher rates among students in the JA BE ENTREPRENEURIAL program with prior JA experience (25 percent) than their counterparts who did not have prior experience (13 percent). This suggest that there is a cumulative advantage of repeated exposure to JA in terms of attitudes towards school. Almost 30 percent of the Students in JA CAREER SUCCESS improved their attitudes towards school compared to approximately 27 percent of JA PERSONAL FINANCE students. Approximately 8 percent of JA JOB SHADOW students improved in their attitudes towards school.

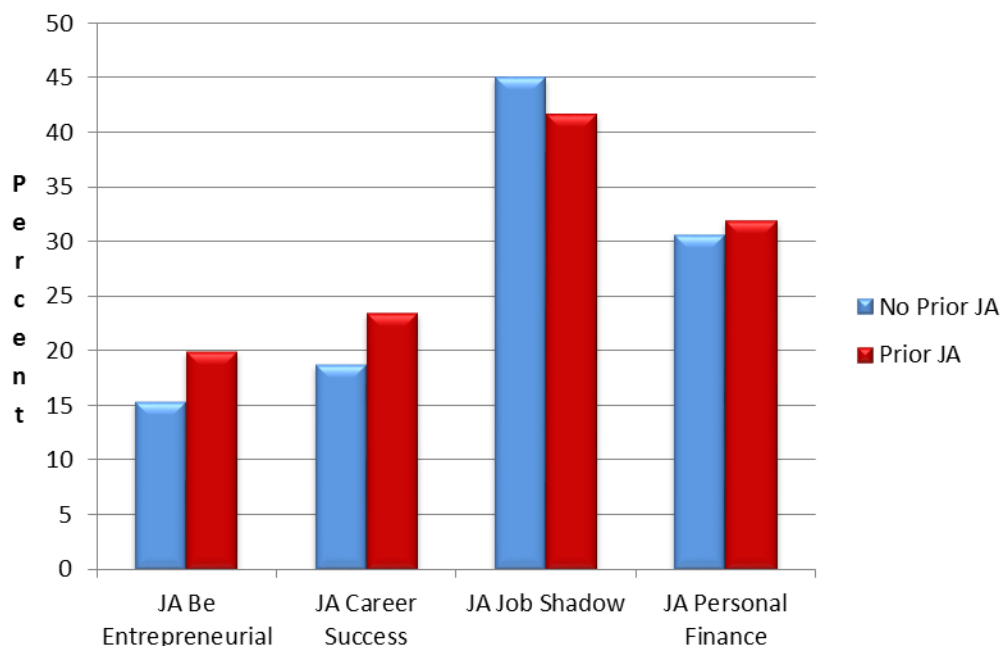
FIGURE 3: CHANGES IN ATTITUDES TOWARDS SCHOOL BY PRIOR JA EXPERIENCE.



CHANGES IN ATTITUDES TOWARDS THE FUTURE

Figure 4 indicates that the highest percentage of students who demonstrated an improvement in their attitude towards the future was among JA JOB SHADOW participants with prior JA experience (45 percent), followed closely by their peers with prior experience at 41 percent. Just over 30 percent of the JA PERSONAL FINANCE participants (regardless of prior JA experience) improved in their attitudes towards the future. Among both JA BE ENTREPRENEURIAL and JA CAREER SUCCESS participants, those with prior JA experience demonstrated a 5 percentage point advantage relative to those with no prior JA experience in terms of the percent who improved in their attitudes towards the future.

FIGURE 4: CHANGES IN ATTITUDES TOWARDS THE FUTURE BY PRIOR JA EXPERIENCE.

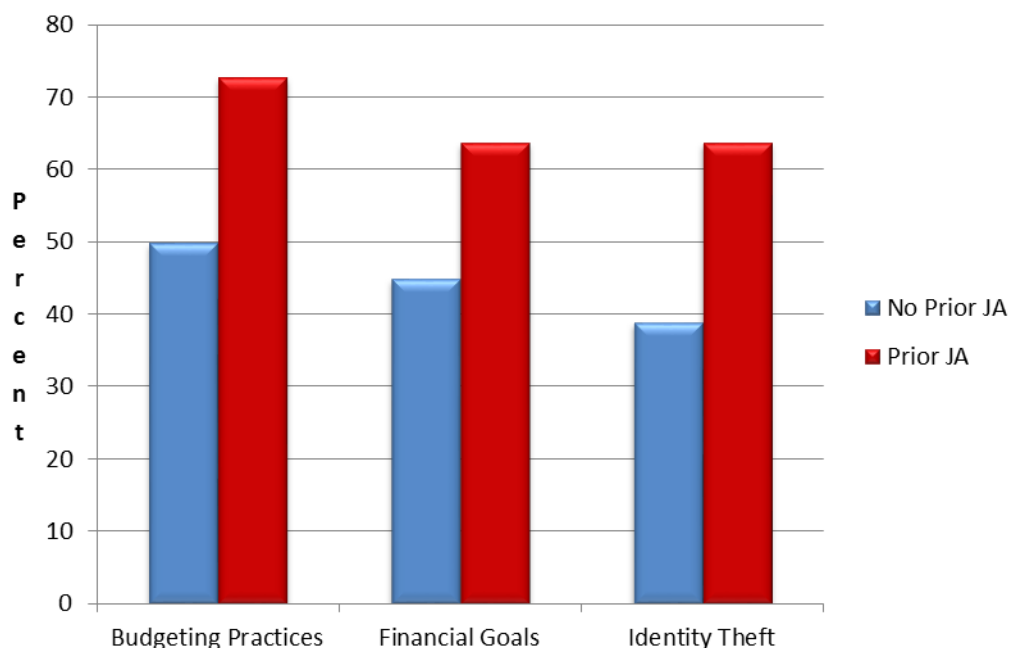


CHANGES IN BEHAVIORS FOR JA PERSONAL FINANCE

JA PERSONAL FINANCE pre- and post-surveys included a number of items to capture student views on changes in their personal finance behaviors. The items have been grouped into constructs as indicated in Table 3. Figure 5 indicates that students with prior JA experience demonstrated larger gains across the board than their peers in JA PERSONAL FINANCE without prior JA experience. Over 70 percent demonstrated an improvement in “Budgeting Practices” (i.e. tracking expenses, using a personal budget) compared to 50 percent without prior JA experience.

The effect of participation in JA PERSONAL FINANCE substantially improved communication with parents about financial goals and the likelihood that students set goals, with 63 percent of those with prior JA experience improving in Financial Goals compared to 45 percent of those who had no prior experience. The same percent of students (63 percent) with prior experience improved in their safe computing practices, compared to 39 percent of their peers with no prior JA experience.

FIGURE 5: CHANGES IN BUDGETING PRACTICES, SETTING FINANCIAL GOALS, AND SAFE COMPUTING BY PRIOR JA EXPERIENCE AMONG JA PERSONAL FINANCE STUDENTS.



IMPACT ON SKILLS FOR JA BE ENTREPRENEURIAL

The post-surveys for JA BE ENTREPRENEURIAL included items that indicate the extent to which their participation impacted the 21st Century Skills, education and workforce goals, and entrepreneurship. See Table 3 for item details. Since these are post-only items only, a gain analysis is not possible. These items include a Likert-scale (Strongly Disagree, Disagree, Don't Know, Agree, Strongly Agree). Figure 6 reflects student responses on the effect of participation in JA BE ENTREPRENEURIAL on their 21st Century Skills. Results suggest a cumulative effect of repeated participation in JA as those participants with prior

JA experience agreed or strongly agreed at higher rates than their inexperienced counterparts that participation improved their 21st Century Skills. Approximately 75 percent of experienced students agreed or strongly agreed that JA BE ENTREPRENEURIAL improved their decision-making and over 60 percent reported that it made them better problem solvers. Forty percent of experienced students and 15 percent of inexperienced students indicated that participation improved their critical thinking abilities. Almost 70 percent of experienced students agreed or strongly agreed that participation improved their ability to work in a team.

FIGURE 6: IMPACT ON 21ST CENTURY GOALS FOR JA BE ENTREPRENEURIAL BY PRIOR JA EXPERIENCE.

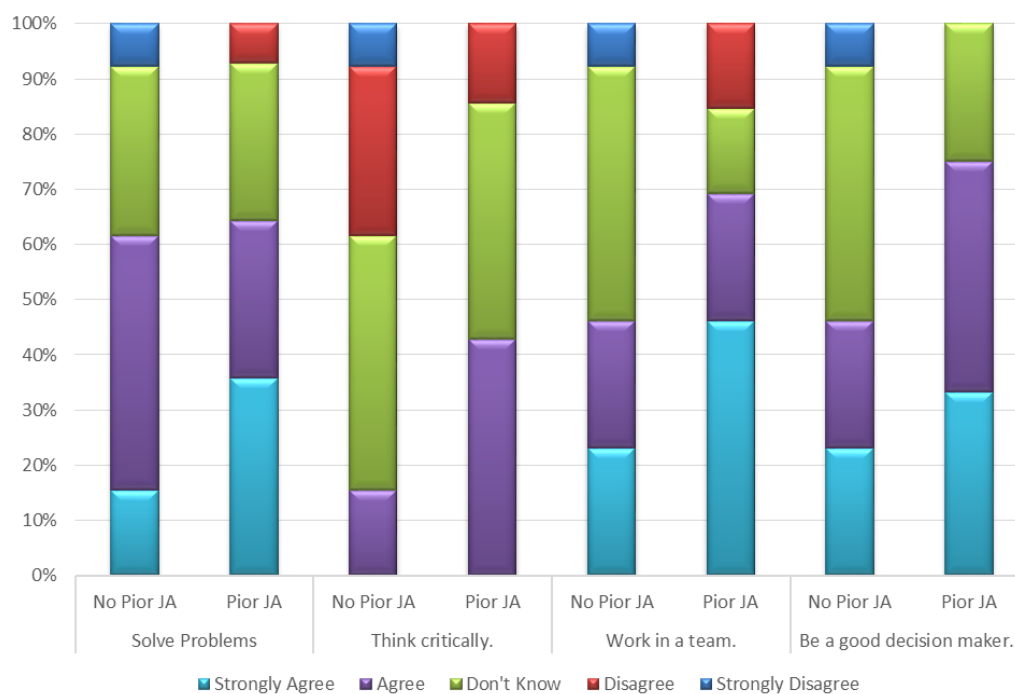
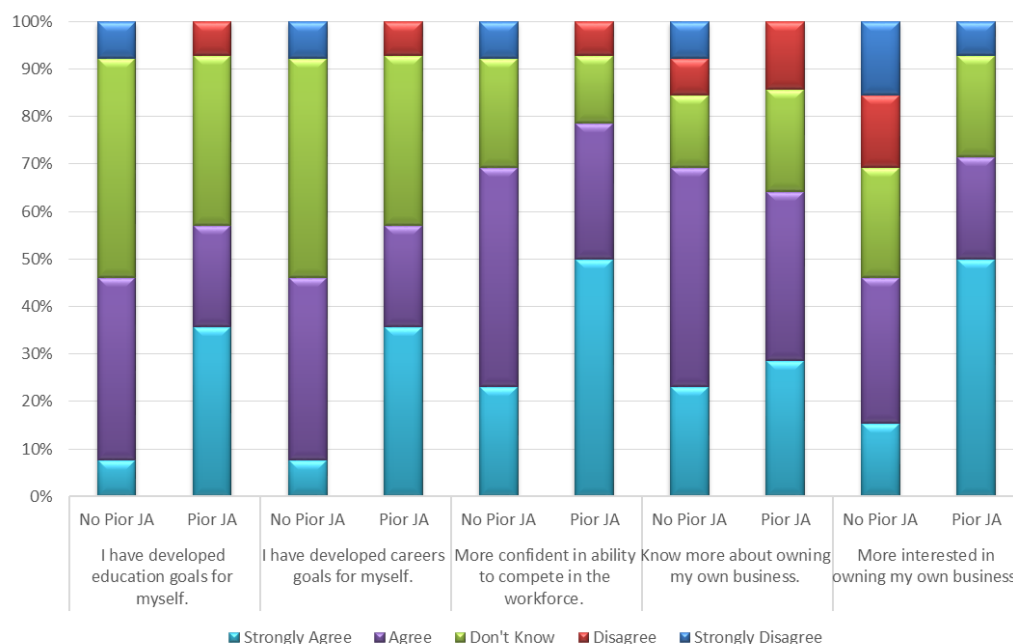


Figure 7 shows that, except for knowledge about owning their own business, a higher percentage of experienced students relative to first-time JA students agreed or strongly agreed that participation in JA BE ENTREPRENEURIAL advanced their goal-setting, confidence in ability to participate in the workforce, and interest in owning their own business. Almost 80 percent of experienced JA students agreed or strongly agreed that participation increased their confidence to compete in the workforce. Just over 70 percent of experienced students reported more interest in owning their own businesses, compared to 45 percent of their first-time JA peers. Just over 30 percent of the first-time JA students disagreed or strongly disagreed that they were more interested in owning their own business.

FIGURE 7: IMPACT ON GOALS, WORKFORCE READINESS, AND ENTREPRENEURSHIP FOR JA BE ENTREPRENEURIAL BY PRIOR JA EXPERIENCE.



EVALUATION

The post-surveys for all JA programs include evaluation items that ask students to provide their opinions on a range of issues including, as indicated in Table 3, how JA relates to the real world, JA affected their dispositions towards school, and their overall feelings about the experience. Since these are post-only items only, a gain analysis is not possible. The items are Likert-scale (Strongly Disagree, Disagree, Don't Know, Agree, Strongly Agree).

Students across the board give their JA program overwhelmingly positive reviews. As with the analyses described above, the results suggest a cumulative effect of participation in JA programs. Higher percentages of students with prior JA experience agreed or strongly agreed that JA had positive effects than do their peers who experienced JA for the first time. This argues that in order for JA to reach its potential, JA staff should engage with schools in such a way to offer repeated exposures to JA programs throughout the year and across years.

JA BE ENTREPRENEURIAL

Figure 8 indicates that students felt that the JA curriculum of JA BE ENTREPRENEURIAL relates directly to the real world in multiple ways. Specifically, 77 percent of experienced students thought that they were better equipped to manage their money. They felt that JA BE ENTREPRENEURIAL would help them in a general sense with life as well. Almost 90 percent of experienced students agreed or strongly agreed that JA connected the classroom with the real world, a critical connection in order for students to engage meaningfully in their regular coursework, especially true for low-income and minority

students. Approximately 64 percent reported that what they learned in the JA program will be important later in life, just under the 71 percent of experienced students who agreed or strongly agreed that JA will help them be successful in life.

Interestingly, the one item where first-time students reported more positively (69 percent agreed or strongly agreed) than their experienced peers (61 percent agreed or strongly agreed) was in regards to the extent to which what they learned in JA BE ENTREPRENEURIAL would help them get a good job.

FIGURE 8: EVALUATION RESULTS – JA BE ENTREPRENEURIAL AND THE REAL WORLD.

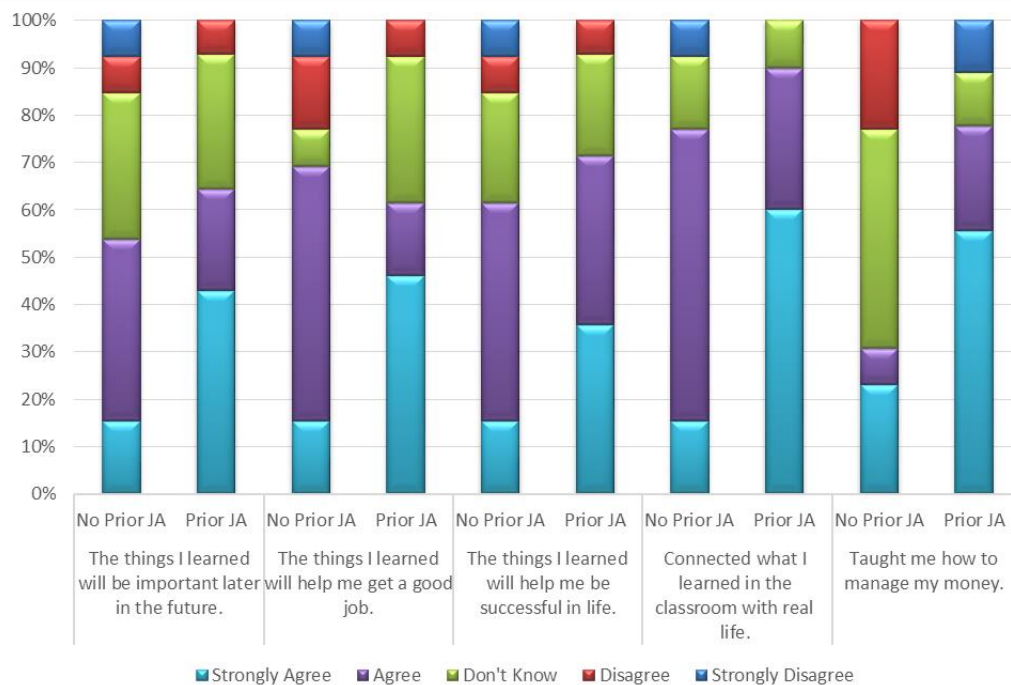


Figure 9 indicates that students felt that their participation in JA BE ENTREPRENEURIAL improved their overall attitudes and dispositions towards school. Approximately 67 percent of experienced students reported that JA made school more interesting and 85 percent reported that they looked forward to going to school on JA days. Just over 70 percent reported that what they learned in JA BE ENTREPRENEURIAL will help them to better in school. Students indicated that participation in JA would improve their ability to stay out of trouble both in (56 percent) and out of school (64 percent).

FIGURE 9: EVALUATION RESULTS – JA BE ENTREPRENEURIAL AND SCHOOLING.

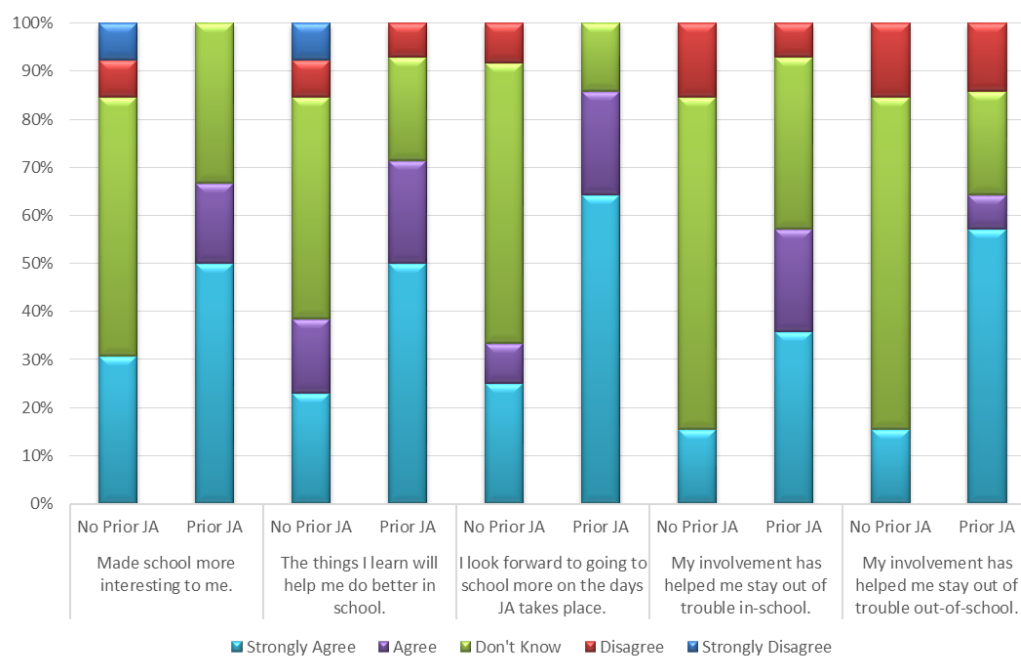
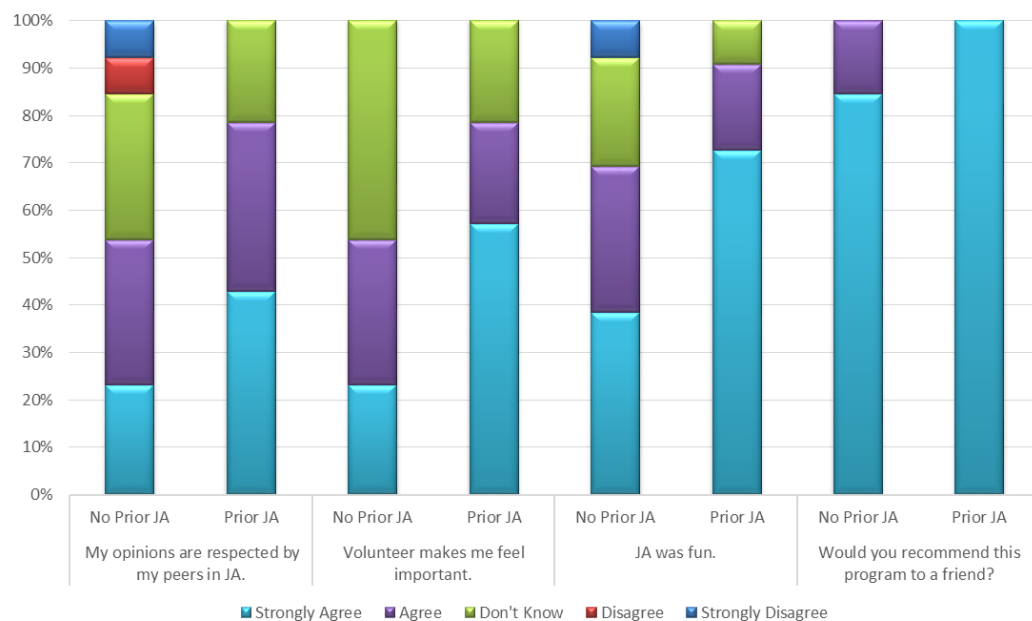


Figure 10 reveals that students had overwhelmingly positive overall experience in JA BE ENTREPRENEURIAL. A remarkable 100 percent of experienced students strongly agreed that they would recommend JA to a friend, perhaps the item that reveals most the regard with which they hold JA. Ninety-one percent of experienced students reported that their experience was fun; 79 percent thought that the volunteer made them feel important and that their opinions were respected by their peers.

FIGURE 10: EVALUATION RESULTS – JA BE ENTREPRENEURIAL AND OVERALL EXPERIENCE.



JA CAREER SUCCESS

Figure 11 reveals that students thought that their experiences in JA CAREER SUCCESS related to the real world in multiple ways. Approximately 83 percent of students with prior JA experience agreed or strongly agreed that what they learned will be important later in life and that it would help them get a good job. Seventy percent of all students reported that what they learned will help them be successful in life; 50 percent reported that JA CAREER SUCCESS helped them see how their regular classroom curriculum has relevance to the real world. Just over 60 percent of experienced students reported that it helped them manage their money.

Figure 11: Evaluation Results – JA CAREER SUCCESS and the Real World.

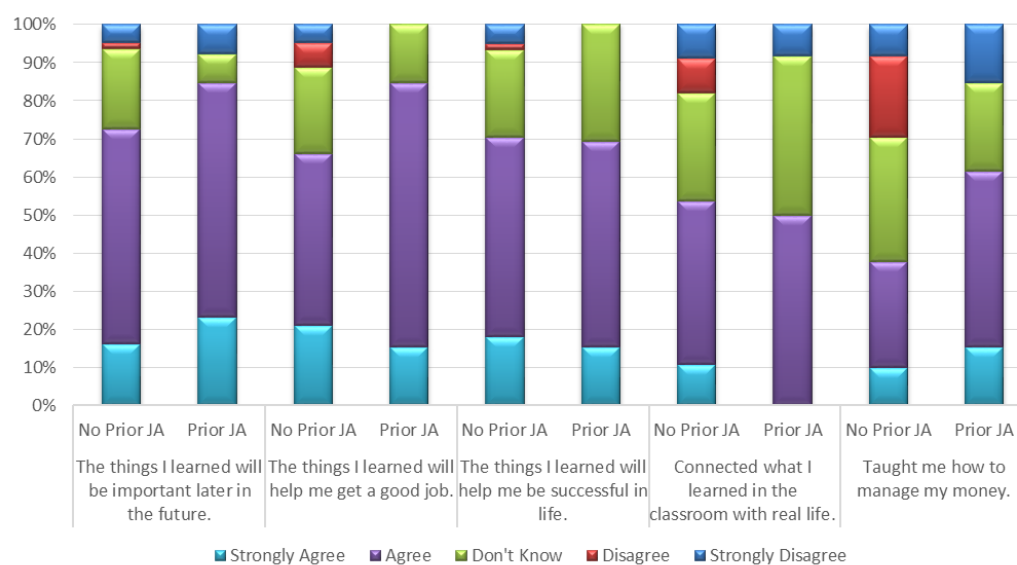


Figure 12 shows that, when compared to JA BE ENTREPRENEURIAL, JA CAREER SUCCESS did not affect student dispositions towards school as much. Over 60 percent of experienced participants reported that JA BE ENTREPRENEURIAL will help them do better in school, compared to 50 percent of their first-time peers. The same percentage of first-time JA participants reported that the experience helped them realize the importance of staying in school. Note that the survey did not include an item about how their participation in JA CAREER SUCCESS may have helped them stay out of trouble in school. Only 30 percent of participants reported that it helped them stay out of trouble out of school.

FIGURE 12: EVALUATION RESULTS – JA CAREER SUCCESS AND SCHOOLING.

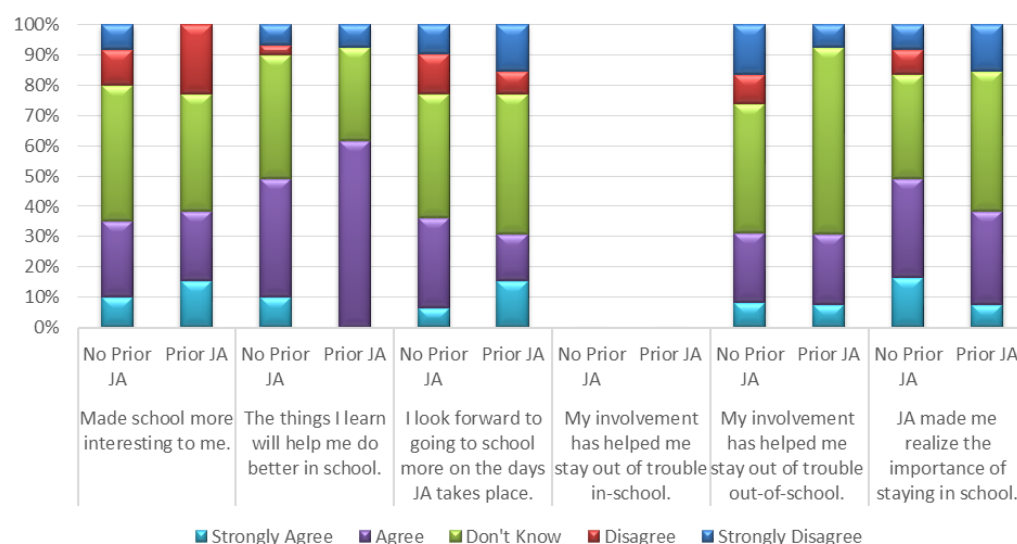
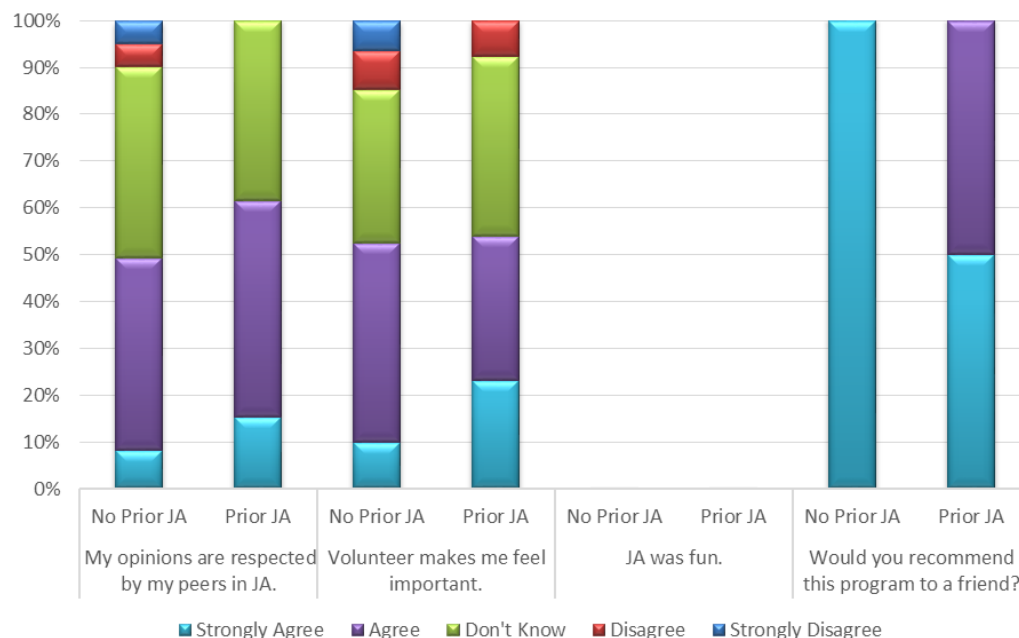


Figure 13 reveals that participants thought highly of their overall experience, with 100 percent indicating that they would recommend JA CAREER SUCCESS to a friend. Just over 60 percent of experienced students reported that their opinions are respected by their peers during their JA experience. Over 50 percent of JA CAREER SUCCESS participants agreed or strongly agreed that the volunteer made them feel important. Note that the survey did not include the item “JA was fun.”

FIGURE 13: EVALUATION RESULTS – JA CAREER SUCCESS AND OVERALL EXPERIENCE.



JA JOB SHADOW

Figure 14 indicates that participants in JA JOB SHADOW overwhelmingly thought highly of the program. At least 80 percent of students reported that their experiences related to the real world, with 100 percent of experienced students agreeing or strongly agreeing that what they learned will be important later in life, will help them get a good job, be successful in life, helped them see the relevance of their regular school curriculum to the real world, and taught them how to manage their money. These are remarkable results.

Figure 14: Evaluation Results – JA JOB SHADOW and the Real World.

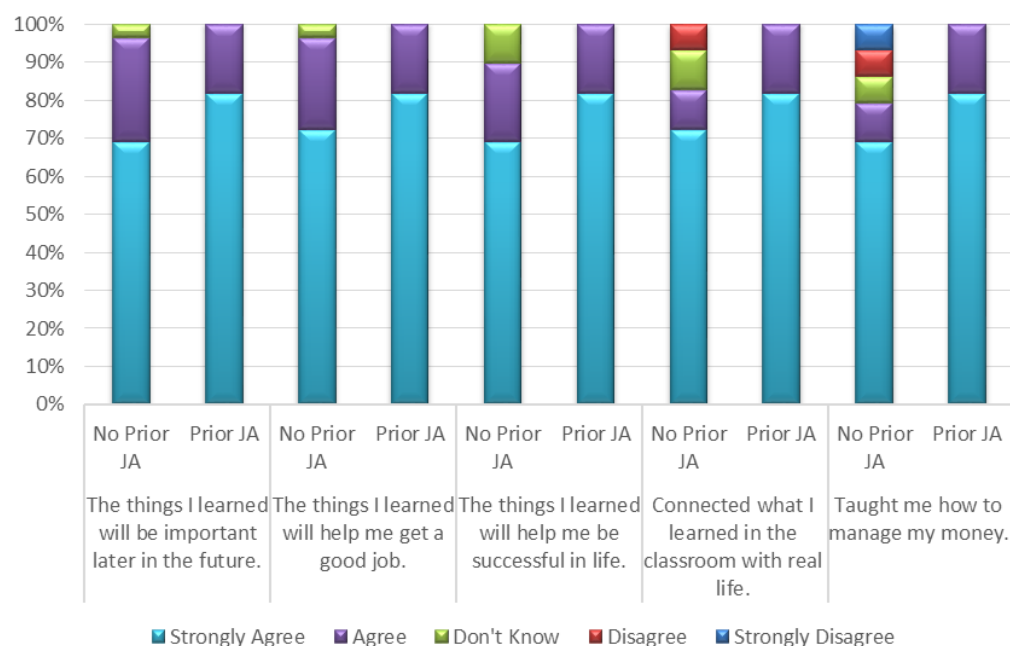


Figure 15 indicates that students thought that JA JOB SHADOW substantially improved their attitudes and disposition towards school. The only item that is not at 100 percent among experienced students is in regards to how involvement in JA helped them stay out of trouble out of school, which was at 90 percent. Just over 80 percent of first-time students reported that their participation in JA JOB SHADOW will help them do better in school.

FIGURE 15: EVALUATION RESULTS – JA JOB SHADOW AND SCHOOLING.

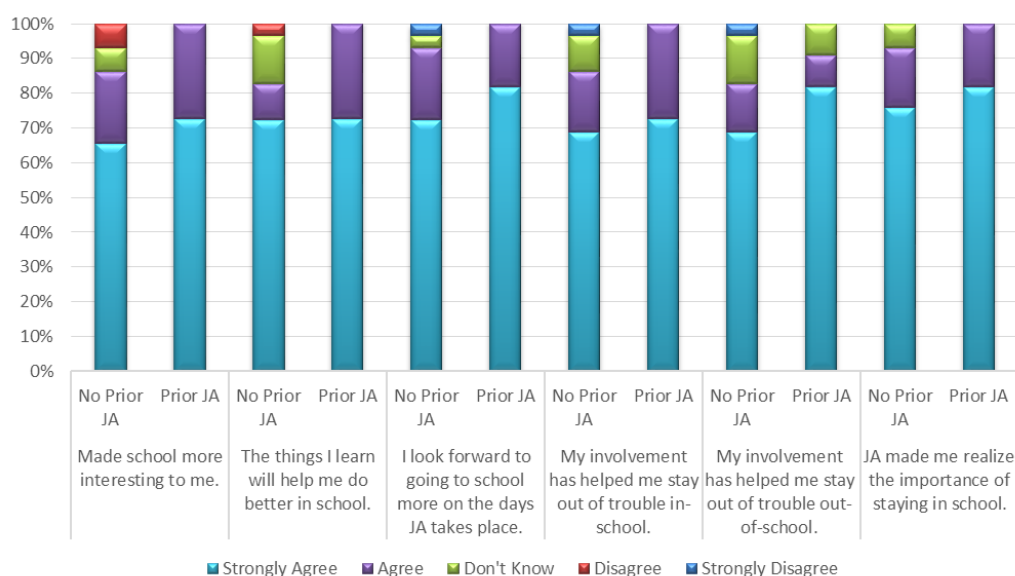
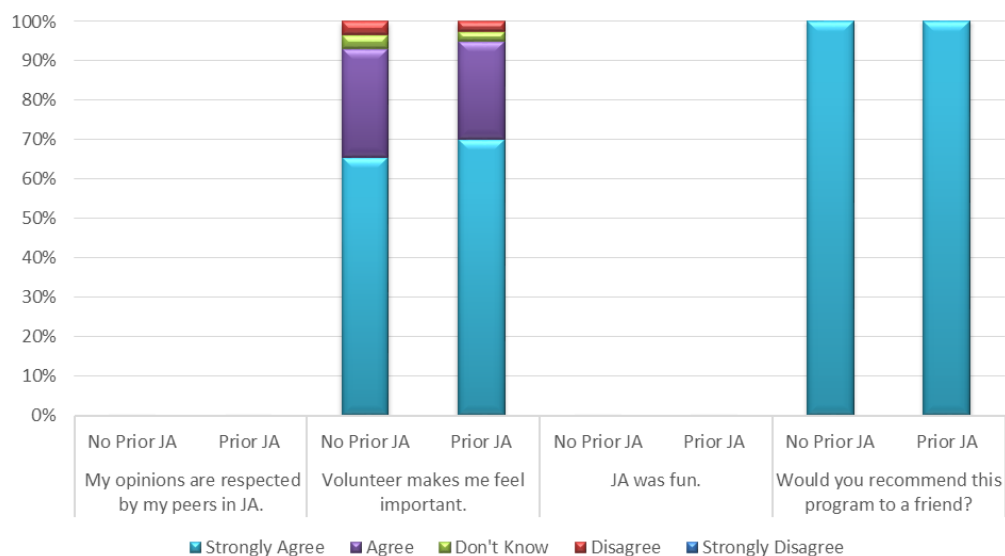


Figure 16 shows that the survey for JA JOB SHADOW did not include items to capture student perceptions regarding whether their opinions were respected or whether JA was

fun. Amazingly, 100 percent of participants strongly agreed that they would recommend JA JOB SHADOW to a friend, followed by over 90 percent who reported that the JA volunteer made them feel important.

FIGURE 16: EVALUATION RESULTS – JA JOB SHADOW AND OVERALL EXPERIENCE.



JA PERSONAL FINANCE

According to

Figure 17, participants in JA PERSONAL FINANCE understood how their experience related to the real world. Ninety-seven percent of experienced participants reported that what they learned will be important in the future, followed by 90 percent who agreed or strongly agreed that JA PERSONAL FINANCE will help them get a good job. Approximately 78 percent indicated that they know how to manage their money as a result of their participation in JA PERSONAL FINANCE. Almost 70 percent reported that they understand the relevance of their regular school curriculum better after their participation.

FIGURE 17: EVALUATION RESULTS – JA PERSONAL FINANCE AND THE REAL WORLD.

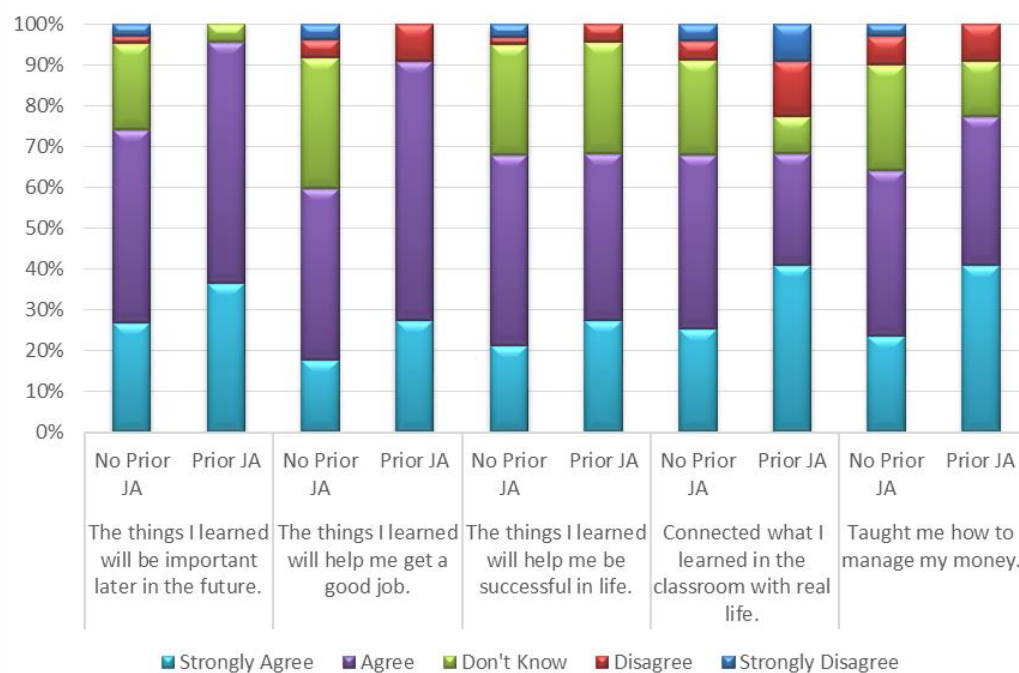
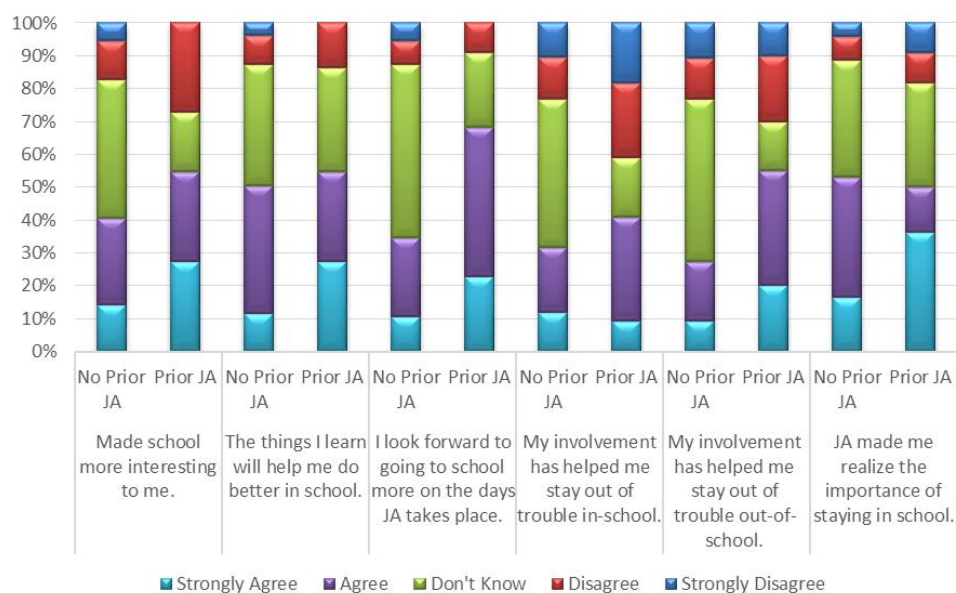


Figure 18 shows that almost 70 percent of experienced students agreed or strongly agreed that they look forward to going to school on JA days more than on regular school days. Over 50 percent of experienced students thought that JA made school more interesting, would help them do better in school, would help them stay out of trouble out of school, and made them realize the importance of staying in school.

FIGURE 18: EVALUATION RESULTS – JA PERSONAL FINANCE AND SCHOOLING.



According to Figure 19, the overall experience of participants in JA PERSONAL FINANCE was very positive. One-hundred percent reported that they would recommend JA PERSONAL FINANCE to a friend, followed by almost 70 percent of experienced participants who agreed or strongly agreed that the volunteer made them feel important and who thought that their opinions were respected during their peers during the JA PERSONAL FINANCE program.

FIGURE 19: EVALUATION RESULTS – JA PERSONAL FINANCE AND OVERALL EXPERIENCE.

