A Mixed Research Methods Study of Chelsea CSA program

inversant

Report written by

Dr. Bahar Akman Imboden

&

Yiming Shuang

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Executive Summary

The Children's Savings Accounts (CSAs) movement is growing at a fast pace with numerous programs being established around the country.

Inversant is a CSA program provider working with more than ten community partners in Massachusetts. Inversant's CSA model is based on pairing saving for college with effective parental engagement strategies. At its core, Inversant believes that family ambition is central to the individual student's educational success.

This report focuses on Inversant's partnership with the Chelsea Public Schools (CPS). It merges the findings of Inversant's internal program evaluation with the findings of two independent studies conducted on the population we served in Chelsea. This report is unique as it offers a comprehensive view of how predominantly low-income Latino immigrant families save and prepare for college. In addition, it provides critical information on how the program altered participants' parenting behavior and style, and how it affected the educational outcomes of their children. This report is also of interest for researchers and practitioners interested in strategies that foster parental engagement. Parental involvement has remained an under-utilized strategy in encouraging college enrollment among low-income and first-generation students, particularly in higher grade levels such as high school. This report provides important insight on how increasing parents' engagement in the college preparation process can improve students' educational achievement.

Saving and Attendance Outcomes from Inversant's Own Evaluation:

- The average Chelsea family saved a total of $1,068 over 29 months. Their average monthly savings was $49. Participants deposited 37% of the months they were in the program, which is about 4 to 5 times a year
- On average, participants attended half of the Learning Circles they were offered
- 7% of the families were non-savers, but they were not inactive participants. On average, they attended 35% of the Learning Circles
- 38% of participants saved enough to receive the maximum match incentive of $1,500
- While the $1,500 savings match motivated parents to save, the total amount saved seems to have been mostly influenced by length in program and by the families' financial ability to save
- Savings behaviors and patterns confirm that instilling a regular savings habit over a long period results in larger amount of savings accumulation
- Demographic factors such as race or income did not have a significant impact on the savings or attendance outcomes

- Participants who were in the program for longer attended Learning Circles at higher rates, suggesting that aside from finding the content useful, parents kept coming back for the opportunity to connect with and get the support from a community of like-minded parents
- A strong correlation exists between Learning Circle attendance rates and savings accumulation and frequency suggesting that attending the monthly meeting serves as a reminder and motivator to deposit money.

Findings on Inversant's Impact on Parents from Dr. Jodut Hashmi's Qualitative Study:

- Inversant encouraged immediate proactive behavioral change in college preparation among participating families
- Inversant motivated participants to save for college by showing them the importance of savings as well as how to save for college
- Inversant increased college-going expectations among parents
- Inversant made the college preparation process more manageable by offering extensive and organized information about college choice and financial aid, and recommendations for other sources of guidance
- Inversant increased parents' financial capability
- Inversant positively impacted relationships between parents and children
- Inversant fostered the development of an important support structure for participating families, which informed and clarified the college preparation process

Inversant's Impact* on Students' Educational Outcomes from Prof. Bridget Terry Long's Quantitative Study:

- Inversant students did better on exams and have high school grades in key subjects
- Inversant students' grade performance gap increased over time, suggesting that continued participation in Inversant's program is related to higher academic achievement.
- Inversant students were more likely to take math and science classes, which is indicative of a higher likelihood of preparing academically for college
- Inversant students' attendance levels were higher than non-Inversant students
- Inversant students were 25% more likely to plan for four-year college at graduation

* The research design and data used in the quantitative study does not allow for the analysis to offer more definitive conclusions about the magnitude of the causal effect of Inversant. Without a randomized controlled trial, the possibility that a selection bias exists cannot be ruled out.

A Mixed Research Methods Study of Chelsea CSA program

The Children's Savings Accounts (CSAs) movement is growing at a fast pace, with numerous programs being established around the country. CSA programs come in different shapes and sizes, but at their core, they consist of providing savings accounts, a combination of incentives (monetary and otherwise) tied to savings and/or other benchmarks, along with financial education.[1]

Inversant is a CSA program provider, working with more than ten community partners in Massachusetts. Inversant's CSA model is based on pairing saving for college with effective parental engagement strategies. That is, along with opening accounts and providing monetary incentives to save, the program incentivizes parents or caregivers to participate in monthly workshops called 'Learning Circles', where facilitators deliver a professionally developed, college-focused financial education curriculum.[2] Inversant's theory of change is based on the premise that family ambition is central to the individual student's educational success.

This report provides a closer investigation into our partnership with the Chelsea Public Schools (CPS). It offers a comprehensive insight on how Chelsea families, who are predominantly low-income Latino immigrants, save and prepare for college. It also investigates whether the Inversant program contributes to changes in parenting behavior and style, and whether it impacts the educational outcomes of children. This is a unique opportunity, as there is relatively little data available on the participation in children's

[1] To learn more about CSA programs refer to: Loya, Garber, and Santos, "Levers for Success: Key Features and Outcomes of Children's Savings Account Programs – A Literature Review", Institute on Assets and Social Policy, March 2017. https://iasp.brandeis.edu/pdfs/2017/CSA%20LEVERS%20FOR%20SUCCESS_2017.pdf To access a directory of CSA programs refer to: http://cfed.org/programs/csa/directory/

[2] To learn more about Inversant's program, refer to: http://www.inversant.org/research

savings programs among the low income and immigrant Latino populations we serve, and no CSAs have been operating long enough to capture students' outcomes during high school.[3]

Additionally, this report is also of interest for researchers and practitioners interested in strategies that foster parental engagement. While authoritative meta-analyses show that parent-initiated involvement in education has a significant positive impact on student academic educational motivation and attainment, parental involvement has remained an under-utilized strategy to encourage college enrollment among low-income and first-generation students. This is especially true in higher grade levels, particularly high school.[4,5,6,7] Inversant's program provides a context in which to investigate whether increasing parents' involvement in the college preparation process is effective, and whether it improves student achievement.

This report addresses the following questions: How do families from disadvantaged backgrounds save for college? How much do they typically accumulate in savings? How knowledgeable are they about the college preparation and application process before they join Inversant's program? Are they interested in participating in monthly workshops delivering a college-focused financial education curriculum? Does the knowledge gained during workshops equip them to better support their children academically? In turn, are students benefiting from their parents' knowledge gain and increased investment in their education? Do students perform better academically if their parents are actively engaged in their education?

In order to answer these questions, it is necessary to synthesize the findings of three separate studies conducted over several years on the population we serve in Chelsea High School. 1) Savings information, along with Learning Circle attendance, are based on data collected by Inversant over six years (2010-16). 2) Parental experience, knowledge gain, and change in engagement in students' education is drawn from the qualitative study conducted by doctoral student Jodut Hashmi.[8] 3) The program's impact on students' academic performance and attendance is based on a quantitative study conducted by Dr. Bridget Terry Long, Saris Professor of Education and Economics at the Harvard Graduate School of Education.[9] Her study used four years of retroactive student level data as well as two current years' data (in total from 2008-09 to 2013-14), all obtained from CPS. The use of mixed research methods is powerful; together, these methods allow us to investigate different facets of the program.

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[3] Recently, William Elliott published an excellent paper on Latino immigrant families savings' behavior; refer to https://aedi.ku.edu/sites/aedi.ku.edu/files/docs/publication/Working-Papers/WP03-16.pdf

[4] Epstein, J.L. (1990). School and family connections: theory, research and implications for integrating sociologies of education and family. In D.G. Unger and M.B. Sussman (Eds.), *Families in community settings: Interdisciplinary perspectives*. New York: Haworth Press.

[5] Jeynes, W. "A Meta-Analysis of the Relation of Parental Involvement to Urban Elementary School Student Academic Achievement", *Urban Education*, January 2007 vol. 42 no. 1 82-110.

[6] Hill, N. and Tyson, D., "Parental Involvement in Middle School: A Meta-Analytic Assessment of the Strategies That Promote Achievement". *Developmental Psychology*, 2009, Vol. 45, No. 3, 740–763.

[7] Desforges, C. and A. Abouchaar (2003). "The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievement and Adjustment: A Literature Review", Department of Education and Skills.

[8] Hashmi, Jodut. 2015. Examining the Role of Parent Involvement in College Access for Low-Income Students: A Mixed Methods Study of the FUEL Program. Doctoral dissertation, Harvard Graduate School of Education http://dash.harvard.edu/bitstream/handle/1/14121779/HASHMI-DISSERTATION-2015.pdf?sequence=1

[9] Bridget Terry Long , The Impact of Parent Engagement on Student Outcomes: Analysis of the FUEL Education Model (Currently Inversant), Harvard Graduate School of Education, February 2016. http://www.inversant.org/docs/research/BLong%20-%20FUEL%20Final%20Report%202016-2-8.pdf

Program Description

Chelsea High School (CHS) has historically underperformed on Massachusetts standardized testing rankings. When the partnership between CHS and Inversant was forged in 2009, CHS' graduation rate was just below 50%, and less than a third of CHS students progressed to any form of higher education. Data from the Department of Elementary and Secondary Education (DESE) indicates that CHS students are predominantly Hispanic (85%), and a large majority do not speak English as their first language (87.2%). In addition, 71.9% are characterized as high-needs[10], and 46.7% are economically disadvantaged.[11]

Inversant recruited its first participants in Fall 2009. Savings accounts were opened, and parents began saving in January 2010. The target population continues to be parents of CHS students from any grade level.[12] While enrollment in Inversant is open throughout the year, recruitment efforts intensify each year in the Fall; participants are invited to participate in monthly Learning Circles, and both savings and attendance in Learning Circles are incentivized. Families are eligible for a 1:1 match up to a max of $1,500 over the program duration, and Learning Circle attendance is encouraged through attendance raffles, including a chance to win a prize of $25 monthly and $300 yearly for parents who attend more than 4 Learning Circles over the course of the year.[13]

PART I: Savings and Attendance Outcomes

Overview:

From Fall 2010 to December 2016, 244 families completed the CHS Inversant program.[14,15] Table 1 provides a summary of their outcomes. The average participant was enrolled in the program for an average of 29 months and deposited an average of $49 per month, with a deposit frequency of 37 percent. This is calculated as the ratio of the number of months where a deposit was made to the total number of months the account was open. We use this ratio because the total number of months in the program differs for each participant. In earlier program evaluation, we found that the population of parents we served preferred to deposit money in person at a local bank branch, rather than using online banking.[16]

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[10] An unduplicated count of all students in a school or district belonging to at least one of the following individual subgroups: students with disabilities, English language learners (ELL) and former ELL students, or low income students. See: http://profiles.doe.mass.edu/help/data.aspx?section=students

[11] Massachusetts Department of Elementary and Secondary Education – Chelsea High Profile. http://profiles.doe.mass.edu/general/general.aspx?topNavID=1&leftNavId=100&orgcode=00570505&orgtypecode=6

[12] In 2009, Inversant partnered with Metro Credit Union to set up beneficiary accounts for families, who were save under the name of Chelsea Education Foundation. While this simplified the enrollment process, we increasingly felt that having accounts that were not in the name of the participants did not sit well with our goal of empowering parents and increasing their sense of account ownership. Families were often confused about whom to contact regarding their accounts. Moreover, the administration of these accounts was cumbersome for CPS. Therefore, in 2013, Inversant started enrolling parents in individual savings accounts (at Metro Credit Union).

[13] Varies for each participant depending on when they joined the program.

[14] This includes families whose children graduated anytime from 2010 to 2016. The data excludes families who save for multiple children in one account, a practice that Inversant started to allow in 2015. These families were excluding to not inflate the savings outcomes (see appendix 1 for information on families who save for multiple children in one account).

[15] Completion being defined as their child graduating from high school

[16] Building a CSA Program that Empowers Families to Invest in Higher Education- Fall 2015 http://www.inversant.org/docs/research/151016_Inversant_CSA_program_brief_phase6_extraedit3_workingpaper_singles.pdf

The pattern in the savings data confirms this preference; rather than making regular monthly deposits, participants were more likely to deposit larger amounts less frequently. In total, families saved an average of $1,068, and they attended about half of the Learning Circles offered to them.

Table 1: Outcomes for Families Who Completed Inversant's Program:

Number of Participants	Average Months in program	Average Monthly Savings	Average Deposit Frequency	Average Account Balance	Average LC Attendance
244	29	$49	37%	$1,068	53%

A Closer Look at Savings Outcomes:

Table 2 presents the distribution of participants according to their total savings. 7% of participants did not save at all; however, this did not mean that they were inactive participants. On average, these non-savers attended 35 percent of the Learning Circles. While attendance in Learning Circles will be explored in more detail below, we notice here that higher level of attendance correlates with higher amounts of saving.

The data reveals that 38% of families saved enough to receive the maximum match award of $1,500. This suggests that even when incentivized with a high match, low-to-moderate income families have limits on their ability to save. However, it is also clear that families who were enrolled longer accumulated more in savings. Therefore, it is interesting to investigate the effect of enrollment duration on savings.

Table 2: Distribution of Savings Outcomes

Total Amount Saved	Percentage of participants	Average Months in program	Average monthly Savings	Average Deposit Frequency	Average LC Attendance Rate
$0	7%	25	$0	0%	35%
$1-499	26%	21	$13	16%	34%
$500-999	12%	29	$35	41%	54%
$1000-1499	18%	33	$54	59%	56%
$1500-1999	31%	35	$64	49%	69%
$>2000	7%	31	$168	42%	67%

As discussed previously, Inversant's open enrollment policy ensures that families can join at any time during the year, as long as their child is enrolled in CPS. Table 3 confirms that duration in program had a pronounced impact on savings, manifesting itself in two directions. First, parents who enrolled within a year of their student's high school graduation likely viewed college costs as an immediate reality, and for this reason appeared to have saved at a faster rate in the time remaining before graduation. These participants accumulated an average of $828 in just one year; in contrast, participants whose children had more time until graduation accumulated half of that amount in their first year, but accumulated a higher total balance over the course of their enrollment.

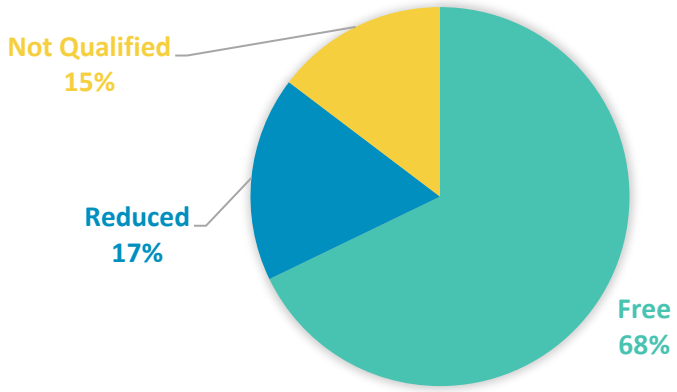
From these findings, we can draw two implications for program design. First, the savings patterns support the hypothesis that short-term savings challenges can effectively motivate individuals to save larger amounts within a short timeframe. However, it is also evident that a long-term program can instill habitual savings, resulting in a slower but more substantial long term accumulation of savings.

Table 3: Savings Outcomes and Participation Duration[17]

Participation Duration (Months)	Percentage of Participants	Average Monthly Savings	Average Deposit Frequency	Average Savings during 1st Year	Average Total Balance
0-12	12%	$98	36%	$828	$828
13-24	32%	$42	30%	$461	$718
25-36	20%	$34	40%	$384	$1,003
37-48	26%	$32	45%	$310	$1,290
48 +	11%	$26	37%	$348	$1,511

Familial income is an important factor that impacts ability to save. To investigate the effect of income on savings behavior, we used the proxy of eligibility for free or reduced school lunch[18]. Among the families we served, 68% were eligible for free luch, 17% were eligible for reduced priced lunch, and the remaining 15% did not qualify (see Figure 1).[19]

Fig 1. Distribution of Participants According to Eligibility for Free or Reduced Lunch



[17] Five high savers were classified as outliers and were excluded from Table 3, as their performance disproportionately inflated the savings of those enrolled for one year. See Appendix 2 for more information.

[18] Although we collect self-reported income information from our participants in our intake form, many opted to leave that section blank, which significantly reduced the sample size for analysis purposes. Since we had access to a higher number of participants' information on their eligibility for free or reduced lunch program from CHS, we used it as a proxy for income since eligibility is based on family income.

[19] Due to missing data on eligibility to free or reduced lunch program, the sample size for this analysis is 143.

Table 4 indicates that for the families we serve, there seems to be no clear pattern between familial income and ability to save. Participants who qualified for reduced lunch actually saved slightly more ($1,373) than those who do not qualify for the program ($1,256). Participants who are eligible for free lunch accumulated the lowest balances, but nothing significantly different ($1,097). Participants who qualified for reduced lunch on average deposited a larger amount ($70) but with less frequency (36%). And while the average monthly deposit is the same for those who qualify for free lunch and those who do not ($47), the saving frequency is lower for the former (39% vs 41%), which explains the difference in total balances. One noteworthy point, however, is that 100% of the non-savers (7% of the participant population) qualified for free lunch (see table in Appendix 3). We conclude that while income might have some effect on ability to save, it is difficult to discern that effect from this data, as the majority of Chelsea parents are economically disadvantaged compared to national average.

Table 4: Savings Outcomes and Income

Eligibility for Free or Reduced Lunch	Average Months in Program	Average Monthly Savings	Average Deposit Frequency	Average Savings during First Year	Average Total Balance
Free	31	$47	39%	$415	$1,097
Reduced	29	$70	36%	$751	$1,373
Not Qualified	32	$47	41%	$583	$1,256

Next, we investigated whether savings behavior differs across races. Among Inversant's families in Chelsea, 80% self-identified as Hispanic/Latino, 9% as African-American, 7% as Caucasian, and 4% as other or undisclosed (see Fig. 2).

Fig.2 Distribution of Participants According to their Race

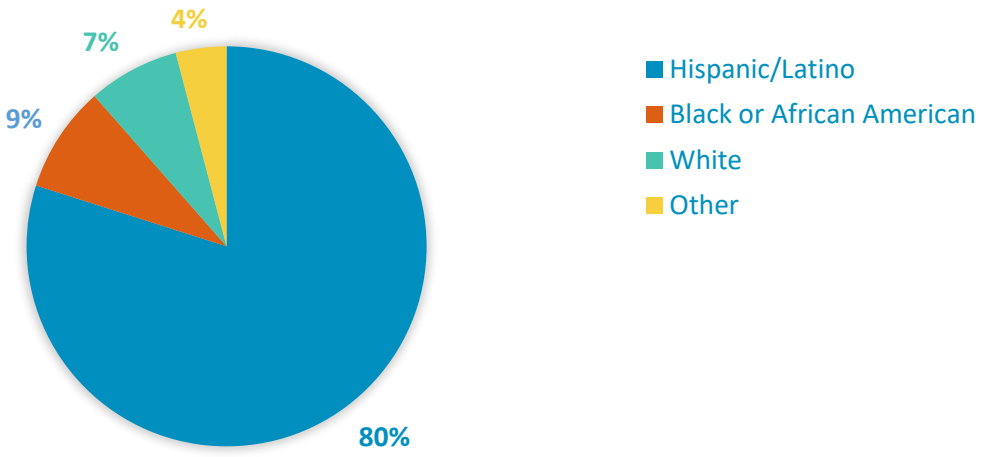


Table 5 indicates that savings outcomes differ slightly across races, with Caucasians saving the most and African Americans the least, but there are no significant differences.

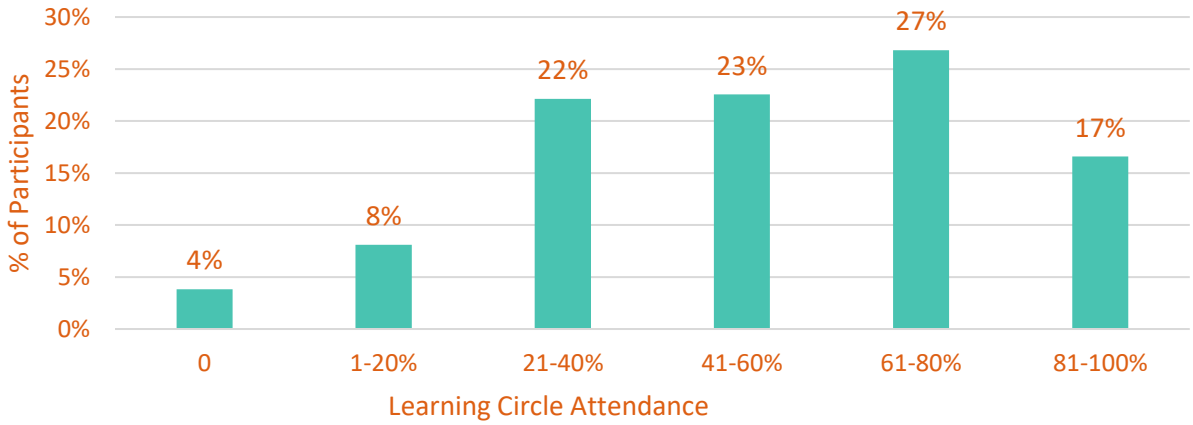
Table 5: Savings Outcomes and Race

Race	Average Months in Program	Average Monthly Savings	Average Deposit Frequency	Average Total Balance
Hispanic/Latino	29	$48	37%	$1,059
Black or African American	27	$49	43%	$988
White	30	$66	38%	$1,264
Other/Undisclosed	34	$35	25%	$1,040

A Closer Look at Learning Circle Attendance Outcomes:

An important component of Inversant's program is the monthly Learning Circle, where facilitators equip parents with necessary knowledge on how to prepare and save for college. On average, parents attend half (53%) of the Learning Circles offered to them.[20] Graph 1 shows that only 4% of participants never attended a Learning Circle, and that a large majority (67%) of participants attended more than 40% of available Learning Circles.

Graph 1: Distribution of Participants by Attendance

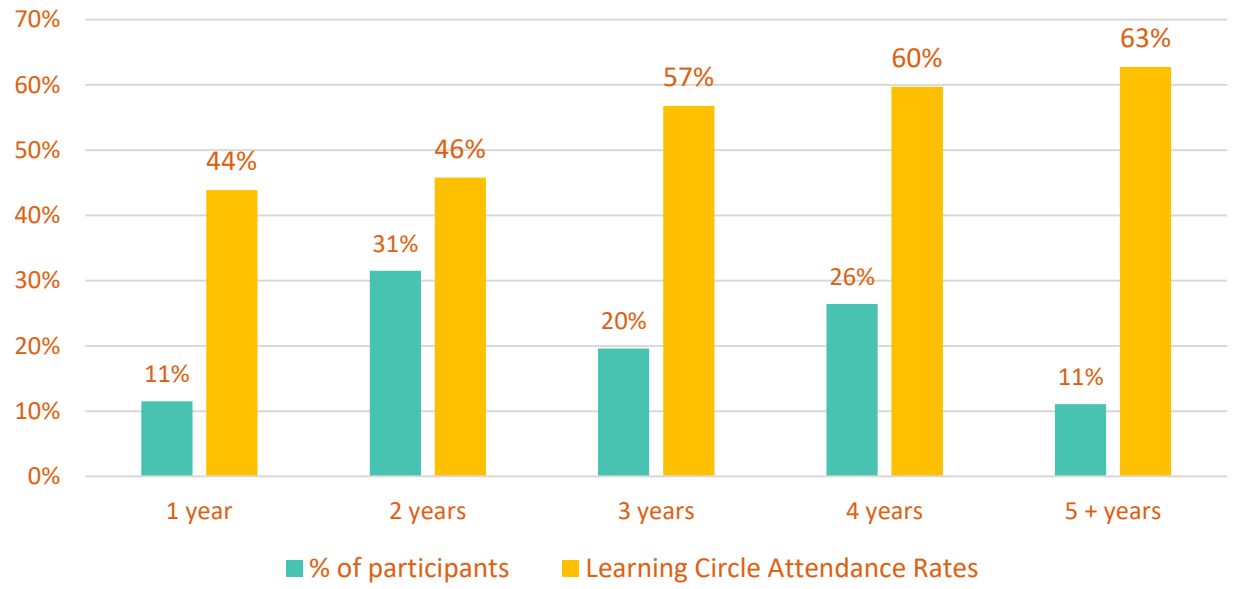


With its Learning Circles, Inversant seeks to achieve two goals: to empower parents with the information they need for college access and finance, and to create a community of engaged parents who support each other in their efforts to save towards and prepare students for college. Thus, parents are encouraged to remain active and involved regardless of how long they have been enrolled, in order to participate in

[20] Since participants are in the program for different durations, the attendance rate is calculated as total number of Learning Circles available to participants over the course of enrollment divided by the quantity that participants actually attended.

the community that develops around the Learning Circles. A potential risk of this programmatic decision was that for some participants, the content of the workshops would become repetitive and lead to decreased Learning Circle attendance. However, Graph 2 shows the contrary; veteran participants consistently demonstrate more regular attendance. This suggests that Inversant did accomplish its two goals. Aside from benefiting from the Learning Circle curriculum, parents continued to attend workshops in order to connect with and the support of a community of like-minded parents. In fact, at the extreme, some parents continued to attend Learning Circles for over six years.

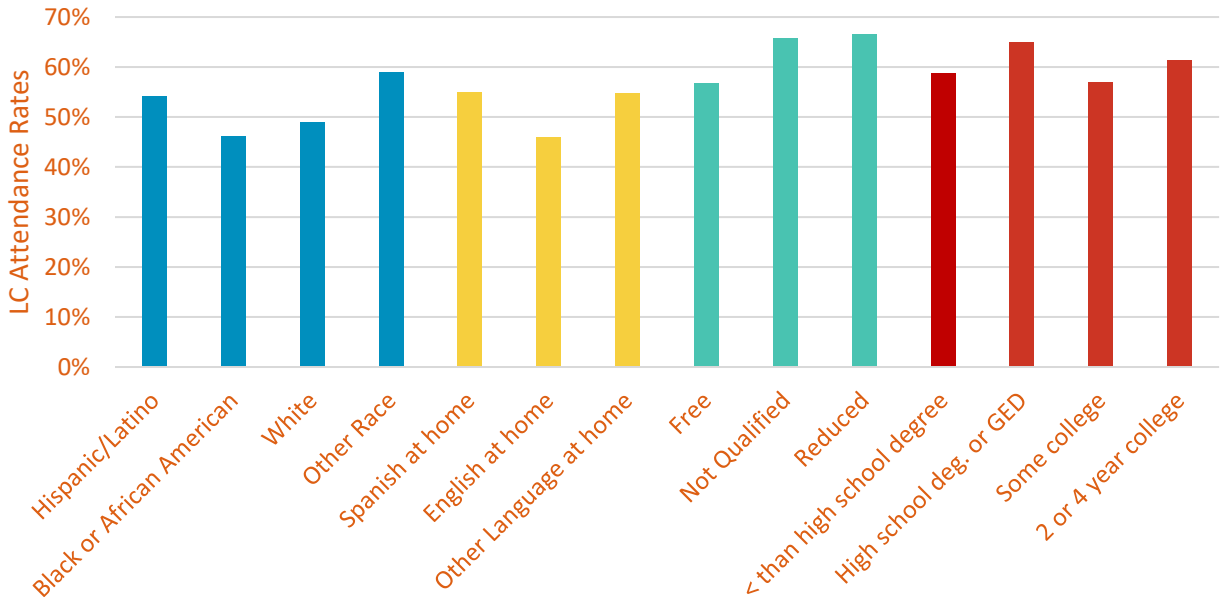
Graph 2: Attendance by Enrollment Length



It is also interesting to note that there were no strong correlations among demographic characteristics and Learning Circle attendance rates. Graph 3 indicates that participation rates were similar across both race and language spoken at home. Slightly lower attendance rates are present among Black/African American participants and for participants who speak English at home, but these differences are not significant. Participants whose children qualified for free lunch also had slightly lower attendance rates compared to families who were eligible for reduced lunch or who did not qualify.

Consistent attendance over time, regardless of differences in demographic background indicates that families enjoy and/or benefit from learning circles. While monetary constraints might slightly decrease low-income families' ability to save, it certainly does not decrease their willingness to be better engaged in and more knowledgeable about their children's education. Similarly, parental educational attainment level is not correlated with attendance, indicating that Learning Circles appeal to all families. Providing Learning Circles in Spanish also enables participants who primarily speak Spanish at home to attend workshops at rates similar to English-speaking families.

Graph 3: Learning Circle Attendance by Demographics



Relationship between Attendance and Savings:

Analysis of attendance rates and savings outcomes indicates that there is a positive relationship between the two; that is, families who attended Learning Circles at higher rates saved more frequently and in larger amounts. Since we do not have a control group of parents who do not attend Learning Circles, we cannot establish causality; however, we can confirm that Inversant Learning Circles are well-received and useful for families who desire to be engaged and invested in their children's education.

Table 6: Relationship between Learning Circle Attendance and Savings Outcomes

LC Attendance Rates	Average Months in Program	Average Monthly Savings	Average Deposit Frequency	Average Saved During 1st Year	Average Total Balance
0	20	$45	11%	$504	$504
1-20%	19	$18	21%	$215	$321
21-40%	26	$41	27%	$422	$763
41-60%	32	$47	39%	$465	$1,085
61-80%	34	$44	48%	$431	$1,244
81-100%	32	$68	48%	$766	$1,660

Graph 4 clearly illustrates that higher attendance rates correlate with larger amounts saved over the length of enrollment. The assumption here is that learning circles help with savings performance over time: the knowledge gain about college application process increases willingness to save; being among parents who save for college increases motivation to save; and the monthly meetings serve as reminders

to save. Looking at the distribution of attendance and savings patterns in graph 4, it is possible to divide the participants into three groups:

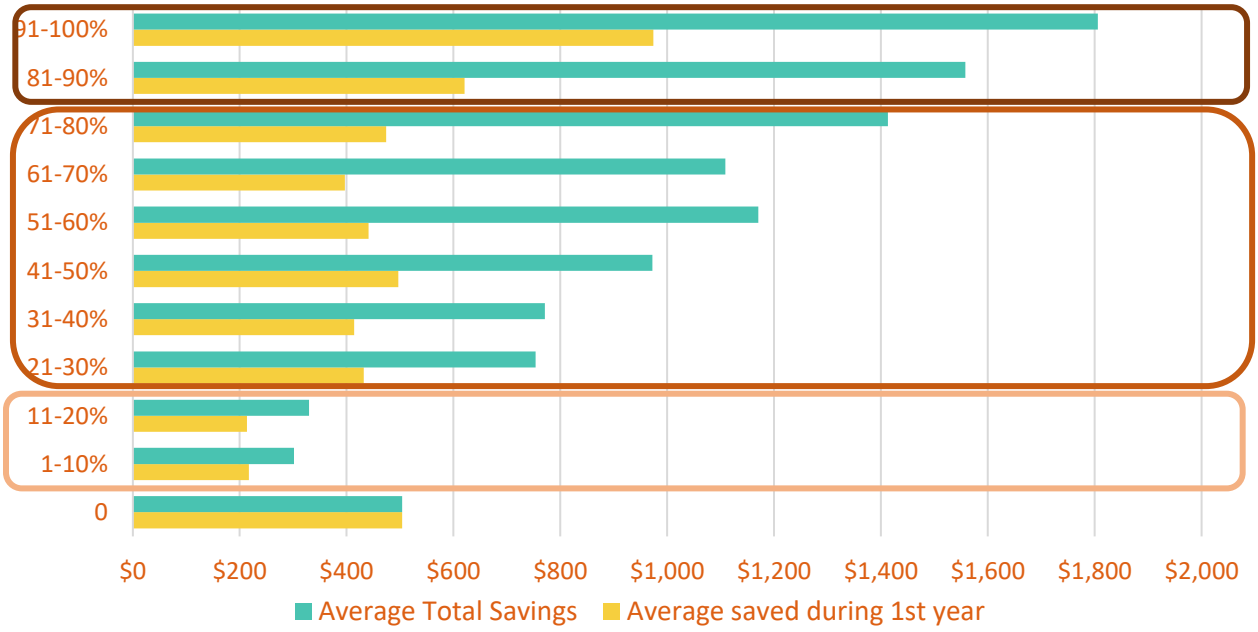
a) ***Motivated families:*** These families attended more than 80% of the Learning Circles in total. Even though the positive effects of the learning circles on savings performance is expected to be lowest during the first year, these participants already saved higher amount in their first year in program (ranging from $600-$950). Their monthly deposit averages and total balances are also higher than other families (refer back to table 6). We can conclude that these families are motivated, and perhaps already more ready to engage and invest in their children's education than the others.

b) ***Parents who are open to engagement:*** Parents who fall in the middle range in terms of their attendance rates are possibly those who have the most to gain for the Learning Circles. In other words, for these participants, more exposure to Learning Circles translates to better savings performance. Graph 4 shows that during the first year of program, when the positive effects of Learning Circles are still low, these participants all saved similar amounts (about $400). However, those who attended higher percentages of Learning Circles during the whole length of the program accumulated higher balances. In fact, the higher the attendance rate, the higher the total accumulation.

c) ***Less engaged:*** At the other end of the spectrum, parents who ended up attending fewer than 20% of the Learning Circles saved significantly lower amounts during their first year compared to others. Their total balances stagnated behind as well. These parents did not engage in the program in terms of participation to Learning Circles, nor in terms of saving.

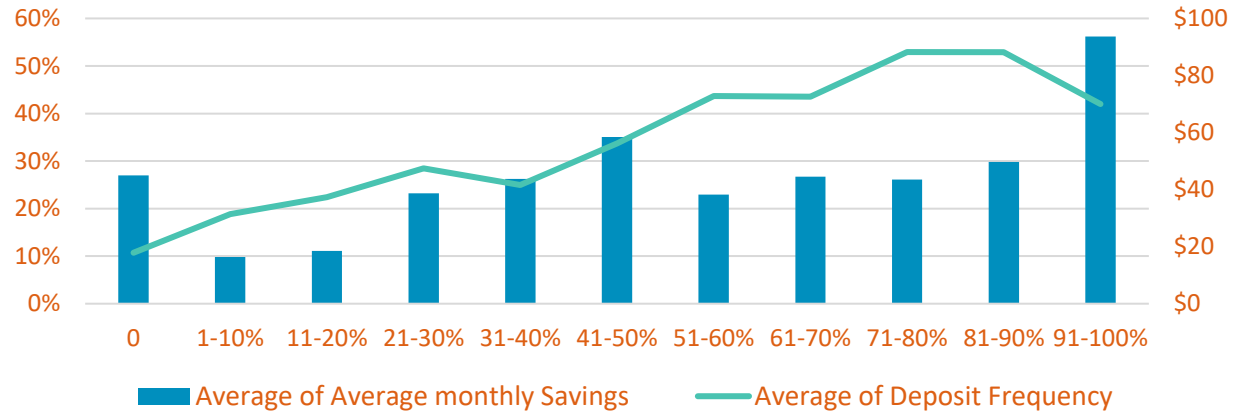
More research is needed to gain a deeper understanding of the relationship between Learning Circle attendance and savings performance. This pattern observed in this graph is intriguing and worth investigating further.

Graph 4: Learning Circle Attendance Rates and Savings Accumulation Patterns



Analysis of attendance rates and saving frequency also suggests that there is a positive relationship between the two (see Graph 5, below). This supports the assumption that attending monthly workshops serves as a reminder and motivator for parents to deposit money. We also observe that average monthly savings increases and plateaus for those attending over 50% of Learning Circles. It is possible that as a more regular and higher saving frequency is established (which making a deposit every two months), the value of the average monthly deposit becomes slightly lower (averaging $45).

Graph 5: Learning Circle Attendance Rates and Monthly Savings and Frequency



PART II: Qualitative Analysis on Inversant's effects on parental knowledge and engagement

Inversant's program is geared toward equipping parents with the information they need to be better engaged and invested in their children's educational aspirations. This focus on parent is rather unique in the CSA field, therefore it is interesting to qualitatively explore their experience with the program and how it altered their behavior towards their children's education. As an Inversant student explained:

> *"I know these things – they tell us in school, but they don't tell your parents. Your parents are kind of in the dark about it, especially if they come from another country and they're not used to the system. So Inversant will explain everything to my mom in terms that she got it and she's on the same page with me …cause kids might not be able to explain as well as Inversant does."*

In 2012, Harvard researcher Dr. Jodut Hasmi conducted an in-depth qualitative study of CHS' Inversant parents. The study sought to understand three interrelated phenomena: whether parental knowledge of college preparation changes after participating in Inversant, how parental behavior is affected by the information learned over the course of enrollment, and how students were impacted by their parents' participation in Inversant.

CHS parents who participated in Inversant were invited to complete a fifteen-minute pre-survey in the fall of their enrollment, and a post-survey in the Spring of the same academic year.[21,22] Additional insight about Inversant families' experiences was gathered through semi-structured, in-depth focus groups (held in both English and Spanish) and one-on-one interviews during the 2012-2013 academic year.[23] Below is a summary of the study's findings:

1. Inversant encourages behavior to prepare for college

Parents reported that having access to critical financial and college access information developed a sense of urgency prompting them to immediately change their behavior by supporting their children's academic efforts and by financially preparing for college.

> *An Inversant Parent: "Without Inversant, I probably wouldn't even start thinking about it until she's in the eleventh grade."*
>
> *Another Inversant Parent: "This is not something to wait and not worry about it because I still have four years left. No, it's very important to start to prepare right away… And above all, the grades. They have to have high grades, like they say… From the first year, because that helps them with their GPA… They also speak about the high-test scores; also, their behavior, their participation."*

Parents expressed that critical for this behavioral change was their better understanding of the financial benefits and costs of college education. Learning about the various forms of financial aid and how to apply for it allowed a college education to appear more attainable. During focus groups and interviews, several parents expressed that they were previously unaware of the important dates by which their children needed to take certain examinations and apply to college and financial aid. Pre- and post- survey responses confirmed that, over the course of the academic year, the number of Inversant parents who knew what the FAFSA is grew significantly.[24] The number of parents who started to work on scholarship applications with their children grew significantly, and more parents understood the necessity of applying for financial aid every year during college.

2. Inversant encourages saving for college

Parents were further encouraged to save as the path to college became more attainable. Parents frequently described how Inversant taught them the importance of savings as well as how to save for college. Pre- and -survey responses indicate that parent perceptions about the importance of saving for their children's college education grew significantly over the course of the academic year.[25]

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[21] As an incentive to encourage survey completion, a $10 gift card was offered to parents who completed each survey.
[22] A total of 75 parents completed the pre-survey, and a total of 67 parents participated in the post-survey. However, only 46 parents completed both.
[23] A total of twenty-one parents participated in the parent focus group interviews at Chelsea High School. Additionally, two student focus groups, consisting of students whose parents participate in the FUEL program, were held at Chelsea High School. A total of fourteen students voluntarily participated in the student focus groups.
[24] See Table 1a in Appendix 4
[25] See table 2a in Appendix 4

3. Inversant increased parent's college expectations for their children:

During the focus groups and interviews, it was common to hear long discussions about how Inversant altered parent expectations for their children as a result of the matched savings accounts, key information, and vital support provided by Inversant.

> *One parent explains how Inversant helped her eliminate any doubt about her children going to college: "It's definitely that you're going to college. It's not really a choice. I think through the Inversant process that's just been the expectation, the ongoing meetings, the ongoing conversations, that's what it's going to be."*

Survey results also confirmed that parents' expectations for their children's higher education increased significantly within the academic year they participated to Inversant program.[26]

4. Inversant makes the College Preparation Process More Manageable

Another finding of the study was that Inversant made the college preparation and application process more manageable for parents and students, and encouraged parents to become more involved in their children's educations. Survey responses show that a majority of survey participants claimed that they received much of their knowledge about college from Inversant.[27] During focus groups and interviews, it was also evident that parents understood Inversant to be a starting point, and that they were encouraged to do more research and seek other resources to learn more about scholarships, colleges, financial aid, college costs, and other topics relating to college preparation.

> *A parent explains: "Not only Inversant, but in its majority, has been Inversant, but it has been also the initiative to get the information in places and not only depend on Inversant. Opening doors, and then you have to be like an octopus with tentacles here and put other tentacles there, take a little of everything in order to take the correct path."*

5. Inversant increases parents' financial capability

Inversant knows that even after saving for college and obtaining scholarships, many families will still face considerable financial hardships, and both parents and students may need to take out sizable loans. Thus, Inversant urges parents to utilize the information they learn during Learning Circles to become informed consumers in the higher education market. That is, it is important for them to identify degrees with a good return on investment (that is, looking at the price of the degree obtained relative to the earning potential resulting from that degree). This also represents a critical moment for parents and students where families must turn the financial education acquired during Learning Circles into financial capability.

Both focus groups and interviews revealed that, with the knowledge gained through Inversant, parents guided their children towards schools that were less expensive than four year private colleges and towards degree programs that had higher earning potential. Dr. Hashmi explains that "student participants described in great detail how involved their parents had become about college and career decisions, often

[26] See Table 3a in Appendix 4
[27] See Table 4a in Appendix 4

asking them about their college choice and career preferences, and discussing affordable college options and lucrative and interesting careers."

> *Another parent describes: "He says he is sure about what he wants to study. He says he wants to be an orthodontist. So I've told him that's a long and expensive career. He is aware of that. He knows that he has to start by taking a dental hygienist course where he can start working and saving. Also, I am willing to help him, the same way I helped my daughter. He knows I will not abandon him and I will help him in any way I can. I will do the same thing I have done with my daughter; work hard to save the money. That's what I will do with him. He will work and I will also contribute."*

> *Another parent: "I don't want to discourage her that I'm not the kind of person who can afford to pay school fees. To pay tuition at [name of expensive private college]. I tell her that if you go to government, like state university, it's going to be much easier for me."*

6. Inversant positively influences relationships between parents and children

An important conclusion of the study was that Inversant encouraged parents to positively change their relationships with their children in the following ways: parents expressed that they felt better equipped to be proactively engaged in planning for college and that they were becoming more focused on academic preparation, as well as involved in planning more college visits. Parents also found it important to discuss with their children their own educational experiences in the hopes of providing them with greater encouragement. They felt that it was important to teach their children about good financial habits and responsibility. Most importantly, parents and their children reported that they experienced a strengthening in their relationships.

> *An Inversant Student: "For me I notice that they're more willing to do stuff for me like if they hadn't know about all this college stuff and how important it is … cause my parents actually drove all the way to [a specific college] just to go to an open house and before I think they would have been like, 'You don't need to go. Why do you want to go there so much?' Or like, 'Why do you care?' But they actually took the time out of their day to drive those two hours and I thought that was real nice."*

> *A parent explains: "Every day I help him to stay focused so that he would be able to get good grades, see how he can earn a scholarship because this, along with their efforts, they can accomplish it, in part with their help and in part from the parents' help, it can be accomplished as long as we work it together and that is the way that I try to help my son."*

7. Inversant fosters a community of parents invested and engaged in their children's education

Parents reported that it was very inspiring to see other families excited about college and to witness how Inversant worked with them to improve the reputation of Chelsea High School. Parents expressed that by attending monthly Learning Circles, they found a support structure forming around them, helping them

feel part of a community of parents aspiring for the same goal of college attainment. Parents described making friends and using the Inversant community to discuss college and their children:

> *"You also meet more parents, families. You can talk, exchange ideas, experiences; you can make friends, also, with other parents… Because there are parents that have their children in a higher grade and you can ask them how – right? Like exchange ideas… 'This is what I've done' and they say, 'No, this and that'.*

Moreover, the raffles seemed to have incentivized participation in Learning Circles. Parents reported looking forward to the meetings, enjoying the anticipation of winning, while finding it exciting to see other families receiving prizes for their participations. Parents explained that the cash prizes were useful, some pay for costs such as car fuel and their child's school supplies, while others described placing these cash prizes into their children's Inversant account to add to their college savings.

Finally, parents expressed appreciation that the Learning Circles were also offered in Spanish. Dr. Hashmi explains that "several Spanish-speaking participants described how they felt very comfortable being able to ask questions in Spanish. Being able to use their own language at the meetings also provided some Spanish-speaking parents with more confidence in asking about the college-going process." She concludes that utilizing culturally relevant facilitation and programming that reflect the cultural and linguistic identity of the families served is an effective strategy to engage parents.

The study concluded that parents are playing a vital role in the college preparation process and that, with the right combination of strategies, the power of parental engagement can be positively harnessed to help close the growing educational achievement gap.

Part III: Quantitative Analysis on Inversant's effect on Students' Academic Outcomes

Studies investigating the effects of savings on children focus mostly on younger children's socioemotional skills or on their financial literacy/capability.[28] Since the CSA field is rather young, no program has matured enough to investigate the effect of savings on high school students' academic outcomes. Similarly, while there are numerous studies linking parental involvement with improved student academic performance, little research has been done to document whether strategies seeking to 'generate' parental involvement have a direct, positive impact on students' academic performance and behavior, particularly at the high school level. Professor Bridget Terry Long has sought to fill these missing links by examining whether increased parental engagement resulting from participation in Inversant's program had an impact on students' academic performance and behavior.

To assess the change in students' outcomes, the study analyzed Massachusetts Comprehensive Assessment System (MCAS) scores, high school course selection, course performance, attendance rates, and their plans at graduation. Using student-level CHS records from 2008-09 and 2013-14, Inversant

[28] Sherraden, M. S., Johnson, L., Guo, B., & Elliott, W. (2011). Financial capability in children: Effects of participation in a school-based financial education and savings program. Journal of Family & Economic Issues. 32(3): 385-399.

participants' children (called Inversant students hereafter) were compared to two groups: those whose parents withdrew from Inversant, and the rest of the student body at the school. By conducting a regression analysis, the study compared differences across groups, including demographic characteristics, proxy for income (free or reduced-price lunch), and specific education categories (Limited English Proficiency and Special Education). By holding these variables constant, this analysis compared students who are equal in terms of these observable characteristics but differ in their parents' participation in Inversant's program in order to assess the isolated impact of the program on desired outcomes of academic achievement. It is important to note that this cannot take into account potential differences in unobservable characteristics, such as variation in motivation or commitment to education.

The study concluded that 'the observed educational performance difference is resounding and suggestive of the positive benefits of Inversant', but that more definitive conclusions about the magnitude of the causal effect of Inversant were not possible at this stage, where the sample size is still relatively small and an adequate controlled group could not be established. Below is a detailed summary of the findings:

1. Inversant students do better on exams and have higher high school grades in key subjects

Analysis of MCAS scores show that Inversant students score higher than non-Inversant students even after controlling for differences in student background. Inversant students' 10th grade MCAS scores are on average 2.7 points higher for the English Language Arts (ELA) exam and 5 points higher in math.[29] The students' growth percentiles for each test are also much higher.[30]

Investigation of high school grades show similar patterns. While in 9th grade, no statistically significant difference is observable in grades between Inversant and non-Inversant students, but by sophomore year, a clear difference manifests itself, with Inversant's students obtaining higher grades in key subjects (English, Math, History, and Science).[31]

2. Inversant students' grade performance gap increases over time

To better gauge the impact of Inversant over time, students were divided into groups according to when their parents enrolled in the program and whether they withdrew from it. The analysis shows that students whose parents were in Inversant the longest had the highest MCAS scores, with an ELA student growth percentile that was 17 percentage points higher than non-Inversant students, and a math scaled score that was 7.9 points higher.[32] However, students whose parents were part of Inversant for less than a year or those whose withdrew scored lower than non-Inversant students. "This is suggestive evidence that Inversant makes a real difference for students who participate during high school because the higher "dosage" of Inversant (i.e., spending more time in the program) is related to higher test scores." It is

[29] Scaled scores and the student growth percentile for English Language Arts (ELA) and Math

[30] See Table 1b in Appendix 5

[31] See Table 3b in Appendix 5

[32] See Table 2b in Appendix 5

interesting to note that in the analysis of savings and attendance rates above, it was determined that increased duration in program correlated with better outcomes in savings and attendance.

Similar trends were found in the analysis of the high school grades. The differences in grades of Inversant students increase over time for English, History, and Math, compared to non-Inversant students. For example, while there was no statistically significant difference in grades between Inversant and non-Inversant students in 9th grade English, by sophomore year, a clear difference had manifested itself with a rise of nearly 9 percentage points.[33] The magnitude of the increase over time is especially large for History and Math, and average grades in science are also higher for Inversant students.

3. Inversant students are more likely to take math and science classes

The course enrollment trends across the three student groups also varied. A large proportion of Inversant students elected to take Math and Science in the 12th grade. In contrast, a far smaller proportion of non-Inversant students opted for those upper-level STEM courses. While Professor Long explains that this might be partly due to high school dropout rates, which she believes to be fairly high among non-Inversant students, she concludes that the differences between Inversant and non-Inversant students are not only about course performance but also about course selection. She adds that taking additional math and science courses is a good indication that the student is pursuing college preparatory high school coursework.

4. Inversant students' attendance levels are higher than non-Inversant students

In the qualitative study presented above, parents reported that Inversant prompted them to immediately change their behavior towards the education of their children, primarily in order to become more focused on their children's academic preparation. Attendance is an area where changes of behavior can be implemented immediately (unlike improving grades). In fact, the analysis of attendance patterns shows that even in the 9th grade, Inversant students attend school an average of ten days more per year than non-Inversant students, and this difference grows for each subsequent year of high school.[34] It is interesting to note that students whose parents withdrew from Inversant had higher attendance levels initially, but their attendance patterns became similar to students who were never part of Inversant.

5. Inversant students are 25% more likely to plan for four-year college at graduation

Last, the study investigated Inversant students' plans at graduation by comparing them to non-Inversant students and those whose parents withdrew from Inversant, after holding constant all other characteristics. Inversant students were 21 percent more likely to plan to attend a four-year college than non-Inversant students. Long-term Inversant students' college-bound ideation is as high as 25 percent.[35]

[33] See table 3b in Appendix 5
[34] See Table 4b in Appendix 5
[35] See Table 5b in Appendix 5

Before concluding, it is important to acknowledge the limitations of the quantitative study: the research design and data used in this study could not allow for the analysis to offer more definitive conclusions about the magnitude of the causal effect of Inversant. Without a randomized controlled trial, the possibility that a selection bias exists cannot be ruled out. Despite these limitations, the study concluded that "the differences in Inversant students' performance and outcomes are resounding and suggestive of the positive benefits of the program."

Conclusion:

This report is unique as it regroups a wealth of information gathered over the years on Inversant's program at CHS. Merging Inversant's program evaluation with two independent qualitative and quantitative studies, this report offers a comprehensive analysis of the program's impact on parents and their children. Together, the findings suggest that the strategies used by Inversant help to foster a community of engaged and invested parents who emotionally and financially support their children in their quest for higher education. This is especially valuable, as increased engagement and investment has a positive impact on the educational performance of high school students.

Regardless of their demographic characteristics, CHS parents demonstrate that they value access to information on academically and financially preparing for college, and that are receptive to attending monthly workshops on these topics. While the use of incentives motivates parents' attendance, the community forming around Inversant's Learning Circles ensures continued attendance over multi-year enrollment. Parents express that they appreciate Inversant's use of linguistically and culturally relevant facilitation and programming. In terms of savings incentives, the $1,500 match motivates parents to save; however, the total amount saved seems to be mostly influenced by length in program and limited by families' financial means. Finally, although the program is not geared toward students, the qualitative study reveals that they too become quite involved; students expressed appreciation for their parents' participation in Inversant, and for their increased knowledge and involvement in their education, as it positively impacts parent-children relationships.

This report also opens the door for new research questions. The isolated effect of some programmatic features could be further explored using discrete treatment and control groups, and a waitlist control trial could more accurately ascertain the impact of the program on student outcomes. The findings presented here are encouraging, and they contribute to a growing body of research linking parents' savings and engagement to students' educational success.

Appendix:

Appendix 1: A closer look at families who save for multiple children in one savings account

When Inversant started using Metro Credit Union, it also started allowing families with multiple children to save in the same account. Inversant learned that opening and managing several accounts was a deterrent for many of the families we served; therefore, the team decided that even though this practice would complicate program administration and evaluation, ease of use for families must be prioritized. Since this analysis only includes families who completed the program and whose children graduated before 2016 and since the practice of allowing multiple children in one account started in 2015, there are not many cases of them yet in the dataset. Although the sample size is small, the table below indicates that families who save for multiple children save more, however, it is too early to meaningfully examine differences in savings behaviors among families with multiple children associated with a single account.

Number of children on account	Number of participants	Percentage of participants	Average of Months in program	Average monthly Savings	Average Total Balance	Average Deposit Frequency
1	244	96%	29	$49	$1,068	37%
2	8	3%	16	$85	$1,220	22%
3	1	0%	23	$131	$3,016	39%
Grand Total	253	100%	29	$51	$1,080	37%

Appendix 2: Outliers excluded from Table 3 for high savings in short amount of time

Five participants were classified as outliers as they inflated the savings outcomes of those enrolled for a short period of time. These participants saved over $3000 in less than a year, yet were not particularly engaged with the Learning Circles. They may have been primarily enticed by the opportunity to save and receive a savings-based match, which indicates that monetary incentives are an effective savings motivator on their own.

Outcomes specific to the five outliers:

Months in program	Number of participants	Average monthly Savings	Average Deposit Frequency	Average Amount saved During 1st year	Average Total Balance
0-12	5	$360	36%	$3,279	$3,279

Table 3 with outliers included – Inflated savings outcomes are underlined and bolded.

Months in Program	Percentage of participants	Average monthly Savings	Average Deposit Frequency	Average Amount saved during 1st year	Average Total Balance	Average LC Attendance Rate
0-12	14%	**$138**	36%	**$1,199**	**$1,199**	44%
13-24	31%	$42	30%	$461	$718	46%
25-36	19%	$34	40%	$384	$1,003	57%
37-48	25%	$32	45%	$310	$1,290	60%
48 +	11%	$26	37%	$348	$1,511	63%

Appendix 3: Closer investigation of the effect of familial income on savings

Distribution of Total Amount Saved according to Familial Income

Eligibility for Free or Reduced Lunch	Total amount Saved				
	$0	$1-$501	$501-$1001	$1001-$1501	>$1501
Free	14%	15%	11%	14%	44%
Reduced	0%	20%	16%	4%	60%
Not Qualified	0%	19%	10%	24%	48%

Appendix 4: Tables from the Qualitative Studies

At the time of the study, Inversant was named FUEL; the tables below refer to it as such.

Table 1a: Change in Parents' knowledge of critical information (yes/no responses)

	N	Fall	Spring	Diff in means	t	Significance (2-tailed)
Do you know what the FAFSA is?	38	0.684 (0.076)	0.947 (0.037)	0.263 (0.082)	3.224	0.003**
Have you or your child started to work on scholarship applications?	40	0.075 (0.042)	0.450 (0.080)	0.375 (0.078)	4.837	0.000**
It is necessary to apply for financial aid every year that your child is in college. (Answer: True)	39	0.795 (0.066)	0.949 (0.036)	0.154 (0.059)	2.629	0.012**

*p<.10 **p<.05

Table 2a: Importance of savings

	N	Fall	Spring	Diff in means	t	Significance (2-tailed)
How important do you think it is to save for your child's college education?	43	6.349 (0.173)	6.791 (0.103)	0.442 (0.161)	2.751	0.009**

*p<.10 **p<.05

Table 3a: Parents' Expectations for their Children's Educational Attainment

	N	Fall	Spring	Diff in means	t	Significance (2-tailed)
What is the highest level of education that you expect your child to attain?	43	5.154 (0.203)	5.795 (0.263)	0.641 (0.283)	2.262	0.030**

*p<.10 **p<.05

Table 4a: Sources of information as reported by parent survey respondents

From where do you receive information about college?	Parents (%)	N
My child	34.6%	
Other family members	12.0%	
Friends	17.3%	
My child's school	26.7%	75
FUEL	88.0%	
Another college prep program	8.0%	
Other	4.0%	

Appendix 5: Tables from the Quantitative Studies

At the time of the study, Inversant was named FUEL; the tables below refer to it as such.

Table 1b: Differences in MCAS Scaled Scores and Student Growth Percentiles by FUEL Status after controlling for student demographics, income, and educational categories (the asterisks in table x indicate that the results are statistically significant, suggesting a high degree of confidence that the estimates signal true differences between groups.

	ELA Scaled Score	ELA Student Growth Percentile	Math Scaled Score	Math Student Growth Percentile
	(1)	(2)	(3)	(4)
FUEL Participant	2.71***	11.84***	5.04***	6.42***
	(0.63)	(1.54)	(0.81)	(1.63)
Demographic Characteristics				
Female	2.56***	0.80	-0.44	-2.63**
	(0.44)	(1.10)	(0.57)	(1.16)
Black	-2.29**	2.32	-4.66***	-7.91***
	(1.02)	(2.64)	(1.33)	(2.76)
Asian	6.90***	7.90**	11.16***	8.27**
	(1.51)	(3.83)	(1.93)	(3.98)
Hispanic	-2.50***	-0.87	-3.29***	-3.15
	(0.80)	(1.98)	(1.03)	(2.09)
Native American	-5.05	-20.76*	-9.87*	9.24
	(3.99)	(12.26)	(5.27)	(12.95)
Income Measures				
Free Lunch	-3.04***	-0.14	-2.10*	2.99
	(0.83)	(2.07)	(1.08)	(2.17)
Reduced-Price Lunch	-3.52***	1.10	-3.33**	-0.44
	(1.24)	(3.12)	(1.62)	(3.27)
Educational Categories				
Limited English Proficiency	-17.94***	7.98***	-18.43***	6.38***
	(0.52)	(1.56)	(0.67)	(1.63)
Special Education	-13.73***	-8.74***	-17.70***	-5.80***
	(0.61)	(1.51)	(0.81)	(1.61)
Constant	253.67***	59.22***	251.45***	60.96***
	(1.02)	(2.52)	(1.33)	(2.65)
R^2	0.39	0.05	0.32	0.03
N	3,006	2,484	3,063	2,474

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Notes: ELA stands for English Language Arts. Standard errors are shown in parentheses. Each regression contains the following control variables: dummy variables for being female (reference category male), Black, Asian, Hispanic, or Native American (reference category White), income measures (dummy variables for having free lunch or reduced-price lunch), and special education categories (dummy variables for Limited English Proficiency and Special Education). Each model also includes a constant.

Table 2b: Differences in High School Grades by FUEL Status after controlling for student demographics, income, and educational categories

	ELA Scaled Score	ELA Student Growth Percentile	Math Scaled Score	Math Student Growth Percentile
	(1)	(2)	(3)	(4)
FUEL Participants Before 2014	4.58***	16.99***	7.92***	13.48***
	(0.70)	(1.73)	(0.91)	(1.82)
Withdrew from FUEL	2.48**	-23.12***	1.91	-27.45***
	(1.25)	(3.16)	(1.64)	(3.36)
New 2014 FUEL Participants	-3.19***	-2.98	-4.46***	-14.05***
	(1.19)	(2.82)	(1.58)	(2.96)
R^2	0.40	0.09	0.32	0.08
N	3,097	2,560	3,156	2,548

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Notes: ELA stands for English Language Arts. Standard errors are shown in parentheses. Each regression contains the following control variables: dummy variables for being female (reference category male), Black, Asian, Hispanic, or Native American (reference category White), income measures (dummy variables for having free lunch or reduced-price lunch), and special education categories (dummy variables for Limited English Proficiency and Special Education). Each model also includes a constant.

Table 3b: Differences in High School Grades by FUEL Status after controlling for student demographics, income, and educational categories

	9th Grade	10th Grade	11th Grade	12th Grade
	(1)	(2)	(3)	(4)
English Grades				
FUEL Participant	2.18	5.18**	8.59***	4.96*
	(1.94)	(2.05)	(1.96)	(2.56)
R^2	0.15	0.08	0.11	0.13
N	1,339	1,004	664	325
	(5)	(6)	(7)	(8)
History Grades				
FUEL Participant	5.31***	8.09***	6.82***	8.72**
	(1.94)	(1.89)	(1.89)	(3.75)
R^2	0.12	0.10	0.09	0.27
N	1,390	1,058	679	97
	(9)	(10)	(11)	(12)
Math Grades				
FUEL Participant	5.36**	6.53***	9.26***	10.19***
	(2.11)	(1.70)	(1.76)	(2.67)
R^2	0.08	0.08	0.11	0.10
N	1,238	960	662	296
	(13)	(14)	(15)	(16)
Science Grades				
FUEL Participant	9.15***	5.73***	10.12***	6.67**
	(2.19)	(1.86)	(1.87)	(3.05)
R^2	0.17	0.12	0.10	0.12
N	1,336	1,105	733	258

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Notes: Standard errors are shown in parentheses. Each regression contains the following control variables: dummy variables for being female (reference category male), Black, Asian, Hispanic, or Native American (reference category White), income measures (dummy variables for having free lunch or reduced-price lunch), and special education categories (dummy variables for Limited English Proficiency and Special Education). Each model also includes a constant.

Table 4b: Differences in High School Attendance after controlling for student demographics, income, and educational categories

	9th Grade	10th Grade	11th Grade	12th Grade
	(1)	(2)	(3)	(4)
FUEL Participants Before 2014	10.64***	9.53***	20.13***	43.64***
	(3.76)	(3.23)	(3.90)	(7.59)
New Participants in 2014	7.16	17.12	22.73*	
	(9.93)	(11.11)	(13.68)	
Withdrew from FUEL	13.56*	-1.77	8.13	-52.12
	(7.25)	(6.18)	(6.80)	(35.52)
R^2	0.10	0.04	0.07	0.22
N	1,464	1,031	660	171

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Notes: Standard errors are shown in parentheses. Each regression contains the following control variables: dummy variables for being female (reference category male), Black, Asian, Hispanic, or Native American (reference category White), income measures (dummy variables for having free lunch or reduced-price lunch), and special education categories (dummy variables for Limited English Proficiency and Special Education). Each model also includes a constant.

Table 5b: Differences in High School Graduation plans by student status

	Plans to Attend a Four-year College		Plans to Attend a Four-year or Two-year College	
	(1)	(2)	(3)	(4)
FUEL Participant (joined pre-2014)	0.21***		0.11**	
	(0.06)		(0.04)	
Remained in FUEL (joined pre-2014)		0.25***		0.13***
		(0.06)		(0.05)
Withdrew from FUEL		0.08		0.05
		(0.10)		(0.08)
R^2	0.14	0.15	0.06	0.06
N	279	279	279	279

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Notes: Standard errors are shown in parentheses. Each regression contains the following control variables: dummy variables for being female (reference category male), Black, Asian, Hispanic, or Native American (reference category White), income measures (dummy variables for having free lunch or reduced-price lunch), and special education categories (dummy variables for Limited English Proficiency and Special Education). Each model also includes a constant. No data are available for families that joined FUEL in 2014 because they have not reached high school graduation.

NOTES:

561 Boylston Street, Boston, MA 02116

Tel: 617-423-0331 | info@inversant.org

www.inversant.org

Bahar Akman Imboden

b.akman@inversant.org