Keystone Scholars Baseline Survey Findings

By

Robert Nathenson, PhD MSE MSc
Senior Researcher, American Institutes for Research (AIR)

Prepared for the Pennsylvania Treasury Department

The Pennsylvania Treasury Department is grateful to the Heinz Endowments, Henry L. Hillman Foundation, Neubauer Family Foundation, Pennsylvania Higher Education Assistance Agency, and Richard King Mellon Foundation for the funding that made this project possible.

Contents **Page**

Keystone Scholars Baseline Survey Findings

Keystone Scholars

Keystone Scholars is a statewide Child Development Account (CDA) program created by the Pennsylvania Treasury Department (Pennsylvania Treasury). It was launched as a pilot program in six counties in 2018 (Delaware, Elk, Indiana, Luzerne, Mifflin, and Westmoreland). Later that year, the Pennsylvania General Assembly passed a law to expand the program statewide on January 1, 2019. The Keystone Scholars program is of particular interest to the expanding field of CDAs, policymakers, and the research community. The universal rollout to approximately 135,000 children each year in Pennsylvania makes Keystone Scholars the largest CDA program in the country to date. After the program's first year, Keystone Scholars accounted for more than half of the total increase of CDAs in the country in 2019.[i]

Going forward, every baby born on or after January 1, 2019 to a Pennsylvania family, including any baby born on or after that date who is subsequently adopted by a Pennsylvania family, is eligible for $100 that can be used for the child's future higher education expenses. This includes expenses at vocational schools, apprenticeship programs registered and certified by the U.S. Department of Labor, community colleges, and baccalaureate degree granting institutions. The universal eligibility of babies born in the state and automatic, opt-out enrollment of babies ensures that Keystone Scholars is fully inclusive.[ii] In addition, Keystone Scholars now meets every key design element of successful CDA programs, as recommended in *Taking Child Development Accounts to Scale: Ten Key Policy Design Elements*.[iii] The $100 will grow over time at a 10-year average rate of tuition inflation of Pennsylvania State System of Higher Education (PASSHE) institutions. While the $100 is available to all eligible families, the Treasury advises parents to register their child's account online so that they can view the $100. Families are encouraged to open and contribute to their own individual Pennsylvania 529 (PA 529) account in order to start saving for their child's postsecondary future as early as possible.

Keystone Scholars - Background on Pilot Program

Preliminary findings from the 2018 pilot on the impact of Keystone Scholars are available online. In the pilot program evaluation, we found that access to the pilot's $100 starter deposit doubled the likelihood a family opened a PA 529 account within the first year of their child's life. This was true, on average, across all demographic groups studied, including race/ethnicity, income, marital status, and parental education.

Keystone Scholars Baseline Survey

The Keystone Scholars Baseline Survey was launched to coincide with the rollout of the Keystone Scholars statewide program in early 2019. The Baseline Survey was designed to capture parents' expectations for their child's educational future within the first year of their child's life. In addition, it gathered information on parents' financial knowledge, assets, and savings behavior, as well as demographic information. In order to examine the impact of Keystone Scholars on families' expectations and savings as their child grows, we plan to follow up with a subsequent survey when the oldest Keystone Scholars children are 5 years old, in 2023.

The Baseline Survey was conducted from May 2019 to July 1, 2020. The vast majority of the survey administration occurred prior to the COVID-19 pandemic. Families invited to take the survey included parents who (1) had a child in the 61 pilot control counties from July 1 to December 31, 2018 (Control), and (2) had a baby in Pennsylvania in 2019 (Treatment).[iv] Additionally, families who (3) had a child in the six Keystone Scholars pilot treatment counties in 2018 may have participated in the survey by accessing the link available in the Keystone Scholars account online portal, but did not receive a direct invitation to participate. Postcard mailers that included a link to the survey were sent to 2018 control families and all 2019 families. Birth record information was provided by a partnership with the Pennsylvania Department of Health. In this brief, results come from the nearly six thousand parents who completed the survey and who met the eligibility criteria from one of the groups described above (n=5,901).[v] Upon completion, families could choose to be entered into a drawing for one of four chances to win an additional $100 in a PA 529 Guaranteed Savings Plan account.

The survey captures a unique early look into new Pennsylvanian parents' expectations for their child's educational future. It provides useful insight into their financial knowledge, assets, and savings behavior at the same time. Respondents came from all 67 Pennsylvania counties, with a full array of parental education, income, and race/ethnicities represented. The study design allows for the examination of variation in parental expectations by demographic groups, in how these groups responded to the various financial questions, and how the financial questions are associated with expectations. The survey is most useful when describing overall results, such as the strong observed preference for public and in-state postsecondary institutions, as well as differences across key groups of interest.

Importantly, we note that none of the results included in this brief are causal as the study design was neither experimental nor quasi-experimental. In addition, while the survey was sent to the entire population of eligible new parents in Pennsylvania as described above, families could choose whether or not to respond. The pool of survey respondents is therefore a select representation of families, and results are not necessarily generalizable to the broader relevant Pennsylvania population. Survey respondents were a little less racially and ethnically diverse, had more average parental education, were more likely to be married, had higher median household income, were less likely to be low-income, and more often lived in rural areas than the overall population of Pennsylvanian families with newborns.[vi]

This research brief begins by describing parents' reported expectations for their child's educational future. Parental expectations were assessed by a series of six questions. We then examine differences by key demographic characteristics, such as income, education, race/ethnicity, and urbanicity. Next is a discussion of parents' Financial Trust, Assets, and Savings Behavior, including describing differences by demographic characteristics. Parental Financial Trust, Assets, and Savings Behavior are measured across six indices, with each comprised of multiple questions. We then examine the impact of the various financial indices on parental expectations in a multivariate regression framework.

Throughout the brief, we report both descriptive and multivariate results from the parental survey. The descriptive findings allow for detailing differences in parents' postsecondary education expectations by key demographic characteristics. They also describe differences in Financial Trust, Assets, and Savings Behavior. Although the results are not causal, the multivariate findings provide additional important insights into variation in parental expectations for our key demographics, after accounting for other characteristics identified in the survey (e.g., work status, age, number of children in the household) as well as the various financial indices. In addition, they reveal associations between the financial indices and parental expectations, yielding important insights into how they may influence parents' perspectives on their child's educational future.

Parental Expectations

We asked six expectations questions to new parents: (1) Total schooling amount for their child as compared to the amount the parent received (less than, the same, or more than); (2) Ideal schooling amount; (3) Pursue at least a two-year degree; (4) Pursue at least a four-year degree; (5) Pursue at an institution in-state versus out-of-state; (6) and Pursue at a public institution versus a private institution. The specific phrasing of each question is included in Appendix Exhibit A1. Overall, parents have very high expectations for their child's future education at birth. In addition, after controlling for household demographic characteristics, there is no statistically significant difference in any of the parental expectations in the Baseline Survey between 2018 control and 2019 treatment families.

Postsecondary Schooling Compared to Parents

- Most respondents aspire for their child to achieve a higher amount of education than them (62.7%), or at least the same (35.2%).
- In particular, 86% of African American parents expected their child to attain more schooling than them, more than any other group.
- More than 90% of parents with less than an associate's degree desired for their child to earn a higher amount of education, and 89% with an associate's degree felt similarly. Most, but not all (69%) of parents with a bachelor's degree expected their child to attain a higher amount of education.
- Five-sixths of low-income households (86%) want their child to obtain higher levels of educational attainment.
- About five-sixths of single parents (87%) want their child to attain a higher level of education, whereas 58% of married parents do so. This may be indicative of the greater financial resources that accrue to two-parent dual-earner households, which are often more highly educated.

Ideal Schooling Amount

- The majority of parents expected their newborns to attain at least a bachelor's degree. This was true across income, parental education, geography, race, and ethnicity. In particular, more than 90% of parents expected their child to earn at least a bachelor's degree.

- Racial and ethnic minority parents had higher ideal expectations for their child's educational attainment than white parents. For instance, African Americans, on average, report expecting their child to attain nearly half a point (.44) higher amount of schooling than white parents (according to the multivariate findings; see Appendix Exhibit D1).[vii]
- As a parent's education level increases, so too does their expectation for their child's educational attainment.
- As rurality increases, fewer families were likely to state the ideal schooling level for their child is more than a bachelor's degree. Consequently, fewer stated the ideal amount of schooling for their child was to earn a master's or a doctoral/professional degree.

<u>Pursuit of a Two-year and Pursuit of a Four-year Degree</u>

- Almost all (98.6%) of parents selected either "my child probably will" or "very sure my child will" pursue at least a two-year associate's degree. Similarly, 98% responded similarly when asked if their child would pursue at least a four-year bachelor's degree. This suggests that for newborns, parental expectations are incredibly high, with almost all parents expecting at least the same level of schooling for their child as they earned and that the child will pursue at least a bachelor's degree.
- In the multivariate results, a greater share of African Americans, Latinx, and Asians each expressed confidence that their child would pursue at least a two-year and at least a four-year degree than white parents.
- In general, the higher education of the parent, the higher the educational expectations for the child (see the multivariate results in Exhibit D1).
- There were no substantive differences in expectations across household income in the descriptive results. There were no differences in the multivariate findings either, after accounting for the financial indices.[viii]
- While over 90% of families say their child "probably will" or are "very sure" their child will pursue at least a bachelor's degree, the proportion reporting "very sure" decreases from 57% in the largest metropolitan areas down to about 33% (depending on the category) in the more rural areas. This finding is supported in the multivariate results as well. While parents retain high expectations, in more rural areas they are less certain about their child's educational future.

<u>In-State versus Out-of-State and Public versus Private</u>

- Of those families that had a preference for where their child attends school (more than half did not have an opinion, when their child was less than a year old), the results were striking. More than nine in ten parents (91%) preferred an in-state institution (either local or other in-state), to out-of-state.
- In particular, for those families residing outside of the most urban areas, almost all expected their child to attend an in-state institution. About 5% of families residing in urban areas expected their child to attend an out-of-state institution.[ix]

- Of parents that had a preference, the vast majority (83%) also preferred public institutions to private, especially families in more rural areas. This suggests that for families planning for their child's postsecondary future, there is a strong preference for public sector in-state institutions.

Financial Trust, Assets, and Savings Behavior

The survey asked a series of financial information questions, including such information as confidence in placing money in a bank account, stock market, and 529 account; barriers to saving; what share of postsecondary costs parents expect to pay; and preference for the Investment Plan (IP) or Guaranteed Savings Plan (GSP) versions of the PA 529. These questions were collapsed into six indices: (1) *Financial Trust*; (2) *Barriers to Saving*; (3) *Financial Assets*; (4) *Limited Ability to Save*; (5) *Initiated Savings Behavior*; and (6) *Believe it is Too Early to be Saving*. An explanation of the indices, including a full list of financial questions for each index, is included in Appendix Exhibit A2.[x]

Race/Ethnicity

All racial/ethnic minorities are at a disadvantage as compared to white families with respect to these financial indices. Specifically,

- African American, Latinx, and Asian families all score lower on measures of *Financial Trust* than white families (.55, .34, and .18 standard deviations lower, respectively).
- Latinx and Asians reported more *Barriers to Saving* than white families.
- African Americans and Latinx families reported fewer *Financial Assets* and, relatedly, had more of a *Limited Ability to Save.* They were more likely to state that regular expenses, overdue bills, and credit card debt limited their ability to save for their child's educational future. They had money left over at the end of the month less often and were more likely to have payday or title loans. Fewer of them had set aside emergency funds to cover three months' worth of expenses. African Americans were more likely to have student loan debt.
- Each group was less likely to have *Initiated Savings Behavior* for their child.
- Latinx is the only group to be statistically significantly more likely (compared to white families) to say it is *Too Early to be Saving*.

Income

- Lower-income families (defined as families earning less than $50,000 a year) are at least a half a standard deviation lower on measures of *Financial Trust*, *Financial Assets*, and *Initiated Savings Behavior* than households with higher incomes.

  Having low income is one of the strongest predictors of families reporting it being *Too Early to Be Saving* for college (.15 standard deviations higher than non-low-income households).

Education

- As education increases, so too do *Financial Trust*, *Financial Assets*, and *Initiated Savings Behavior*. As education increases, families are less likely to report a *Limited Ability to Save*.
- Parents with a postgraduate degree are less likely to state it is *Too Early to be Saving*.

Rurality/Urbanicity[xi]

- Living outside of the largest metropolitan areas is associated with reporting lower levels of *Financial Trust* and *Financial Assets*.
- Families in more rural areas report substantially lower levels of *Initiated Savings Behavior* than families in large metropolitan areas.

Additional Takeaways

- Low-income families greatly preferred the GSP to the IP (55.3% to 13.9%, 30.8% no preference). Families that weren't low-income slightly favored the IP (40.7%) to the GSP (38.2%, 21.1% no preference).
- Only 15% of African Americans preferred the GSP as compared to 58.9% the IP, the lowest percent and biggest gap between GSP and IP of all the racial/ethnic groups.
- For families not currently using a 529 plan, 54% stated a financial match would be most persuasive in deciding to use one. Nearly 30% stated automatic enrollment would be.
- Nearly half of respondents thought that 20% or fewer Pennsylvania families were saving for their child's postsecondary education (48.4%). Another 39% thought that 40% or fewer were saving. While survey respondents are not representative of Pennsylvania households overall, 55% of them reported having started saving for their newborn. This suggests a potential disconnect between families' college savings behavior and their perceptions of other families' postsecondary savings behavior.

Financial Indices and Parental Expectations

Through the multivariate regressions, we are able to examine the association between the financial indices and parental expectations, net of family demographic characteristics. This analytic method therefore provides important insights into how financial indices may influence parents' perspectives on their child's educational futures.

- In the multivariate findings, a one standard deviation increase in *Financial Trust* is associated with a slight (.03 to .04 point) increase in pursuit of a two-year and four-year degree, but not the other financial measures. For instance, this difference in pursuit would be found, on average, between families in the 50th percentile compared to the 16th percentile as well as families in the 90th percentile compared to the 60th percentile of *Financial Trust*, both of which represent one standard deviation increases. This suggests that *Financial Trust* increases parental expectations around postsecondary education pursuit but it doesn't change a parent's calculation of their ability to pay for more expensive institutions that are either out-of-state or private.

- Having higher *Barriers to Saving* is associated with an increase in expectations in education with respect to both the parent's schooling level and ideal schooling level, as well as pursuit of a four-year degree. Similarly, a *Limited Ability to Save* is associated with higher expectations with respect to the parent's education level and overall. Together, this is consistent with parents, in general, having high expectations for their child's educational attainment.

- Higher *Barriers to Saving* is negatively associated with pursuit of a postsecondary degree out-of-state and at a private institution. This suggests that parents may be innately wary of expensive out-of-state and private programs, independent of ability to pay.

- Families with greater *Financial Assets* report higher expectations for their child's overall educational attainment. Of the six financial measures, *Financial Assets* has the largest impact on overall expectations. A one standard deviation increase is associated with a .15 increase in overall expectations, which is nearly three times as large an effect as the next nearest financial measure. The same is true for pursuit of a two-year and four-year degree. *Financial Assets* has a larger effect on these pursuits (.08 and .10 standard deviations, respectively) than any of the other financial measures. As a family's *Financial Assets* dedicated to college savings increase, they are also more likely to report their child will pursue their education out-of-state and at a private institution.

- Families that have *Initiated Savings Behavior* report higher expectations for their child.

- These families are also less likely to expect their child to pursue an out-of-state or private institution. As the research design for these analyses is not causal, the mechanism behind this result is not clear. One possibility could be that families that have begun to save have a greater understanding of the projected costs of postsecondary schooling and are therefore more likely to prefer more affordable options.

- Some families reported it was *Too Early to be Saving*. For these, they largely reported lower expectations, including for the amount of postsecondary education their child is expected to obtain as compared to how much the parent obtained. In the multivariate findings, no other financial measure was associated with lower expectations for the child's education level as compared to the parent's education level, suggesting negative consequences to this specific mindset. Importantly, these families also indicate lower expectations for pursuit of a two-year degree and pursuit of a four-year degree. The magnitude (about .03 standard deviations) is the same size as the positive impact *Financial Trust* has on pursuit of a two-year and four-year degree. Therefore, the lack of an early childhood saving mindset is an important dynamic deserving of further attention and research. Parents who believe in putting off saving until the future may end up with fewer resources saved, which could ultimately self-fulfill the lower expectations they exhibited during their child's infancy. The ability to change this mindset, independent of a family's *Financial Trust* and *Financial Assets*, could have potentially strong long-term impacts on their child's educational future.

Conclusion

Parental Expectations

We find that Pennsylvanian families have high expectations for their child's educational future. Throughout the state across all race/ethnicities, incomes, marital status, and education levels, new parents typically want their child to attain more education than they had. This is especially evident for families that are less advantaged, including single parents, low-income parents, and parents of color. We again note that our findings are derived from families with new babies in 2018 and 2019 that chose to complete the survey. Results are therefore not necessarily generalizable to the full set of Pennsylvanian households who recently had new babies. These aspirations also manifest with 98% of all parents wanting their child to pursue at least a four-year bachelor's degree. This college-bound ethos is pervasive, found across all demographic groups identified in the survey.[xii] In fact, higher proportions of African American, Latinx, and Asian parents as compared to white parents reported ideally wanting their child to earn a bachelor's degree.

Families had strong observed preferences for Pennsylvania's public higher education institutions. For those that stated a preference, they preferred in-state institutions to those out-of-state 91% of the time, and public institutions to private ones 83% of the time.

While these educational expectations are incredibly high, in the past, many historically disadvantaged groups have not been able to realize these aspirations. As of 2016, 35% of whites and 54% of Asians age 25 and older nationally had earned a bachelor's degree. Only 21% of African American and 15% of Latinx had done so. Put another way, amongst those 25 and older, four in ten fewer African Americans and nearly six in ten fewer Latinx had earned a college degree than whites (NCES, 2019). [xiii] Child Development Account programs like Keystone Scholars are designed to provide motivational and financial supports to families with the specific aim of bolstering these aspirations as children grow and in assisting families translate aspirations into attainment.

Financial Trust, Assets, and Savings Behavior

We find that *Financial Assets* have a large and significantly positive impact on parents' expectations for their child's educational future. This is not altogether surprising, as financial assets can make affording the growing cost of postsecondary education less daunting. In addition, the physical act of saving (families that *Initiated Savings Behavior*) was associated with having higher expectations for their child. At the same time, families earning less than $50,000 a year (compared to those earning more than $50,000 a year) and each racial/ethnic minority group (compared to white families) were often at a relative disadvantage across the financial indices, including *Financial Trust*, *Assets* (other than Asians), and *Initiated Savings Behavior*. That their expectations are consistently high with fewer assets is a testament to these families' beliefs in higher education as an engine of opportunity. It is precisely why programs like Keystone Scholars, which provides an initial financial investment as well as an additional targeted deposit for qualifying families, show government commitment to and investment in children as part of the state's future robust workforce and an educated citizenry. It provides easy-to-use tools for family and friends to also make financial contributions and can help bolster these aspirations over the long-term.

Our findings suggest that *Too Early to Start Saving* is also a critical factor. Parents that reported it was *Too Early to Start Saving* often had lower expectations for the future education of their child, including education level compared to the parent and pursuit of both a two-year and a four-year degree. The size of this negative association is the same magnitude but the opposite direction as the positive impact of *Financial Trust* with respect to pursuit of a two-year and of a four-year degree. No other financial measure was so consistently associated with lower parental expectations, suggesting negative consequences to this specific mindset.

Yet, *Too Early to Start Saving* is probably the most malleable of the six financial indices. It captures if families think it is too early to start saving and if they have not gotten around to opening an account or college savings plan yet, rather than if they've started saving, have the ability or assets to do so, or face barriers preventing them from doing so. The downstream ramifications of parents who believe in putting off saving until the future may be severe. These parents will have saved fewer assets and be less able to afford the growing cost of college, which may result in self-fulfillment of their initial lower expectations. This is particularly true for low-income families, as having a low income was one of the strongest predictors of reporting *Too Early to Start Saving*. Having or lacking an early childhood saving mindset is therefore an important dynamic for parental expectations and postsecondary savings, independent of a family's assets. By providing an initial $100 seed, targeted deposit for qualifying families, and encouraging families to contribute while their child grows, Keystone Scholars is well positioned to foster a change in this mindset and, in doing so, improve the future educational prospects of participating children.

*Families Residing in More Rural Area*s

While the results were often consistent across families residing in urban and rural areas, we observe several differences of note. Even though aspirations of a four-year bachelor's degree are exceedingly high throughout the state, families in more rural areas also used less certain language when describing their postsecondary expectations, more often selecting "my child probably will" over "very sure my child will" than families in more urban settings. In addition, fewer families in more rural areas expect their child to earn a degree beyond a bachelor's, such as a master's or a doctoral/professional degree. Nearly all rural-based families expected their child to attend an in-state institution. Families in more rural areas were less likely to have *Initiated Savings* and reported lower amounts of *Financial Trust* and *Financial Assets*. Placed together, these families often had fewer resources at their disposal to begin saving early for their child's future.

Next Steps

Now in its third year as a statewide program, Keystone Scholars has begun to build on CDA best practices with a focus on low- and moderate-income (LMI) children. Pennsylvania Treasury is now piloting an automatic additional targeted deposit for children born to low-income families. This ‘automatic progressive subsidy’ is the tenth and final key design element that experts recommend CDAs incorporate.[xiv] With the generous agreement of Pennsylvania Treasury’s philanthropic donors, the Neubauer Family Foundation, Henry L. Hillman Foundation, Richard King Mellon Foundation, and the Heinz Endowments, and with proceeds from a legal settlement to which Pennsylvania Treasury was a party, Pennsylvania Treasury is providing an additional one-time targeted $50 deposit. Called the “Bright Future Booster,” the additional deposit will go into the Keystone Scholars accounts of babies born between January 1 and June 30, 2021 whose mothers are enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). In an effort to raise awareness among eligible mothers about the Bright Future Booster, Pennsylvania Treasury has begun to cultivate a strong partnership with the WIC program at the Pennsylvania Department of Health as well as with the 24 local agencies that administer the WIC program throughout the state and their affiliated advocate organizations. This close partnership is invaluable in reaching families and assuring them of the benefits of Keystone Scholars.

Keystone Scholars is working particularly closely with one local WIC agency in Western Pennsylvania, Adagio Health, to incentivize participation in the WIC program through the child’s first 5 years. The ‘WIC-Keystone Scholars Milestone Program’ will provide additional deposits into the Keystone Scholars accounts of eligible children born in 2021 whom Adagio serves, for each year the child remains enrolled in WIC. Funding for the deposits is made possible by a grant from the Henry L. Hillman Foundation. The Milestone Program aims to strengthen the early childhood development of financially vulnerable families by promoting the array of financial, social, and emotional benefits CDAs provide, while encouraging retention in a critical public health program. The Keystone Scholars program continually seeks to replicate this type of model by partnering with more local organizations to provide targeted deposits to low-income children in new and innovative ways.

Pennsylvania Treasury also continues to partner with Pittsburgh-based Fund My Future to offer the PA Savings Pledge (Pledge), an initiative that combines the Keystone Scholars program with a prize-linked savings program. The Pledge is a high-touch program that provides tailored messaging multiple times each month to encourage and support families in their savings journeys and to reward them with the chance to win prizes.

In addition, Pennsylvania Treasury continues to explore ways to make PA 529 more accessible to low- and moderate-income families. Treasury has partnered with the research organization Build Commonwealth (Commonwealth) to understand barriers that prevent LMI families from saving in 529 plans. In late 2020, Commonwealth conducted surveys and interviews with 290 Keystone Scholars families in order to test the hypothesis that families, particularly LMI families, need a liquid savings option in addition to the 529. Results are forthcoming.

Finally, as noted earlier, in order to examine how parental expectations and savings evolve over time, Pennsylvania Treasury plans to conduct a follow-up to its baseline survey in 2023, when Keystone Scholars children are four to five years old.

In summary, Pennsylvania Treasury continues to implement and build upon the Keystone Scholars program in new and innovative ways. At the time of this writing, more than 260,000 Pennsylvania children now have a college savings account established in their name because of the Keystone Scholars program. Pennsylvania Treasury is continuing with its efforts to raise awareness of the program, especially among low- and moderate-income families, to encourage all families to begin saving early, and to begin the important work of helping every Pennsylvania child develop a college-bound identity.

Appendix A

Exhibit A1. Parental Expectations Questions

Q1: If there were no barriers, would you want your youngest child to complete the same, more, or less schooling than you have completed?

Q2: In the best of all worlds (ideally), how much schooling would you like your youngest child to complete?

Q3: How sure are you that your child will pursue a two-year (associate's) or a four-year (bachelor's) degree after they leave high school?

Q4: How sure are you that your youngest child will pursue a four-year (bachelor's) degree, specifically, after they leave high school?

Q5: Do you anticipate your youngest child will go to a local two- or four-year college in-state (within an hour drive/50 miles), other in-state college, or out-of-state college?

Q6: Do you anticipate your youngest child will go to a public two- or four-year college or university (such as Penn State; Shippensburg; Bloomsburg) or a private two- or four-year college or university (such as Villanova; Duquesne)?

Exhibit A2. Financial Information Questions

Below we describe the specific items and phrasing contained within each of the six financial indices. We note that only items included in an index are listed, even if the survey question from which an item was derived allowed for selecting multiple answers. For instance, "529 College Savings Plan" and "Checking account at a bank or credit union" are two (of many) answer choices from the question "Which of the following is your household currently using to save for your youngest child's college education? Please select all that apply." Because "529 College Savings Plan" is an item in the *Initiated Savings Behavior* index but "Checking account at a bank or credit union" is not, we only list "529 College Savings Plan" below.

<u>1) Financial Trust</u>

How confident are you that your money is safe if you were to place it in a bank account?

How confident are you that your money is safe if you were to invest it in the stock market?

How confident are you that your money is safe if you were to invest it in a 529 account?

Pennsylvania has two types of 529 college savings accounts – the Guaranteed Savings Plan, where contributions grow at the rate of college tuition inflation, and the Investment Plan, where contributions are invested in the stock market. Do you have a preference between these two types of accounts for your youngest child's college savings?

Why do you have this preference? Please select all that apply.

I like the guaranteed feature of the Guaranteed Savings Plan.

My contributions are likely to grow the most in the Investment Plan.

The stock market is too risky.

I like knowing my money is safe after I contribute.

I am unfamiliar with investing in the stock market.

The stock market will give me the largest returns.

Not applicable. I do not have a preference.

Other (please specify)

2) Barriers to Saving

There are many reasons people do not save as much as they would like. Please select which, if any, of the following apply to you.

Not sure what the best options are

Too complicated

A college savings plan seems hard to open

Don't want to hurt child's chances of getting financial aid

Don't have enough information to know how to save

Don't understand how a college savings plan might be beneficial

3) Financial Assets

Approximately what share of the cost do you expect your household to pay for your youngest child's college?

Considering all sources of funds (including scholarships, grants, private loans in your name, and your own savings) what kind of school do you think your family would be able to afford for your youngest child?

Do you anticipate you will receive any financial gifts from family members for college savings for your youngest child?

Has another family member started a college savings plan for your youngest child?

Would your household be willing to take on debt to pay for your youngest child's college?

4) Limited Ability to Save

Have you been forced to save less for or not save for your youngest child's college education because of your need to pay for any of the following? Please select all that apply.

- Regular household expenses, including monthly bills
- Overdue bills
- Credit card debt
- Car payments
- Student loans
- A mortgage

There are many reasons people do not save as much as they would like. Please select which, if any, of the following apply to you.

- Don't have enough money to spare
- I have other savings priorities or debt

After you have paid your bills, how often do you have money left over at the end of the month?

Over the past year, did your household spend less than, more than, or equal to income? Please do not include the purchase of a new house, car, or other big investments you may have made.

Do you currently have any of the following types of debt? Please select all that apply.

- Payday or title loan
- Credit card
- Car loan
- Student loan

Have you set aside emergency funds or rainy day funds that could cover your expenses for three months in case of sickness, job loss, or another emergency?

5) Initiated Savings Behavior

Has your household already started saving for your youngest child’s college education?

Have you received any financial gifts from family members for college savings for your youngest child?

Are you currently using a 529 plan to save for your youngest child or for another child’s college?

Which of the following is your household currently using to save for your youngest child’s college education?

529 College Savings Plan

Is your household using any of the following to save for your youngest child’s college? Please select all that apply.

Paycheck

Automated deduction from paycheck

Wages

Personal savings

6) Believe it is Too Early to be Saving

There are many reasons people do not save as much as they would like. Please select which, if any, of the following apply to you.

Have not gotten around to opening a bank account for the child

This child is too young

Waiting to see if child goes to college

It’s too early to start saving

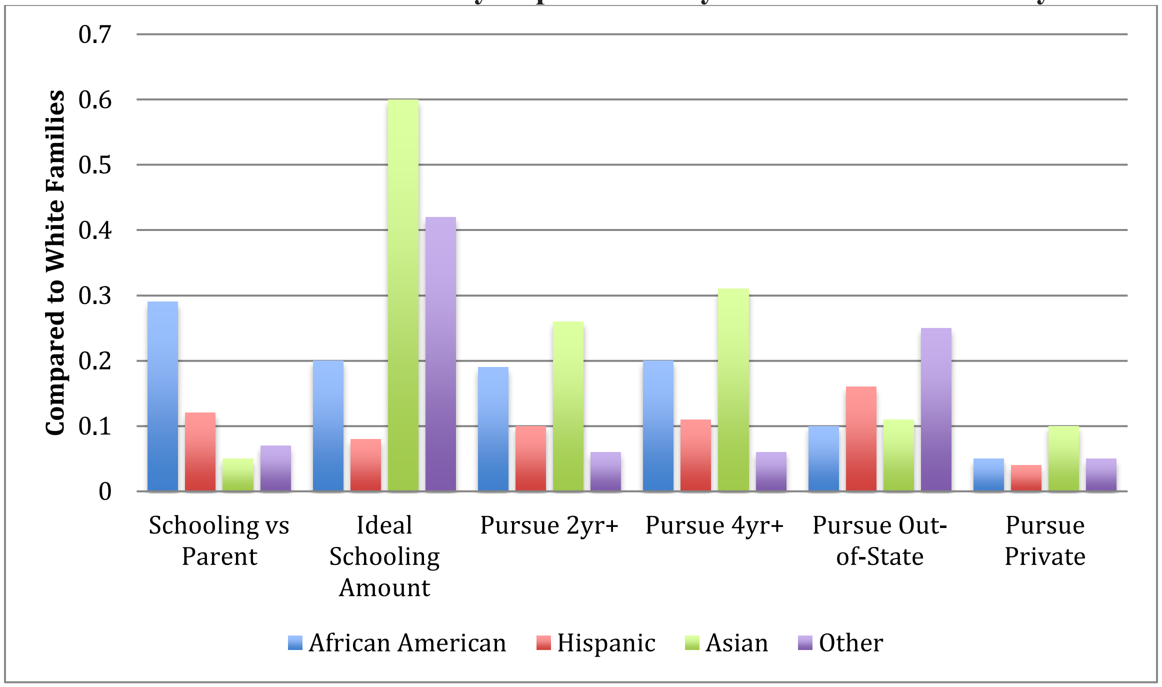
Exhibit A3. 2013 Rural-Urban Continuum Codes

Code	Description
Metro counties:	
1	Counties in metro areas of 1 million population or more
2	Counties in metro areas of 250,000 to 1 million population
3	Counties in metro areas of fewer than 250,000 population
Non-metro counties:	
4	Urban population of 20,000 or more, adjacent to a metro area
5	Urban population of 20,000 or more, not adjacent to a metro area
6	Urban population of 2,500 to 19,999, adjacent to a metro area
7	Urban population of 2,500 to 19,999, not adjacent to a metro area
8	Completely rural or less than 2,500 urban population, adjacent to a metro area
9	Completely rural or less than 2,500 urban population, not adjacent to a metro area

Source: https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation/

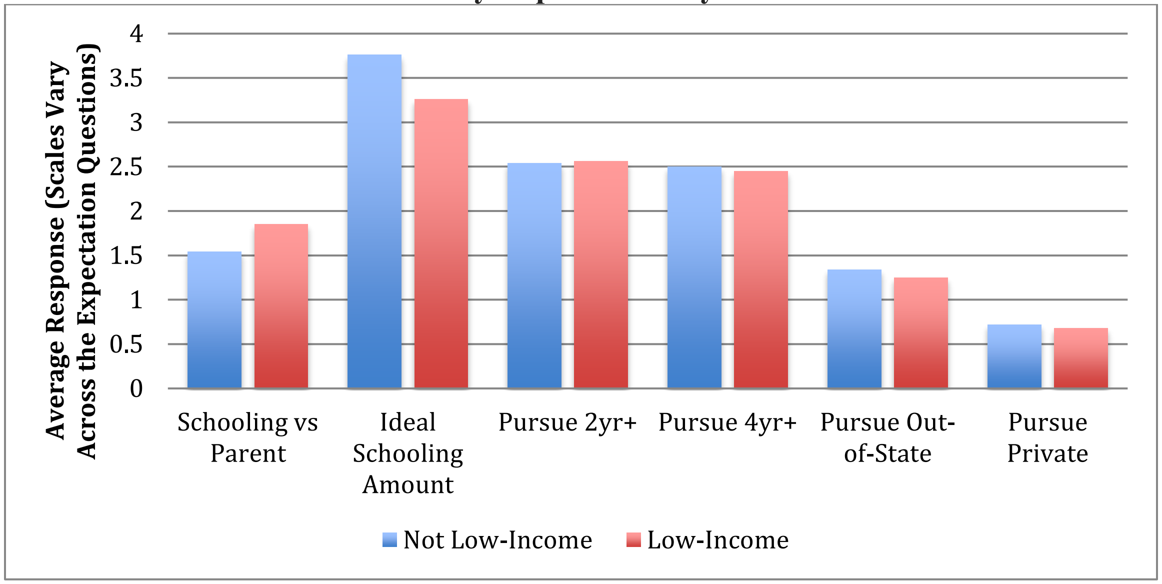
Appendix B

Exhibit B1. Parental Postsecondary Expectations by Parental Race/Ethnicity+



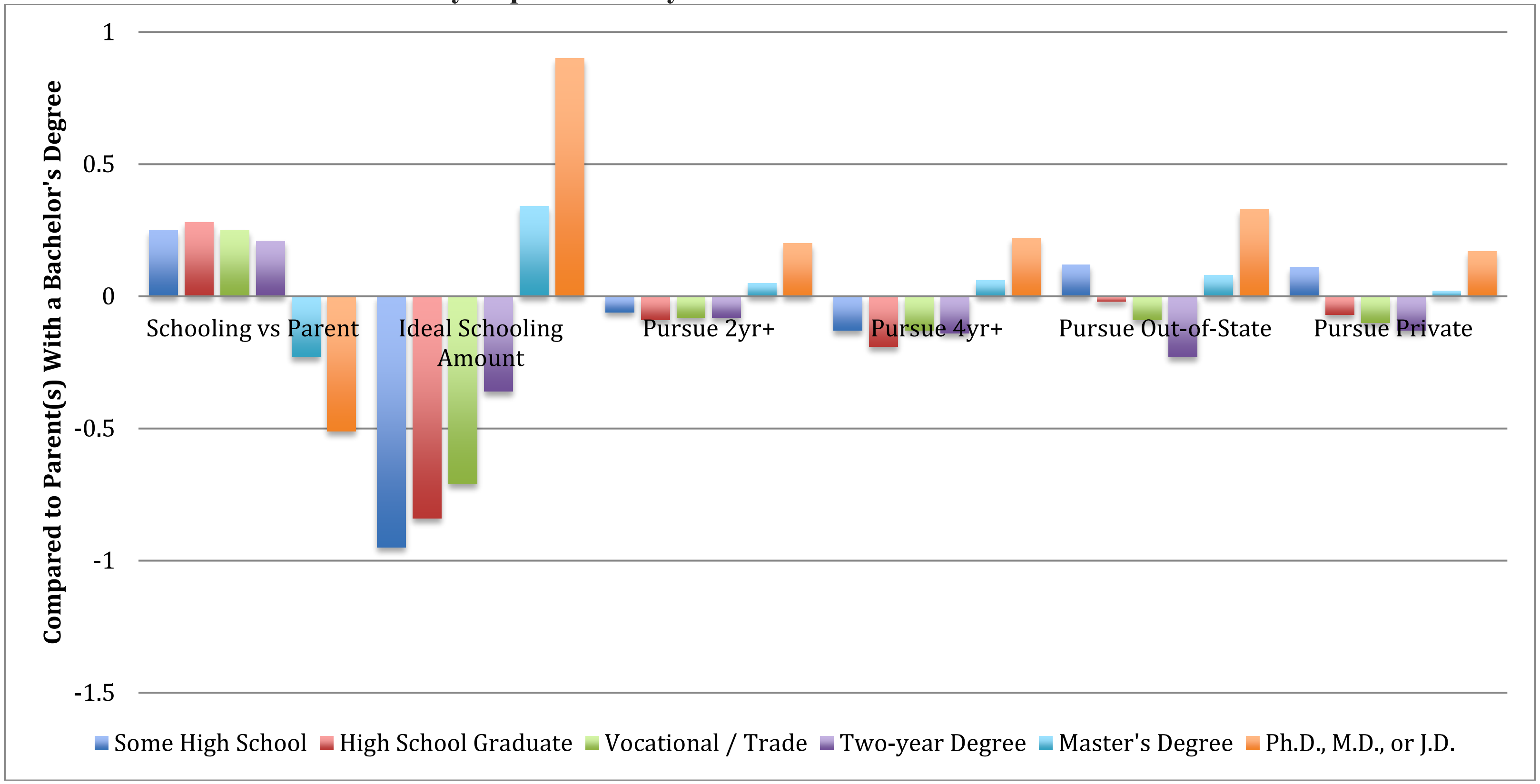
+ Parents who selected their race/ethnicity as 'White' is the reference category.

Exhibit B2. Parental Postsecondary Expectations by Household Income+



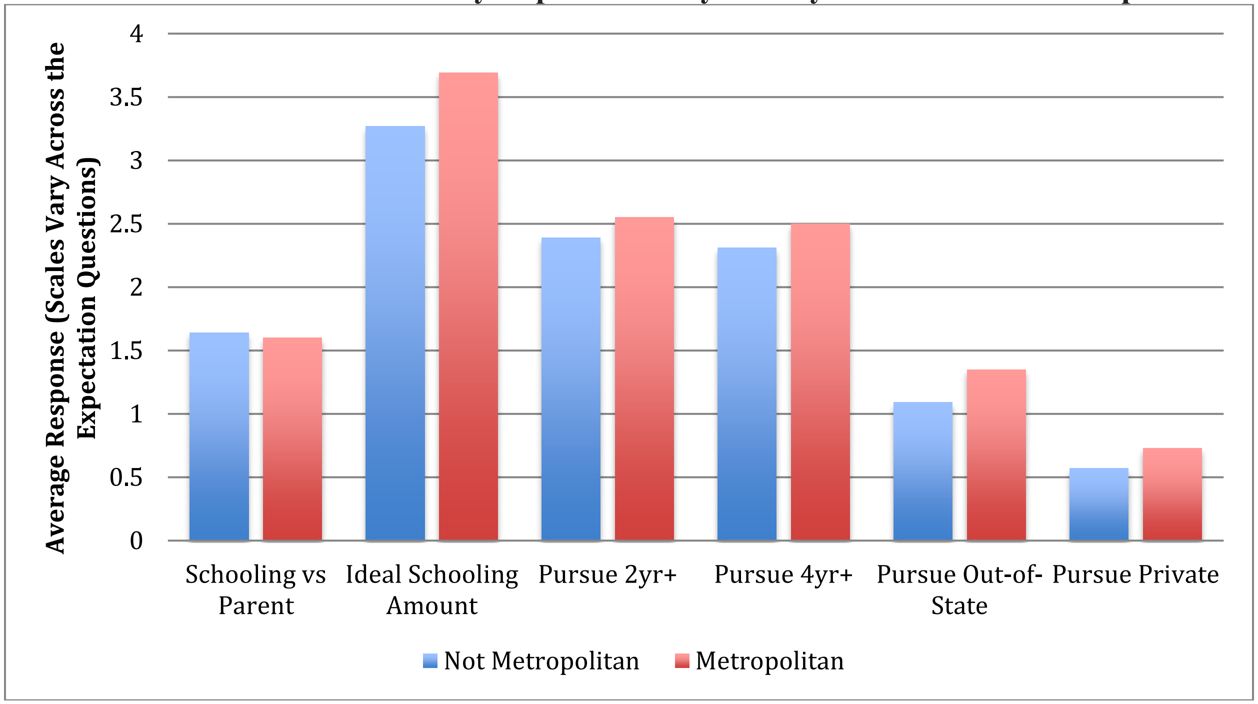
+ Low-income families are defined as families earning less than $50,000 a year.

Exhibit B3. Parental Postsecondary Expectations by Parental Education+



+ Parents who reported having earned a four-year bachelor's degree is the reference category.

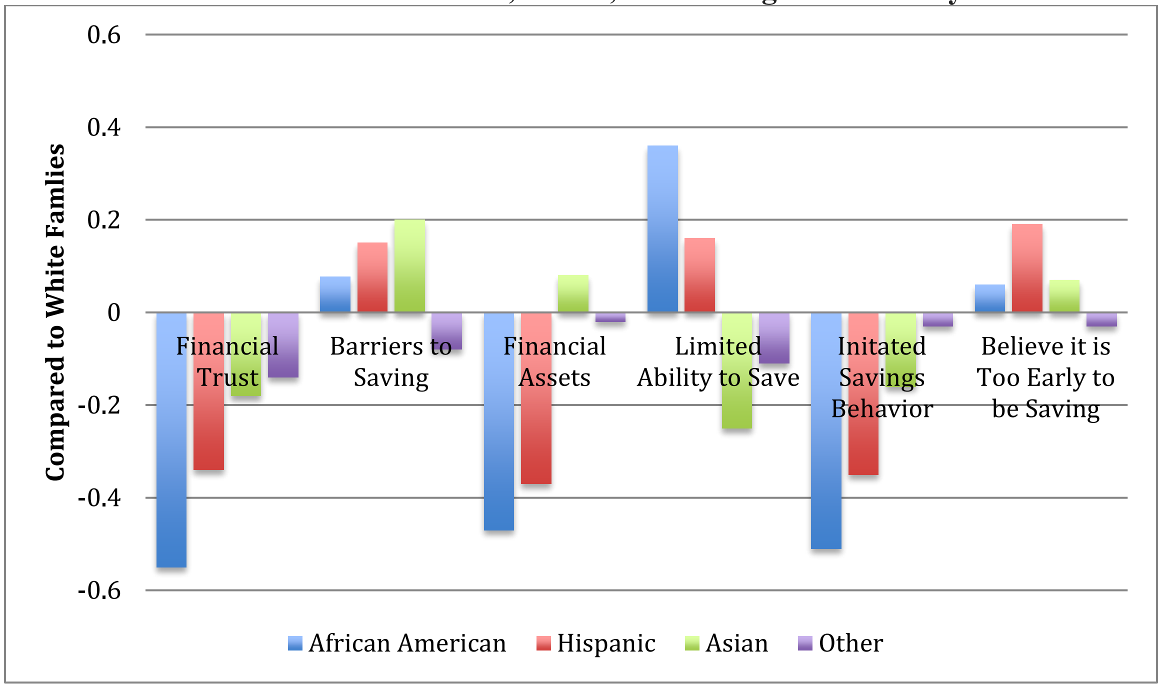
Exhibit B4. Parental Postsecondary Expectations by County of Residence's Metropolitan Status+



+ 'Not Metropolitan' and 'Metropolitan' counties are defined by collapsing the nine U.S. Department of Agriculture's Rural-Urban Continuum Codes (RUCC). RUCCs 1-3 are coded as Metropolitan and 4-9 as Not Metropolitan. For full details on the RUCC codes see Appendix Exhibit A3.

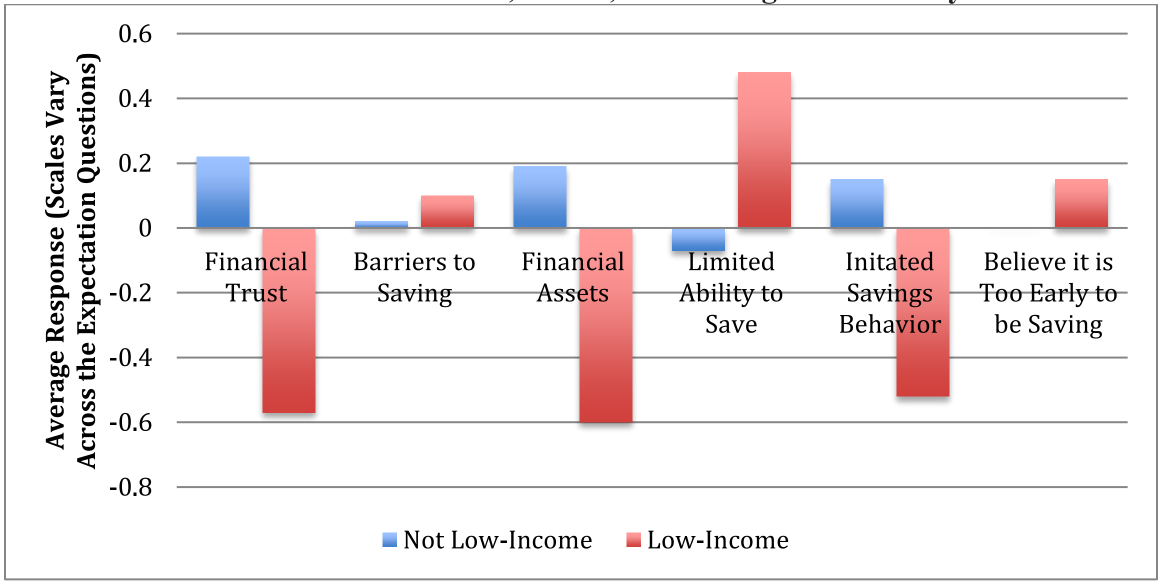
Appendix C

Exhibit C1. Parental Financial Trust, Assets, and Savings Behavior by Parental Race/Ethnicity+



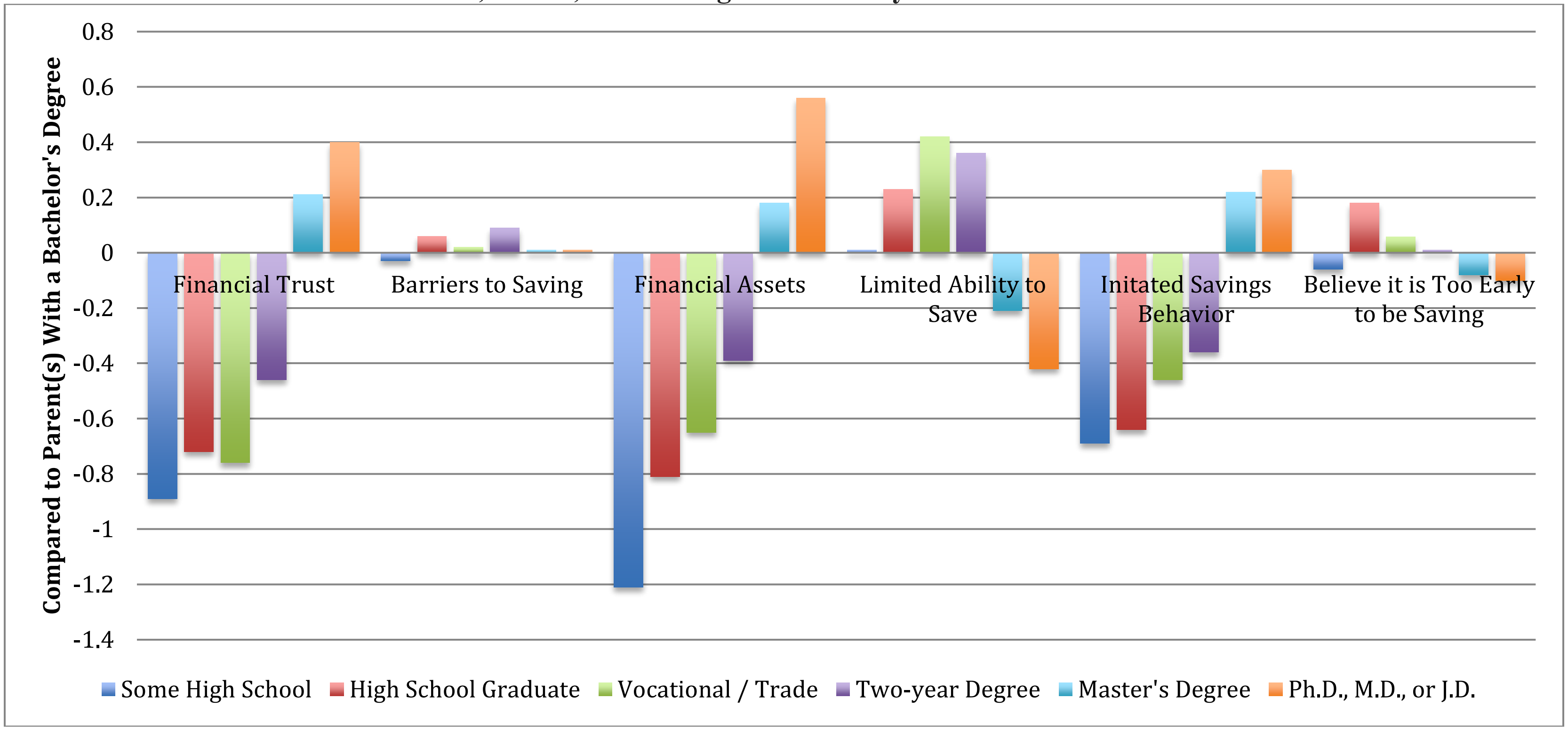
+ Parents who selected their race/ethnicity as 'White' is the reference category.

Exhibit C2. Parental Financial Trust, Assets, and Savings Behavior by Household Income+



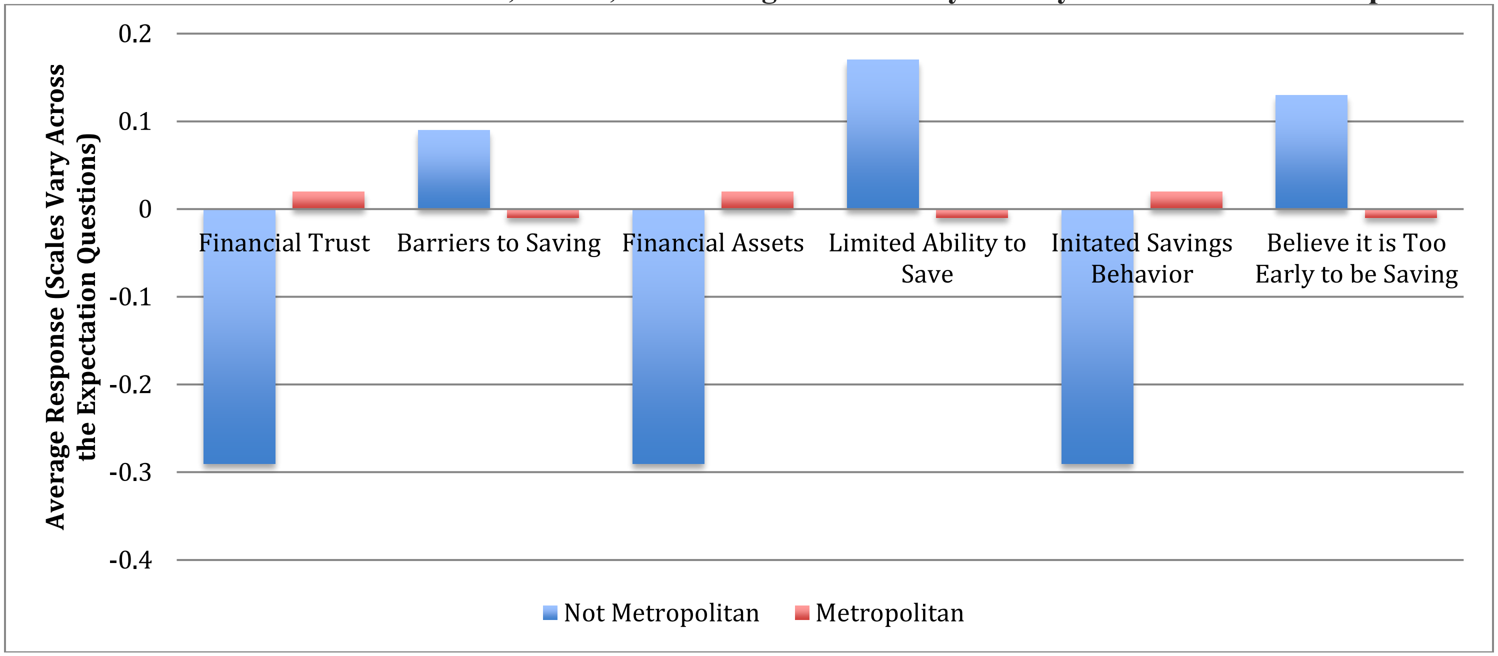
+ Low-income families are defined as families earning less than $50,000 a year.

Exhibit C3. Parental Financial Trust, Assets, and Savings Behavior by Parental Education+



+ Parents who reported having earned a four-year bachelor's degree is the reference category.

Exhibit C4. Parental Financial Trust, Assets, and Savings Behavior by County of Residence's Metropolitan Status +



+ 'Not Metropolitan' and 'Metropolitan' counties are defined by collapsing the nine U.S. Department of Agriculture's Rural-Urban Continuum Codes (RUCC). RUCCs 1-3 are coded as Metropolitan and 4-9 as Not Metropolitan. For full details on the RUCC codes see Appendix Exhibit A3.

Appendix D

Exhibit D1. Multivariate Regression Examining Variation in Parental Expectations by Key Demographic Characteristics and Financial Measures

	Schooling vs Parent		Ideal Schooling Amount		Pursue 2yr+		Pursue 4yr+		Pursue Out-of-State		Pursue Private	
Race/Ethnicity												
African American	0.123	***	0.442	***	0.175	***	0.194	***	1.524	***	0.506	+
	-0.031		-0.063		-0.033		-0.032		-0.289		-0.268	
Latinx	0.011		0.147	*	0.071	+	0.104	**	1.308	***	0.448	
	-0.035		-0.07		-0.037		-0.036		-0.337		-0.312	
Asian	0.032		0.179	**	0.118	***	0.142	***	0.698	*	0.28	
	-0.03		-0.061		-0.032		-0.031		-0.298		-0.255	
Other	0.069		0.362	***	-0.005		-0.002		0.866	+	-0.362	
	-0.046		-0.093		-0.048		-0.047		-0.486		-0.439	
Marital Status	-0.038		-0.162	**	-0.086	**	-0.064	*	-0.58	*	0.004	
	-0.025		-0.05		-0.026		-0.026		-0.285		-0.252	
Mother's Education	-0.179	***	0.279	***	0.035	***	0.044	***	0.328	***	0.251	***
	-0.007		-0.015		-0.008		-0.008		-0.093		-0.074	
Income	-0.004		0.005		0.001		0.002		0.041		-0.047	
	-0.003		-0.007		-0.004		-0.004		-0.04		-0.031	
Work Status												
Part-time	-0.043		0.165		-0.114		-0.014		-0.24		1.051	
	-0.085		-0.171		-0.089		-0.087		-0.887		-1.115	
Full-time	0.005		0.1		-0.121		-0.034		-0.819		0.648	
	-0.083		-0.166		-0.086		-0.084		-0.861		-1.101	
Two Earner	0.04	*	0.017		-0.01		-0.025		0.009		-0.271	
	-0.02		-0.041		-0.021		-0.021		-0.227		-0.175	
Hours/Week Worked	0.002		0.006		0.025	**	0.025	**	0.072		0.109	
	-0.009		-0.017		-0.009		-0.009		-0.091		-0.076	
USDA RUCC Code												
RUCC_2013=2	-0.02		-0.059	+	-0.018		-0.04	*	-0.04		-0.341	*
	-0.017		-0.035		-0.018		-0.018		-0.196		-0.16	
RUCC_2013=3	0.031		-0.05		-0.088	**	-0.086	**	-0.323		-1.208	***
	-0.027		-0.055		-0.029		-0.028		-0.33		-0.32	
RUCC_2013=4	-0.046		-0.114		-0.064		-0.057		-1.267	+	-0.862	*
	-0.037		-0.075		-0.039		-0.038		-0.742		-0.419	
RUCC_2013=6	-0.022		0.066		-0.124	*	-0.115	*	-		-0.52	
	-0.053		-0.108		-0.056		-0.055		-		-0.567	
RUCC_2013=7	0.054		-0.069		-0.089		-0.165	+	-		-	
	-0.082		-0.167		-0.087		-0.085		-		-	
RUCC_2013=8	0.11		0.452		-0.149		-0.118		-		0.196	
	-0.216		-0.438		-0.228		-0.223		-		-1.762	
RUCC_2013=9	-1.151	***	-0.756		-0.01		-0.201		-		-	

	-0.241		-0.489		-0.254		-0.249		-		-	
Age	0.011	***	0.02	***	0.001		0.003	*	0.007		0.01	
	-0.002		-0.003		-0.002		-0.002		-0.018		-0.015	
Children ≤17 in Household	-0.018	*	-0.044	*	0.001		0		0.12		-0.005	
	-0.009		-0.018		-0.009		-0.009		-0.104		-0.083	
Other Primary Language	0.164	***	0.455	***	0.193	***	0.208	***	0.374		0.348	
	-0.031		-0.062		-0.032		-0.032		-0.31		-0.251	
First Generation Status	-0.16	**	-0.274	**	-0.016		-0.072		0.643		1.012	+
	-0.052		-0.105		-0.054		-0.053		-0.812		-0.554	
Books in Home	-0.001		0.02		-0.007		-0.013	+	0.151	+	-0.031	
	-0.007		-0.014		-0.007		-0.007		-0.081		-0.061	
Financial Trust (Standardized)	-0.01		-0.021		0.034	***	0.036	***	-0.052		0.056	
	-0.009		-0.019		-0.01		-0.01		-0.111		-0.087	
Barriers to Saving (Standardized)	0.022	**	0.042	**	0.009		0.016	*	-0.193	+	-0.136	+
	-0.008		-0.016		-0.008		-0.008		-0.105		-0.081	
Financial Assets (Standardized)	0.011		0.15	***	0.079	***	0.098	***	0.89	***	1.031	***
	-0.009		-0.019		-0.01		-0.009		-0.112		-0.095	
Limited Ability to Save (Standardized)	0.046	***	0.056	***	0.013		0.005		-0.08		-0.056	
	-0.008		-0.016		-0.008		-0.008		-0.094		-0.075	
Initiated Savings Behavior (Standardized)	0.026	**	0.014		-0.004		-0.003		-0.169	+	-0.245	**
	-0.009		-0.018		-0.009		-0.009		-0.1		-0.082	
Too Early to Save (Standardized)	-0.02	*	-0.01		-0.035	***	-0.032	***	0.16	+	-0.019	
	-0.008		-0.016		-0.009		-0.008		-0.094		-0.08	
Constant	2.019	***	1.743	***	2.473	***	2.221	***	-4.829	***	-3.384	**
	-0.1		-0.202		-0.105		-0.103		-1.098		-1.198	
N	4512		4516		4514		4509		2069		1930	

+ p<.10, * p<.05, ** p<.01, *** p<.001

Endnotes

[i] Markoff, S., & Robinson, O. (2020, April). The Movement Reaches New Heights: The State of the Children's Savings Field 2019. Prosperity Now. https://prosperitynow.org/sites/default/files/PDFs/CSAs/The_Movement_Reaches_New_Heights.pdf.

[ii] Clancy, M., & Beverly, S. (2017). *Statewide Child Development Account Policies: Key Design Elements* (No. 17–30). Retrieved from https://doi.org/10.7936/K7G44PS2

[iii] Sherraden, Michael, Clancy, M. M., & Beverly, S. G. (2018). *Taking Child Development Accounts to Scale: Ten Key Policy Design Elements*.

At the time of this writing, the Keystone Scholars program offers a time-limited additional $50 targeted deposit to eligible families. The Bright Future Booster program provides an additional one-time $50 deposit to Keystone Scholars accounts for babies born between January 1 and June 30, 2021 to mothers enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) at the time of the child's birth.

[iv] In order to be eligible, parents in each of these groups needed to be Pennsylvania residents with a valid Pennsylvania mailing address. Parents whose babies were known to have passed away were excluded from the survey. Because the survey link was also available online at pa529.com and in the Keystone Scholars portal, some parents with babies born earlier than 2018 also completed the survey. They are excluded from the analysis.

[v] The small percentage of parents that started but did not complete the survey are also excluded.

[vi] The racial and ethnic makeup of respondents is slightly different than the PA population of interest. The survey has a slight over-representation of white (74.5% vs 68%) and Asian families (8.4% vs 4.5%), as well as a sizeable under-representation of African American families (8.8% vs 15%) compared to, for instance, families of new babies born in 2019. Also, 5.7% of survey respondents were Latinx. The average educational level in the household of parents for respondents was a bachelor's degree. About one-third held a master's degree and another 14% a Ph.D., M.D., or J.D. For the population of PA households in 2019 with new babies, less than 40% held a bachelor's degree, 12% a master's degree, and 3% a professional degree. The median household income category for respondents was $75,000-$99,999, which is higher than the median household income in Pennsylvania ($70,582 in 2019) according to the U.S. Census Bureau [U.S. Census Bureau, Median Household Income in Pennsylvania [MEHOINUSPAA646N], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/MEHOINUSPAA646N, March 4, 2021]. In the survey, 20% of households were considered low-income, earning less than $50,000 a year, whereas 30% of the population of mothers with newborns in 2019 was on WIC. More than four in five respondents were married, substantially higher than the 58% of new parents in 2019 who were. More than 90% of respondents resided in metropolitan areas, compared to 79% overall [Iowa State University Iowa Community Indicators Program, Urban Percentage of the Population for States, Historical, https://www.icip.iastate.edu/tables/population/urban-pct-states, March 5, 2021].

[vii] How parental expectations vary across both key demographic characteristics (e.g. race/ethnicity, education) and the various financial indices are also examined in a multivariate regression framework, with regression results noted specifically when applicable above. The financial indices are standardized for ease of comparability. We note that these results are not causal – none of the results are derived from an experimental or quasi-experimental design. They do, however, offer important insights into variation in parental expectations, all else equal. That is, controlling for demographic characteristics and other information revealed through the survey responses, is there still a difference in expectations between parents of different race/ethnicities and income status, for instance. The analytic sample for the multivariate analyses is limited to those who completed the survey and for which there was relevant information.

We examine the six expectation variables described above (1) Schooling expected for the child as compared to the parent's schooling level; (2) The ideal schooling amount; (3) Whether the child is expected to pursue at least a two-year degree; (4) Whether the child is expected to pursue at least a four-year degree; (5) If they are expected to attend an in-state or out-of-state institution; and (6) If they are expected to attend a public or private institution. The first four expectations are measured as continuous variables under the normal distribution. Results greater than zero indicate (if significant) a positive association and results less than zero indicate (if significant) a negative association. Pursuit out of state and pursuit at a private institution are binary outcomes and are therefore modeled under the logistic distribution. Their results are also reported as coefficients, with greater than zero indicating (if significant) a positive association. All results are located in Appendix Exhibit D1.

[viii] Without the financial indices, higher household income in the multivariate results (available upon request) is associated with higher expectations for pursuit of a two-year degree, a four-year degree, and a postsecondary degree out-of-state.

[ix] Just over half of families reported they were "not sure."

[x] As a frame of reference, each index can be thought of as a way to collapse a survey respondent's answers on multiple inter-related questions into a single (one-dimensional) summary number. This number can be thought of as a representation of a broader underlying concept, such as financial knowledge.

Because each respondent answered the underlying questions differently, each will have their own summary number. The index therefore contains the summary numbers of all respondents, and the numbers together form a distribution of values with such parameters as a minimum, maximum, mean, and standard deviation. As such, it is possible to compare the average index scores across multiple groups, such as differences in financial knowledge between married and non-married households.

Financial Trust consists of the following survey questions: feel safe putting money in the bank, feel safe putting money in the stock market, feel safe putting money in a 529, if the respondent preferred the PA 529 Investment Plan (IP) over the Guaranteed Savings Plan (GSP), and why they preferred the IP plan. The items have a scale reliability coefficient of .72. The scale reliability coefficient can be thought of as how well the questions hang together. The higher the number, the greater the different questions are internally consistent with one another.

Barriers to Saving is made up of the following questions: not saving because they're not sure of the best way to do so, not saving because they don't want to hurt their financial aid chances, not saving because it's too complicated, not saving because a plan is too hard to open, not saving because they don't understand how doing so would help, and not saving because they don't have enough information. The items have a scale reliability coefficient of .57.

Financial Assets consists of parents' beliefs in how much of the cost of college they will pay, what type of institution they believe they can afford, if they expect a college savings gift from a family member, if extended family is currently saving on their child's behalf, and if they expect to go into debt to pay for college (34.4% yes, 17.3% no, 48.3% haven't thought about it yet). The items have a scale reliability coefficient of .54.

Limited Ability to Save includes the family not saving for college because of regular bills, overdue bills, credit card debt, car payments, student loans, and mortgage. It also includes not saving because they have no spare money to do so, not saving because they have other debt that is more of a priority, whether they are over or under on their spending on a monthly and on an annual basis, whether they have payday loan debt, credit card debt, car debt, student loan debt, and whether they have emergency funds to cover three months' worth of expenses. The items have a scale reliability coefficient of .81.

Initiated Savings Behavior, includes having started saving, having received a college savings gift from a family member, saving in a 529, and doing so via a paycheck, automated paycheck deductions, their wages, or through a savings account. The items have a scale reliability coefficient of .77.

Lastly, some families Believe it is Too Early to be Saving. This index consists of families that have not gotten around to opening an account, as well as not saving because the child is too young, because they want to wait and see if the child goes to college, and because it is too early. The items have a scale reliability coefficient of .49.

The precise phrasing of the items contained within each of the six financial indices is also detailed in Appendix Exhibit A2.

[xi] Pennsylvania's counties can be categorized according to the U.S. Department of Agriculture's Rural-Urban Continuum Codes (RUCC). There are 9 codes, where a RUCC code of '1' represents counties in metropolitan areas of at least 1 million people and a RUCC code of '9' represents completely rural counties with less than a 2,500 urban population and not adjacent to a metropolitan area (for further information see Appendix Exhibit A3 and https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation/). RUCC codes 1-3 are considered metropolitan and 6-9 non-metropolitan.

Across these categories, 58% of survey respondents lived in metropolitan areas of at least 1 million (including Allegheny, Armstrong, Beaver, Bucks, Butler, Chester, Delaware, Fayette, Montgomery, Philadelphia, Pike, Washington, and Westmoreland counties). About one-quarter (26%) lived in counties with metropolitan areas with between 250,000 and 1 million people (Berks, Carbon, Cumberland, Dauphin, Erie, Lackawanna, Lancaster, Lehigh, Luzerne, Mercer, Northampton, Perry, Wyoming, and York) and 8% lived in counties with metropolitan areas under 350,000 in size (Adams, Blair, Cambria, Centre, Columbia, Franklin, Lebanon, Lycoming, Monroe, and Montour). The remaining 7.4% of respondents lived in non-metropolitan counties, some of which had small urban populations. We note that RUCC codes 8 and 9 have fewer than 10 respondents each and results for these two categories are therefore imprecise due to quite small sample sizes.

[xii] More than nine in ten parents in each demographic group in the survey expected their child to earn at least a four-year degree.

[xiii] *Indicator 27: Educational Attainment*, National Center for Education Statistics, Feb. 2019, nces.ed.gov/programs/raceindicators/indicator_RFA.asp. https://nces.ed.gov/programs/raceindicators/indicator_rfa.asp

[xiv] Sherraden, Michael, Clancy, M. M., & Beverly, S. G. (2018). *Taking Child Development Accounts to Scale: Ten Key Policy Design Elements*.