THE JOSIAH BARTLETT *Center for* PUBLIC POLICY

An Analysis of the Fiscal and Economic Impact of New Hampshire's Proposed Education Freedom Account (EFA) Program

By
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EXECUTIVE SUMMARY

Two bills introduced in the New Hampshire Legislature in January of 2021, House Bill 20 and Senate Bill 130, propose the creation of Education Freedom Accounts (EFAs) for NH families. The EFA program would allow any NH resident eligible to attend a public school in grades K-12 to use his or her per-pupil state education grant to pay for a variety of educational services chosen from a state-approved list. The Senate bill (SB 130) is moving forward after HB 20 stalled in the House. This report analyzes the Senate version of the bill.

As amended in the Senate Education Committee, SB 130 limits eligibility to families whose household income is less than 300 percent of the federal poverty line (FPL), adjusted for household size. If a family prefers their child's assigned public school, then nothing changes. State adequate education grant money is automatically sent directly to the school district, as happens currently. If an eligible family prefers an alternative to their assigned school, parents could apply to create an EFA. The state would deposit the student's adequate education grant (plus any qualifying differential aid) into the EFA. The family could then choose to spend that money on a number of pre-approved educational services, such as tuition at another public school, tuition at a private school, tutoring, special education services, tuition at a community college, and online education, among others.

This report provides a fiscal and economic analysis of this legislation, as well as a review of New Hampshire public education spending and academic outcomes in recent years. It finds that:

- The percentage of New Hampshire students eligible for EFAs is estimated to be 31.26 percent overall, and 31.1 percent for private school students.
- The state can expect approximately 966 students to use an EFA in the 2021-22 academic year and 2,335 to use an EFA in the 2022-23 academic year. These estimates are based on take-up rates of similar programs in Indiana and other states, as well as a review of take-up rates of other government aid programs.
- For the 2021-22 academic year, the average cost of an EFA would be $4,578. The projected cost to the state of the proposed EFA program would be $2.4 million, while local school districts would save an estimated $4.2 million, leading to a projected taxpayer savings of $1.85 million (with rounding).
- For the 2022-23 academic year, the average cost of an EFA would be $4,803. The projected cost to the state would be $5.9 million, while local school districts would save an estimated $10.7 million, for a net taxpayer savings of $4.8 million.
- The average reduction in state adequate education aid to local school districts would be $12,247 in the first year of the program and $32,126 in the second year, absent provisions in law that delay those reductions. That is an average of just 0.048% of district revenue in the first year and 0.049% in year two. But districts receive funding based on prior-year enrollment. Therefore, there is no reduction in state aid to districts in the first year. SB 130 requires that districts receive 50% of any lost EFA funding in

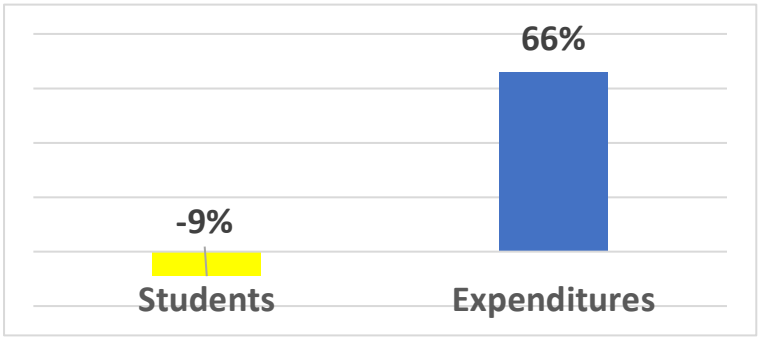
year two as a "phase out grant." With that grant in place, district revenue would fall by only $16,063 on average in year two, which is just 0.024% of average district revenue.

- The enrollment reduction per school district is projected to average 2.65 students (0.8%) in the first year of the program and 6.63 students (2%) in the second year. From 2010-2019, NH districts experienced an average annual enrollment change of 54 students, or 9.41% of their student populations. Enrollment changes caused by EFAs would fall well below the average fluctuation for which districts budget on an annual basis.
- Local school district savings would average $26,694 in year one and $68,005 in year two.
- The average EFA grant is only 23% as large as the cost of educating a student in a traditional NH public school, so the taxpayer cost of educating a student through an EFA is 77% less than the cost of educating a student in a traditional public school.
- The EFA program would result in a $28,744 increase in lifetime earnings per student for 1,063 public school students who choose an EFA in the second year of the program. That would generate a cumulative total of $30.6 million in higher lifetime earnings.
- The EFA program would result in 43 more high school graduates among its second year class, generating an additional $12.9 million in economic benefits for those students.
- The EFA program would cause a reduction in crime, generating a savings to society of $163,000 from reduced felonies among its second year class alone.
- Adjusted for inflation, total expenditures in New Hampshire public schools increased by 66 percent between the 1994-95 and 2017-18 school years, while public school enrollment fell by 9 percent. (See Figure E1.)
- As shown below (Figure E2), the number of teachers in New Hampshire public schools increased by 23 percent between 1994-95 and 2018-19, as the number of students fell by 9 percent. In addition, NH public schools increased their employment of non-teachers (all other staff) by 80 percent.
- While current spending per student (a figure that excludes capital and some other expenses) increased by 77 percent between 1994-95 and 2017-18, average teacher salaries increased by only 1 percent (both adjusted for inflation). See Figure E3.
- Despite this large increase in spending per student and tremendous increase in staffing, New Hampshire public schools' performance trends on the National Assessment of Educational Progress (NAEP) lagged the nation between 2003 and 2019. As shown in figure E4 below, NAEP gains in New Hampshire have lagged the national average in Mathematics, and NH's average Reading performance has fallen.
- NH students' academic performance has lagged behind the performance of the two states with the highest percentage of students enrolled in school choice programs, Arizona and Florida. In 2019, 6.7 percent of Arizona students and 4.9% of Florida students were participating in a state taxpayer-funded private school choice program. Only two-tenths of one percent of New Hampshire students were participating in New Hampshire's town tuitioning program (to attend a private school) or the state's Education Tax Credit Program. As shown in Section IV of this report, Arizona and

Florida's gains in NAEP scores far exceeded national changes and changes in New Hampshire's average scores between 2003 and 2019. Both Arizona and Florida have child poverty rates about 2.5 times higher than New Hampshire's rate, and both states spend about 70 percent less per student than New Hampshire's public schools.

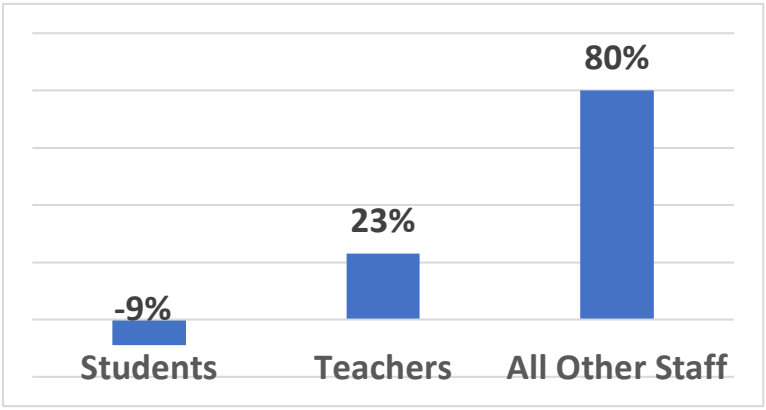
In summary, the EFA program in SB 130 can be expected to save NH taxpayers $6.65 million in its first two years, educate students at less than 25% of the cost of a traditional public school, increase the number of high school graduates, and create $30.6 million in higher lifteime earnings for its first students, $12.9 million in economic benefits for students who otherwise wouldn't graduate high school, and $163,000 in benefits to the state from a reduction in felonies. In addition, evidence from other states suggests that the proposed EFA program is highly likely to improve outcomes for public school students who do not choose an EFA.

Figure E1. Change in the Number of Students and Total Expenditures in New Hampshire Public schools, 1994-95 to 2017-18



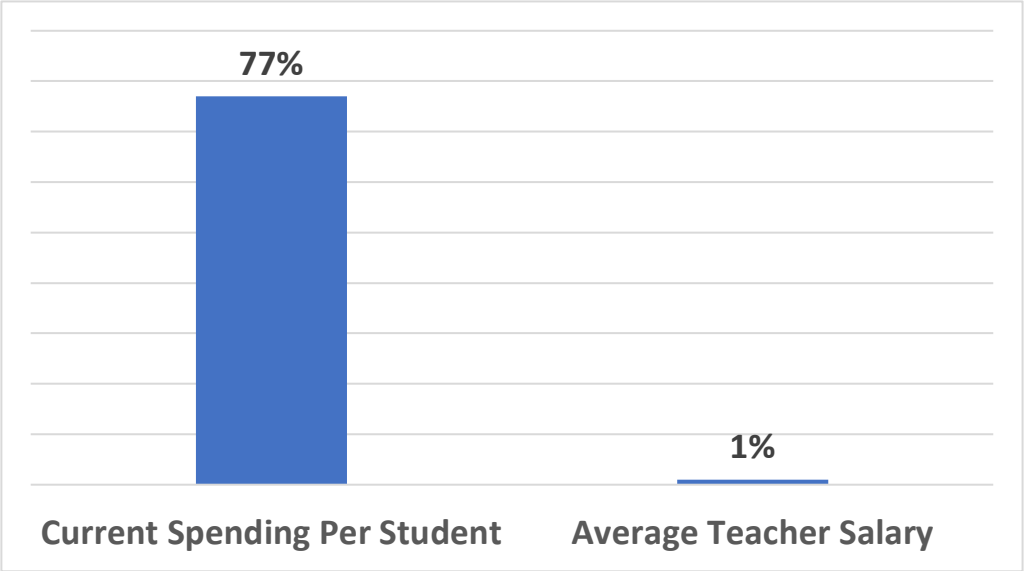
Source: National Center for Education Statistics, U.S. Department of Education, https://nces.ed.gov/ccd/elsi/ . The CPI-U, the headline price index from the U.S. Bureau of Labor Statistics was used to adjust for inflation (the cost of living) over time, https://data.bls.gov/cgi-bin/surveymost?bls .

Figure E2. Staffing Surge in New Hampshire Public Schools, Teachers and All Other Staff, 1994-95 to 2018-19



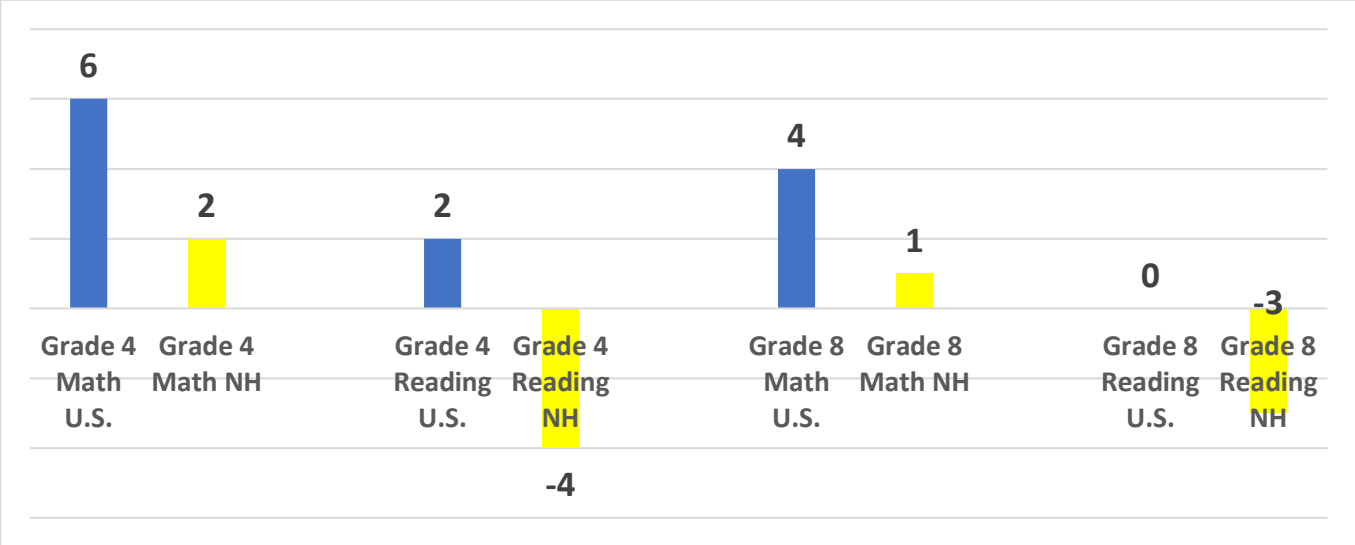
Source, *Digest of Education Statistics*, National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/

Figure E3. Change in Current Spending Per Student, and Average Teacher Salaries, Adjusted for Inflation, 1994-95 to 2017-18



Source, *Digest of Education Statistics*, National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/

Figure E4. Changes in NAEP Scores, 2003 to 2019, New Hampshire as Compared to the National Average



Source: NAEP Data Explorer, https://www.nationsreportcard.gov/ndecore/xplore/nde

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I. Introduction

For the 2021 Legislative Session, House Speaker Sherman Packard and several other members of the General Court of New Hampshire have sponsored House Bill 20, the Richard "Dick" Hinch Education Freedom Account Program. A companion bill in the Senate, Senate Bill 130, was identical when introduced, but has since been amended. SB 130 is the more viable bill at this time and is the one analyzed in this paper. The legislation offers a wide range of educational opportunities to all families with elementary and secondary school-aged children who live in households with incomes below 300 percent of the federal poverty line (FPL). Every child who is eligible to attend a public school and meets the income criteria, which are based on household size, would be eligible for an Education Freedom Account (EFA). Families could choose to send their children to a public school or to use an EFA to help cover the costs of educational services purchased elsewhere.

EFAs would be funded by state taxes, using the same formula by which the state determines per-pupil funding currently. The amount of funds deposited into each student's EFA would be equal to the per-pupil base adequacy amount, plus differentiated aid that some public school students receive. However, EFAs will not include other state funds (stabilization, capital, etc.), local funds, or federal funds that public school districts receive outside of the per-pupil funding formula. Thus, as shown in the next section, the per-student total cost to taxpayers of educating students via EFAs is less than 1/4 of the cost of educating students in public schools.

Families may choose to spend the funds in their accounts on a wide variety of educational services. These educational services include:

- Tuition and fees at private schools
- Tuition and fees for non-public online learning programs
- Tutoring services provided by individuals or at a tutoring facility
- Individual classes and curricular activities and programs at traditional public, chartered public, or private schools
- Textbooks, curriculum, or other instructional materials
- Computer hardware, internet connectivity, or other technological services and devices, that are used to help meet an EFA student's educational needs
- Educational software and applications
- School uniforms
- Fees for nationally standardized assessments, advanced placement exams, exams related to college or university admission or awarding of credits, and tuition and fees for preparatory courses for such exams
- Tuition and fees for summer education programs and specialized education programs
- Tuition, fees, instructional materials, and exam fees at a career or technical school
- Educational services and therapies, including, but not limited to, occupational, behavioral, physical, speech-language, and audiology therapies
- Tuition and fees at an institution of higher education
- Transportation fees for the student to travel to and from an education service provider.

Education Freedom Accounts would be managed by a scholarship organization. The scholarship organization may recommend that other educational expenses—educational expenses not explicitly listed in SB130—be allowed as well, but their recommendation is subject to approval by the New Hampshire Department of Education (NH DOE).

Families will be able to use EFA funds for the educational services listed above in order to customize the education of their children. Nevertheless, the legislation requires that to receive an EFA, the family must agree "To provide an education for the eligible student in the core knowledge domains that include science, mathematics, language, government, history, health, reading, writing, spelling, the history of the constitutions of New Hampshire and the United States, and an exposure to and appreciation of art and music." Thus, families may access EFAs to customize their children's educations—so long as the family agrees that their children will be educated in these core knowledge domains.

This program is very similar to Education Savings Account programs that have been operating in five other states (EdChoice, 2021).[1]

Families may carry forward funds in their children's EFAs across years, provided that any unspent funding reverts back to the state treasury when children leave the program or graduate from high school.

This report provides a fiscal and economic analysis of SB130 if it were to become law. This analysis includes a study of the:

- Net change in state expenditures
- Net change in public school district revenues and costs
- Net change in economic activity
- Net change in public benefit

The "fiscal" analysis of the proposed EFA program consists of an analysis of the net changes in state expenditures and local public school district revenues and costs. The "economic" analysis consists of projections of how an increase in educational achievement results in changes in economic activity due to (a) increased lifetime earnings accruing to EFA recipients and (b) changes in public benefits accruing to others and society. I consider the additional lifetime earnings and public benefits that can be expected from EFA students based on evidence from academic research on students who accessed similar K-12 choice programs in other states.

To conduct these analyses, I primarily relied on publicly available data on New Hampshire public school districts that are provided by the NH DOE and data reported by the NH DOE to the U.S. Department of Education. I also relied on the experiences of education choice programs from other states in terms of changes in educational outcomes among students who exercise choice, and the public benefits from choice programs that accrue to others.

[1] https://www.edchoice.org/school-choice/types-of-school-choice/education-savings-account/ .

The rest of this report is organized as follows. For context, Section II presents a brief overview of New Hampshire's public education system. Section III provides a fiscal analysis of the proposed EFA program's effect on state expenditures, as well as its net fiscal effects on local public school districts. Section IV uses the evidence from education choice programs from other states to make projections of the EFA program's effect on recipients' educational achievement and attainment, and on the incidence of committing crime. These projections are used to estimate the economic benefits of the EFA program to New Hampshire residents. In both the fiscal and economic analyses, I endeavored to be transparent with respect to data limitations and methodological approaches. Section V offers concluding remarks and a summary of the limitations of these analyses.

The report also contains two methodological appendices. Appendix A details the projections of how many New Hampshire students will use EFAs in 2022 and 2023; and Appendix B details the approach to estimating the average variable cost of educating students in public schools.

A data appendix (Appendix C) includes information for each public school district in New Hampshire, including trends in per-student spending, staffing, and the projected local savings from the proposed EFA program.

II. A Brief Overview of New Hampshire's Public Education System

New Hampshire's public schools have very high average test scores on the National Assessment of Educational Progress (NAEP). Often called the "gold standard" of assessments, Main NAEP exams in grades 4 and 8 have been given to a sample of students in all states periodically since 2003. In 2019, the last year the Main NAEP exams were administered, New Hampshire public schools were ranked among states as follows:

- Tied for 6th highest in the nation on Grade 4 Mathematics
- Tied for 4th highest in the nation on Grade 8 Mathematics
- Tied for 4th highest in the nation on Grade 4 Reading
- Tied for 3rd highest in the nation on Grade 8 Reading.

These rankings are impressive. However, important context about these rankings needs to be considered, as do worrisome trends.

First, on average, students in poverty achieve lower levels of academic learning than students who do not live in poverty. These gaps in achievement are large, and they have been stubbornly persistent in the United States for decades (Hanushek, et al., 2020). These gaps are *averages*, and many low-income students achieve at very high levels. That said, average levels of achievement among low-income students are significantly below average levels of achievement among students from middle- and higher-income backgrounds.

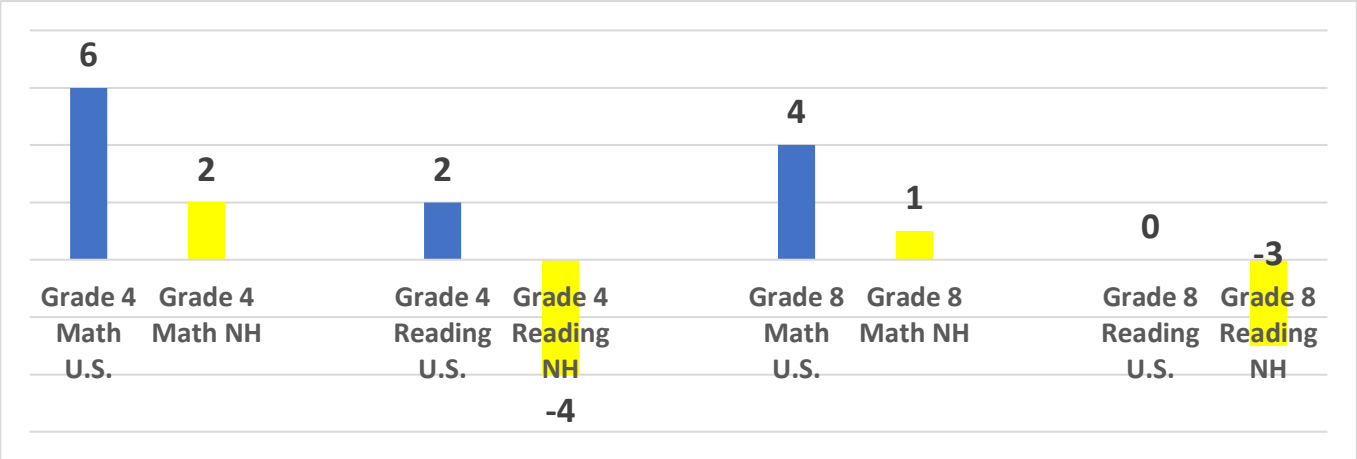
New Hampshire's performance on the NAEP is very high when compared to other states. However, it is not clear whether this performance is due to its public school system or its student population. New Hampshire had the lowest child poverty rate in the nation in 2019, according to the U.S. Bureau of the Census (American Community Survey, 2019). While 16.8 percent of children nationally lived in households with incomes below the poverty line in 2019, only 7.1 percent of New Hampshire children lived in poverty. Thus, the child poverty rate in New Hampshire is less than half the national average. This low child poverty rate suggests that the high levels of student performance on the NAEP may be due at least in part to having the most affluent student population in the nation.

The second worrisome trend is that U.S. performance on the NAEP Long-Term Trend exams has been stagnant for 17 year-olds for decades (NAEP, 2012).[2,3] Despite large increases in inflation-adjusted spending per student and staffing, American public schools have not improved levels of student performance on these exams since the early 1970s (Scafidi, 2017).[4]

[2] https://nces.ed.gov/nationsreportcard/subject/publications/main2012/pdf/2013456.pdf
[3] President Obama's administration stopped giving the NAEP Long-Term Trend exams after 2012. The Trump administration did administer these exams recently, and the results should be out in the coming months.
[4] https://www.edchoice.org/wp-content/uploads/2017/06/Back-to-the-Staffing-Surge-by-Ben-Scafidi.pdf

Third, since all states began giving Main NAEP exams in 2003, New Hampshire's performance has lagged or slipped. As shown in figure 1 below, NAEP gains in New Hampshire have lagged the national average in Mathematics, and the state's average Reading performance has fallen.

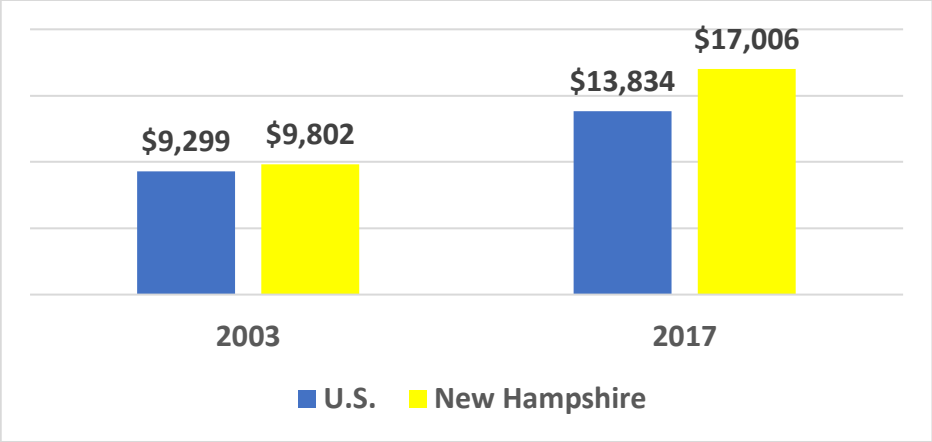
Figure 1. Changes in NAEP Scores, 2003 to 2019, New Hampshire as Compared to the National Average



Source: NAEP Data Explorer, https://www.nationsreportcard.gov/ndecore/xplore/nde

This worrisome trend in New Hampshire's performance has coincided with very large increases in taxpayer resources devoted to public schools. In the 2002-03 school year, NH public schools spent about $500 more per student than the national average. By 2016-17, NH public schools spent $3,172 more per student than the national average. (See Figure 2.) The 2016-17 school year was the most recent year for which comparable data are available. Data from the NH DOE show that there have been further significant increases in spending in recent years.

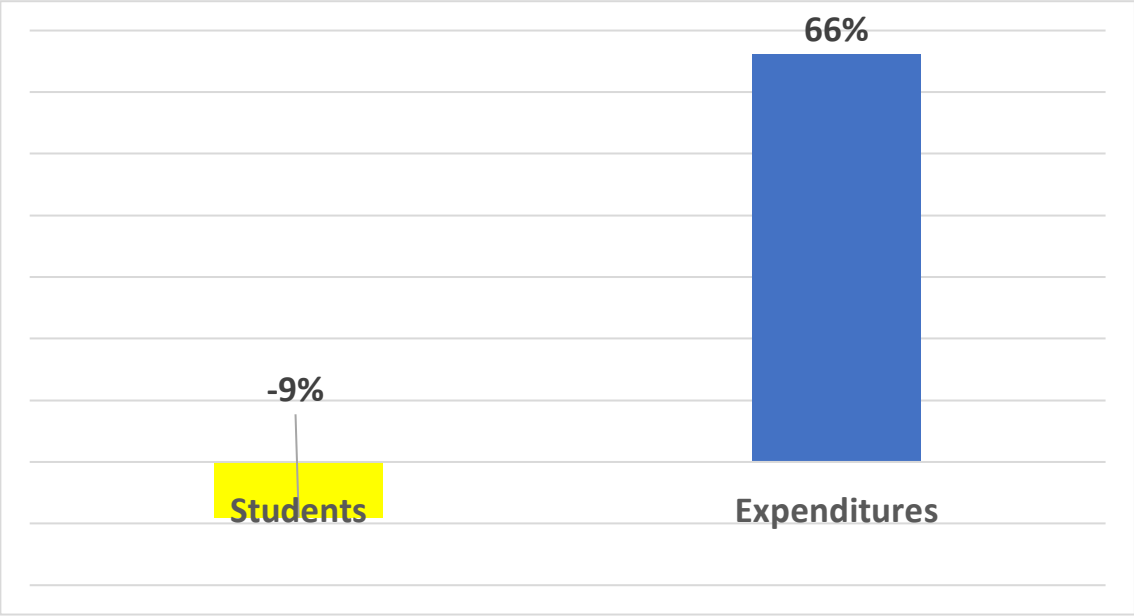
Figure 2. Changes in Total Expenditures Per Student, the United States and New Hampshire Public Schools, 2002-03 to 2016-17.



Source: National Center for Education Statistics, U.S. Department of Education, https://nces.ed.gov/ccd/elsi/

The numbers above are in nominal, or actual, dollars and are not adjusted for inflation. As shown in figure 3 below, adjusted for inflation, total expenditures in New Hampshire public schools increased by 66 percent between the 1994-95 and 2017-18 school years, while its student population fell by 9 percent.

Figure 3. Change in the Number of Students and Total Expenditures in New Hampshire Public schools, 1994-95 to 2017-18

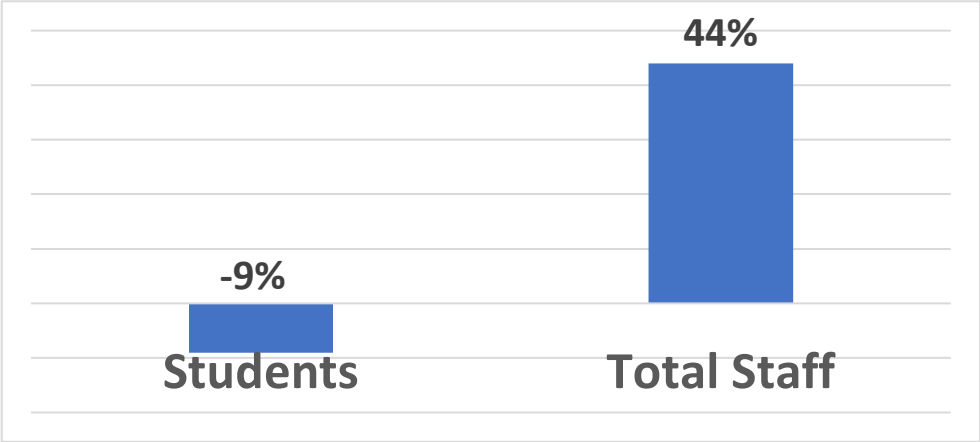


Source: National Center for Education Statistics, U.S. Department of Education, https://nces.ed.gov/ccd/elsi/ . Th CPI-U, the headline price index from the U.S. Bureau of Labor Statistics was used to adjust for inflation (the cost of living) over time, https://data.bls.gov/cgi-bin/surveymost?bls .

Given that these large increases in inflation-adjusted expenditures did not result in relative learning gains for NH students, citizens and policymakers may be interested in how these spending increases were used in the state's public school system.

New Hampshire's public schools have added large amounts of staff in recent decades, despite declines in overall student enrollment. For example, as shown below, between the 1994-95 and 2018-19 school years, as the number of students declined by 9 percent, NH public schools increased their workforce by 44 percent.

Figure 4. Staffing Surge in New Hampshire Public Schools, 1994-95 to 2018-19



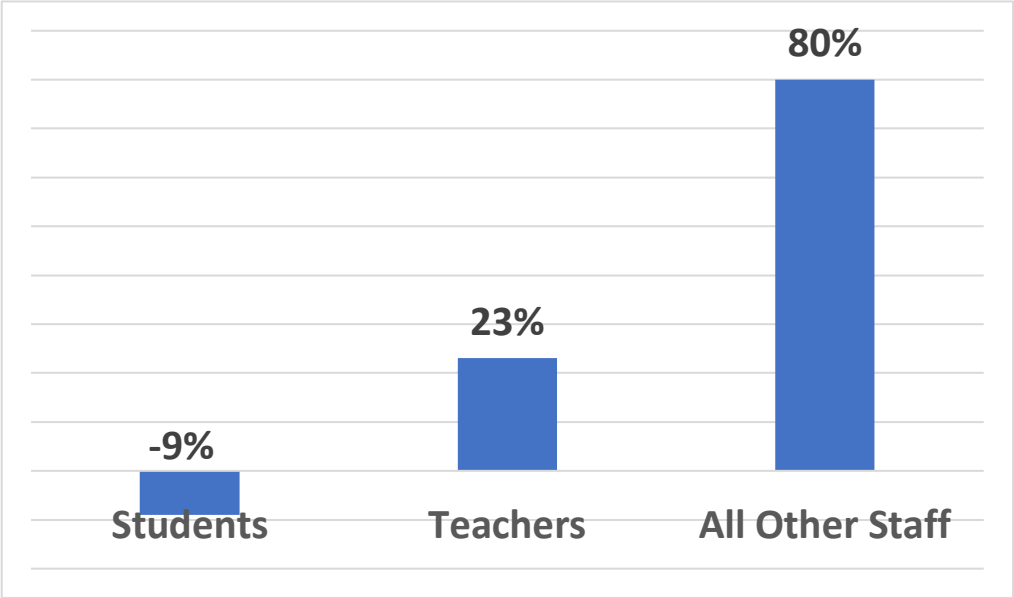
Source, *Digest of Education Statistics*, National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/

The counts of students and public school staff are in full-time equivalents (FTEs), and the students' FTE counts are enrollments, not average daily attendance.

The data allow me to separate all public school employees into two categories: teachers and "all other staff." Teachers include all teachers who are the lead teacher in their classroom, so teacher aides and paraprofessionals are not counted as teachers. "All other staff" includes all other public school employees, central office personnel, principals, assistant principals, counselors, social workers, media specialists, cafeteria workers, bus drivers, teacher aides and paraprofessionals, etc. As shown below, the number of teachers in New Hampshire public schools increased by 23 percent between 1994-95 and 2018-19, but the number of students fell by 9 percent. Thus, there were large reductions in average class sizes during this time period.

In addition, the increase in non-teachers ("All Other Staff") was significantly larger than the increase in teachers. While the number of students declined by 9 percent during this time period, NH public schools increased their employment of non-teachers (All Other Staff) by 80 percent. To put that increase in perspective, NH public school students in 2018-19 had almost twice as much access to non-teachers, relative to NH public school students in 1994-95.

Figure 5. Staffing Surge in New Hampshire Public Schools, Teachers and All Other Staff, 1994-95 to 2018-19



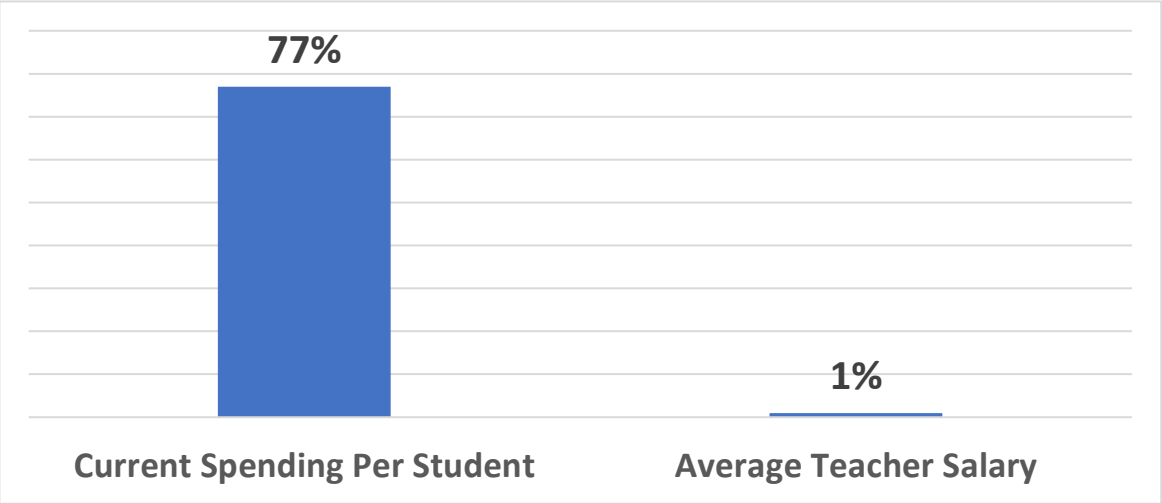
Source, *Digest of Education Statistics*, National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/

Despite a large increase in inflation-adjusted spending per student over the past few decades, average teacher salaries in New Hampshire hardly changed. Specifically, figure 6 shows that while current spending per student, adjusted for inflation, increased by 77 percent between 1994-95 and 2017-18, average teacher salaries increased by only 1 percent, also on an inflation-adjusted basis. That is, the real incomes of NH public school teachers increased by only 1 percent between 1995 and 2018 despite the fact that NH public schools received very large inflation-adjusted increases in per student spending.

The chart below uses the federal definition of "current" spending, which includes all public school expenditures, except for capital and debt service. I use current spending in this figure because those are funds available to hire personnel and provide salary increases. The NH DOE uses its own definition of current spending, which excludes capital and debt service, but also excludes some other public school expenditures as well.[5]

[5] https://www.education.nh.gov/who-we-are/division-of-educator-and-analytic-resources/bureau-of-education-statistics/financial-reports

Figure 6. Change in Current Spending Per Student and Average Teacher Salaries, Adjusted for Inflation, 1994-95 to 2017-18



Source, *Digest of Education Statistics*, National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/

While much of the increase in per student spending went to the staffing surge, of course, some of it went to increased costs in employee benefits as well.

The information in this section is to provide context about the changes in NH public school funding and about the outcomes of those large increases in funding. This context is important when considering the fiscal analysis of the proposed Education Freedom Account (EFA) program offered in the next section.

III. Fiscal Analysis of New Hampshire's Proposed Education Freedom Account (EFA) Program

In this section, I estimate the fiscal effects of New Hampshire's proposed Education Freedom Account (EFA) program on state and local taxpayers for school (and fiscal) years 2021-22 and 2022-23. To make these estimates, I use publicly available data reported by the NH DOE and data it reports annually to the National Center for Education Statistics at the U.S. Department of Education.

1. Fiscal Effects of New Hampshire's EFA Program on State Taxpayers

To estimate the fiscal effects of New Hampshire's proposed EFA program on state taxpayers, I need to ascertain:

1. The reduction in net state taxpayer costs that results from some EFA students no longer attending public schools because they were able to obtain an EFA to access education services outside of the public education system, and
2. The taxpayer cost of providing state-funded accounts to students who likely would have been enrolled in a private school, even if they were not able to access an EFA.

Before embarking on the fiscal analysis, an understanding of some basic elements of education finance are needed.

Some Basics of Education Finance in New Hampshire

Public schools in New Hampshire receive funding from federal, state, and local taxpayers. A relevant statistic for analyzing fiscal impacts is the total resource cost of the EFA program — which is the total state expenditures per EFA student. Likewise, another relevant statistic for comparison is total expenditures per student in public schools.

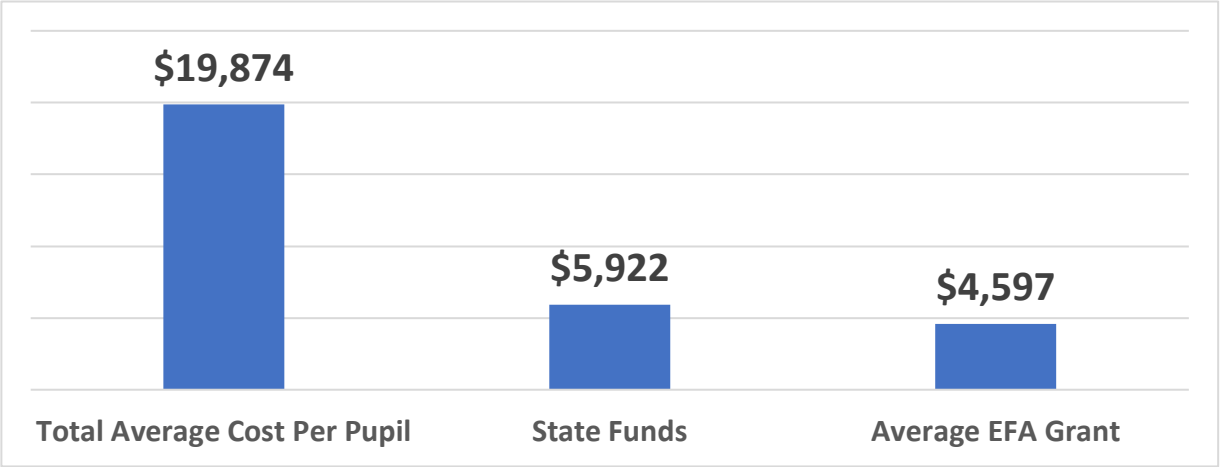
Given the focus on the total taxpayer cost, I report some basic information on taxpayers' expenditures on NH public schools for 2019-20 and what taxpayers' expenditures on the EFA program would have been for that year if it had been in existence, where this school year is the most recent with the requisite data.

The amount of funds deposited into each student's EFA will be equal to the per-pupil base adequacy amount the state provides to public school districts, plus differentiated aid that some public school students receive. That is, EFAs will be funded on the same basis as the state's adequacy payment system, including differentiated aid.

As shown in figure 7 below, not all state funds given to public school districts will be included in EFAs. For 2019-20, state taxpayer spending given to NH public schools averaged $5,922 per student. The average state adequacy payment, which includes differentiated aid, averaged $4,597 per student. Had the EFA program existed in the 2019-20 school year, the average EFA grant would have been $4,597, assuming EFA students had average characteristics. Using this

average, educating a student via an EFA in 2019-20 would have cost the state $1,325 less than it cost to educate the same students in public schools, a savings of 22 percent.

Figure 7 – Total Public School Cost Per Pupil, State Funds Per Pupil, and Average Education Freedom Account (EFA) Grant, 2019-20



Source: New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021.

Of course, public school districts also receive funding from local and federal taxpayers, and, obviously, NH taxpayers pay federal, state, and local taxes. Including all sources of revenue, NH public schools spent an average of $19,874 per student in 2019-20, the NH DOE reports. Therefore, if the EFA program had been available in that school year, the average per-student cost of EFAs ($4,597) would have been only 23 percent as large as the average cost of educating students in New Hampshire public schools ($19,874).

Projection of How Many Public and Private School Students Live in Households Below 300 percent of the Federal Poverty Line (FPL)

Under SB130, Education Freedom Accounts (EFAs) are offered to all New Hampshire residents who are eligible to attend a public school in the state, no matter where they are enrolled currently, and have incomes below 300 percent of the federal poverty level (FPL).

Thus, eligibility is restricted to children who live in households with incomes less than 300 percent of the FPL, where these income thresholds are adjusted for household size and set annually by the U.S. Department of Health and Human Services, according to a longstanding formula. For a household of three persons, a household income less than $21,960 in 2021 is considered as living in poverty.[6] Thus, for a household of three persons, 300 percent of that

[6] The federal poverty line (FRPL) for all household sizes for 2021 can be found here, https://aspe.hhs.gov/poverty-guidelines .

income level is equal to $65,880. Thus, three-person households with incomes at or below $65,880 would be eligible for an EFA.

To ascertain how many NH families would access an EFA, we first need to know how many households have incomes below 300 percent of the poverty threshold. Fortunately, using annual household surveys, the U.S. Census Bureau provides information useful for this purpose for each state for each year. For 2019, the most recent year available, using the Census survey for New Hampshire, I estimate that there were 41,417 NH households with children of school age in this income range, and another 91,096 households with school-aged children with incomes above 300 percent of the FPL.[7] Assuming that children are distributed uniformly between the two income categories, the average number of school-aged children per household among the 41,417 households with incomes below 300 percent of the FPL equals the average number of school-aged children per household among the 91,096 households with incomes above 300 percent of the FPL. Under this assumption and using this Census information on household income from New Hampshire, I project that 31.26 percent of NH children live in households with incomes below 300 percent of the FPL and are therefore eligible for EFAs. While this distribution assumption is sensible, it is an assumption, and therefore the 31.26 percent figure is an estimate.

Because they have different fiscal ramifications, as shown below, I need separate estimates for how many private school students are eligible for EFAs and how many public school students are eligible. After making an estimate of how many students in each sector are eligible, I can project take-up rates of EFAs among those eligible students.

First, let us consider private schools. The NH DOE projects there will be 15,654 private school students in AY 2022.[8] So, what percent of these 15,654 private school students are in households below 300 percent of the poverty level?

The U.S. Census Bureau's *Current Population Survey* interviews a sample of American households and asks those with school-aged children whether their children are enrolled in public or private school. The Census reports the results of this national survey by household income: https://www.census.gov/data/tables/2018/demo/school-enrollment/2018-cps.html.

[7] These estimates for New Hampshire were constructed from the *American Community Survey*, conducted by the U.S. Census Bureau. The survey data for the state can be found here: https://data.census.gov/cedsci/table?q=b19131&g=0400000US33&tid=ACSDT5Y2019.B19131 .

[8] New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021.

Using this national survey data in a cautious way described in the footnote, I estimate that 31.1 percent of the 15,654 private school students in New Hampshire are in households with incomes below 300 percent of the poverty line.[9]

The assumptions and approach in footnote 9 are cautious and most certainly overstate how many private school students in New Hampshire live in households with incomes below 300 percent of the FPL. The evidence that this approach is cautious is as follows: overall, 31.26 percent of children are projected to live in households eligible for EFAs (income below 300 percent of the FPL). And my approach for estimating that figure for private school students (31.1 percent) is just a shade below the overall statewide figure. Given that private schools charge tuition and public schools are available to families at no additional cost (other than paying one's taxes), it is hard to believe that the percent of children in households with incomes below 300 percent of FPL is about the same in both sectors. Given the additional tuition expense of attending a private school (in addition to paying one's taxes to fund public schools), it must be the case that lower-income households are less likely to send their children to private schools in the (current) absence of the EFA program. Using this logic, I am most certainly overestimating how may private school students are eligible for the EFA programs. My estimate is constrained by the availability of data, of course. And my preference is to err on the side of caution when making projections about the uses of taxpayer funds. Thus, I may be significantly overestimating taxpayer costs of providing EFAs to private school students later in this section, by overestimating how many private school students are actually living in households with incomes below 300 percent of the FPL.

[9] The 31.1 percent figure was derived from the U.S. Census Bureau's *Current Population Survey* (CPS) as follows: in the CPS table, private school status is coded by household income: under $20,000, $20,000 to $74,999, $75,000 or above, and income not reported. According to the CPS, 4.09 percent of households have children in a private school and a family income below $20,000. Another 25.90 percent with children in private school have household incomes between $20,000 and $75,000. Another 52.7 percent of families with children in private school earn more than $75,000. And 17.31 percent of households with children in private school did not report their income. The average household size is three persons, so the average increase threshold for 300 percent of the FPL is $65,880. I make two assumptions: (a) income is uniformly distributed across households within a given income range, and (b) the proportion of households with incomes that are not observed and that are truly below 300 percent of the FPL is equal to the percentage of households with incomes below 300 percent of FPL for households with observable income. Neither of these assumptions is controversial. Using this average income threshold and these two assumptions, the proportion of private school students in NH with incomes below 300 percent of the poverty line is estimated as: ((.0409 + .8342 x .2590) / (.0409 + .2590 + .527)) = .311, where .8342 is the percent of New Hampshire private school households with incomes between $20,000 and $75,000 who have incomes below 300 percent of the poverty line. Again, this formula assumes that the income distribution of households with income not reported is the same the income distribution among households for which income is reported. As discussed in the next paragraph in the body of the paper, this assumption appears to be too cautious—and leads me to overestimate the number of private school students who are eligible for EFAs and to therefore overestimate fiscal costs later in this report.

To summarize, with an income threshold for eligibility set at 300 percent of the FPL, I project:

- 31.26 percent of public school students will be eligible for an EFA, and

- 31.1 percent of private school students will be eligible.

The next subsection projects how many of these eligible students will actually access an EFA in the next two years, if SB130 becomes law.

Projections of How Many Students Will Access EFAs in Academic Years (AY) 2022 and 2023

In this subsection, I use estimates of the total number of school enrollments by sector from the NH DOE and the experiences of "take-up" rates from new education choice programs from other states to make separate projections of: (a) how may public school students will switch to a private school or other nonpublic education setting because they were able to access an EFA, and (b) how many private school students will access an EFA. Take-up rates are defined as the percentage of eligible recipients who actually access a government-provided benefit.

The NH DOE projects an enrollment of 171,843 students in grades K-12 in the state's public schools in the 2021-22 school year. It also projects an enrollment of 170,093 students in public schools in 2022-23, absent an EFA program (NH DOE, 2021).[10] Based on years of experience analyzing new education choice programs, I project that 0.8 percent (eight-tenths of one percent) of eligible public school students will access and EFA in AY 2022, and 2 percent of eligible students will access an EFA in AY 2023.[11] That is, I project that 430 students who would have otherwise been enrolled in a public school for the 2021-22 school year will choose an EFA option instead. And in 2022-23, 1,063 students who would have been public school students will choose to use an EFA to access an education outside of their assigned public school.

In the academic and policy literature on estimating take-up rates in new school choice programs, these students who migrate from the public education sector to the nonpublic

[10] New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021.

[11] The EdChoice "School Choice in America Dashboard" has information taken from state departments of education on historical take-up of K-12 choice programs from around the nation. Based on my analysis of this information, I project that 0.8 percent (eight-tenths of one percent) and 2 percent of eligible New Hampshire students will switch from a public to a private school if their families are able to access EFAs, in the first two years of the program, respectively. The EdChoice Dashboard is available here: https://www.edchoice.org/school-choice/school-choice-in-america/. As shown on the Dashboard, programs across states vary in terms of their size of grants relative to public school spending, eligibility, and—consequently—take-up rates. Based on the specifics of HB 20, I believe these projections for the proposed EFA program in New Hampshire are reasonable. If I am underestimating the number of switchers who would access EFAs, then my analysis in this report is underestimating fiscal savings to New Hampshire taxpayers. If fewer public school students access EFAs than projected here, then I am overestimating taxpayer savings—by an extremely modest dollar amount.

education sector are called "switchers," as they switch from their assigned school to an alternative. As shown below, state and (especially) local taxpayers will save significant sums of money when students switch from the higher cost public education sector to using much lower-cost EFAs to finance their educations.

However, EFAs that are provided to students who would otherwise be enrolled in a private school are a different story. The NH DOE projects that there will be 15,654 students in private schools in the state in 2021-22 and 15,490 in 2022-23, absent an EFA option (NH DOE ,2021).[12] As stated above, I project that 31.1 percent of these private school students will be eligible for an EFA, as they live in households with incomes below 300 percent of the FPL.

The question is, what percent of these eligible private school students will actually use an EFA in 2021-22 and 2022-23? That percentage is called the take-up rate, and it determines the state's cost for providing an EFA to students not currently enrolled in a public school.

The data on take-up rates for other Education Savings Account programs as well as other government aid programs shows that it would be a mistake to assume all eligible private school families will use an EFA. In appendix A, I present evidence as to why most eligible private school students would not access an EFA in 2021-22 and FY 2022-23, the first two years of the program's existence. These reasons include the following: In other states, a large proportion of private schools do not accept government-funded scholarships as payment, new government programs have historically had low take-up rates in their first several years, and the program most similar to New Hampshire's EFA—the federal Pell Grant program—had a take-up rate of less than 75 percent *50 years after its creation* (Delisle, 2017).

Given that almost 100 percent of colleges and universities accept Pell Grants, that Pell-eligible students are from lower-income families, and that colleges and universities have large financial aid bureaucracies designed to help students get all the government aid for which they qualify, the fact that not all eligible students use Pell is powerful evidence that it will never be the case that all private school students in New Hampshire will access EFAs. The slow take-up rate in the early years of other government programs is also powerful evidence that take-up rates for EFAs are likely to be low in the early years. Appendix A details all of this evidence on take-up rates.

In addition to the experience of take-up rates of myriad other government programs, discussed in appendix A, there is also the experience of K-12 education choice programs enacted in other states from which to base projections of take-up rates. Because excellent data are publicly available, and the details of the programs are similar, perhaps the best program to use to make projections for the NH EFA program is the Indiana Choice Scholarship Program.

The Indiana Choice Scholarship Program (ICSP) began in the fall of 2011. At its start, students in private schools were not eligible for scholarships. Starting in the fall of 2013, the ICSP was

[12] New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021.

expanded to allow some private school students to access scholarships. As detailed in appendix A, in 2013-14, the first year its eligibility was expanded, 11 percent of eligible private school students received a scholarship. In the second year of the expansion, the take-up rate was 26.4 percent of eligible private school students. In the years that followed, there were more modest increases in this take-up rate.

Appendix A lists a few reasons why the take-up rates among private school students in Indiana were so low. As an example, 56 percent of private schools in Indiana do not participate in the ICSP. Appendix A also discusses why the estimated 11 percent take-up rate in year 1 and the 26.4 percent take-up rate in year 2 may be overestimates of the actual take-up rates among eligible private school students.

While they may be overestimates, in the interest of caution, I use these take-up rates from the ICSP to make my projections for New Hampshire. Specifically, I project that 11 percent of eligible NH private school students will use an EFA in fall 2021, and 26.4 percent of eligible private school students will use an EFA in fall 2022.

2021-22 Take-Up Rate Summary

I project that a total of 966 NH students will use an EFA in 2021-22:

0.008 x (171,843 x 0.3126) public school students = 430 "switchers" in 2021-22

0.11 x (15,654 private school students x 0.311) = 536 private school EFA users in 2021-22

430 switchers + 536 private school students = 966 total EFA students in 2021-22

2022-23 Take-Up Rate Summary

I project that a total of 2,335 NH students will use an EFA in 2022-23:

0.02 x (170,093 x 0.3126) public school students = 1,063 "switchers" in 2022-23

0.264 x (15,490 x 0.311) private school students = 1,272 private school EFA users in 2022-23

1,063 switchers + 1,272 private school students = 2,335 total EFA students in 2022-23

These projections for EFA usage in the first two years are in line with usage rates of other K-12 choice programs from around the nation.[13]

[13] I ignore homeschooled students in this analysis because there are not good data from which to project their take-up rates of EFAs. Nevertheless, it is likely that no more than a handful of homeschooled students will use an

Naïve Estimates of the Fiscal Effects of New Hampshire's Proposed EFA Program

Using the figures in the preceding subsection, there are two naïve ways to estimate the fiscal effects of New Hampshire's proposed EFA program, and both yield misleading estimates. First, one could use the number of students expected to use an EFA and multiply that by the projected average EFA grant. Thus, for 2021-22, 966 students are projected to use an EFA and $4,603 is the NH DOE's projection for the average EFA grant; so the total cost of EFA grants would be $4.5 million. In this method, the fiscal cost of the EFA program for 2021-22 would be $4.5 million.

Another naïve estimate would be as follows:

- The average cost of educating students in public schools is expected to be $20,261 per student in 2021-22.
- The average EFA grant is projected to be $4,603.
- 966 projected EFA students in 2021-22.
- So, the net fiscal savings of the program would be the difference in taxpayer costs between educating these students in the more expensive public schools versus the less expensive tax credits per scholarship student.
- Thus, the fiscal savings would be:

966 EFA students **x** ($20,261 **-** $4,603) **=** $15.1 million.

These estimates are both naïve, for different reasons.[14] In the next subsection, I describe why both of these extreme estimates are misleading. And, as discussed later in the report, my estimate of net savings to New Hampshire from the proposed EFA program is toward the middle of these extreme estimates.

Why Both Naïve Estimates are Misleading

The first naïve estimate of a net fiscal cost of $4.5 million is incorrect because (a) it ignores the cost of educating EFA students in public schools if the program did not exist. The second naïve estimate of net fiscal savings of $15.1 million is incorrect because (b) not all EFA students may

EFA in the first two years of the program—and maybe ever—because their families tend to be leery of government intervention in the education of their children. Given that I may be overestimating the number of private school students who will use an EFA, as discussed in this section and in Appendix A, any usage by homeschool students will be offsetting—and the estimates of the net fiscal costs of the EFA program may not be impacted very much—in either the direction of an overestimate or an underestimate.

[14] The corresponding naïve estimates for 2022-23 are: a fiscal cost of $11.3 million and a fiscal savings of $37.5 million. For the reasons discussed below, both of these estimates are naïve, and my estimate of the net fiscal savings for AY 2023 falls between these naïve extremes.

attend a public school if the program did not exist. In addition, the second naïve estimate (c) ignores that the variable or marginal cost of educating students in public schools may be less than the average total cost. These three issues are discussed in turn, and in this analysis I use cautious evidence with respect to these three concerns to make prudent estimates of the net fiscal effects of the EFA program on state and local taxpayers.

a) Taxpayers Incur Costs to Educate Students in Public Schools

As stated above, taxpayers are projected to spend an average of $20,261 educating students in public schools in 2021-22. If the EFA program did not exist, surely many EFA students would be enrolled in a public school — with taxpayers covering this expense. According to the NH DOE (2021), about 90 percent of New Hampshire students were enrolled in public schools in AY 2020.[15] The first naïve estimate ignores this fact, but we consider this issue when making our estimate of the net fiscal effects of the EFA program.

b) If the EFA Program Did Not Exist, What Percent of Scholarship Students Would be Enrolled in a Public School?

Given the fact that their families have expressed an interest in private schooling (or other nonpublic education opportunities) when they pursued a scholarship, some EFA students would have enrolled in a private school if they were not able to access an account. However, when sending their children to a private school, families would incur the total cost of that decision, whereas taxpayers pay the full cost of students attending public schools. Given this feature of the K-12 education system—families must pay the full cost of private schools and taxpayers pay the full cost of public schools—only 8.3 percent of NH families enrolled their children in private schools in AY 2020.[16] So the question is: what percent of EFA students would be enrolled in public schools, thereby leading to higher taxpayer costs, if the Education Freedom Account Program did not exist?

As described above, I drew on the growing body of evidence from school choice programs from other states to estimate the number of EFA students who would have been enrolled in a public school if their families had not been able to access an account. This estimate allows a calculation of the reduction in state taxpayer costs due to these students not enrolling in a New Hampshire public school.

c. The variable or marginal cost of educating students in public schools is less than the average total cost

Additionally, I need an estimate of the reduction in the public schools' operating costs when they experience a reduction in their student population. To make this estimate, I relied on a

[15] New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021.
[16] Ibid.

cautious estimate from the literature on the nature of operating costs in public schools. Given that this issue is complex, I discuss this issue in Appendix B. In short, there are four methods in the literature to estimate the variable costs of educating students in public schools. Three of them produce very similar estimates, while the fourth estimate suggests that virtually all public school expenditures are variable costs.

As detailed in Appendix B, for this analysis, I use the more cautious estimate of NH public schools' variable costs to be 72.3 percent of their total per-student expenditures. If I had used the fourth and much higher estimate, the estimates of fiscal savings would have been considerably higher, and much closer to the second naïve estimate discussed above.

Fiscal Effect of the EFA Program on State Taxpayers in 2021-22

The NH DOE projects that the average EFA grant will be $4,603 in 2021-22, which is equal to the average adequacy payment, including differentiated aid, that the state will make to public school districts for this academic year. The average state funding per public school student is projected to be $5,961 in 2021-22. However, per state law, when students leave public school districts (for any other reason), districts do not lose the entire $5,961. Specifically, state stabilization funds and other state funds (e.g. capital) are not tied to enrollment. That is, state stabilization funds and state funding for capital are not reduced when student enrollments decline. Thus, the formula I used for calculating how much state funding is enrollment driven is as follows:

$4,603 + $197.5 = $4,800.5, where:

- $4,603 is the NH DOE's projection of the statewide average adequacy payment, including differentiated aid for 2021-22.
- $197.5 is half of "other" state funds per student that are projected to leave when students leave public school districts.

If this latter figure—that half of other state funds are enrollment driven—assumes that too much funding will leave public school districts, then the projections below are very slightly overestimating savings to the state from switchers (students leaving the public education sector for the nonpublic sector via EFAs). If this latter figure assumes too little state funding is enrollment driven, then the projections below are very slightly underestimating savings to the state from EFA switchers. (As shown below, the difference would be less than $85,000.)

Above, I projected that 536 private school students would use an EFA, and 430 students in the EFA program in 2021-22 would have enrolled in a NH public school without the account. The calculation of the net fiscal effect from New Hampshire's proposed EFA program to state taxpayers in 2021-22 is as follows:

State Cost of Providing 536 Private School Students with EFAs	—	State Savings from Educating "Switchers" with EFAs Rather than in More Expensive Public Schools
(536 private EFA students **x** $4,603)	—	($4,800.5 - $4,603) **x** 430 EFA Switchers
= $2.47 million	—	$84,875 **=**

$2.4 million* in <u>state</u> taxpayer costs for 2021-22

(* with rounding)

The details for the above calculation are as follows:

- Number of private school EFA students in 2021-22 **=** 536.
- Average cost to <u>state</u> taxpayers per EFA = $4,603.
- Average <u>state</u> expenditures per public school student that are enrollment-driven **=** $4,800.5.
- <u>State</u> taxpayer cost to provide 536 private school students with EFAs **=** 536 **x** $4,603 **=** $2.47 million.
- <u>State</u> savings from providing 430 students with EFAs, which allows them to switch from a public school **=** ($4,800.5 - $4,603) **x** 430 EFA Switchers = $84,875.
- Net fiscal cost to <u>state</u> taxpayers **=** $2.47 million **-** $84,875 million **=** $2.4 million.

That is, if 536 private school students use an EFA, those students would cost the state $2.47 million in 2021-22. And if 430 students who would have enrolled in a public school instead choose an EFA, the state would save $84,875 compared to the state (enrollment-driven) cost of their education in the public schools. Taken together, I estimate that New Hampshire's proposed Education Freedom Account Program would, on net, cost the state $2.4 million in 2021-22 (with rounding).

Fiscal Effect of the EFA Program on State Taxpayers in 2022-23

I project that 1,272 private school students would use an EFA, and that an additional 1,063 students in the EFA program in 2022-23 would have enrolled in a NH public school without the account. Using these figures, the calculation of the net fiscal effect from New Hampshire's proposed EFA program to state taxpayers in 2022-23 is as follows:

State Cost of Providing 1,272 Private School Students with EFAs	—	State Savings from Educating "Switchers" with EFAs Rather than in More Expensive Public Schools
(1,272 private EFA students **x** $4,830)	—	($5,032-$4,830) **x** 1,063 EFA Switchers **=**
$6.14 million	—	$214,811 **=**

$5.9 million in <u>state</u> taxpayer costs for 2022-23

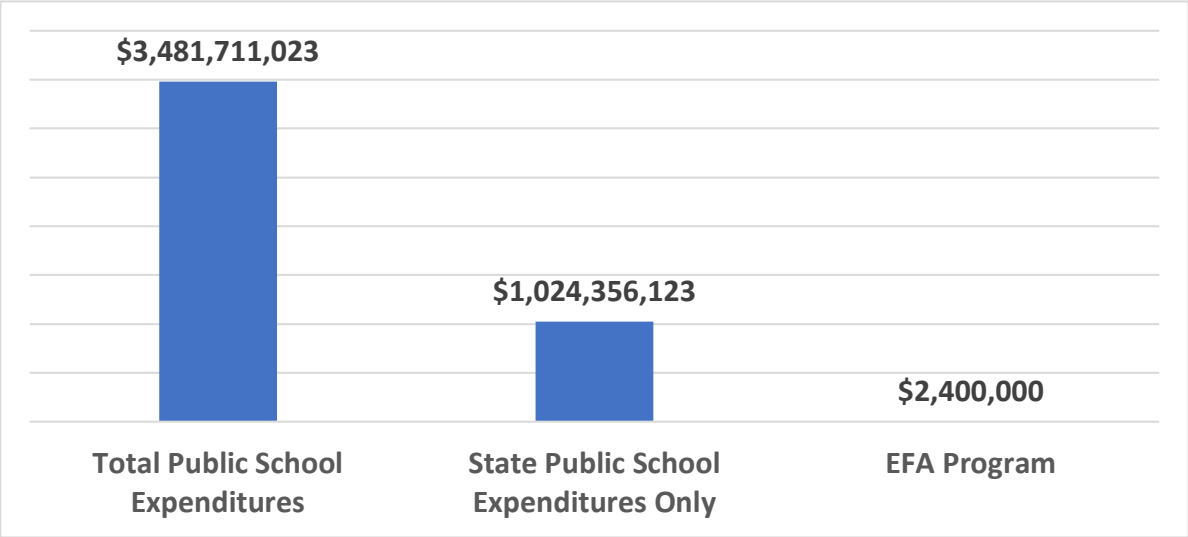
The details for the above calculation are as follows:

- Number of private school EFA students in 2022-23 **=** 1,272.
- Average cost to <u>state</u> taxpayers per EFA = $4,830.
- Average <u>state</u> expenditures per public school student that are enrollment-driven **=** $4,830 + $202 = $5,032, where $4,830 is the average adequacy payment with differentiated aid and $202 is half of "other" state funds projected for 2022-23.
- <u>State</u> taxpayer cost to provide 1,272 private school students with EFAs **=** 1,272 **x** $4,830 **=** $6.14 million.
- <u>State</u> savings from providing 1,063 students with EFAs, which allows them to switch from a public school **=** ($5,032 - $4,830) **x** 1,063 EFA Switchers = $214,811.
- Net fiscal cost to <u>state</u> taxpayers **=** $6.14 million **-** $214,811 **=** $5.9 million.

That is, if 1,272 private school students use an EFA, those students would cost the state $6.14 million in 2022-23. And if 1,063 students would have enrolled in a public school if they had not chosen an account, they would save the state $214,811 compared to the state (enrollment-driven) cost of their education in the public schools. Taken together, I estimate that New Hampshire's proposed Education Freedom Account Program would, on net, cost state taxpayers $5.9 million in 2022-23.

As shown in figure 8 below, the NH DOE projects that total expenditures on NH public schools will be $3.48 billion in 2021-22, and the state's share of those public school costs will be $1.02 billion. As a comparison, I estimate that the net fiscal cost to the state of the EFA program would be $2.4 million in 2021-22, which means the EFA program would cost the state about two-tenths of one percent of its cost of the state share of public school funding. This EFA cost is less than 7/100ths (seven one hundredths) of one percent of the total cost of New Hampshire public schools.

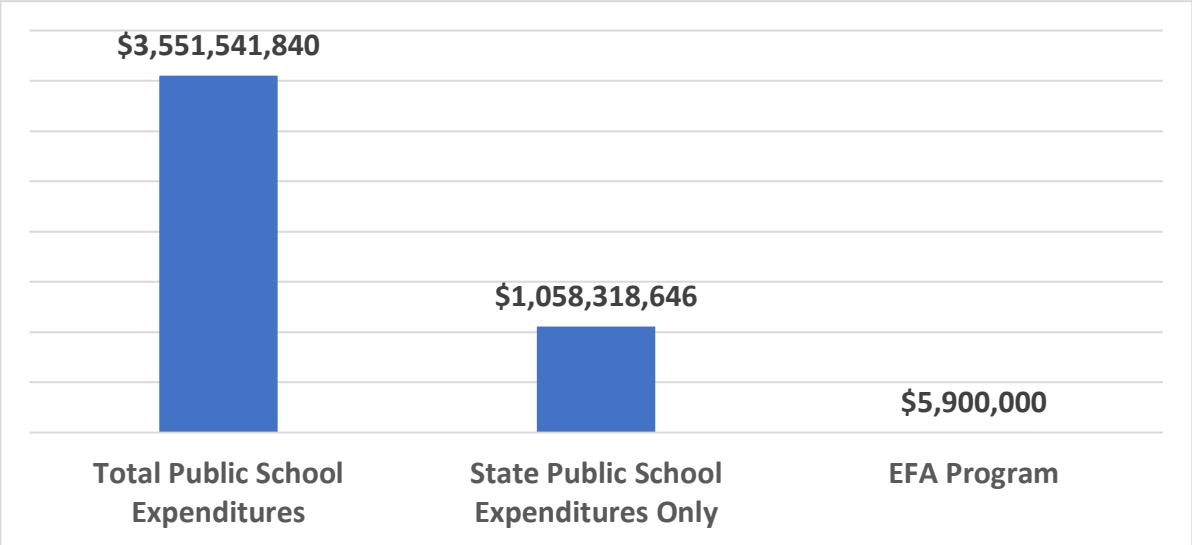
Figure 8. NH DOE Projections of Total Costs and State Costs for NH Public Schools in 2021-22; Compared to This Report's Projections for the Total EFA Program Costs



Source: Author calculations from New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021 and this report.

The next figure contains corresponding amounts for 2022-23: the total cost of NH public schools is projected to be $3.55 billion, where the state's share of those costs would be $1.06 billion. I estimate that the EFA program would cost New Hampshire taxpayers $5.9 million in 2022-23.

Figure 9. NH DOE Projections of Total Costs and State Costs for NH Public Schools in 2022-23; Compared to This Report's Projections for the Total EFA Program Costs



Source: Author calculations from New Hampshire Department of Education, Long-term Comprehensive Modeling Analysis, Education Freedom Accounts, January 12, 2021 and this report.

The above fiscal analysis does not consider the fiscal effects of the EFA program on local public school districts. As shown in the next section, this program, with its very low taxpayer cost per student, saves local taxpayers significant sums of money.

2. Fiscal Effects of the Education Freedom Account (EFA) Program on Local Taxpayers

It was relatively straightforward to estimate the fiscal effects on state taxpayers from New Hampshire's proposed EFA Program. The NH DOE publicizes the total expenditures by NH public schools and the amount of state funding that goes to public schools annually. And the NH DOE has made projections of these figures and the average grants made to EFAs into the future.

Estimating the fiscal effects of New Hampshire's proposed EFA program on local public school districts requires more analysis, including an estimate of the short-run (from one year to the next) variable costs of educating students in public school districts. In other words, we need to know how much public school district costs would increase if an EFA student enrolled in a public school instead of using an EFA. There are four methods in the literature for estimating variable costs of public schools, and three of those methods produce almost identical estimates. Relying on a method from one of these three approaches, I estimate $14,649 per student as the variable (or marginal) cost of educating additional students in NH public schools in 2021-22. The corresponding figure for 2022-23 is $15,096. I detail how I arrived at these estimates in Appendix B. In short, the estimates come from observed actual reductions in expenditures (from one year to the next) when public school districts experienced declines in enrollment. These estimates are only 72.3 percent as large as the average total cost of educating students in NH public schools (projected by the NH DOE to be $20,261 and $20,880 in 2021-22 and 2022-23, respectively). Since the fourth method of estimating variable costs produces estimates around $20,000 per student, the approach used in this report is cautious.[17]

An important note: the state's current funding formula and SB 130 as amended reduce the fiscal impact of the EFA program on local school districts in the first two years. Under the existing funding formula, districts receive funding based on prior-year enrollment. Therefore, there is no actual reduction in state aid to districts in the the 2021-22 academic year. SB 130 further requires that districts receive 50% of any lost EFA funding in year two as a "phase out grant." With that grant in place, district revenue would fall by only $16,063 on average in year two, which is just 0.024% of average district revenue. To give a more complete picture of how the EFA program works, this study calculates the cost to local districts in the first two years as if districts would lose 100% of state adequate education grants for departing EFA students. Even without provisions in the law that reduce the impact on local districts, we see that reductions in state aid would be tiny. The actual, and much smaller, state aid reductions districts would experience in the first two years of the program are listed in the first page of the Executive Summary, and in Appendix Table C2.

[17] If one used the approach in Dorfman (2019), the estimate of the additional cost of educating students in public schools would be just over $20,000 per student

Fiscal Effect of the EFA Program on Local Taxpayers in 2021-22

Using this cautious estimate of $14,649 as the additional cost, on average, of educating students added to NH public school districts, I can estimate the fiscal effects of 430 EFA students migrating to the public schools if their families were not able to access an EFA. I also account for the fact that if these students migrated to public schools, public school costs would rise, and those districts would collect more state funding via this enrollment growth. I calculate the net savings from the EFA program to local taxpayers in 2021-22 as follows:

Local Cost of Educating 430 EFA Students in Public Schools	—	State Funding for Enrollment Growth
430 EFA students **x** $14,649	—	430 EFA students **x** $4,800.5 **=**
$6.3 million	—	$2.1 million **=**

$4.2 million in <u>local</u> savings per year in 2021-22

The details for the above calculation are as follows:

- Number of EFA recipients who would have been enrolled in a public school if their families were not able to access an EFA in 2021-22 **=** 430.
- Estimate of the variable cost of educating students in public schools **=** $14,649, where this estimate is 72.3 percent of the actual $20,261 total average cost of educating students in public schools in 2021-22. From appendix B, 72.3 percent is my estimate of average short-run variable costs per student in New Hampshire public schools.
- Average <u>state</u> revenues per public school student that are enrollment-driven **=** $4,800.5.
- <u>Local</u> taxpayer cost to educate these 430 EFA students in public schools **=**
  430 students **x** $14,649 **=** $6.3 million.
- State funding for enrollment growth to local public school districts if these 430 EFA students had been enrolled in public schools **=** 430 EFA students **x** $4,800.5 **=** $2.1 million.
- Savings to <u>local</u> taxpayers **=** $6.3 million **-** $2.1 million **=** $4.2 million.

The decrease in local taxpayer costs of not having to educate these 430 scholarship students in the public schools is 430 EFA students multiplied by the cautious estimate of the average variable cost of educating these students in public schools ($14,649), or $6.3 million. Then, minus the state revenues that local systems receive to offset a portion of the cost of educating those students, or 430 students multiplied by $4,800.5, the average state revenues per student in public schools that are tied to enrollment. This latter figure represents $2.1 million. The

difference between these two figures, $4.2 million ($6.3 million - $2.1 million), represents the savings to local taxpayers from not having to pay to educate 430 students in the public schools.

Overall Net Fiscal Effect on New Hampshire Taxpayers in 2021-22

Considering the net fiscal effects of the proposed EFA program on state and local taxpayers in New Hampshire, the estimated total savings are $1.85 million in 2021-22 (with rounding):

-$2.4M in state costs + $4.2M in local savings =

$1.85 million* in savings overall to NH taxpayers in 2021-22

(* with rounding)

While NH taxpayers will face a modest cost increase at the state level in the first year of the EFA program ($2.4 million), they will save $4.2 million in property tax expenses, for an overall decrease in their tax burden of $1.85 million. (Local school boards may choose to reduce property taxes given these savings to the school district, or they may choose to increase spending, or some combination of the two.)

Fiscal Effect of the EFA Program on Local Taxpayers in 2022-23

Using the cautious estimate of $15,096 as the additional cost, on average, of educating students added to NH public school districts in 2022-23, I can the estimate the fiscal effects of 1,063 EFA students migrating to the public schools if their families were not able to choose an EFA. I also account for the fact that if these students migrated to public schools, public school costs would rise, and those districts would earn more state funding via this enrollment growth. I calculate the savings from the EFA program to local taxpayers in 2022-23 as follows:

Local Cost of Educating 1,063 EFA Students in Public Schools	—	State Funding for Enrollment Growth
1,063 EFA students **x** $15,096	—	1,063 EFA students **x** $5,032 **=**
$16.1 million	—	$5.4 million **=**

$10.7 million in local savings per year in 2022-23

The details for the above calculation are as follows:

- Number of EFA recipients who would have been enrolled in a public school if their families were not able to access an EFA in 2022-23 **=** 1,063

- Estimate of the variable cost of educating students in public schools = $15,096, where this estimate is significantly below the actual $20,880 total average cost of educating students in public schools in 2022-23
- Average state revenues per public school student that are tied to enrollment changes = $5,032

- Local taxpayer cost to educate these 1,063 EFA students in public schools = 1,063 students **x** $15,096 = $16.1 million.
- State funding for enrollment growth to local public school districts if these 1,063 EFA students had been enrolled in public schools = 1,063 EFA students **x** $5,032 = $5.4 million.
- Savings to local taxpayers = $16.1 million - $5.4 million = $10.7 million.

The decrease in local taxpayer costs of not having to educate these 1,063 scholarship students in the public schools is 1,063 EFA students multiplied by the cautious estimate of the average variable cost of educating these students in public schools ($15,096), or $16.1 million. Then, minus the state revenues that local districts receive to offset a portion of the cost of educating those students, or 1,063 students multiplied by $5,032, the average state revenues per student in public schools. This latter figure represents $5.4 million. The difference between these two figures, $10.7 million ($16.1 million - $5.4 million), represents the savings to local taxpayers from not having to pay to educate 1,063 students in the local public schools.

Overall Net Fiscal Effect on NH Taxpayers in 2022-23

Considering the net fiscal effects of the proposed EFA program on state and local taxpayers in New Hampshire, the estimated total savings are $4.8 million in 2022-23:

-$5.9M in state costs + $10.7M in local savings =

$4.8 million in savings overall to NH taxpayers in 2022-23

Caveat - a fiscal impact on state and local taxpayers not measured in this report

Nationally, the share of enrollment in private schools has been declining for decades. In 1965, 14.3 percent of K-12 American students attended a private school. By 2017, that share had fallen to 8.2 percent.[18] There are myriad reasons for this decline, including the increasing cost

[18] Source: Current Population Survey, U.S. Bureau of the Census, https://www.census.gov/data/tables/time-series/demo/school-enrollment/cps-historical-time-series.html . The enrollment of students in private schools has proven difficult for federal government agencies to collect accurately. The Current Population Survey appears to be the most "clean" data source (no large and unbelievable gyrations from year-to-year). Nevertheless, all federal

of public schools — from 1965 to 2016, real expenditures per student (adjusted for inflation) in American public schools almost tripled.[19] In the absence of choice programs, parents who send their children to private school must pay both the increased federal, state, and local taxes to fund more expensive public schools and the full tuition cost to attend a private school. Parents who make this private school choice for their children provide a significant fiscal benefit to other taxpayers who do not have to bear the cost of educating these students in private schools.

This decline in the share of enrollment in private schools places a fiscal cost on taxpayers who must pay to educate an increasing share of students in public schools. In the analyses above, I do not consider the possibility that New Hampshire's EFA program may keep at least some private schools open, thereby keeping non-EFA students in the private education sector, which saves taxpayers the cost of educating these non-scholarship students in public schools.

Although I do not measure these potential fiscal savings (keeping more non-EFA students in private schools) from New Hampshire's proposed EFA program, there is strong evidence from other states that have sizable education choice programs that these fiscal savings may be significant.

For example, under Georgia's tax credit scholarship program, scholarship organizations began giving scholarships to students in the fall of 2008. Nationally, private school enrollment fell by 12 percent between fall 2008 and fall 2017.[20] During that time period, public school enrollment increased by 2.7 percent in the United States as a whole.[21] Thus, from 2008 to 2017, there was a significant decline in the share of American children who attend a private school for their K-12 education. Surely the Great Recession played a big role in this decline.

Despite the large national decline in the private school enrollment share after 2008, Georgia did not experience such a big change. In Georgia, public school enrollment increased by 7 percent from 2008 to 2017.[22] According to a data file kindly provided by the Georgia Independent

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sources that collect data on private school enrollment show sharp and consistent declines in private school enrollment shares from 1965 to the present and 2008 to the present. This report from the Census Bureau explains these issues and documents that all sources of data on private school enrollment show these significant declines in private school enrollment shares over time, https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/2013_Ewert_01.pdf .

[19] Source: National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/d18/tables/dt18_236.55.asp?current=yes .

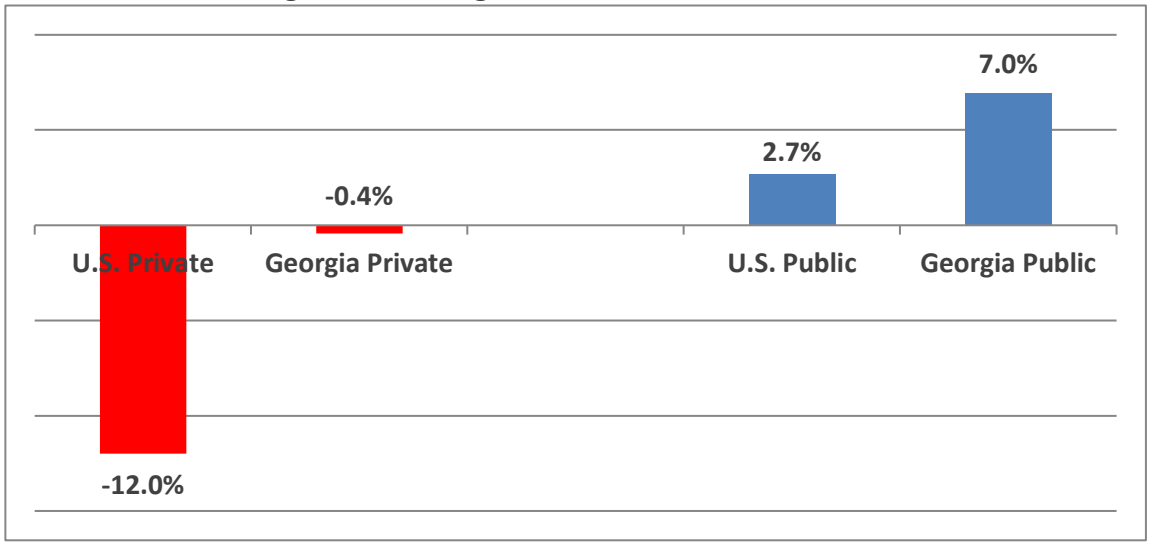
[20] Source: Current Population Survey, U.S. Bureau of the Census, https://www.census.gov/data/tables/time-series/demo/school-enrollment/cps-historical-time-series.html .

[21] Source: National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/programs/digest/d18/tables/dt18_203.40.asp?current=yes and https://nces.ed.gov/programs/digest/d10/tables/dt10_038.asp .

[22] https://nces.ed.gov/programs/digest/d18/tables/dt18_203.20.asp?current=yes

School Association (GISA), private school enrollments in Georgia fell by only 0.4 percent during this time period, or four-tenths of one percent.[23]

Figure 10– Change in Enrollments, 2008 to 2017



Sources: https://www.census.gov/data/tables/time-series/demo/school-enrollment/cps-historical-time-series.html ; https://nces.ed.gov/programs/digest/d18/tables/dt18_203.20.asp?current=yes ; and data files provided to the authors by the Georgia Independent School Association.

Clearly the private education sector in Georgia has held its enrollment share more than has been the case nationally. To the extent that Georgia's tax credit scholarship program has aided in keeping private schools from closing—and thereby keeping some non-scholarship students from enrolling in the public education sector—then this tax credit program is providing an additional fiscal benefit to Georgia taxpayers.

In this report, I do not attempt to quantify any fiscal benefit from New Hampshire's proposed EFA program in terms of it keeping some private schools open. And this fiscal benefit would be in addition to the savings estimates that result from the EFA program educating students at a significantly lower taxpayer cost relative to the public education system.

Second Caveat - this report relies on projections of public school costs made by the NH DOE

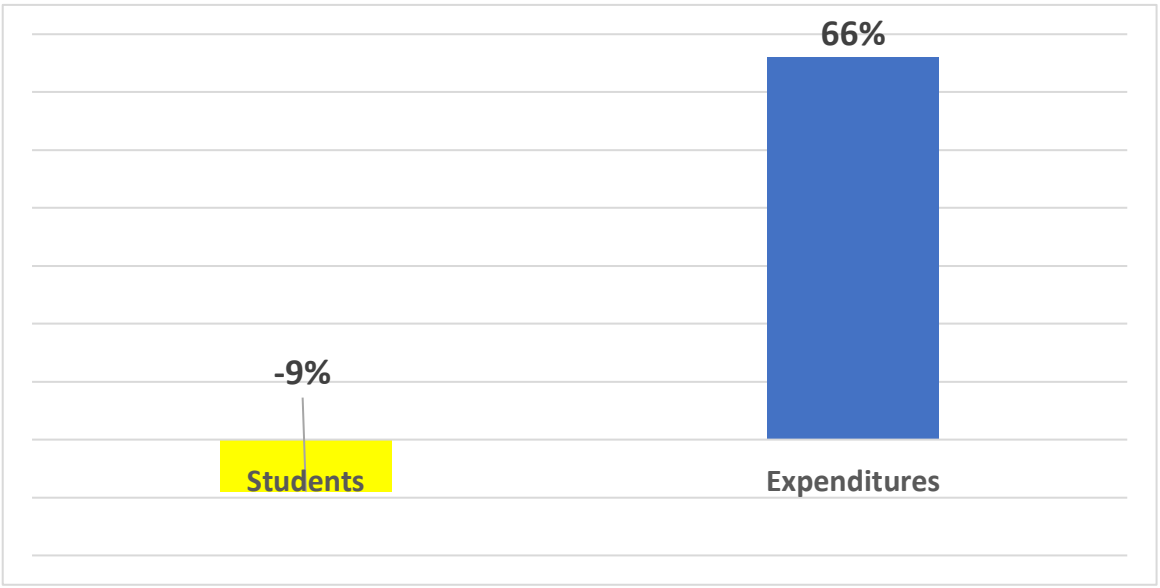
Between 2021-22 and 2022-23, the NH DOE projects that total public school expenditures will increase by 3.0551 percent on a per-student basis. There is good reason to believe that public school spending will increase by more than that amount, as discussed in the introduction to this

[23] Consistent historical data on state-level private school enrollments appear to be nonexistent — federal agencies endeavor to collect this information, but these data display large gyrations from year-to-year that cannot plausibly be true. The Georgia Independent School Association does not include all private schools in Georgia as members. Thus, I use the trend in enrollments in their schools as a proxy measure for private school enrollment trends for the private education sector in Georgia overall. If readers can suggest a potentially better data source, please contact this report's author at educationeconomics@kennesaw.edu .

report. First, New Hampshire public school spending, per student, has been rising much faster than the rate of inflation for decades. As an example, between 1995 and 2018, the number of students in NH public schools declined by 9 percent, yet, adjusted for inflation, the public school system's total expenditures increased by 66 percent. That is, total expenditures on the public education system in New Hampshire increased by 66 percent between 1995 and 2018 over and above spending increases needed to accommodate the rate of inflation.

Thus, these spending increases were increases in real resources devoted to NH public schools. This dramatic increase in real resources was spent on a smaller student population. Therefore, if these spending trends continue, the analysis in this report is underestimating the taxpayer savings of the proposed EFA program in New Hampshire because public school expenditures would be higher than projected by the NH DOE.

Figure 11. Change in Enrollments and Real (Inflation-Adjusted) Increase in Total Expenditures in New Hampshire Public Schools, 1994-95 to 2017-18



Source: Data reported annually by the New Hampshire Department of Education to the National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/ccd/elsi/

The second reason I believe the NH DOE is underestimating the near-term expenditure increases likely to occur in public schools is that the U.S. Congress and President Biden recently passed and signed into law massive federal subsidy to state and local governments, of more than $500 billion (Weissmann, 2021).[24] Much of this funding is earmarked for public schools, and some of the other funds are likely to be devoted to the public education system as well (directly or indirectly). In addition, previous COVID packages already passed by the U.S.

[24] https://slate.com/business/2021/02/state-budgets-relief-bill-congress-covid.html .

Congress and signed into law by President Trump have $122 billion nationally in currently unspent funds for public schools, at the time of writing this report (CBO, 2021; table1).[25]

To the extent that public schools will spend more than the NH DOE projects in 2021-22 and 2022-23, this report yields an underestimate of the fiscal savings to NH taxpayers from the proposed EFA program because it is significantly less expensive to educate switchers with EFAs than it is to educate them in public schools.

3. Summary of the Net Fiscal Effects of the Proposed EFA Program to New Hampshire Taxpayers

For 2021-22, the savings to NH taxpayers from the proposed EFA program equals the estimated $4.2 million in savings to local public school districts minus the $2.4 million in costs to the state treasury. These figures indicate that the EFA program is projected to save the taxpayers of New Hampshire a net of $1.85 million in academic year 2021-22 (with rounding).

-$2.4M in <u>state</u> costs + $4.2M in <u>local</u> savings =
$1.85 million* in savings <u>overall</u> to NH taxpayers in 2021-22
(* with rounding)

For 2022-23, the savings equals the estimated $10.7 million in savings to local public school districts minus the $5.9 million in costs to the state treasury. These figures indicate that the EFA program is projected to save the taxpayers of New Hampshire a net of $4.8 million in academic year 2022-23.

-$5.9M in <u>state</u> costs + $10.7M in <u>local</u> savings =
$4.8 million in savings <u>overall</u> to NH taxpayers in 2022-23

Citizens and policymakers from the Granite State may also be interested in estimates of economic and public benefits of the EFA program. I endeavor to create cautious estimates of these benefits in the next section.

[25] https://www.cbo.gov/system/files/2021-02/hEdandLaborreconciliationestimate.pdf .

IV. Economic Analysis of New Hampshire's Education Freedom Account Program

In this section, I make cautious projections of the effects of New Hampshire's proposed Education Freedom Account (EFA) program on the state economy. The projections rely on the most cautious consensus estimates of the effects of education choice programs on:

- Student Achievement
- Academic Attainment
- Crime Reduction.

Fortunately, there is academic literature on the effects of education choice programs on each of these three outcomes. Student achievement is measured as gains in test scores. Academic attainment is measured as the likelihood of completing high school, and crime reduction is measured as the decrease in the number of felonies. As discussed below, there is academic research on the effects of education choice programs from other states on each of these three outcomes. The overall consensus from the literature is that education choice programs boost academic achievement, increase the likelihood of students graduating from high school, and decrease the likelihood of students committing felonies as young adults.

From this literature, I take the most cautious consensus estimates of the effects of choice programs on student outcomes. Then, to make projections of economic benefits, I draw from the economic literature on the effects of higher student achievement and academic attainment on lifetime labor market earnings and the economic benefits of reductions in crime. These benefits include economic benefits to the EFA students themselves and "public benefits" that accrue to others.

Below, I provide a description of each of these projections. Each subsection begins with the research basis for each projection, followed by the methodology and results of the projections.

It is important to note that readers should not simply sum the economic benefits of increased student achievement, increased academic attainment, and crime reduction from the projections below. These outcomes are interrelated. There is evidence that higher student achievement leads to higher academic attainment and reductions in crime; higher levels of academic attainment lead to reductions in crime, etc. (DeAngelis, 2021). Thus, each projection of economic benefits presented below should be considered separately and not as additive. Finally, the approach used to make these projections follows closely the cautious approach used in a series of papers by Dr. Corey DeAngelis (see, for example, DeAngelis, 2021).

1. Effect of Higher Student Achievement on Lifetime Labor Market Earnings

According to the U.S. Bureau of Labor Statistics, the median annual labor market earnings in New Hampshire were $53,950 in 2019, the most recent year available.[26] Assuming the average person works for 46 years, and a discount rate of 3 percent, the net present value of lifetime earnings in New Hampshire is $1,336,635. That is, a typical worker in New Hampshire can expect to have a net present value of over $1.3 million in lifetime earnings.

There is evidence that higher student achievement (measured by test scores) leads to higher lifetime labor market earnings (Hanushek, 2011 and Chetty, Friedman, and Rockoff, 2014). Based on this evidence, any increase in student achievement that results from students participating in education choice programs will lead to higher lifetime earnings. In this subsection, I provide a projection of the increase in lifetime earnings that the 1,063 New Hampshire students who may use EFAs in 2023 can expect. These projections are estimates based on a cautious consensus estimate from the academic literature on the effect of students exercising choice on their academic achievement. I briefly describe this literature below and then make the projection of the increase in labor market earnings.

There have been 17 random assignment studies on the effect of school choice on student academic achievement (DeAngelis, 2021). These experimental studies were done by a variety of researchers on private school choice programs from seven cities or states.[27] These studies were experimental in that each program limited the number of scholarships available, and the demand for scholarships was higher than the supply. Program managers therefore awarded scholarships based on a random lottery. This random assignment approach allowed researchers to compare test score gains for students who randomly won the lottery to students who did not. Ten of these 17 experimental studies detect statistically significant positive effects on math or reading test scores overall or for student subgroups among students who won school choice lotteries (DeAngelis, 2021).

Detractors of allowing families more choice in K-12 education point to studies that show negative impacts of choice programs on student test scores. Two of the 17 studies, both of the highly regulated Louisiana Scholarship Program, find negative effects on math or reading test scores (Abdulkadiroğlu, Pathak, & Walters, 2018; Mills & Wolf, 2019). The proposed NH program does not contain Louisiana-style regulations of private schools, so these Louisiana studies are not, at present, relevant to the proposal in SB 130.

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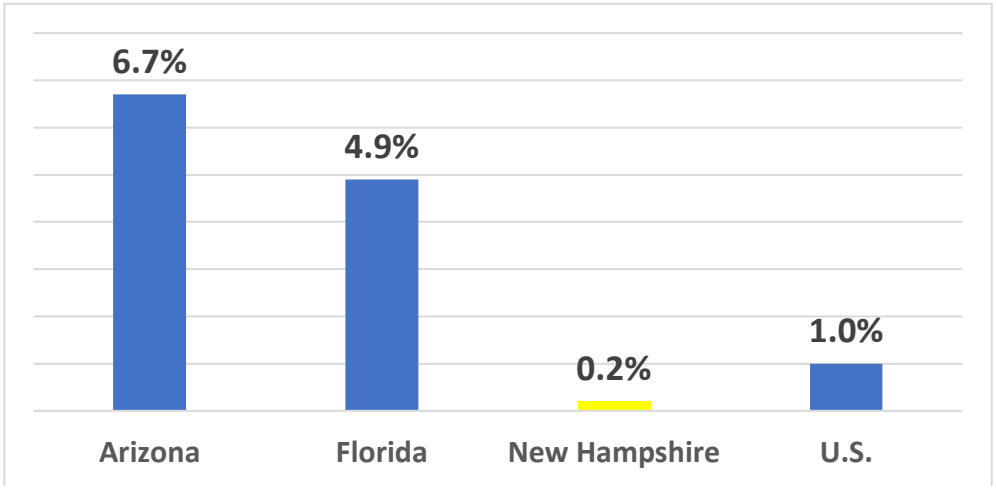
[26] https://www.bls.gov/oes/current/oes_nh.htm#00-0000 . "Earnings" includes only labor market earnings. Income from other sources—interest, capital gains, government transfer payments, etc.—are not included in earnings.

[27] The locations of these education choice programs studied are: Dayton, OH; Louisiana; Milwaukee, WI; New York City; Raleigh, NC; Toldeo, OH, and Washington, DC. Interestingly, two of the researchers who conducted these studies have been recent heads of the President's Council of Economic Advisors (CEA): Alan Krueger who served under President Obama, and the current head of the CEA for President Biden, Cecilia Rouse.

One study from Milwaukee found mixed results (Lamarche, 2008). However, two other Milwaukee studies found positive effects of the voucher program on student test scores (Rouse, 1998 and Greene, Peterson, and Du, 1999). DeAngelis (2021) provides a more detailed summary of this evidence, and EdChoice helpfully lists the studies and summarizes them as well.[28]

While the majority of the experimental evidence on these choice programs finds positive impacts of choice on student test scores, there is also "macro" evidence that choice programs are consistent with statewide gains in test scores. The two states with the highest percentage of students exercising private school choice through a state program are Arizona and Florida (Catt, 2020).[29] Figure 12 shows that in 2019, 6.7 percent of Arizona students were participating in a state taxpayer-funded private school choice program, while the corresponding figure for Florida was 4.9 percent. Only two-tenths of one percent of New Hampshire students were participating in New Hampshire's town tuitioning program (to attend a private school) or the state's Education Tax Credit Program. Catt (2020) refers to these percentages as a state's "EdChoice Share."

Figure 12. EdChoice Share: Percent of Students Participating in a Private School Education Choice Program, 2019-20



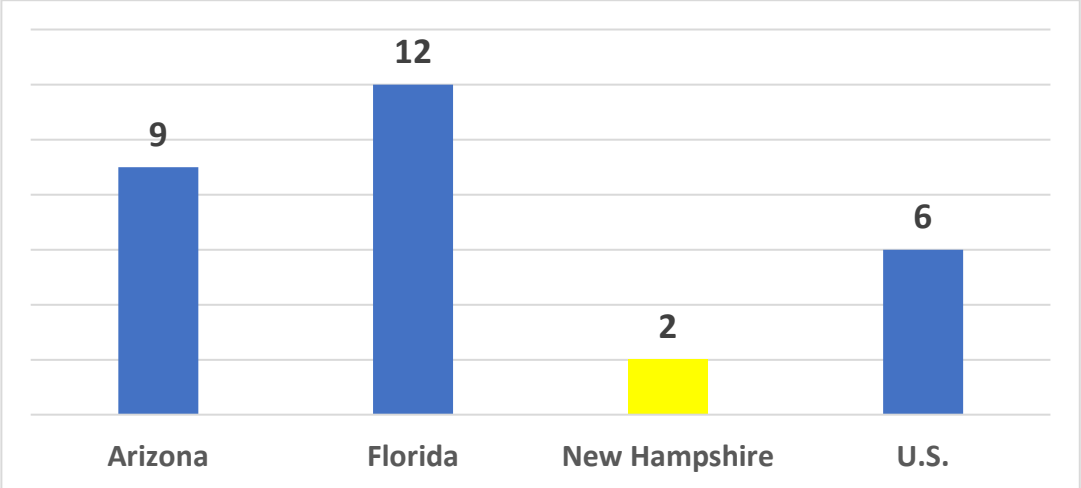
Source: EdChoice, https://www.edchoice.org/engage/u-s-states-ranked-by-educational-choice-share-2020/

Interestingly, between 2003 and 2019, Arizona and Florida students experienced tremendous test score gains on the NAEP, as compared to both the national average and New Hampshire. The four figures below show that statewide average gains on Grade 4 and Grade 8 scores NAEP scores far exceeded national changes and changes in New Hampshire's average scores between 2003 and 2019. As stated previously, 2003 was the first year that all states took NAEP exams.

[28] EdChoice lists all the references to these 17 random assignment studies of private school choice programs and summarizes the evidence here, https://www.edchoice.org/wp-content/uploads/2020/04/123s-of-School-Choice-2020-4.pdf#page=14 .

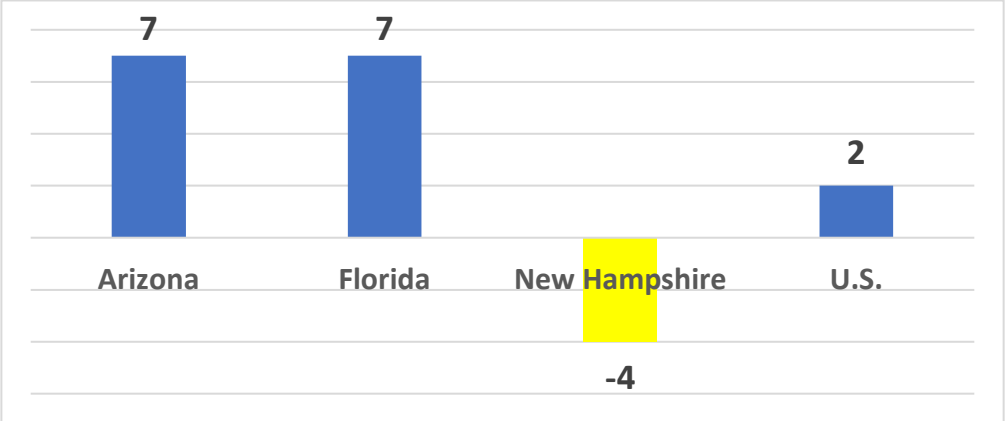
[29] https://www.edchoice.org/engage/u-s-states-ranked-by-educational-choice-share-2020/

Figure 13. Change in NAEP Grade 4 Mathematics Scores, 2003 to 2019



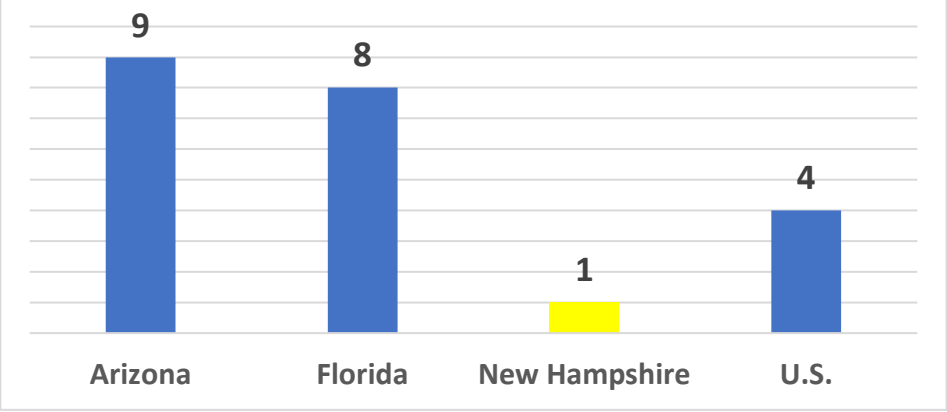
Source: https://www.nationsreportcard.gov/ndecore/xplore/nde

Figure 14. Change in NAEP Grade 4 Reading Scores, 2003 to 2019



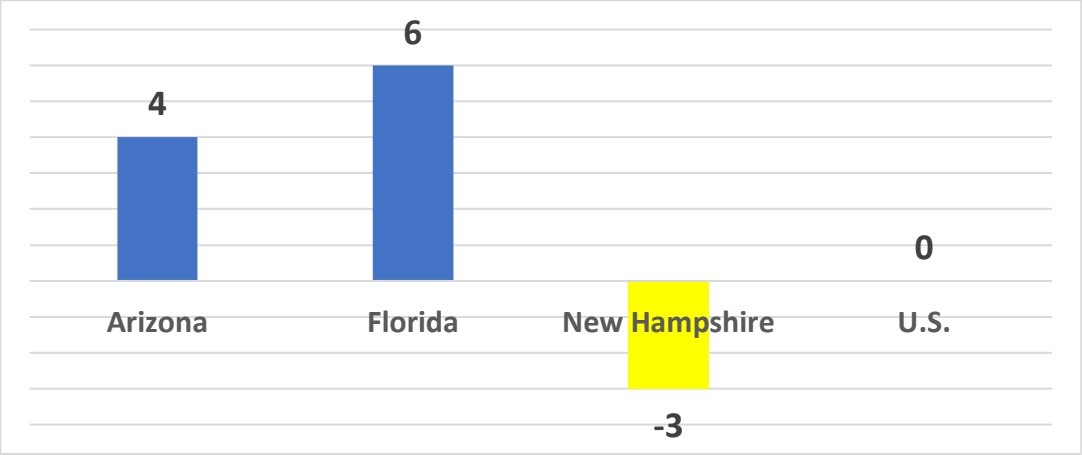
Source: https://www.nationsreportcard.gov/ndecore/xplore/nde

Figure 15. Change in NAEP Grade 8 Mathematics Scores, 2003 to 2019



Source: https://www.nationsreportcard.gov/ndecore/xplore/nde

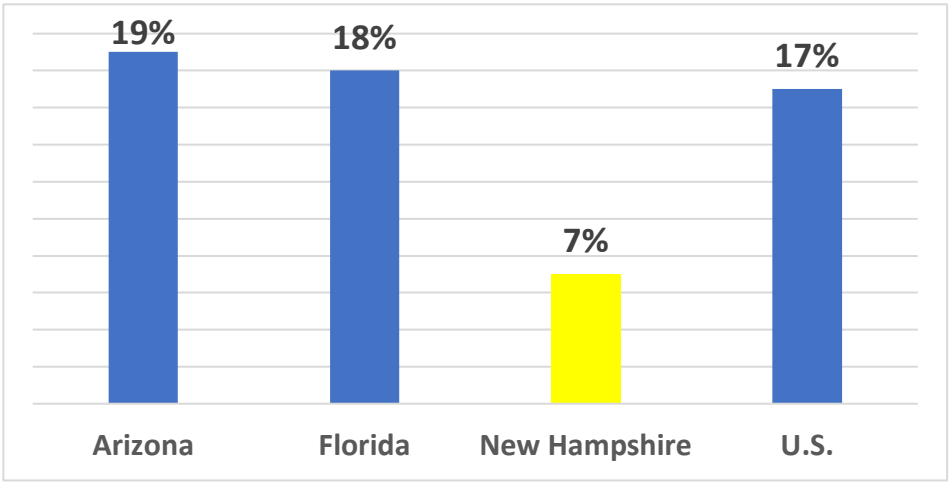
Figure 16. Change in NAEP Grade 8 Reading Scores, 2003 to 2019



Source: https://www.nationsreportcard.gov/ndecore/xplore/nde

While they had significantly more educational choice, Arizona and Florida made these gains with significantly higher child poverty rates than New Hampshire. Figure 17 shows that the child poverty rates in both Arizona and Florida were about 2.5 times the rate in New Hampshire. (Their child poverty rates were also above the national average.) Therefore, these tremendous gains in student achievement in Arizona and Florida were made with a significantly less advantaged student population, as compared to New Hampshire.

Figure 17. Child Poverty Rates, 2019



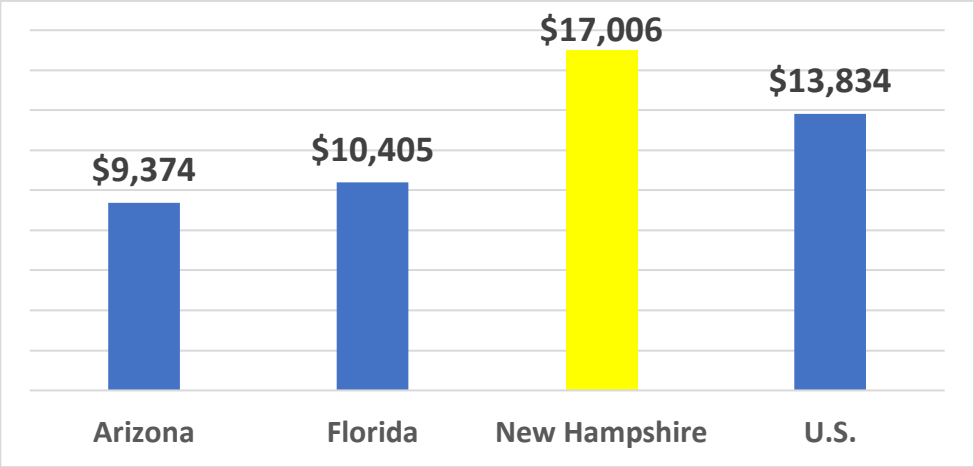
Source: The Annie E. Casey Foundation, Kids Count Data Center, https://datacenter.kidscount.org/data/tables/43-children-in-poverty-100-percent-poverty#detailed/1/any/false/1729,37,871,870,573,869,36,868,867,133/any/321,322

Of course, many factors potentially led to the significantly larger test score gains in Arizona and Florida relative to New Hampshire since 2003. Interestingly, during this 2003 to 2019 period, both Arizona and Florida expanded existing education choice programs and created new ones

(EdChoice, *School Choice in America Dashboard*).[30] And, as noted above, by 2019 Arizona and Florida had the highest percentage of students in the nation participating in private school choice programs.

What does not explain the gains in test scores in Arizona and Florida is more money given to public schools. Public schools in the nation as a whole spent over 30 percent more per student than the public schools in Arizona and Florida in 2017, the most recent year with data comparable across states. In 2017, public schools in New Hampshire spent about 70 percent more per student relative to Arizona and Florida. As noted above, these higher levels of spending did not translate to larger NAEP test score gains.

Figure 18. Total Expenditures Per Student, 2016-17



Source: Digest of Education Statistics, National Center for Education Statistics at the U.S. Department of Education.

Based on the evidence cited above (that 10 experimental studies have found that choice programs have led to higher student achievement), it is safe to say that the relatively large amounts of choice available to families in Arizona and Florida have contributed to at least some of their gains in NAEP scores between 2003 and 2019.

Please recall the Hanushek (2011) and Chetty, Friedman, and Rockoff (2014) studies provide evidence that higher levels of student achievement were related to higher lifetime labor market earnings. Thus, students in Arizona and Florida can expect higher lifetime incomes from the learning gains they have experienced.

To project test score gains from education choice and the increase in labor market earnings that would result, DeAngelis (2021) uses cautious estimates of key parameters from the academic literature, and I use those same estimates here. Those estimates of the key parameters are as follows:

[30] https://www.edchoice.org/school-choice/school-choice-in-america/

- Students exercising choice will achieve test score results that are 1.8 percent of a standard deviation higher than they would have been if the students' families had not been given the choice opportunity.

- A one standard deviation increase in test scores would lead to a 13 percent increase in the net present value of lifetime labor market earnings.

- Students retain 70 percent of their learning from one year to the next.

See DeAngelis (2021) for a detailed rationale for use of each of these parameters. The key takeaway from the usage of these three parameters is that they are cautious. Other researchers could credibly use parameter values that would suggest higher economic benefits from New Hampshire's EFA program relative to the projections of benefits produced below.

As mentioned above, the net present value of median lifetime earnings in New Hampshire is $1,336,635. Using these parameter values, the calculation below shows the projected future lifetime earnings of a student who is able to exercise choice.

$\$1{,}336{,}635 \times [1 + (0.018\ SD) \times (0.13/SD) \times (0.70)]^{13}$ = ***Projected Lifetime Earnings***, where:

- $1,336,635 is the median net present value in in lifetime earnings for New Hampshire residents

- 0.018 standard deviations (SD) is the expected increase in student test scores from education choice

- 0.13/SD is the expected increase in earnings that accrue from test score gains

- Test score gains are deflated by 0.70, in order to account for average student learning loss from year to year

- 13 is the number of years students are in grades K-12.

Doing this math finds that students who are able to access an EFA are projected to have a net present value of lifetime earnings equal to $1,365,379—an increase of $28,744 per person.

If 1,063 NH public school students were able to access an EFA for the entirely of their K-12 academic careers, this projection suggests that their collective total lifetime earnings would increase by $30.6 million.

The 1,063 figure represents the projected number of NH public school students who would use an EFA to switch to a nonpublic school or educational setting in AY 2023.

2. Effect of Higher Educational Attainment on Lifetime Labor Market Earnings

Based on evidence from six academic studies of education choice lotteries, DeAngelis (2021) uses the cautious projection that choice programs increase the likelihood of students graduating high school by 4 percentage points. Please see his study for a detailed evaluation of the research on this topic. As an example, Wolf, et al. (2010) find that Washington, D.C., students who randomly won a lottery to receive a voucher experienced high school graduation rates that were 12 percentage points higher than students who did not win the lottery. Given this experimental design, this is evidence that the D.C. Opportunity Scholarship Program caused this increase in educational attainment. That said, I agree with DeAngelis that the lower figure of 4 percent is a more cautious and preferred approach when projecting gains in attainment that would be realized in other places as a result of new education choice programs.

DeAngelis uses a figure of $300,000 in total economic benefits for students who graduate high school vs those who do not. This $300,000 figure is about half of the level that is commonly used in the literature (Vining and Weimer, 2019). These total economic benefits include increases in the net present value of labor market earnings that accrue to students who select a school choice program and public (or external) benefits to others. These external benefits include higher tax payments and less usage of government transfer programs such as Food Stamps (SNAP) and Medicaid. I use this lower $300,000 figure as the estimate of the total economic benefits of graduating from high school, including benefits to EFA students themselves and public benefits to others.

If 1,063 NH students get to exercise choice using an EFA, and if they will be four percentage points more likely to graduate, then New Hampshire will have 43 more high school graduates:

0.04 x 1,063 EFA students = 43 more high school graduates.

If each of these additional 43 high school graduates produces $300,000 in net present value of economic benefits to themselves, through higher earnings, and to others through external benefits, then the total economic impact for New Hampshire would be

43 more high school graduates x $300,000 in total economic benefits = $12.9 million.

This projection indicates that if 1,063 NH public school students were able to access an EFA, the total economic benefit to the state of increased high school graduation would be $12.9 million.

As noted previously, this $12.9 million figure should not be added to the projected $30.6 million projection of economic benefits from higher educational attainment detailed in the previous subsection. The reason for not adding these projections together, as DeAngelis (2021) explains, is that higher academic achievement may lead to a higher graduation rate. While some benefits from high school graduation are surely in addition to the economic benefits of higher student achievement, there is just as surely some overlap. To avoid double counting, these estimates of economic benefits should not be added together.

3. Effect of EFAs on Crime

Each of the six academic studies on the topic finds statistically significant positive effects of choice on crime reduction overall or for subgroups of students (DeAngelis & Wolf, 2019; DeAngelis & Wolf, 2020; Deming, 2011; Dills & Hernández-Julián, 2011; Dobbie & Fryer, 2015; McEachin et al., 2020).[31] The two random assignment studies both find that winning a school choice lottery largely reduces incarceration rates for male students (Deming, 2011; Dobbie & Fryer, 2015). DeAngelis & Wolf (2019) suggest that choice programs could reduce crime through competitive pressures to improve behavioral outcomes, improvements in discipline policies, and/or by providing access to cultures and peer groups that discourage bad behaviors.

From this evidence, DeAngelis (2021) uses a cautious estimate that choosing schools reduces the probability of committing a felony by 0.4 percent, or four-tenths of one percent. If 1,063 NH students are given access to an EFA, then this estimate suggests that these students as a group will commit 4.3 fewer felonies as young adults.

From the academic literature on crime, DeAngelis uses a cautious estimate which implies that each felony committed imposes an average of $37,800 in costs on society. Using these estimates, the economic benefits to New Hampshire of 4.3 fewer felonies would be:

4.3 fewer felonies x $37,800 in costs per felony = $163,000.

This projection indicates that if 1,063 NH public school students were able to access an EFA, the total economic benefit to the state of decreased crime would be about $163,000.

As was the case above, this $163,000 figure should not be added to the projected economic benefits described previously because some of this reduction in crime due to education choice may be through the effects of choice on producing higher student achievement and higher educational attainment. Thus, to avoid double counting, this estimate of the economic benefits of crime reduction from EFAs should not be added to the estimated of economic benefits described above.

[31] Duchini, Lavy, and Machin (2020) similarly found that a 10-percentage point expansion of charter-like converter academies in London was associated with a 3-percentage point reduction in juvenile property and violent crimes.

V. Concluding Remarks

For the 2021 Legislative Session, House Speaker Sherman Packard and several other members of the General Court of New Hampshire have sponsored House Bill 20—the Richard "Dick" Hinch Education Freedom Account Program. A companion bill in the Senate, Senate Bill 130, was identical until amended in the Senate Education Committee. SB 130 as amended is the more viable of the two bills and is the one studied here. This legislation offers a wide range of educational opportunities to all families with children in grades K-12 who live in households with incomes below 300 percent of the federal poverty line. Every child who is eligible to attend a public school, and who meets the income criteria, would be eligible for an Education Freedom Account (EFA). Families could choose to send their children to their assigned public school or to use an EFA to help cover the costs of educational services purchased elsewhere. This program would allow New Hampshire families to have the choice to customize their children's education.

This report provides a fiscal and economic analysis of SB130 if it were to become law. The analysis includes a study of the net change in state expenditures; net change in public school district revenues and costs; net change in economic activity; and net change in public benefit.

The main findings of this report are as follows. If the proposed Education Freedom Account (EFA) Program is signed into law in 2021, then

- A projected 430 students would switch from a public school via an EFA, and an additional 536 private school students would access an EFA. Thus, there would be 966 total EFA students in 2021-22.

- For 2022-23, there would be a projected 1,063 switchers from public schools plus another 1,272 private school students who would access EFAs, for a total of 2,335 EFA students in 2022-23.

- In 2021-22, in its first year of existence, I estimate that the EFA program would cost the state a net of $2.4 million. That figure is comprised of the cost to provide EFAs to private school students minus the savings from providing EFAs to public school students. Local taxpayers are estimated to save $4.2 million because it is much less expensive to provide students with EFAs than to educate them in a public school. Taken together, the net fiscal effect of the EFA program in 2021-22 on NH taxpayers would be a savings of $1.85 million (with rounding).

- In 2022-23, there are an estimated $5.9 million in net state costs, with $10.7 million in local savings. Thus, the net fiscal effect of the EFA program in 2022-23 would be an estimated $4.8 million overall savings.

- Using the experiences from other states as a guide, students who switch from a public school to a private school or other nonpublic education setting will experience gains in academic achievement, academic attainment, and lower crime rates.

- If 1,063 NH students were able to access an EFA for the entirely of their K-12 academic careers (the projected number of switchers from public schools in year 2 of the program), this report projects that their total lifetime earnings would increase by $30.6 million. This estimate is based on cautious consensus estimates from the academic literature on gains in academic achievement that result from students exercising choice in programs in other states.

- If 1,063 NH public school students were able to access an EFA, then the total economic benefit to the state of increased high school graduation would be $12.9 million.

- if these 1,063 NH students were able to access an EFA, then the total economic benefit to the state of decreased crime would be about $163,000.

These estimates of economic benefits to New Hampshire are not additive, as higher academic achievement influences graduation rates and crime, respectively.

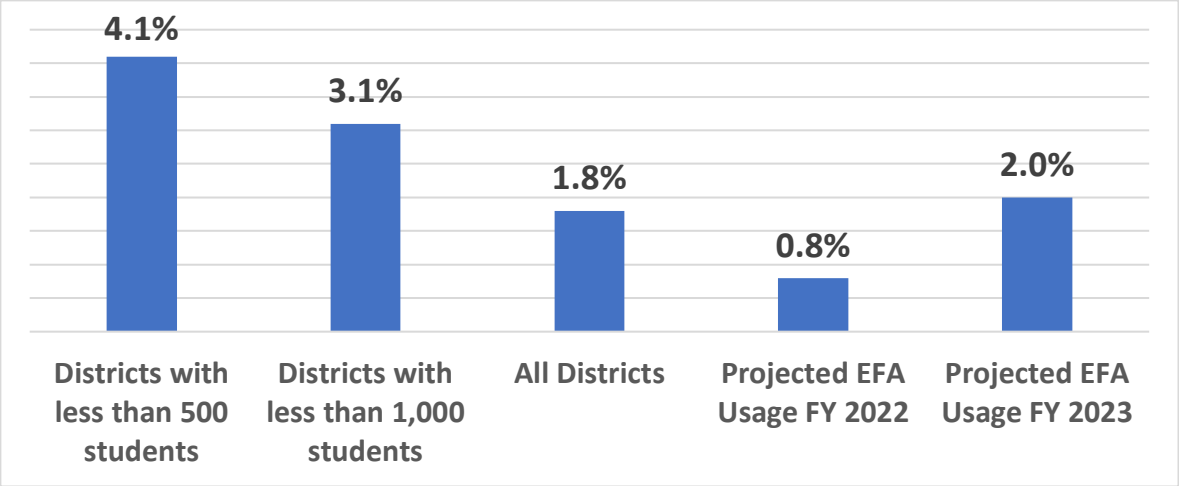
Education choice skeptics will likely make three main arguments to dispute these projections. First, they will say there is no evidence that choice programs lead to higher student achievement, higher graduation rates, and lower crime rates among students who exercise choice. This claim is simply untrue. EdChoice has compiled these studies and helpfully cites each one of them at the following link, https://www.edchoice.org/school-choice/empirical-research-literature-on-the-effects-of-school-choice/ . This list includes hundreds of studies done by dozens and dozens of different researchers from a large number of universities. Importantly, among studies that meet criteria for credible methodology, EdChoice lists all studies that provide evidence on various aspects of choice, including studies that do not find benefits of choice.

A careful—or even cursory—read of the entirety of the academic literature on choice indicates that the consensus is that choice programs lead to benefits for students who choose, benefits for students who remain in public schools, and lower taxpayer costs.

The second argument that choice skeptics will likely make is that choice programs "take money from public schools." Public K-12 education is the only enterprise in our society (that I am aware of) that retains significant amounts of funding for customers it no longer serves. For example, when a patient chooses to leave a health clinic in favor of a different provider, the clinic that loses her doesn't keep any future funds for that patient (out-of-pocket or from insurance). And when a student transfers from one public college or university to another in the same university system, or to a university outside the system, every dollar generated by that student (tuition, state funds, Pell Grants, state-funded scholarships, etc.) follows her. As another example, when you stop shopping at Hannaford to purchase future groceries at Market Basket, Hannaford does not get to keep 20% of your future grocery bill because of "fixed costs."

Many NH public school districts have been losing students for many years. As an example, public school districts with fewer than 500 students experienced an average year-to-year change in enrollment of 4.1 percent from fall 2017 to fall 2018. For districts with fewer than 1,000 students, the average annual change in student enrollment was 3.1 percent, and the statewide average was 1.8 percent.

Figure 19. Average Annual Change in Enrollment from 2017-18 to 2018-19 as Compared to the Projected Number of Public School Students Projected to Access an EFA



Source: Data reported annually by the New Hampshire Department of Education to the National Center for Education Statistics at the U.S. Department of Education, https://nces.ed.gov/ccd/elsi/

Based on evidence from new education choice programs in other states, I project that 0.8 percent (less than 1 percent) of eligible public school students would access an EFA in the 2021-22 school year and 2 percent in 2022-23. Those rates are well within historical norms in enrollment changes for New Hampshire public school districts.

Despite the loss in students experienced by many New Hampshire public school districts, they have done extremely well in a fiscal sense, as shown in section II of this report. These fiscal benefits were given to school districts because they retain all local funds and almost all federal funds when they lose students.

As an example, total expenditures (adjusted for inflation) in NH public schools increased by 66 percent between 1994-95 and 2017-18, while the number of students they serve fell by 9 percent during this time period. During this period of a large increase in real (inflation-adjusted) expenditures, staffing in public schools increased significantly as well. While the number of students fell by 9 percent, the number of teachers increased by 23 percent, and the number of non-teachers increased by 80 percent. (Non-teachers are all other public school staff who are not lead classroom teachers.)

Thus, decreases in the number of students have not led to lower overall spending or staffing levels in New Hampshire public school districts.

Finally, the last argument likely to be made against the projections here are that this report does not consider the effect of EFAs on students who remain in public schools. Actually, this argument goes in favor in the proposed EFA program. The research evidence is overwhelming: of the 27 different studies of the effect of choice programs on the topic, 25 find positive effects of choice on the test scores of students who remain in public schools, one finds no visible effect, and one finds a negative effect. Clearly, the balance of this evidence indicates that students who remain in public schools will benefit from the EFA program—even if they never access an EFA themselves.

I hope citizens and policymakers in New Hampshire find this report helpful when making education policy decisions that affect your children—and your great state.

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Appendix A

Estimating EFA Take-Up Rates Among Private School Students

Take-up rates are defined as the percentage of eligible recipients who actually access a government provided benefit. The Education Freedom Account (EFA) proposal in SB 130 would provide taxpayer support for eligible NH families who believe the best educational settings for their children are outside of the public education sector.

The NH DOE projects that there would be 15,654 students in private schools in NH in AY 2021-22 and 15,490 in 2022-23, absent an EFA program.[32] All students currently enrolled in private schools, who live in households that have incomes below 300 percent of the federal poverty line, will be eligible for an EFA. The NH DOE's model of the EFA legislation says that the average EFA award will be $4,603 for AY 2022 and $4,830 for AY 2023.

The question is, what percent of these eligible private school students will actually use an EFA in 2022 and 2023? That is, what will be the take-up rate for EFAs among eligible private school students in the first two years of the EFA program.

The available and most useful studies examine private school student take-up rates in choice programs along with take-up rates in other government-administered benefit programs. The following studies offer valuable insights as to why most NH private school students will not access an EFA in academic years 2021-22 and 2022-23, the first two years of the program's existence, if the legislation becomes law.

While Indiana's program is not exactly the same as New Hampshire's proposed EFA program, it is worth mentioning that only 56 percent of private schools in Indiana participate in Indiana's Choice Scholarship Program (ICSP).[33] (In Indiana, only some private school students are eligible for scholarships—based on household income and other criteria as well.)

In addition, Currie (2004) summarizes the evidence on the take-up rates of a large number of government programs. She reports that **Medicaid programs for children had only a 73 percent take-up rate—31 years after the program was created.** Among programs that are not means tested, Medicare Part B had a 96 percent take-up rate 37 years after the creation of the program, and unemployment insurance had take-up rates between 65.8 and 83 percent 40-50 years after the creation of the program (the percentages vary by year). Tables 1 and 2 of Currie (2004) contain this information.[34]

The most relevant information from Currie (2004) for the present study is the take-up rates experienced in the early years of the Children's Health Insurance Program. The CHIP program was created in 1998, and **four years after its creation, only between 8.1 and 14 percent of eligible children received medical services under CHIP.**

[32] https://www.education.nh.gov/sites/g/files/ehbemt326/files/inline-documents/fall-enroll19-20.pdf
[33] Source: Email communication with EdChoice staff. EdChoice is based in Indiana and has tracked the ICSP very closely since its creation in 2011.
[34] https://www.nber.org/system/files/working_papers/w10488/w10488.pdf

Perhaps the government-administered benefit program that is the closest metaphor to New Hampshire's proposed EFA program is the Pell Grant program, which provides subsidies to students attending colleges and universities. At four-year universities, only 73.2 percent of low income students actually received a Pell Grant during the 2011-12 academic year—46 years after the program was created (Delisle, 2017). Only a handful of small colleges and universities do not accept Pell Grants as payment (Hillsdale, Grove City, etc.). Thus, institutions refusing to accept Pell Grants as payment is not a major reason for this less-than-universal usage of Pell Grants.

The Obama administration endeavored to streamline the financial aid paperwork to obtain Pell Grants and other taxpayer subsidies for higher education. Nevertheless, any parents who have filled out financial aid forms (FASFA) in recent years know the paperwork remains significant. Even after the Obama-era effort to make applying easier, one study found that fewer than 80 percent of community college students accessed Pell Grants 50 years after the creation of the Pell program (UC Davis, 2018).[35]

Lessons from these other programs

Based on the experience with these other programs, we can expect that take-up rates of EFAs will be very low in the initial years, take-up rates will likely never be universal even several decades after its creation, and we can expect that take-up rates will increase over time.

Estimating Take-up Rates for Private School Students under NH's Proposed EFA Program

Since the program has been in existence for some time, is relatively large, allows some private school students to access scholarships, and because there are good data, the Indiana Choice Scholarship Program (ICSP) offers an excellent guide in providing estimates of take-up rates for existing private school students under NH's EFA proposal.

In 2012-13, 9,139 students accessed scholarships in Indiana under the ICSP. At that time, private school students were not eligible for scholarships. However, beginning in 2013-14 some private school students became newly eligible for scholarships. There were income and other criteria as well to determine private school student eligibility for the ICSP.

The following facts about the ISCP will be used to make an estimate of the percent of NH private school students who are projected to access an EFA 2021-22 and 2022-23:

[35] https://education.ucdavis.edu/sites/main/files/ucdavis_wheelhouse_research_brief_vol3no3_online_1.pdf

- Between 2013-14 and FY 2016-17, there was an increase of 11,420 students in Indiana using scholarships who had never previously attended an Indiana public school.[36]

- In 2016-17, 47 percent of students in the entire state of Indiana were eligible for a scholarship under the ICSP.[37] This 47 percent figure includes public, private, and homeschool students.

- There were 81,179 private pay students in Indiana public schools at this time.

Based on these facts above, an estimated 38,154 private school students were eligible for the ICSP (0.47 eligibility rate multiplied by 81,179 students = 38,154). Thus, I am assuming that the eligibility rate for Indiana private school students was the same as the statewide eligibility rate in Indiana.

Of these 38,154 students, 4,193 had accessed a scholarship in 2013-14—a take-up rate of 11 percent of all eligible private school students—in this first year that private school students were eligible. By 2014-15 (year 2), the take-up rate was 26.4 percent of all eligible private school students, or 10,084 private school students out of the 38,154 eligible. (In later years, increases in the take-up rate were significantly smaller than these increases in the first two years that some private school students were eligible for scholarships.)

Using the Indiana experience to make projections for New Hampshire

Based on this Indiana experience, I project that 11 percent of eligible private school students will access an EFA in 2021-22 (1,742 students). For 2022-23, usage rises to 26.4 percent (4,180 students). According to the NH DOE, the projected cost of an EFA is $4,603 in 2021-22 and $4,830 in 2022-23. Thus, the costs to the state of providing EFAs to private school students are estimated to be:

$2.47 million in 2021-22
$6.14 million in 2022-23.

<u>Why the above analysis may overestimate take-up rates of EFAs for private school students</u>

There are at least two reasons why the above analysis likely overestimates take-up rates in the first two years of New Hampshire's proposed EFA program.

[36] https://www.edchoice.org/school-choice/school-choice-in-america/ and https://www.doe.in.gov/sites/default/files/choice/2016-2017-choice-scholarship-program-report-spring-revision-final-0811.pdf
[37] https://www.edchoice.org/school-choice/school-choice-in-america/

1) The method above assumes that all increases in usage of the ICSP after 2012-13 were due to private school students accessing scholarships. Some of the increase in scholarship usage over time is surely due organic growth from new cohorts of students becoming school-aged and therefore becoming eligible for the program, and families moving from out of state and accessing the program. That is, I am counting all Kindergarten students and new residents to Indiana as students who would have been enrolled in a private school—even if these students had not accessed a scholarship. Thus, the analysis above is overly cautious and likely overestimates the take-up rates of private school students in Indiana's program.

2) Indiana's program had already been in existence for two years prior to its expansion in 2013-14. If New Hampshire's Education Freedom Account legislation is signed into law in May 2021, there will be only a few months for EFA program staff to get students enrolled into the program. Thus, the number of eligible private school students who will access an EFA in 2021-22 is surely significantly smaller than what is projected above. And this pattern of initial enrollment being very small in the first year of new education choice programs has been the pattern nationwide.[38] As an example, only 3,911 students accessed a scholarship under the ICSP in 2011-12, the first year of the program—a tiny fraction of eligible students.

[38] Ibid.

Appendix B

Estimating the Variable Costs of Educating Students in Public Schools

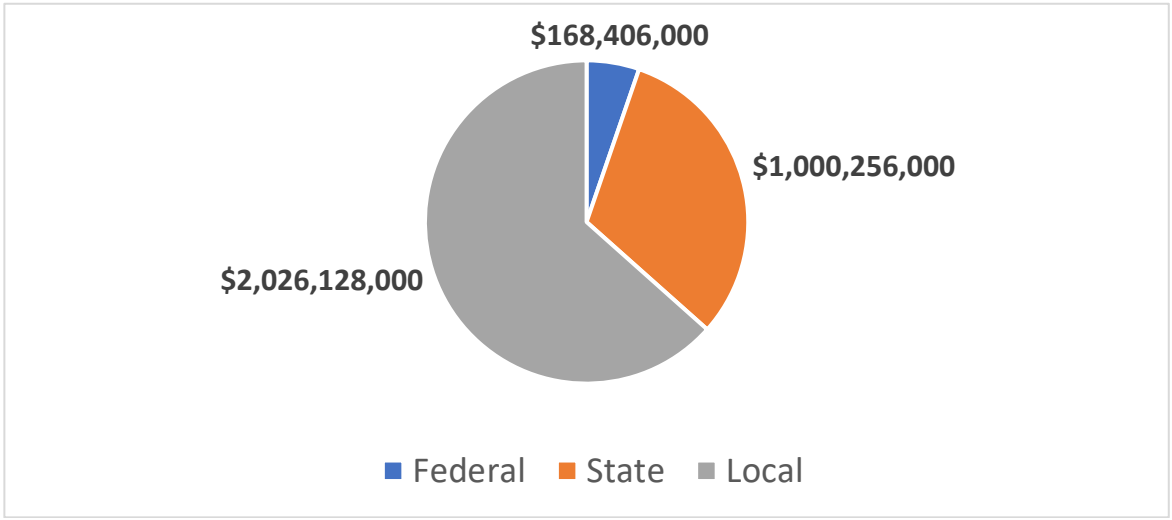
Basic Mechanics of Public School Funding

To estimate the fiscal effect of the proposed Education Freedom Account (EFA) program, we need to know the variable costs of educating students in public schools. These are the cost reductions that accrue to local public school districts when they do not have to educate students who otherwise would have been enrolled in public schools but who choose an EFA instead. To be cautious, I am estimating short-run variable costs—cost reductions that accrue from one year to the next. To estimate short-run variable costs of public school districts, it is first necessary to understand some basic mechanics regarding how public schools are funded and how dollars flow when students transfer in and out of public school districts.

Revenue sources

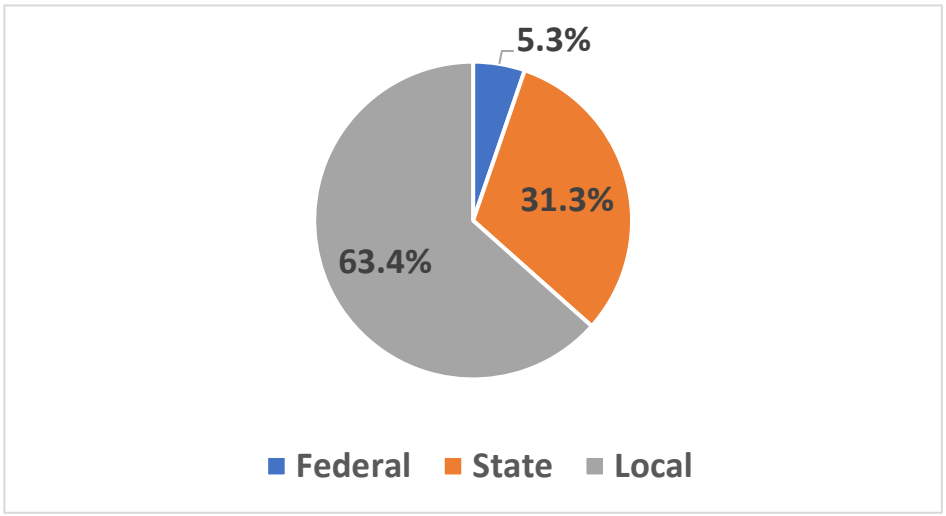
Public school districts receive funding from state, local, and federal taxpayers, which totaled about $3.2 billion in 2017-18 for New Hampshire. While the following percentages vary significantly across states, and vary a bit across time for a given state, NH public schools received 5.3 percent of their funding from the federal government, on average, and 63.4 percent from locally generated funds. The remaining funds come from the state government (31.3 percent). For 2017-18, the dollar amounts of these fund sources and the corresponding percentages are listed in the two charts below. Since all dollars mechanically flow to public school districts, the focus for this discussion is at the school district level.

Figure A1. – New Hampshire Public Schools, Taxpayer Revenues by Source, 2017-18



Source: U.S. Bureau of the Census, https://www.census.gov/data/tables/2018/econ/school-finances/secondary-education-finance.html

Figure A2. – New Hampshire Public Schools, Taxpayer Funding by Source (Percentage), 2017-18



Source: U.S. Bureau of the Census, https://www.census.gov/data/tables/2018/econ/school-finances/secondary-education-finance.html

As compared to the national average, NH public school districts receive less funding from federal and state taxpayers and more from local taxpayers.[39] Total revenues to local public school districts are not exactly equal to total expenditures—for technical reasons and because in a given year local school districts may add to their reserves (so total expenditures would be less than total revenues) or spend some of their reserves (so total expenditures would be more than total revenues).

How Dollars Flow

It is important to understand that when a student leaves a public school district—for any reason—not all dollars follow. In particular, funding from local and federal sources is usually not allocated on a per-pupil basis. Typically, when public school districts lose students via choice—or lose students for any other reason—they get to retain their locally generated funding and a significant portion of federal funding.[40]

Whether local taxpayers face a fiscal burden when they gain or lose students depends on whether the revenue that public school systems gain or lose is greater or less than the short-run variable cost of educating the students who came or left. An example of this issue is how

[39] https://nces.ed.gov/programs/digest/d18/tables/dt18_235.10.asp?current=yes .

[40] The two largest federal K–12 education programs are Title I and the Individuals with Disabilities Education Act (IDEA). Title I grants are based largely on census poverty estimates and education costs in each state and some IDEA allocations are based on characteristics of the general population rather than public school enrollment. See Lueken (2018a).

much public school system costs increase when they experience an increase in students. The increase in costs would be the variable cost of educating those new students, that is, the costs that actually increase as a result of their enrollment increase. To demonstrate this issue, we describe the relevant basic principles of Accounting and Economics below.

Some Basic Principles of Accounting and Economics - Fixed vs. Variable Costs

Some assert that there are very high fixed costs in public school systems. Fixed costs are costs that do not vary with workload. They note that schools need electricity, air conditioning, teachers, bus drivers, and assistant principals even though some students leave.

It is true that public school systems receive less funding when students leave—almost exclusively in terms of less in state funds, as they retain local and many federal funds for students they no longer serve. But it is also true that when schools serve fewer students they have lower costs. For example, when one or two students leave, the school needs fewer textbooks, supplies, or software licenses. If a large enough number of students leaves, then schools can consolidate classrooms, staff fewer personnel, or take other actions.

This argument about substantial fixed costs is implicitly about the short run. An important and basic accounting and economic principle is that all costs are variable in the long run, and public school districts (along with any other economic entity) will adapt accordingly. For instance, if a public school district experiences an enrollment decline of 10 percent, over a period of years it will be able to restructure to reduce costs by 10 percent. Nevertheless, it will likely not be able to reduce its costs by 10 percent from one school year to the next.

Public K-12 education is the only enterprise in our society (that I am aware of) that retains significant amounts of funding for customers it no longer serves. For example, when a patient chooses to leave a health clinic in favor of a different provider, the clinic that loses her doesn't keep any future funds for that patient (out-of-pocket or from insurance). And when a student transfers from one public college or university to another in the same university system, or to a university outside the system, every dollar generated by that student (tuition, state funds, Pell Grants, state-funded scholarships, etc.) follows her. As another example, when you stop shopping at Hannaford to purchase future groceries at Market Basket, Hannaford does not get to keep 20% of your future grocery bill because of "fixed costs."

For a final thought on this topic, consider that if all or virtually all public school expenditures represented fixed costs, then public school systems would not need additional state funds for enrollment growth when they gained students because all their costs are fixed. I certainly do not believe that almost all public school costs are fixed costs, and I certainly do not believe in eliminating state funding to public schools for enrollment growth. Fortunately, I do not have to rely on my beliefs and can look to research that has been done on this issue.

Estimates of Short-run Variable Costs for New Hampshire Public School Systems

Using the actual experience of school districts that lost students for non-school choice reasons, Scafidi (2012) estimated average short-run fixed and variable costs for all states, where the short-run is defined as from one year to the next.[41] Specifically, Scafidi (2012) noted that public school districts report all of their expenditures to the federal government in twelve cost categories. His report then analyzed in which categories were costs actually reduced from one year to the next, where these cost reductions exceeded in percentage terms the reductions in students. For example, if a school district experienced a one percent enrollment decline from one year to the next, his report noted in which cost categories did local public school districts actually reduce their costs by more than one percent.

In terms of how public school districts actually adjusted their budgets when they lost students, they were observed to reduce the following costs more than commensurately with their decrease in students: instruction, student support, instructional staff support, food service, and enterprise operations. For New Hampshire, these cost categories that were shown to be variable costs, even from one year to the next, were 72.3 percent of total expenditures per student. Please see Scafidi (2012) for more details.

Scafidi (2017) showed that public school districts around the nation — and including New Hampshire — have behaved over the last several decades *as if* staff are variable by hiring personnel, both teaching and non-teaching staff, at rates that significantly outpace enrollment growth. Thus, it is reasonable to treat expenditures on a majority of personnel as a short-run variable cost.

Using this 72.3 percent estimate of short-run variable costs, I estimate that if EFA students were not able to access an account and then enrolled in a public school, public school district costs would increase as follows in 2021-22:

0.723 in short-run variable costs x $20,261 in total expenditures per student = $14,649

This figure of $14,649 per student is an estimate of the additional cost, on average, of educating students who migrate to New Hampshire public schools. This estimate is cautious because Scafidi (2012) found that public schools actually reduced these costs more than

[41] Two subsequent studies used their professional judgement and created estimates extremely close to Scafidi (2012): Bifulco, R. and Reback, R. (2014). And Lueken, M.F. (2016). Dorfman (2019) uses an econometric approach and finds an estimate of short-run variable costs significantly higher than the three prior studies. The author of this fourth study, Dr. Jeffrey Dorfman, is currently the State Economist for the state of Georgia. If I used Dr. Dorfman's estimate of short-run variable costs, this report would have produced an estimate of fiscal savings for local taxpayers from the EFA program that is significantly larger than the estimate produced here. That said, I used the lower estimate of variable costs yielded by Scafidi (2012) in the interest of producing a cautious estimate of savings.

commensurately with their decline in student enrollments—thus, observed variable costs in public schools, from one year to the next, were actually higher.

To be clear, this 72.3 percent estimate was based on actual cost-cutting behavior by public school districts that experienced enrollment declines for non-school choice reasons. Further, in the long run, all costs are variable, as local public school districts can make new strategic decisions in terms of staffing and facilities.

In the fiscal analysis in this report, I use $14,649 as the estimate, as a statewide average, for the short-run variable costs of educating students in NH public schools. This estimate is consistent with Scafidi (2012) and two other studies on the topic. A fourth study finds that variable costs are significantly higher. I chose not to use this fourth estimate, as it would have produced a much larger estimate of fiscal savings from the EFA program. I chose to be on the side of caution.

Appendix C

District-Level Tables

Appendix Table C1: Changes in Current Spending Per Student, adjusted for inflation, 1994-95 to 2017-18. "Current" spending excludes funding for capital and debt service—all other public school expenditures are included. This is the federal definition of current spending. This table also contains changes in full-time equivalent (FTE) students and total staff in each public school district. Total staff can be categorized into teachers and everybody else ("All Other Staff"). These latter two categories are also displayed.

Appendix Table C1 may be accessed at this link: http://jbartlett.org/wp-content/uploads/appendix-table-C1.numbers

Appendix Table C2: Projected Savings to local school districts from the EFA program. This table contains for each public school district projections of the number of students who will use EFAs, average EFA grants per student, total public school expenditures per student, and state revenues per student that flow to each district. The projected number of EFA students from each district is based on experiences from new choice programs from other states and is described in section III of this report. The projections of average EFA awards, total per student public school expenditures, and state revenues were made by the New Hampshire Department of Education. The variable cost per student estimates that were made using the approach described in appendix B of this report. Finally, the estimates of savings for each district were made using the methodology described in section III of this report.

Appendix Table C2 may be accessed at this link: http://jbartlett.org/wp-content/uploads/appendix-table-c2.numbers

Appendix Table C3: This table contains the number of FTE students in each district in each year from 2009 to 2019—to show the annual change in student counts experienced by each district. 2009 indicates the 2008-10 academic year; correspondingly 2019 indicates the 2018-19 academic year.

Appendix Table C3 may be accessed at this link: http://jbartlett.org/wp-content/uploads/appendix-table-c3.numbers

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Disclaimer

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