

\$10,700 Per Student: The Estimated Cost of Arizona's Private School Subsidy Programs

\$62 Million Extra Cost to State General Fund

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Executive Summary

Arizona is identified as a leader in school choice across the United States and has two programs that subsidize private school tuition. It established the country's first private school tax credit program two decades ago.¹ In 2017, Arizona's legislature passed bill SB1431 to make school vouchers, known as Empowerment Scholarship Accounts (ESA), available to all K-12 school students.² The school choice proposition is that families that are dissatisfied with their public school options can apply for a tuition tax credit scholarship or an ESA voucher to attend a private school.

Proponents of the programs regularly claim that they save taxpayer dollars. Earlier this year Senate President Steve Yarbrough claimed in reference to tuition tax credit scholarships, "we actually save money on that program. Those scholarships are considerably less than what it costs to pay for those same students to go to a public school."³ State Senator, now Congresswoman, Debbie Lesko put forward a similar

1 Rau, Alia Beard (2015), "Arizona's private school families cash in on state's tax-credit program," July 25, <https://www.azcentral.com/story/news/arizona/investigations/2015/07/26/private-school-families-arizonatax-credit-program/30647833/>

2 Empowerment Scholarship Accounts are currently available to specific student groups including those with disabilities, those attending D or F rated schools, children in foster care and children of veterans.

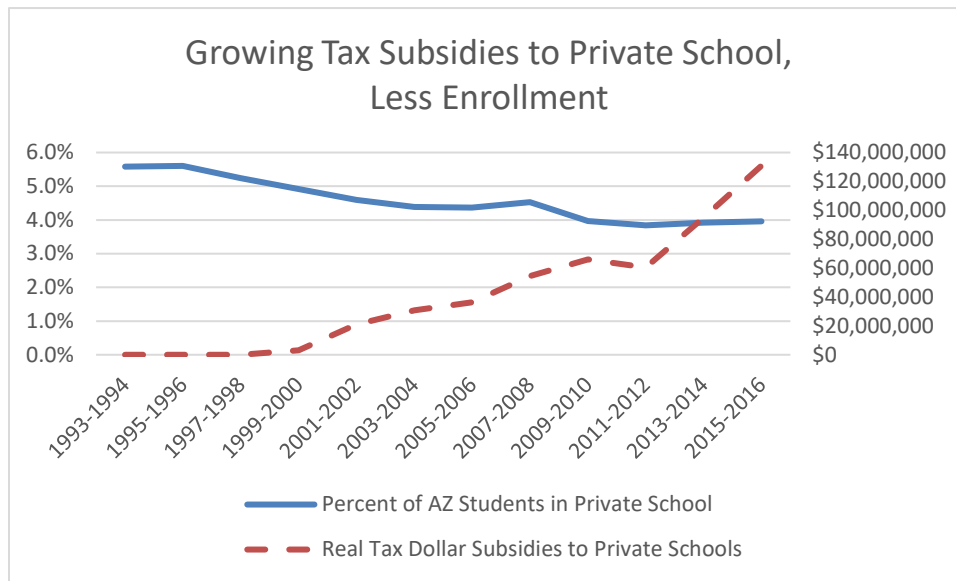
3 Interview on KAET, Horizon, Wednesday, April 25, 2018, <https://azpbs.org/horizon/2018/04/teacher-walkout-on-thursday-over-1000-schools-close/> start at 11:30 point in program.

argument for her bill SB1431 to expand ESA vouchers for private schools in 2017. She said, “They also save taxpayers money about \$4,300 per year per student.”⁴

Yarbrough is technically correct, most tax credit scholarships are valued at less than what the state pays per pupil to attend a public school but he doesn’t take into account that students typically receive multiple scholarships, which in aggregate can surpass the annual per pupil cost of public education. For regular education students in 2015-2016, district schools received base funding of \$4,112, which with transportation and district additional assistance was still less than \$4,400. Charter schools base funding for the same students with charter additional assistance totaled less than \$6,000 per student.⁵

Importantly, both Yarborough and Lesko assume in their calculations that any student receiving a tuition tax credit scholarship or an ESA voucher would have otherwise attended a public school. If this were true, then we would see far higher enrollment in private schools than we do. In fact, since the program’s inception, while the number of students attending private schools has modestly increased the percentage of students attending private schools has decreased instead of increased as the number of K-12 students in the state has grown. Figure 1 excludes any administrative costs.

Figure 1



4 Resnik, Brahm (2017), “Arizona parents want universal school choice, legislator says, but poll doesn’t back it up,” Sunday Square-Off, 12 News, February 5, <https://www.12news.com/article/news/politics/sunday-square-off/arizona-parents-want-universal-school-choice-legislator-says-but-poll-doesnt-back-it-up/75-399090934>.

5 For a general overview that includes students with added weights for special needs see “Overview of K-12 Per Pupil Funding for School Districts and Charter Schools’, JLBC Staff. 6/21/2018. <https://www.azleg.gov/jlbc/districtvscharterfunding.pdf>

GCI's analysis of enrollment numbers indicate that the tax dollar subsidy programs have impacted private school enrollment; however, their fiscal effectiveness is greatly overstated by Yarbrough and Lesko. In this analysis, we control for national trends in private school enrollment and the growth of charter school enrollment, which is a substitute option for private school. GCI estimates that the private school tuition tax credits and ESA vouchers for regular education students⁶ have resulted in the estimated enrollment of 13,170 students in 2015-2016 who would not have otherwise attended a private school. GCI's research finds that Arizona taxpayers spend \$10,700 per student from the general fund or in costs of dollars diverted from the General Fund to support private school enrollment. That is 75 percent more than the General Fund support for charter school regular education students, which like students receiving private school subsidies, are completely funded from state resources (or resources diverted from the state) as opposed to varying levels of local property taxes.

GCI's analysis uses the cost of educating a charter school student as opposed to a district school student for two reasons. First, charter schools are fully funded by the state, similar to private school subsidies; whereas district school funding is a complex and variable mix of local and state funding. Second, the analysis suggests that many, if not most, students attending private schools due to subsidies would enroll in charter schools if these subsidies were eliminated. This approach also provides a more conservative result with regard to the per student cost of private school subsidies because the average cost of educating a regular education student in a district schools is less than a charter school.⁷

Fiscally, the program is ineffective given the lack of academic accountability required of private schools in return for the taxpayer subsidies used for a percentage of their students, especially when compared to charter schools as a substitute.

In addition, recent research into scholastic outcomes find that private schools subsidized with public dollars overall do no better than public schools and may do significantly worse than public schools for similar students. Consequently, private school subsidy programs for regular education students have little accountability, cost significantly more for each student who otherwise would be in a public school, and frequently provide worse academic outcomes compared to equivalent students in public schools.

⁶ Special education students are not included due to the significant cost differences for their education as well as federal dollars publicly-funded schools receive to support these students.

⁷ See pages 16 for more details.

Key findings of this policy paper are that:

- The cost to Arizona's General Fund of the state's private school subsidy programs is \$10,700 per student, 75 percent more than the cost per public school student.
- The private school subsidy programs cost an extra \$62 million overall to provide tax credit scholarships and ESA vouchers for regular education students who would not have otherwise attended private school compared to if they had attended charter schools.
- The state's private school subsidy programs have not been successful in increasing private school enrollment, which has decreased slightly as a percent of overall K-12 students since 2009 at 4.0 percent. In fact, private school enrollment has fallen from 5.6 percent since the state introduced its first private school subsidy program in 1999.
- While student enrollment in private schools has remained relatively flat, the amount spent on private school subsidies from the General Fund has increased nearly 50-fold from \$3 million in 1999-2000 to \$141 million in 2015-2016 in 2016 dollars.
- The school choice program that has been successful in terms of enrollment growth has been in the charter sector, not the private school subsidy programs. Charter schools as opposed to private schools offer greater academic accountability and enrollment fairness than private schools due to oversight by the Arizona State Board for Charter Schools.

Arizona's Private School Subsidy Programs

Arizona has four private school tuition tax credit programs — two for individuals and two for corporations — which provide a dollar-for-dollar reduction in taxes owed. The state also provides Empowerment Scholarship Account (ESA) vouchers. Because Arizona's constitution does not allow direct payments to private schools, tuition tax credit scholarships are distributed to families through School Tuition Organizations (STOs) and ESA vouchers are paid directly to families.⁸

⁸ Arizona Constitution Article 9, Section 7, Gift Clause, <https://www.azleg.gov/const/9/7.htm>.

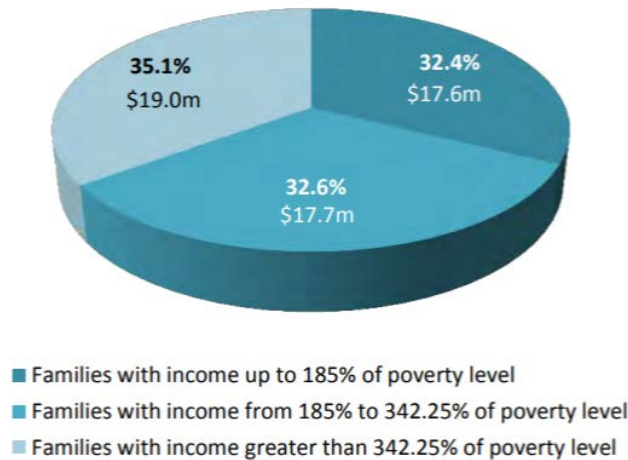
Individual tuition tax credits

Arizona's individual tuition tax credit programs include the Original Individual Tax Credit Program and the Private Learning Uplifting Students (PLUS)/Switcher Tax Credit Program. Donors must first donate the maximum allowable to the Original tuition tax credit program before donating to the Switcher tax credit program. Collectively, maximum donations by individuals are \$1,107 for a single taxpayer and \$2,213 for a married couple. These limits are increased annually to adjust for inflation. These amounts are roughly five times the limits for tax credit donations taxpayers can make to public schools.⁹

Individuals can make private school tuition tax credit donations to an STO and claim the credit on their taxes. The STO then distributes scholarships to applying students, after taking up to 10 percent for overhead expenses. This analysis assumes an overhead cost of 7 percent. The state does not mandate scholarship amounts nor does it put a cap on the number of individual scholarships a student can receive. Students can receive more than one tax credit scholarship by applying to multiple STOs.

Figure 2

Overall Share of FY2016 Original Individual Scholarships by Family Income



Source: Arizona Department of Revenue

Original individual tax credit scholarships can go to any student regardless of family income. In the 2015-2016 year, it was distributed approximately one-third to families

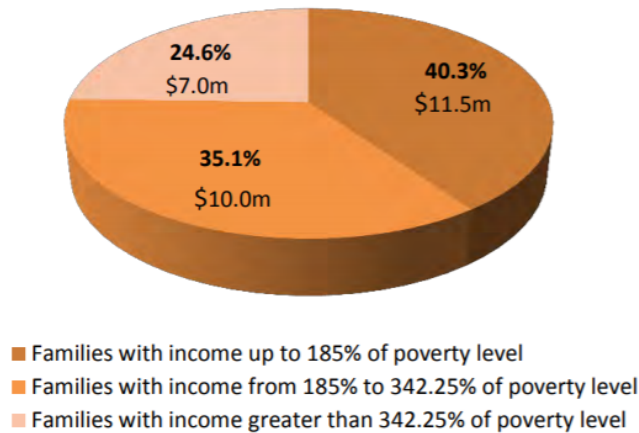
⁹ FAQ's, Arizona Tuition Organization, <http://azto.org/faqs/> and Arizona Department of Revenue, <https://azdor.gov/tax-credits/public-school-tax-credit>.

below 185 percent of the federal poverty line¹⁰, one-third to families up to 342.25 percent of the federal poverty line¹¹, and one-third above that level.¹² For a family of four, these cut offs were \$45,000 and \$83,000, respectively.¹³

Switcher tuition tax credit scholarships are designed for students newly attending private school as they enter school or who are switching from a public school. Because few Arizonans have sufficient tax liability to use the Switcher tax credit in addition to the Original tax credit, the amounts received are about half as much. The breakdown shows a slightly greater percentage going to families with lower incomes.

Figure 3

Overall Share of FY2016 Switcher Individual Scholarships by Family Income



Source: Arizona Department of Revenue

While the Arizona Department of Revenue does not track how many tuition tax credit scholarships a student receives, they do note that there have been cases of one student receiving more than one scholarship. This is apparent in that there are now nearly twice as many tax credit scholarships as there are students in private school. The growth of

10 The cut off for free and reduced lunch, a common indicator for disadvantaged families, is 185 percent of the federal poverty line.

11 Parents are asked to fill out the 'Application for Free and Reduced Price School Meals' when applying for a tuition tax credit scholarship to provide an indication of the family's income. The application determines where the family's income is relative to 185 percent of the poverty line (the limit to qualify for free and reduced lunch) and 342.25 percent above the poverty line (which is 185 percent of 185 percent).

12 Arizona Dept. of Revenue (2017), "School Tuition Tax Organization Tax Credits in Arizona: Summary of Activity FY2015/20156," June, https://azdor.gov/sites/default/files/media/REPORTS_CREDITS_2017_fy2016-private-school-tuition-org-credit-report.pdf.

13 2015 Federal Poverty Line (FPL) Charts (2015), People Keep, May 22, <https://www.peoplekeep.com/blog/2015-federal-poverty-line-fpl-charts>.

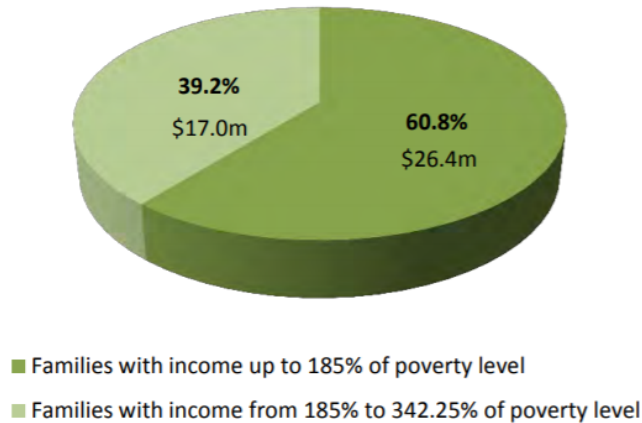
specific scholarships over time is shown in the Appendix. Students participating in the ESA voucher program, receive just the calculated amount of their voucher.

Corporate tuition tax credits

Arizona offers two forms of corporate tuition tax credits. One for students from families below 342.25 percent of the federal poverty line (\$83,000 for a family of four in 2015) and one for students with disabilities. This analysis focuses just on scholarships for regular education students, so only includes the former. The limit on this tuition tax credit increases by 20 percent per year—and equaled \$51.6 million in 2015-2016. For 2018-2019 the limit is \$81.2 million. About 60 percent of scholarships went to families that would have qualified for free and reduced lunch. Family income amounts are reported by recipients to STOs who then submit them to the Arizona Department of Revenue; reported amounts are not subject to audit, nor are families required to submit tax forms to provide proof of income levels to STO’s.¹⁴ Consequently, family income levels not always be as low as reported—which is what audits of voluntarily reported income levels for the federal school lunch program (the forms used here) have shown.¹⁵

Figure 4

Overall Share of FY2016 Low-Income Corporate Scholarships by Family Income



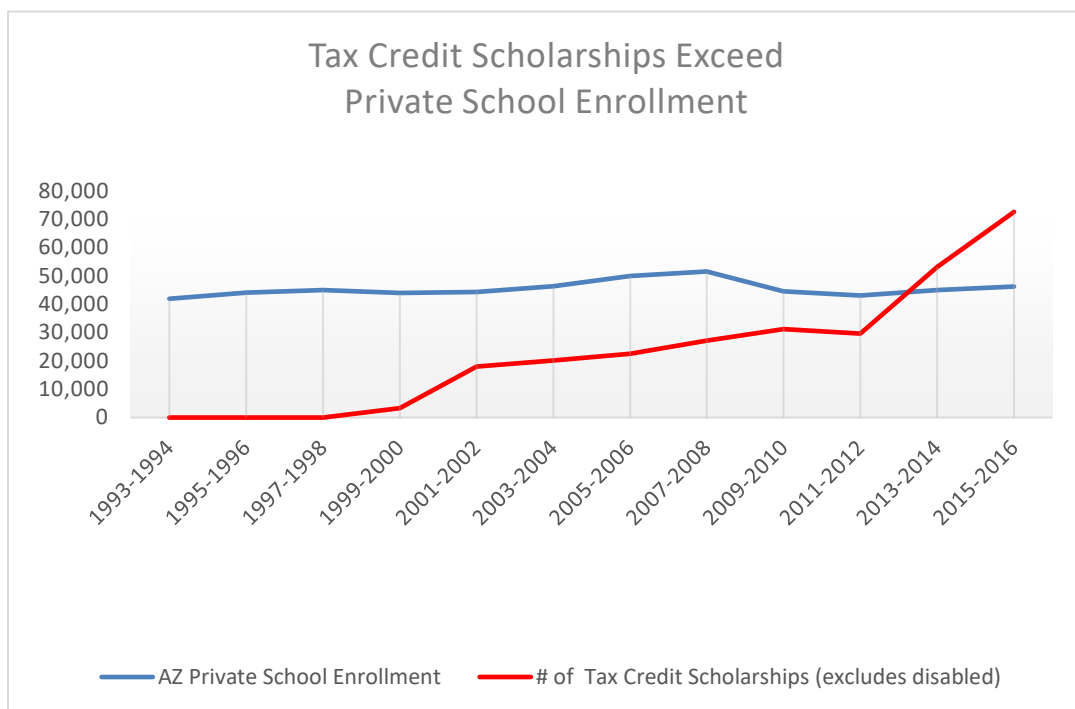
Source: Arizona Department of Revenue

14 Arizona Dept. of Revenue (2018), Manual for School Tuition Organizations, https://azdor.gov/sites/default/files/media/REPORTS_2018_schooltuitionorganizationmanual.pdf, see pp. 10-12.
15 Doyle, Michael (2015), “Some school food recipients ineligible, audit finds,” McClatchy News Service, May 6, <https://www.mcclatchydc.com/news/politics-government/article24784171.html>.

Both individual and corporate tuition tax credits represent taxpayer dollars that never reach the General Fund. The individual or corporate donors make their tuition tax credit donations straight to a STO which then awards it to a student. This reduces the donor's tax burden, thereby reducing taxpayer dollars that flow into the General Fund, essentially shrinking state revenue.

Collectively, many students receive more than one scholarship—even though this is not formally tracked. However, presently the number of scholarships awarded far exceeds the number of students enrolled in private schools (see Figure 5).

Figure 5



Empowerment Savings Account vouchers

ESA vouchers provide another means by which Arizona's tax dollars are redirected from the General Fund to private schools for certain categories of students such as those with disabilities, children whose home public school has a D or F rating, children in foster care, and children of veterans. Arizona's Department of Education pays ESA vouchers directly to families who pay their child's private school tuition directly and must file quarterly expense reports proving how the money was used.

Prop. 305, which is on the November 2018 ballot, is a referendum on whether or not ESA vouchers should be expanded so that all public school students are eligible, subject to enrollment caps. Currently, most ESA vouchers are allocated to students

with disabilities. Those ESA vouchers to special needs students are allocated primarily to students from more affluent areas.¹⁶

This analysis looks at only the ESA dollars that support students in regular education. During the time covered by this analysis, ESA vouchers were valued at 90 percent of what the state paid charter schools per pupil with the Arizona Dept. of Education retaining another 5 percent to cover administrative costs.¹⁷

Figure 6



Source: Lisa Irish, AZEdNews Infographic (edited).

The *Arizona Republic's* analysis of data from the Arizona Department of Education found about 60 percent of ESA voucher recipients had some sort of special needs to qualify for funds and about 40 percent qualified for funds as a regular education student under one of the other categories—such as attending a school or district with a D or F

16 O’Dell, Rob and Yvonne Wingett Sanchez (2017), “Arizona taxpayer-funded vouchers benefiting students in more affluent areas,” March 30, <https://www.azcentral.com/story/news/politics/arizona-education/2017/03/30/arizona-taxpayer-funded-vouchers-benefiting-students-more-affluent-areas/99707518/>

17 Joint Legislative Budget Committee (2015), State of Arizona Appropriations Report FY2016, May, pp. 35, 41, <https://www.azleg.gov/jlbc/16AR/FY2016AppropRpt.pdf>.

grade or being the child of a military veteran.¹⁸ Those percentages were applied to the number of students receiving ESA vouchers to estimate the number of regular education ESA students. This analysis places the value of ESA vouchers for regular education students at approximately \$5,200 in 2013-2014 and \$5,375 in 2015-2016.¹⁹

Academic Outcomes of Private Schools Compared to Public Schools

The impact of a private school education merits discussion alongside the issue of the cost of private school subsidy programs. People commonly think that an education from a private school is superior to one from a public school, and while nationwide private school test scores are higher, so are family incomes of private school parents. There is no difference in outcomes between public and private school students when demographics like family income are controlled for, as found in a longitudinal study of about 1,000 households.²⁰ Voucher programs, which Arizona’s private school tuition tax credit scholarships and ESA voucher programs are forms of, have shown particularly poor results when targeting lower income children. Mark Dynarski of the Brookings Institution reviewed studies and noted that lower income students participating in voucher programs in Louisiana and Indiana had reduced academic performance in reading and math. “The magnitude of the negative impacts were large.”²¹ These results raise questions about earlier research, which was mixed. Analysis of city programs in

18 O’Dell, Rob and Yvonne Wingett Sanchez (2017), “Arizona taxpayer-funded vouchers benefiting students in more affluent areas,” March 30, <https://www.azcentral.com/story/news/politics/arizona-education/2017/03/30/arizona-taxpayer-funded-vouchers-benefiting-students-more-affluent-areas/99707518/>

19 Base funding is multiplied by A weights to get actual funding. The base funding for 2013-2014 was \$3,326.54 which was multiplied by 1.2 A weights for schools 600 or larger (weight is slightly lower for K-8 and slightly higher for 9-12) plus \$1,800 as the average charter additional assistance. For 2015-2016 the base level funding was \$3,426.74, which was multiplied by 1.2 and the average charter additional assistance was about \$1,860. This analysis assumes the ESA voucher was 90 percent of these amounts (though an additional 5 percent administrative cost is added in per student calculations for this group in Table 1. See Joint Legislative Budget Committee, SB 1431 as Enacted—the ESA background and ADE assumptions to use charter school funding as the base during the time covered here, July 14, 2017, <https://www.azleg.gov/legtext/53leg/1R/fiscal/SB1431RRR.DOCX.pdf> as well as Fiscal Note for HB2482 accessible at

http://www.azleg.gov/DocumentsForBill.asp?Bill_Number=hb2482&Session_Id=115&image.x=0&image.y=0.

For historical baseline funding amounts see Wells, Dave (2016), “A Fiscal Analysis of Proposition 123 and Arizona’s Underinvestment in K-12 Education, Grand Canyon Institute, January 7, http://grandcanyoninstitute.org/wp-content/uploads/2016/01/GCI_Policy_Paper_Prop123andK12Underinvestment_Jan-7_2016.pdf, and for more information on charter school additional assistance relative to the 2015-2016 budget see House of Representatives, SB1476/HB2683 K-12education budget reconciliation 2015-2016, https://www.azleg.gov/legtext/52leg/1r/summary/H.SB1476_03-09-15_ASTRANSMITTED.pdf.

20 Pianta, Robert C. and Arya Ansari (2018) “Does Attendance in Private Schools Predict Student Outcomes at Age 15? Evidence from a Longitudinal Study,” *Educational Researcher*, Vol. 20, No. 10, pp. 1-16, <http://journals.sagepub.com/stoken/default+domain/XfYmtC25VddcCfbA3xiV/full>.

21 Dynarski, Mark (2016), “On negative effects of vouchers,” Brookings Institute, May 26, <https://www.brookings.edu/research/on-negative-effects-of-vouchers/>

Milwaukee, Washington, D.C, and New York City have had varying results, with no clear support in Milwaukee, some modest support in Washington, D.C., and somewhat stronger results in New York City, but both of these latter cities also had areas with no clear gains.²² Meanwhile, when the pro-school choice Fordham Institute analyzed Ohio’s voucher program over ten years they found that students using vouchers to move to private school performed worse than equally matched peers who remained in public schools.²³

Consequently, research does not support that moving children from public schools to fairly unregulated private schools improves their likelihood of academic success, and, may, in fact, undermine it.

The Cost of Arizona’s Private School Subsidy Programs

This analysis looks at how the private school tax credit and ESA voucher programs have impacted private school enrollment and then uses that information to estimate a per student cost to taxpayers.

Every two years a census is done of private school enrollment by the federal government’s Department of Education. The full data is shown in Table 1. The key difference between Arizona and the rest of the country has been the growth of charter schools in the state, which has worked to limit the growth of private schools, despite the subsidy programs the state has enacted.

22 Dynarksi, Mark (2016), “On negative effects of vouchers,” Brookings Institute, May 26, <https://www.brookings.edu/research/on-negative-effects-of-vouchers/>.

23 Figlio, David and Krzysztof Karvownik (2016), “Evaluation of Ohio’s EdChoice Scholarship Program: Selection, Competition, and Performance Effects,” Thomas B. Fordham Institute, July, <https://edexcellence.net/publications/evaluation-of-ohio%E2%80%99s-edchoice-scholarship-program-selection-competition-and-performance>.

Table 1

Enrollment in Private Schools: Arizona and United States

	AZ Private school enrollment	AZ charter enrollment	AZ Portion Charters	Total AZ Students	Private as % of all Students (AZ)	US Private school enrollment	Total US Students	Private as % of all Students (US)	Private School Enrollment AZ/US
1993-1994	41,957	0	0.0%	751,410	5.6%	4,836,442	48,301,358	10.0%	0.56
1995-1996	44,134	6,888	0.9%	787,700	5.6%	5,032,200	49,872,681	10.1%	0.56
1997-1998	44,991	20,804	2.4%	859,104	5.2%	5,076,119	51,203,016	9.9%	0.53
1999-2000	44,060	43,600	4.9%	896,672	4.9%	5,162,684	52,020,005	9.9%	0.50
2001-2002	44,360	65,769	6.8%	966,540	4.6%	5,341,516	53,013,386	10.1%	0.46
2003-2004	46,366	81,612	7.7%	1,058,434	4.4%	5,122,772	53,662,987	9.5%	0.46
2005-2006	50,013	90,490	7.9%	1,144,467	4.4%	5,057,520	54,170,818	9.3%	0.47
2007-2008	51,590	99,627	8.7%	1,139,037	4.5%	5,072,451	54,363,010	9.3%	0.49
2009-2010	44,559	113,149	10.1%	1,122,390	4.0%	4,700,119	54,061,101	8.7%	0.46
2011-2012	43,134	134,705	12.0%	1,123,453	3.8%	4,494,845	54,016,514	8.3%	0.46
2013-2014	45,019	155,545	13.6%	1,142,619	3.9%	4,576,410	54,518,310	8.4%	0.47
2015-2016	46,252	175,535	15.2%	1,155,292	4.0%	4,903,596	55,341,639	8.9%	0.45

Sources: Private School enrollment: U.S. Dept. of Education, “Characteristics of Private Schools in the United States” (from the Private Universe Survey) 1993-1994 through 2015-2016,. Charter School Enrollment: Arizona Dept. of Education, Oct. 1 figures 1999-2015. Total Students: Private Enrollment plus figures from U.S. Dept. of Education, “Digest of Educational Statistics “Enrollment in public elementary and secondary schools, by state or jurisdiction: Selected years”

Results Summarized

This analysis uses the most recent private school enrollment census of 2015-2016 to estimate the number of students enrolled in private schools due to these subsidy programs and based on the total amount in scholarships and vouchers for regular education students. This information is then used to calculate the cost per student of the subsidy programs. **Overall, in 2015-2016 this analysis estimates that 13,170**

students, or 28.5 percent, of Arizona's 46,252 private school students were likely enrolled in private school due to these subsidy programs. The results are summarized in Table 2 below. Further detail on how the 13,170 was estimated is found in the discussion of the regression later in the paper, but effectively this is the result when controls are put in place for the growth of charter school enrollment which diminishes private school enrollment and controls are also added for national trends in private school enrollment.

Table 2

Estimated General Fund Cost Per Student Calculation

2015-2016	Total Amount
Original Individual Tax Credit Scholarships	\$54,433,864
Switcher Individual Tax Credit Scholarships	\$28,523,504
Corporate Tax Credit Scholarships	\$43,465,758
Total Private School Tax Credit Scholarships (regular education students)	\$126,423,126
Portion of Funds going to Scholarships (estimate)	93%
Total STO dollars	\$135,938,845
Estimated ESA dollars to regular education with admin. costs	\$4,935,931
Total Private School Subsidy dollars	\$140,874,776
Estimated Number of Private School Students Enrolled due to subsidy programs	13,170
Estimated General Fund Cost Per Student	\$10,700

Regression Detail

To control for Arizona relative to the national trend, the dependent variable is the percent of students enrolled in private schools in Arizona relative to all students compared to the United States portion of private students as a portion of all students (the far right column of Table 1).²⁴ Using this ratio as the dependent variable means factors that impact private school enrollment nationally can be controlled for—such as recessions or economic growth as well as other external factors such as the sexual

24 An alternative model used the portion of Arizona students in private school without a comparison to the United States (fifth column in from the year in Table 1) as the dependent variable. This model had a better fit and statistically significant negative impact from charter schools, but the scholarship impact was less definitive (in terms of being significantly different from zero) and the resulting assumed cost of the scholarships was substantially higher. That model found about half as many students are enrolled in charter schools due to the scholarship program and the resulting cost per student was over \$20,000.

abuse scandal in the Catholic church. All of these factors impact private schools generally and would not have a separate impact on Arizona’s private schools.

The independent variables focus on Arizona factors that differ significantly from the nation as a whole, charter schools and private school tax subsidies. The independent variables are the portion of all Arizona students enrolling in charter schools (as reported in Table 1) and the real dollar value of private school subsidies that were awarded to students. These are both areas that Arizona far exceeds the national average. These totals are captured in Table 3 below. In the regression the coefficient on charters should be negative indicating that they reduce pupils in private schools, while the coefficient on scholarships should be positive to show it increases private school enrollment.

Table 3

Financial Subsidies to Private Schools

	Individual	Switcher	Corporate	Non SPED- ESA	Total	Real 2016 Dollars
1993- 1994						
1995- 1996						
1997- 1998						
1999- 2000	\$2,196,734				\$2,196,734	\$2,992,980
2001- 2002	\$16,125,458				\$16,125,458	\$21,103,535
2003- 2004	\$24,437,877				\$24,437,877	\$30,671,327
2005- 2006	\$30,863,153				\$30,863,153	\$36,372,551
2007- 2008	\$48,553,440				\$48,553,440	\$54,500,147
2009- 2010	\$52,091,718		\$7,881,787		\$59,973,505	\$65,975,509
2011- 2012	45,759,755		11,369,396		\$57,129,151	\$60,473,798
2013- 2014	\$49,610,422	\$17,561,453	\$24,148,068	\$1,674,887	\$92,994,830	\$95,144,974
2015- 2016	\$54,433,864	\$28,523,504	\$43,465,758	\$4,935,931	\$131,359,057	\$131,359,057

Table 4 summarizes the results of the regression. The model summary indicates that the model explains almost all the variation in the dependent variable. No model perfectly matches the estimated and actual results but this model summary indicates the match is very close. The analysis of variance also shows the regression to have strong predictive qualities.

Table 4

Regression Analysis of Private School Enrollment in Arizona

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.934 ^a	0.873	0.844	0.015371440

a. Predictors: (Constant), Portion AZ Students in Charter Schools, Real Tax Dollars per Private Student in thousands of 2016 dollars

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	0.015	2	0.007	30.820	.000 ^b
	Residual	0.002	9	0.000		
	Total	0.017	11			

a. Dependent Variable: AZ/US Private School Enrollment Ratio

b. Predictors: (Constant), Portion AZ Students in Charter Schools, Real Tax Dollars per Private Student in thousands of 2016 dollars

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.559	0.011		52.747	0.000
	Real Tax Dollars per Private Student in thousands of 2016 dollars	0.046	0.015	1.085	3.138	0.012
	Portion AZ Students in Charter Schools	-1.506	0.278	-1.875	-5.423	0.000

a. Dependent Variable: AZ/US Private School Enrollment Ratio

The coefficients have the expected signs. The coefficient on real tax dollars of subsidies per student is positive (0.046) and the coefficient on the portion of students enrolled in charter schools is negative (-1.506). The t-values for both are far greater than 2 (or lower than -2) and as a consequence the likelihood that these coefficients are nonzero is nearly 99 percent for real tax dollars per student and nearly 100 percent for the

portion of students in charter schools. In other words, the statistics indicate that the model's internal independent variables are strong predictors of the dependent variable.

The coefficient on real tax dollars yields that an estimated 28.5 percent or 13,710 of students are enrolled in private schools due to the subsidies. When the total expenditures both in scholarships and their administration are added, the result is a \$140.9 million cost, resulting in an approximate cost of \$10,700 per student (see Table 2).

75 Percent More Than the Cost of General Fund Support for Charter School Students

In 2015-2016, the base level support for a regular education student was \$3,426.74. To that is added class A weights of 1.158 and 1.268 for districts of 600 or more students (smaller districts have a higher weight) for grades K-8 and 9-12, respectively.²⁵ For this analysis, 1.2 was applied. In addition, charter additional assistance for 2015-2016 was \$1,734.92 for K-8 students and \$2022.02 for grades 9-12. This analysis assumed it to be \$1,860, which means for each regular education student charter schools received approximately \$5,972 in General Fund support for 2015-2016.

In contrast, this estimate finds that private school students who would have otherwise attended public schools cost the General Fund about \$10,700 each year, in other words, more than \$4,700 additional or 75 percent more per student.

The impact of private school subsidy programs on the General Fund is greater for students who would otherwise attend district schools **The base funding including transportation and district additional assistance for district regular education students in 2015-2016 was approximately \$4,450, less than half the estimated private school subsidy amount.**²⁶ In wealthier districts this funding amount would come primarily from the local property tax base, not the General Fund. Base funding can be augmented by voter-approved maintenance and operations and capital overrides added to local property taxes. By comparison charter school expenses and

25 Olson, Justin (2009), "Arizona School Finance," Arizona Tax Research Association, p. 3, http://www.arizonatax.org/sites/default/files/publications/books_pamphlets/file/ATRA-Arizona_School_Finance.pdf.

²⁶ Joint Legislative Budget Committee Staff (2018), "Overview of K-12 Per Pupil Funding for School Districts and Charter Schools," June 21, <https://www.azleg.gov/jlbc/districtvscharterfunding.pdf> though for FY2017, the per student transportation and district additional assistance (\$335) was added to the estimated base funding from 2015-2016 to get \$4,450. Note that memo includes special needs students so has a base support level average that is higher than for regular education students.

private school subsidy programs are funded in their entirety, directly or indirectly, from the General Fund.

The total extra cost to taxpayers for the estimated 13,170 students in private schools due to the programs amounts to an added cost to taxpayers of approximately \$62 million per year beyond what it would have cost if these students had attended charter schools.

Conclusion

Policymakers frequently cite the amount spent on a particular student with public funds as a basis for arguing that programs aimed to incentivize private school enrollment are cost effective. Private schools were enrolling students successfully before these programs existed, so the appropriate way to measure the true cost of these programs is to estimate the actual impact these programs have on net private school enrollment.

In Arizona, this calculation is complicated as charter schools are a prime substitute for private schools, so there are programs that discourage enrollment in private schools (charter schools) as well as programs that encourage private school enrollment through subsidies funded by taxpayers. Regression analysis is the best means to disentangle these impacts. The present data suggests the cost per added private school enrolled student is about \$10,700, meaning the net cost to the General Fund is an estimated \$62 million beyond what would be allocated to public schools instead. \$10,700 per regular education student is 75 percent higher than the nearly \$6,000 the state paid for a regular education charter school student in 2015-2016.

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Appendix

Growth of Private School Tuition Tax Credit Scholarships

	Individual Original Income Tax Credit Scholarships	Individual Switcher Income Tax Credit Scholarships	Corporate Tax Credit Scholarships (excludes students with disabilities)	# of Tax Credit Scholarships (excludes students with disabilities)	Scholarships as % of Private Students Enrolled (AZ)
1993-1994	0	0	0	0	0%
1995-1996	0	0	0	0	0%
1997-1998	0	0	0	0	0%
1999-2000	3,365	0	0	3,365	8%
2001-2002	18,049	0	0	18,049	41%
2003-2004	20,134	0	0	20,134	43%
2005-2006	22,522	0	0	22,522	45%
2007-2008	27,153	0	0	27,153	53%
2009-2010	27,592	0	3,652	31,244	70%
2011-2012	23,828	0	5,836	29,664	69%
2013-2014	26,972	13,261	12,968	53,201	118%
2015-2016	31,578	20,976	20,076	72,630	157%

Sources: Prior Table and Number of Scholarships from Annual Reports by Arizona Dept. of Revenue on Private School Tuition Tax Credits found under the Reports section of their web site.