

\$10,000 Per Student: The Estimated Cost of Arizona's Private School Tax Credit Program

Enrollment flat, scholarships now exceed students

Dave Wells, Ph.D.
Research Director, Grand Canyon Institute

The Arizona Senate has already passed SB1279 and the House is considering its version HB2482. The bills would expand educational savings accounts (private school vouchers) eventually to all public school students in the state who enroll for at least 100 days in a public school first.

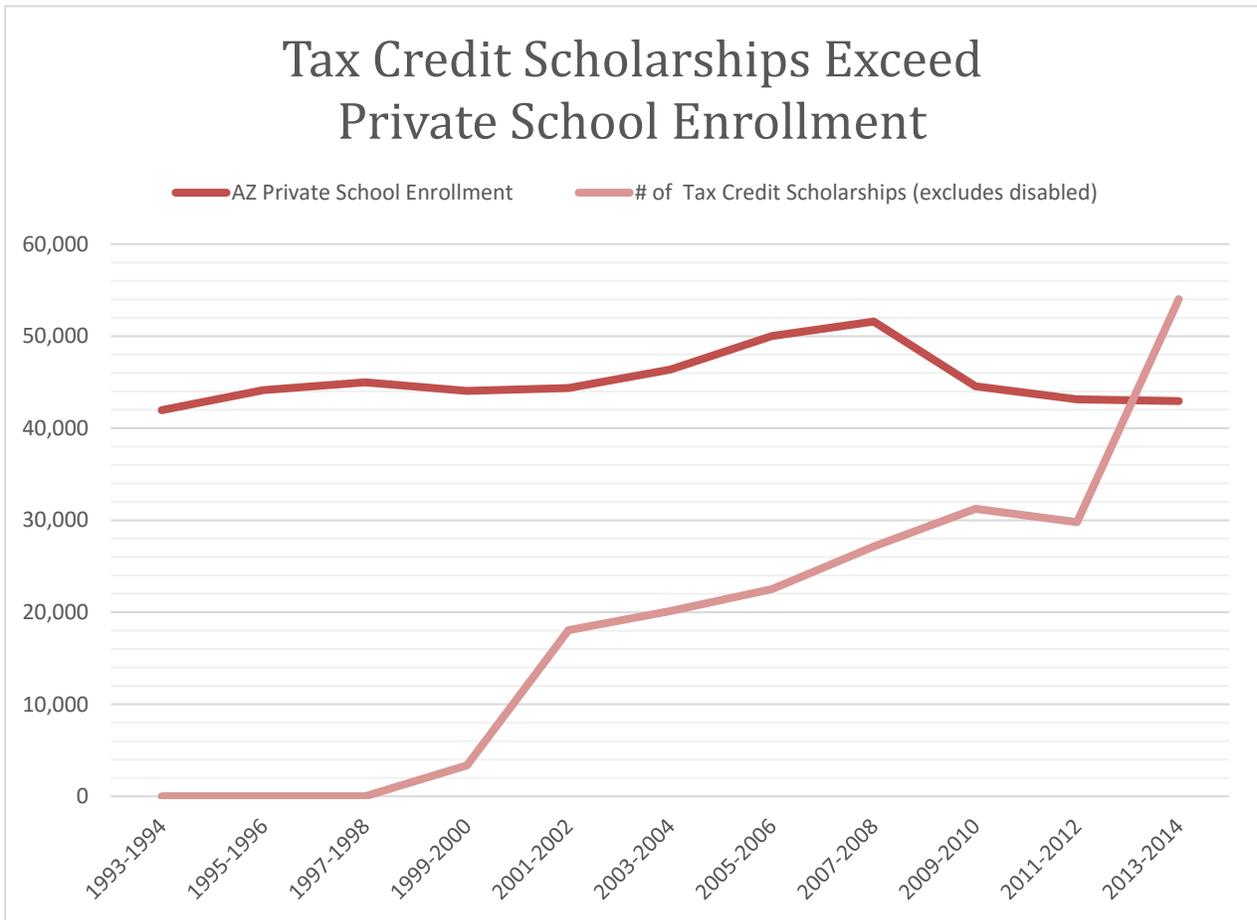
If passed, Arizona will join Nevada as the only states with such an expansive program. However, in Nevada the context for passage was in the wake of Republican Governor Brian Sandoval's effort to pass a \$1.1 billion (over two years) tax package aimed at improving funding for public education. The package made permanent some temporary taxes as well as adding new tax levies that would up general fund education funding by 16 percent. Another additional \$336 million would be directed to the state school fund. Part of his negotiations with Republican lawmakers led to the expanded ESA private school voucher program, as he needed a two-thirds vote in both chambers to increase taxes.²

¹ Updated March 6, 2016.

² Chereb, Sandra and Sean Whaley (2015), "Nevada legislature ok's record budget, adjourns," Las Vegas Review-Journal, June 1, <http://www.reviewjournal.com/news/nevada-legislature/nevada-legislature-oks-record-budget-adjourns>. Roerink, Kyle (2015), "Nevada Senate sends \$1.5 billion tax plan to governor," Las Vegas Sun, June 1, <http://lasvegassun.com/news/2015/jun/01/nevada-senate-sends-15-billion-tax-plan-governor/>. Layton, Lyndsey and Emma Brown (2015), "The ultimate in school choice or school as a commodity?" Washington Post, June 3, https://www.washingtonpost.com/local/education/in-nevada-school-choice-on-steroids-and-a-breakthrough-for-conservatives/2015/06/03/3cdd2300-09ff-11e5-95fd-d580f1c5d44e_story.html. Morton, Neal (2015), "Private

Unlike Nevada, there's no proposed tax increase for education. Prop. 123 is on the ballot to settle a lawsuit due to the state failing to meet legal minimum funding for education.³ Arizona already has perhaps the most expansive private school tuition tax credit scholarship program in the country. Tuition tax credits for private school tuition organizations are currently up to \$1,067 for an individual and up to \$2,134 for a couple under two separate programs. These amounts are roughly five times the limits for public school tax credits.⁴

Figure 1



school parents decry education savings account rule," Las Vegas Review-Journal, July 17, <http://www.reviewjournal.com/news/education/private-school-parents-decry-education-savings-account-rule>.

³ For a full analysis Prop. 123, see Wells, Dave (2016), "A Fiscal Analysis of Proposition 123 and Arizona's Underinvestment in K-12 Education: an essential first step for K-12 funding," Grand Canyon Institute, Jan. 7, <http://grandcanyoninstitute.org/a-fiscal-analysis-of-proposition-123-and-arizonas-underinvestment-in-k-12-education-an-essential-first-step-for-k-12-funding/>.

⁴ FAQ's, Arizona Tuition Organization, <http://azto.org/faqs/>.

In addition, Arizona provides private school tax credit options for corporations. That cap rises 20 percent per year, and for FY2017 will cap at \$62 million.⁵

This analysis looks at how this program has impacted private school enrollment. Even though private school tax credits have proliferated and now cost the state more than \$140 million, enrollment has not grown in Arizona's private schools.⁶

This analysis finds that despite that growth in the program, including the expansion of the individual and corporate tax credits, that enrollment has modestly declined in private schools. Using 2013-2014 data, the most recent data available, the number of scholarships granted through these programs now significantly exceeds the number of private students enrolled, confirming that students are receiving multiple scholarships (See Figure 1).

Private school enrollment has been declining nationwide relative to total enrollment. Catholic

Regression analysis estimates that the cost for Arizona taxpayers per private student enrolled due to the tuition tax credits is about \$10,000 from the General Fund.

Schools nationwide have the sharpest decline. Some analysts suggest this is due to priest scandals and the movement of Catholics on the East coast to the suburbs.⁷ Another factor is the growth of charter schools. In many parts of the country, charter schools are primarily in inner cities. In Arizona the opposite is the case with many charters in suburban areas. Arizona has the largest portion of school-age

children enrolled in charter schools in the country.⁸ Some private schools switch to charters (as Scottsdale Country Day School did a few years ago) or charters emerge as an alternative to

⁵ Children's Action Alliance (2016), "Private School Tax Credits Divert Public Dollars for Private Benefits," Return on Education: A Series of Funding Briefs on K-12 Funding Issues, January, <http://azchildren.org/wp-content/uploads/2016/02/Private-School-Tax-Credit-brief-12-151.pdf>.

⁶ Rau, Alia Beard (2015), "Arizona private-school families cash in on state's tax-credit program: a program that in 1997 legislative budget staff estimated would cost \$4.5 billion now tops \$140 million," July 26, <http://www.azcentral.com/story/news/arizona/investigations/2015/07/26/private-school-families-arizona-tax-credit-program/30647833/>

⁷ Jennings, Jack (2013), "Portion of U.S. Students in Private Schools is 10 Percent and Declining," Huffington Post Blog, May 28. Note this article uses pre-K to grade 12, while this paper focuses only on K-12 enrollment.

⁸ Ewert, Stefanie (2013), "The Decline in Private School Enrollment," SEHSD Working Paper Number FY2012-117, U.S. Census Bureau: Social, Economic and Housing Statistics Division, January, https://www.census.gov/hhes/school/files/ewert_private_school_enrollment.pdf.

private schools. Arizona's charter schools and substantial charter school enrollment growth should depress private school enrollment.

By contrast, the proliferation of private school tuition tax credit scholarships should expand private school enrollment. **Regression analysis estimates that the cost for Arizona taxpayers per student enrolled due to the credits is about \$10,000 from the General Fund.** This amount far exceeds the general fund and local contributions to educate students in the public school system. This estimate that there is a positive impact from the tuition scholarship program (as opposed to no effect) meets a 90 percent confidence interval, which is lower than the threshold normally accepted (95 percent is the norm).

Private School Enrollment and Tax Credit Program Overview

Table 1 shows the data on enrollment patterns over the past 20 year for both Arizona and the United States. Private enrollment has declined about 20 percent as a share across the country. In Arizona the decline has been more dramatic relative to total students with Arizona ratio beginning at 0.56 to the country as a whole and finishing at 0.47. The chief difference in Arizona during the timeframe is the growth of charter schools which did not exist at the beginning of the period and were taking 13.6 percent of all enrollment by its end.

Table 1

Enrollment in Private School for 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

	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
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	42,943 ⁹	155,545	13.6%	1,140,543	3.8%	4,326,977 ¹⁰	54,268,877	8.0%	0.47

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 2011-2012, Results for 2013-2014 downloaded for responding schools and estimated by author. Charter School Enrollment: Arizona Dept. of Education, Oct. 1 figures 1999-2013. 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”

Table 2 illustrates the growth in Private School Tuition Tax Credit scholarships which were designed to encourage enrollment in private schools. They enter the picture in 1999-2000 and by 2013-2014 have grown to more than 50,000, which now far exceeds the number of private students enrolled, meaning that many students are getting multiple scholarships—something that is not tracked by the Arizona Dept. of Revenue.

These factors are combined to create an estimate for the relative impact of both charter schools and the scholarships on private school enrollment.

To control for Arizona relative to the national trend, the dependent variable is the percent of students enrolled in private school in Arizona relative to all students compared to the United States (the far right column of Table 1).¹¹

⁹ This is an estimate derived from those schools participating in the 2013-2014 Private School Universe Survey adjusted for non-respondents. Schools that participated in the 2011-2012 survey were downloaded and compared to 2013-2014 participants. Those participating in both surveys covering a bit more than 35,000 students showed a modest decline in enrollment. Non-respondent schools tended to be smaller. All of the non-respondent schools had their 2011-2012 enrollments added to the 2013-2014 total to arrive at 42,943. The resulting number of participating schools was 10 higher than the estimated total of private schools for 2011-2012 but slightly below the estimated number for 2010-2011. The main page for the Private School Universe Survey, conducted biannually, is <https://nces.ed.gov/surveys/pss/> where data can be accessed.

¹⁰ Estimated based on projections put out by the National Center for Educational Statistics.

Table 2

Growth of Private School Tuition Tax Credit Scholarships

	Individual Income Tax Credit Scholarships	Individual Income Tax switcher Tax Credit Scholarships	Corporate Tax Credit Scholarships (excludes disabled)	# of Tax Credit Scholarships (excludes disabled)	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	23,959	0	5,836	29,795	69%
2013- 2014	27,362	13,550	13,119	54,031	126%

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.

The independent variables are the portion of all Arizona students enrolling in charters (as reported in Table 1) and the ratio of private school scholarships to enrolled private students in

¹¹ 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.

Arizona (far right column of Table 2). 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.

Arizona has one additional complication. Arizona has recently been expanding two programs for special needs students. One also covers students in failing schools under the existing Educational Scholarship Account private school voucher program. That program enrolled 761 students in 2013-2014. Likewise, there is a smaller subset of the corporate tuition tax credit program focused on students with Individual Education Plans, 504 plans or had been placed in foster care during their school years, all students that have high to modest degrees of special needs;¹² 304 scholarships were awarded in 2013-2014 in that program.¹³ Very likely some of these students would be in private school without these programs, but for our purposes they are set aside. The cost to educate these children are substantially higher. The ESA program costs more than \$13,000 per student and the corporate program scholarships are around three times the amount of the other scholarships, about \$5,000 per student.¹⁴

To the degree these programs are impactful, since private school enrollment is known and fixed, the number of other students in private schools would be less. Consequently they would reduce the estimated impact of the private school tuition tax credit programs, which this analysis focuses on. In other words, to the degree, these programs which focus on more needy students are bringing added students into private schools, the number estimated here for the other private school tuition tax credits would be less and the cost per student to taxpayers would be greater.¹⁵

¹² Arizona Dept. of Revenue, "Disabled/Displaced Scholarships from School Tuition Organizations," <https://www.azdor.gov/TaxCredits/CorporateTuitionTaxCredits/DisabledDisplacedScholarships.aspx>.

¹³ Arizona Dept. of Revenue, "Private School Tuition Organization Income Tax Credits in Arizona Summary of Activity: FY2014," <https://www.azdor.gov/Portals/0/Reports/FY2014%20Private%20School%20Tuition%20Org%20Credit%20Report.pdf>.

¹⁴ For ESA enrollment and cost see Joint Legislative Budget Committee, FY2016 Baseline: Dept. of Education, Table 5, p. 6, <http://www.azleg.gov/jlbc/16baseline/ade.pdf>. For disabled/displaced corporate private school scholarships see Arizona Dept. of Revenue, "Private School Tuition Organization Income Tax Credits in Arizona Summary of Activity: FY2014," <https://www.azdor.gov/Portals/0/Reports/FY2014%20Private%20School%20Tuition%20Org%20Credit%20Report.pdf>.

¹⁵ For instance, one regression where the number of ESA participants were removed from Arizona's private school enrollment (assuming they all would otherwise be in public schools) led the coefficient in Table 3 to drop from .087 to .075. The statistical significance of that coefficient was 87 percent, slightly lower than the model presented. That would raise the estimate in this paper to nearly \$12,000 instead of \$10,000.

Cost of the Tuition Tax Credit Program

Table 3

Regression Analysis of Private School Enrollment in Arizona

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.900 ^a	.810	.762	.0190267

a. Predictors: (Constant), AZ Charter Portion, Scholarships to Private Students Ratio

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.012	2	.006	17.041	.001 ^b
	Residual	.003	8	.000		
	Total	.015	10			

a. Dependent Variable: AZ/US Private Enrollment Ratio

b. Predictors: (Constant), AZ Charter Portion, Scholarships to Private Students Ratio

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.555	.013		42.691	.000
	Scholarships to Private Students Ratio	.087	.046	.869	1.896	.094
	AZ Charter Portion	-1.477	.405	-1.669	-3.644	.007

a. Dependent Variable: AZ/US Private Enrollment Ratio

Table 3 presents the result of the primary regression model.¹⁶

The model does a good job of explaining the variation in the dependent variable as measured by the adjusted R squared and F value which is statistically significant at above 99 percent. The Scholarships to Private Students Enrolled Ratio has a modest positive impact on Arizona's enrollment, and charter schools have a stronger negative impact on private school enrollment.¹⁷

For 2013-2014 the model predicts that the ratio of Arizona private school enrollment to U.S. private school enrollment compared to all students should be 0.4630, while the actual ratio was 0.474. Without the 54,000 scholarships, the model predicts that the ratio would be 0.1095 less. In terms of number of students for 2013-2014 that translates as 32,989 students instead of 42,943 students or 9,954 students less, essentially 10,000.

In 2013-2014, the Arizona Dept. of Revenue reports that those 54,000 scholarships equaled \$93.364 million (excluding disabled/displaced student scholarships). Under ARS, the Student Tuition Organizations must distribute at least 90 percent of their donations to scholarships. Because donation timing and scholarship awards do not coincide, it's difficult to know what the precise overhead costs are of these organizations. ADOR says they monitor it and do report ratios, but those ratios are frequently below 90 percent.¹⁸ However, part of that is likely the growth trend of the program. For this analysis we assume overhead costs are 8 percent, so that 92 percent of donations go out to students. Based on that assumption, \$93.364 million in donations would come out of \$101.483 million in actual tax credits.

¹⁶ As noted in other footnotes, two other regression models also had a good fit, but produced less statistically significant results for the scholarship program and showed the scholarship program had less of an impact on private school enrollment. See Footnote 11 and Footnote 15 for more details. Consequently, the estimate here may be conservative relative to the actual cost per student of the private tuition scholarship program, i.e., a low-end estimate.

¹⁷ Unstandardized coefficients are in the measurement units. Standardized ones are meant for comparison and suggest the AZ Charter Portion has twice the impact as the scholarship to student ratio. Likewise, the T-statistic for the charter school impact is much stronger with over 99 percent confidence that the estimate is above zero. The confidence on the scholarship impact is less at about 90 percent that the estimate is above zero. Zero would mean the scholarship programs do not effect private school enrollment, so the program would be ineffective in improving private school enrollment. Of three best fit models looked at, this model showed the greatest impact of the scholarship program on enrollment and the highest statistical significance for the coefficient on the scholarship program. The other models found enrollment impacts of about 4,500 to 9,000 students and associated costs per student of \$23,000 and nearly \$12,000, respectively. Those models had lower degrees of statistical significance for the coefficient on the scholarship program. See Footnotes 11 and 15 for more details.

¹⁸ A good illustration when tax laws were relatively consistent across consecutive fiscal years would be Dept. of Revenue, "Private School Tuition Organization Income Tax Credits in Arizona: A Summary of Activity FY 2012," <https://www.azdor.gov/Portals/0/Reports/FY2012%20private%20schl%20tuition%20org%20crdt%20rept.pdf>.

The net cost per added enrollee is then \$101.483 million divided by 9,954 or \$10,195 per added student enrolled.

This represents a significantly higher figure than state funding per pupil in 2013-2014 for district and charter schools. Based on the Superintendent of Public Instruction's Fiscal Year 2013-2014 Annual Report, state funding per pupil was \$3,587 per pupil for district schools and \$6,821 per pupil for charters.¹⁹ The large difference is because charters are almost entirely funded by the state's General Fund and receive additional per pupil funds due to their inability to bond, while districts, depending on their relative wealth, are either entirely self-funded by local property taxes or receive some share of funding from the state's general fund. The exact cost to the General Fund then depends on whether the student was attending a charter school or the comparative wealth or poverty of the district school.

The net cost to the General Fund was around \$60 million above what would have been spent from the General Fund had these students attended pupil schools.

Without that information, the overall state funding per pupil of \$3,900 will be used, which means relative to the General Fund, each student enrolling in private school costs the state approximately \$6,000, meaning the net cost to the General Fund was around \$60 million above what would have been spent from the General Fund had these students attended pupil schools. The total extra cost is less than that, as this omits local

contributions. Total state and local spending is about \$8,000 per student, meaning overall the program costs \$20 million more.²⁰

This \$10,000 per added student cost is an estimate based on the most current available data and could change in coming years as the tax credit expands, and a greater numerical history enables more precise estimates. The Private School Universe Survey occurs every two years. An update is already occurring this academic year, so likely in up to two years, an updated estimate would be possible.

¹⁹ Annual Report of the Arizona Superintendent of Public Instruction, Volume 1, Fiscal Year 2013-2014, <http://www.azed.gov/superintendent/files/2015/01/safr-2014-volume-i.pdf>. Expenditures on page 6 and enrollment data on page 8 used to calculate per pupil amounts.

²⁰ Also based on Annual Report of the Arizona Superintendent of Public Instruction, Volume 1, Fiscal Year 2013-2014.

If money in the tax credit program continues to expand as it has through the corporate aspect primarily, absent a growth in private school enrollment beyond the overall growth in students, then the cost of this program going forward would likely rise.

Potential Impact of ESA Private School Voucher Expansion

The proposed ESA private school vouchers, if enacted, may induce some charter operators to become a private school, which would avoid any financial reporting or any academic accountability. So students would move from a system with some transparency and accountability to one without any transparency or accountability.

Expanded ESA private school vouchers may be more likely to benefit higher income families. Currently no means testing occurs for private school scholarships financed through individual income tax credits, though STO's do report the percentage of money distributed to three family income groups, those at 185 percent or less of the poverty line those from 185 to 324.25 percent of the poverty line and those above that amount. Keep in mind that students served is not the same as amount of scholarships. For instance, if lower income family students received substantially higher scholarships, as one would expect, then the number of students served would be proportionally less for that group. Presently about 37 percent of scholarship money goes to the low income group and the remainder split between the other groups. Corporate tax credit scholarships are limited to families at or below 324.25 percent of the poverty line. For a family of four in 2016, this amounts to a family income less than \$79,000.

The proposed ESA private school vouchers would equal \$5,400 according to the JLBC and would not be means tested.²¹ Families wishing to take advantage of it would likely weigh the merits of each. One likely outcome would be that the amount per tuition tax credit scholarship may increase—if fewer students are pursuing it as others choose ESA's instead. Research to date on the existing ESA program indicates that the primary beneficiaries are higher income families, and as added non-means tested money flowed into private schools, one would imagine this would continue.²² Reporting requirements would assist in tracking this.

²¹ See Fiscal Note for HB2482 accessible at http://www.azleg.gov/DocumentsForBill.asp?Bill_Number=hb2482&Session_Id=115&image.x=0&image.y=0.

²² O'Dell, Rob and Yvonne Wingett Sanchez (2016), "State money helping wealthier Arizona kids go to private schools," Feb. 24, <http://www.azcentral.com/story/news/arizona/politics/education/2016/02/23/state-money-helping-wealthier-arizona-kids-go-private-schools/80303730/>.

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 we have programs that discourage enrollment in private schools (charter schools) as well as programs aimed at using taxpayer funds to subsidize the cost of private school and encourage enrollment. Regression analysis is the best means to disentangle these impacts. The present data suggests the cost per added private school enrolled student is at least \$10,000, meaning the net cost to the General Fund may be around \$60 million beyond what would be contributed to public schools instead, and the overall cost including money saved from the local contribution means the total extra cost is approximately \$20 million. These latter estimates would vary depending on whether students were moving from charters or district schools to private school as well as if from a district school, whether it was one in a more wealthy or impoverished area.

Dave Wells holds a doctorate in Political Economy and Public Policy and is the Research Director for the Grand Canyon Institute, a centrist fiscal policy think tank founded in 2011. He can be reached at DWells@azgci.org or contact the Grand Canyon Institute at (602) 595-1025.

The Grand Canyon Institute, a 501(c) 3 nonprofit organization, is a centrist think tank led by a bipartisan group of former state lawmakers, economists, community leaders and academicians. The Grand Canyon Institute serves as an independent voice reflecting a pragmatic approach to addressing economic, fiscal, budgetary and taxation issues confronting Arizona.

Grand Canyon Institute

P.O. Box 1008

Phoenix, Arizona 85001-1008