

ATRA SPECIAL REPORT

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Action without information is dangerous. Information without action is futile.

Arizona K-12 School Finance Statistics

PROVIDING CONTEXT TO A COMPLEX MEASUREMENT

Arguably no single statistic dominates Arizona's public finance debate more than it's K-12 M&O per pupil expenditure ranking. Arizona has consistently ranked low for decades and the statistic is used as a rallying cry to increase education spending; often suggesting the low ranking is causal to education outcomes. This white paper will explain the statistics in detail, contextualizing education spending in an effort to allow for proper comparisons between states.

What do Nevada, Georgia, Tennessee, Arkansas, Texas and Arizona all have in common?

While it remains true that Arizona ranks low in expenditures per pupil for K-12 education- and will for the foreseeable future regardless of policy changes; Arizona is certainly in good company. Since the Census Bureau (CB) began tracking M&O spending, Arizona has consistently ranked in the top 10 states who increased dollars to their entire K-12 education system. Many growth states can be found in this ranking. Six of the top 10 growth states end up in the bottom third of per-pupil expenditures. How can states leading in percentage increases still end up at the bottom?

Percentage increase K-12 GF spending since 1992 (CB)

1	Nevada
2	Georgia 213.1%
3	Arkansas192.5%
4	Massachusetts 184.3%
5	Delaware 183.8%
6	Tennessee183.7%
7	New Hampshire 181.3%
8	Texas177.3%
9	Arizona 172.5%
10	Illinois 170.8%

← 6 of the top 10

End up in the $_$ bottom 1/3

33 Arkansas	\$9,411
34 Kentucky	\$9,391
35 Georgia	\$9,247
36 California	\$9,183
37 South Carolina	
38 New Mexico	
39 Alabama	\$8,562
40 Colorado	\$8,548
41 South Dakota	\$8,446
42 Florida	\$8,372
43 Tennessee	\$8,294
44 Texas	
45 Nevada	\$8,223
46 North Carolina	\$8,200
47 Mississippi	\$8,164
48 Arizona	\$7,559
49 Oklahoma	\$7,466
50 Idaho	
51 Utah	\$6,206

2012 per pupil K-12 GF spending (CB)

How Much Money Is Available?

Beginning with the numerator in expenditures per pupil, states must be analyzed for their relative wealth which provides the tax base. It would be unreasonable to directly compare the wealth of Vermont with Arkansas. Personal income is the "aggregate income from all sources received by persons residing in a state, and it has a significant effect on the total income or financial resources available to governmental jurisdictions through taxation."ⁱ Historically, Arizona has had a Per Capita Income ranking below the national average, and despite significant economic gains during the past 20 years, did not witness a similar rise in rank because of strong population growth.

Income per student is perhaps a more important distinction. The wealth in the economy must be taxed and then divided amongst the students. Again, due to strong growth, Arizona has routinely landed low on this list, as have other growth states such as Utah, Texas, and Nevada. As the National Education Association (NEA) puts it, "the amount of total personal income available affects the prospects for financing public education."ⁱⁱⁱ Arizona ranks #46 in income per student; it doesn't mean Arizona is a poor state but rather has many mouths to feed.

Per Capita Income, 2012

39	North Carolina	38,538
40	Indiana	38,136
41	Georgia	37,229
42	Arizona	36,624
43	Arkansas	36,423
44	Alabama	35,942
45	Utah	35,891
46	Kentucky	35,857
47	New Mexico	35,805

Income per student, 2012

40	Nevada	229,860
		,
43	South Carolina	229,613
44	Arkansas	229,486
45	Texas	226,526
46	Arizona	223,642
47	New Mexico	223,597
48	Georgia	219, 154
49	Mississippi	203,591
50	Idaho	193,695
51	Utah	174,622

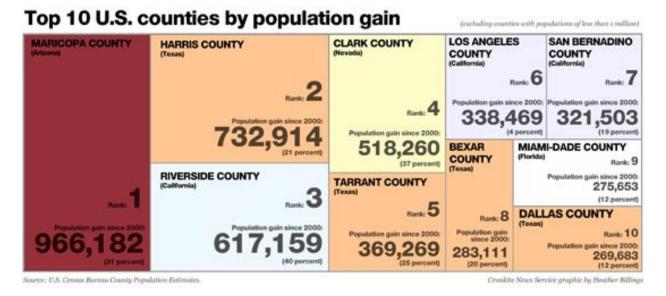
Are We Trying?

Beyond ability to pay, states can be measured on their "weight of effort" in spending on various programs. How much of the available money in the economy is taxed at the state and local level and how much of it is directed towards public education? Traditionally a conservative state preferring low taxes, it is not surprising that Arizona ranks #34 in weight of effort to tax itself- \$92 per \$1,000 of personal income, just \$5 below the national median. Arizona ranks #20 in state and local tax revenue for public education at \$41 per \$1,000 of personal income, meaning its "weight of effort" is above the national average.^{III} A fair comparison of a state's ability and effort to generate funds for education must account for personal income.

Arizona ranks #20 in state and local tax revenue for public education per \$1,000 of personal income, meaning its "weight of effort" is above the national average.

Demographic Challenges

From a public policy standpoint, Arizona is demographically challenged. In any per capita exercise, the makeup of those *capita* is rather important. Arizona's rapid population growth is well documented: #3 in the country since 1992. Maricopa County's population grew more in total persons than any other county during the 2000's.



But the demographics of growth matter more. Arizona has consistently ranked in the top 10 of states in percentage of population under the age of 18. Currently Arizona is #9 with 24.7% under 18 years. Well known for its retirement community, Arizona ranks #13 in percentage of resident population 64 and older. This results in Arizona ranking #49 in percentage of resident populace age 18-64.^{iv}

A glance at states who routinely top the K-12 per pupil expenditures ranking shows a strong correlation to these charts: D.C., Rhode Island, Vermont, New Hampshire, Massachusetts, New York, Virginia and Maryland have low percentages of youths and a high percentage of working age adults.

	<u>% Unde</u>										
	Utah	31.1				D.C.	71.4	_		Florida	18.2
_	Texas	26.8	[Alaska	65.8	-		Maine	17
	Idaho	26.7		AZ #9 in %	3	Colorado	64.5	-		West Virginia	16.8
	Alaska	25.6		C 11 /		Massachusetts	64.5	-		Pennsylvania	16
5	Georgia	25.1		of resident		New Hampshire		-	5	Montana	15.7
-	Kansas	25.1		population		Vermont	64.5	-	_	Vermont	15.7
1	Mississippi	25		population	7	Rhode Island	64.3	-	7	Delaware	15.3
	Nebraska	25 24.7 <	.	under age 18		Virginia	64.3	-	-	lowa	15.3
э	Arizona New Mexico	24.7		0		Maryland	64.2	-		Hawaii	15.2
44	Oklahoma	24.7				NewYork	64.1	-		Rhode Island	15.1
	South Dakota	24.6				Washington	63.8	-		Arkansas	15
	California	24.5			12	California	63.6	-		Oregon	14.9
10		24.3				North Dakota	63.6		13	Arizona	14.8
	Indiana				14	Georgia	63.4	-		Connecticut	14.8
10	Louisiana	24.3				Wyoming	63.4	-		Ohio	14.8
10	Arkansas	24.1				Connecticut	63.1	-	16	Missouri	14.7
40	Nevada	24.1	AZ	#13 in % of	17	Hawaii	63	-		New Hampshire	14.7
	Illinois	23.8				Illinois	63	-		Carolina	14.7
19	Colorado	23.7	reside	ent population		New Jersey	63	_	19	Michigan	14.6
	Minnesota	23.7		1 1		Oregon	63	_		South Dakota	14.6
~ 4	U.S.	23.5		age 64+	21	Maine	62.9	_		Alabama	14.5
21	lova	23.5		_		U.S.	62.8	_	22	Massachusetts	14.4
	North Carolina	23.5			22	Louisiana	62.8	_		North Dakota	14.4
	Wyoming	23.5				Nevada	62.8	_		Wisconsin	14.4
24	Alabama	23.3			24	Kentucky	62.7	_	25	NewMexico	14.2
~~	Missouri	23.3				Minnesota	62.7			Tennessee	14.2
	Kentucky	23.2				North Carolina	62.7		27	New Jersey	14.1
27	Ohio	23.1			27	Tennessee	62.6			New York	14.1
	Tennessee	23.1				Wisconsin	62.6		29	Kentucky	14
29	Washington	23			29	Michigan	62.5			Oklahoma	14
-	Wisconsin	23				Pennsylvania	62.5		31	Nebraska	13.9
31	Michigan	22.9				West Virginia	62.5		32	North Carolina	13.8
	New Jersey	22.9			32	South Carolina	62.4			U.S.	13.7
_	South Carolina	22.9			33	Delaware	62.3		33	Kansas	13.7
	Maryland	22.8				Texas	62.3		34	Indiana	13.6
	Virginia	22.7			35	Montana	62.2			Minnesota	13.6
	Delaware	22.4				Ohio	62.2		36	Mississippi	13.5
37	Connecticut	22.1			37	Alabama	62.1		37	Idaho	13.3
	Montana	22.1	A'7	#49 in % of		Indiana	62.1		38	Illinois	13.2
	Oregon	22.1	лL	#49 m % or	39	Missouri	62			Washington	13.2
40	North Dakota	22		resident	40	Mississippi	61.5		40	Nevada	13.1
41	Hawaii	21.8			41	Oklahoma	61.4			Wyoming	13.1
	NewYork	21.8	por	oulation age	42	lowa	61.2		42	Maryland	13
	Pennsylvania	21.5	1.1	-		Kansas	61.2			Virginia	13
	Massachusetts	21.1	1	18-64		Nebraska	61.2		44	Louisiana	12.9
	New Hampshire	20.8				New Mexico	61.2		45	California	12.1
46	Florida	20.7			46	Florida	61.1		46	Colorado	11.8
	Virginia	20.7			47	Arkansas	60.9		47	Georgia	11.5
48	Rhode Island	20.6				South Dakota	60.9			D.C.	11.3
49	Maine	20		↓	49	Arizona	60.4			Texas	10.9
50	Vermont	19.8				Idaho	59.9			Utah	9.5
51	D.C.	17.3				Utah	59.4	-		Alaska	8.6

The implications for such extreme demographic positions are as numerous as they are obvious. The 18-64 population represents the engine of the tax base and it must support a much larger proportion of students than the average. Additionally, the 64+ age demographic has an increased demand for state resources. The polar opposite might be Washington D.C. who is last in percentage of population under 18, #1 in the working demographic, and #48 in those age 64+. Consider the fortunate situation Colorado finds itself, with a healthy percentage of population under age 18 at #19 (23.7%), #3 in percentage age 18-64, and #46 age 64+. A glance at states who routinely top the K-12 per pupil expenditures ranking shows a strong correlation to these charts: D.C., Rhode Island, Vermont, New Hampshire, Massachusetts, New York, Virginia and Maryland have low percentages of youths and high percentages of working age adults.

The most compelling connection between demographics and per pupil K-12 expenditures is in student growth. As nearly all states have participated in overall K-12 spending increases over the past decades, most of the states who occupy the bottom of per pupil spending are the states who grew the most. Since 1992, Arizona has ranked #2 in student growth. According to the 2012 Census Bureau ranking, it occupies the #48 position in per pupil expenditure ranking. All but two of the fastest growing K-12 population states (above 18% growth) appear in the bottom third of per-pupil expenditures. The two exceptions, Virginia and Washington, rank high in percentage population age 18-64 at #7 and #11. They also rank higher than the other growth states in personal income per student at #13 and #16, respectively.

			-	_	Rank	State	Per-p	upil \$\$
		2012 Student	Change from	*	35	Georgia		9,247
Rank	State	Count	1992		- 36	California		9,183
1	Nevada	428,526	101.5%			South Card		9,147
2	Arizona	942,738	42.7%			New Mexic		8,899
3	Colorado	843,120	41.8%	$\lambda \chi$ /		Alabama		8,562
4	Georgia	1,669,156	41.5%	$X \longrightarrow$		Colorado		8,548
5	Texas	4,844,744	38.8%	$\land \land \lor$	41	South Dak	ota	8,446
6	Florida	2,658,559	32.6%	$ \rightarrow $	42	Florida		8,372
7	North Carolina	1,462,172	32.5%		43		<u>)</u>	8,294
8	Virginia	1,257,332	21.6%					8,261
9	Utah	553,873	21.2%			Nevada		8,223
10	Washington	1,044,856	19.7%	\mathbf{X}		North Caro		8,200
11	Tennessee	998,638				Mississipp	İ	8,164
12	California	6,203,034				Arizona		7,559
13	Idaho	267,556				Oklahoma.		7,466
15	luano	207,330	10.170	\rightarrow	50	Idaho		6,659
				X	51	Utah		6,206

Student Growth

All but two of the fastest growing states in K-12 population (above 18% growth) appear in the bottom third of per-pupil expenditures.

Coming Full Circle

The first graphic in this paper depicted six of the top 10 states for percentage increases in K-12 general fund spending since 1992 appearing in the bottom third of per pupil spenders on K-12. Naturally, those six states represent some of the fastest growing states in the past 20 years. Arizona is actually "cheated" by the Census Bureau data, which doesn't count most charter schools, meaning Arizona's student growth and total spending growth is actually higher than reported.^v Nearly 112,000 Arizona public school students and the corresponding spending is not counted in their data.

The reverse is also highly correlative: states in the bottom of K-12 student growth find themselves near the top of per pupil spending.

Per Pupil Spending

Take the case of North Dakota, whose foray into oil drilling has increased the per capita income substantially. Their 1992 rank in per pupil general fund spending on K-12 was #39 overall. Since then, they increased their spending by 132%, which ranks #36 nationally. Their "weight of effort" or state and local taxes for education per \$1,000 of personal income ranks them #49. Somehow they increased their per pupil spending ranking to #17. An 18.2% decrease in K-12 population since 1992 is the difference maker.

Per Pupil Spending Rank State Per-pupil \$\$ 1 New York..... 19.552 2 District of Columbia. 17,468 3 Alaska..... 17,390 4 New Jersey..... 17,266 16,274 5 Connecticut..... 16,040 6 Vermont..... 7 Wyoming..... 15,897 8 Massachusetts..... 14,142 9 Rhode Island..... 14,005 10 Delaware..... 13,865 11 Maryland..... 13.609 12 New Hampshire...... 13,593 13,340 13 Pennsylvania..... 14 Maine..... 12.189 15 Hawaii..... 12.054 16 Illinois..... 12,015 17 North Dakota..... 11,679 West Virginia..... 18 11.445 19 Louisiana..... 11,379 20 Nebraska..... 11,275

11 of the top 20

Are in the bottom 20 of student growth

Student Growth

	1992-2012
State	Student growth
Indiana	3.7%
Alabama	2.2%
Hawaii	0.9%
lowa	0.7%
Minnesota	0.1%
New York	-1.9%
Mississippi	-3.1%
South Dakota	-3.1%
Rhode Island	-3.6%
Pennsylvania	-4.0%
Montana	-8.7%
Ohio	-9.6%
Vermont	-9.9%
Wyoming	-12.1%
West Virgina	-13.2%
Michigan	-14.3%
Maine	-14.4%
Louisiana	-16.7%
North Dakota	-18.2%
Washington D.C.	-45.1%

On Teacher Pay

There are few who argue teachers are well compensated and policymakers of all stripes argue for increased teacher pay. It should be noted the Arizona K-12 formula does not dictate teacher pay; those remain local decisions, but it is valid to discuss the money available to pay teachers and the resulting teacher pay rankings. As is the case nationwide, teaching in Arizona has never been lucrative. To some extent, Arizona public schools followed nationwide trends and used incremental general fund dollars to expand student services such as teachers' aides, medical staff and increased special education staff. However, Arizona did not engage in aggressively shrinking class sizes relative to such efforts in other states. To some degree, Arizona traded higher wages for larger class sizes. The predominantly urban growth in Maricopa and Pima counties encouraged relatively full schools and full classrooms. This phenomena lasted until the mid-2000's.

Since then, Arizona's national rank for average teacher pay has decreased as Arizona decreased its students to teacher ratio from 22 to 18 (not to be confused with average class size).^{vi} Arizona had full classrooms concentrating in large districts. The last decade has witnessed stagnant or negative enrollment growth in district public schools and massive growth in charter schools, driving up the total number of

teachers 28% since 2005 with only 8.9% K-12 enrollment growth.^{vii} As districts lose students, their budgets contract in size, hurting a districts ability to raise wages even if their per pupil funding rises. The recession brought also significantly higher pension costs for districts with ASRS employer and employee rates rising. School districts have also cited increases in health care premiums and special education costs.

Arizona's teacher pay for FY2013 was approximately \$49,900 as reported by the NEA. The Arizona Auditor General (AG) reported an average of \$46,026 for FY2014, which prompted a change in reporting by the NEA. Using the AG average and accounting for per capita personal income, Arizona ranks #28 in indexed average teacher pay (125.7%). Not high, but certainly not last. Teacher pay comparisons must account for the relative wealth between states and cost of living. The phenomena of new charter schools opening, hiring teachers predominantly on the low end of the pay scale, combined with declining enrollment at many district public schools, will continue to impact average teacher pay.

> AZ #28 in indexed teacher pay

21	New Mexico	45 7 27	127.71%
21	Utah	45,695	
23	Idaho	44,485	
24	Wisconsin		126.38%
24	Hawaii	56,075	
25		42,187	
	Mississippi		
27	Vermont		125.91%
28	Arizona		125.67%
29	New Jers ey	68,238	
30	Maine	49,232	123.50%
31	Tenness ee	47,742	121.97%
32	Louis iana	49,067	120.80%
33	Maryland	64,548	120.29%
34	Iowa	52,032	118.22%
35	Missouri	46,750	117.28%
36	Connecticut	70,583	117.20%
37	North Carolina	44,990	116.74%
38	Florida	47,780	116.42%
39	Minnesota	54,752	115.57%
40	Texas	49,690	114.83%
41	New Hampshire	57.057	113.99%
42	W as hington	52,969	
43	Kansas	48.221	
44	Nebraska	49.539	
45	Wyoming	56.583	
46	Oklahoma		107.61%
47	Colorado	49,615	

Of note, Arizona's teacher pay index is comparable to neighbors Utah and New Mexico and is actually better than Colorado, Texas, and Wyoming. A measurable and legitimate policy goal would attempt to keep Arizona average teacher pay near the U.S. average teacher pay index, currently 133%. Even in environments where school districts witness increases to their operating budget, administration struggles to increase teacher pay with competing demands from increased costs in other areas. Further, a district often cannot raise teacher pay without addressing pay for its other employee groups. Additionally, there is the competing desire to reduce student-teacher ratios.

What is the End Goal?

It is undeniable that state and federal spending on K-12 public schools nationwide has increased dramatically: \$310 billion per year or 145% since the Census Bureau began tracking in 1992 (on maintenance and operations, not including capital). The median state increase has been \$4 billion. Significant funding increases have largely been directed to increasing student services, reducing class sizes, and improving special education access. While many of these funding choices were made willfully by local education agencies, state and federal mandates played a role as well.

State policymakers have the tough task of prioritizing a variety of programs from child services, universities, social welfare programs, infrastructure, etc.; all of which decry a lack of funding. Much like other programs, it is the perceived role of education advocates to ask for ever increasing amounts of funding. The education community needs to identify specific costs for identifiable reforms as well as a steady trajectory for future funding expectations. Unfortunately, history has demonstrated that no increase is sufficient; the refrain is familiar nationwide regardless of relative rankings.

Few states spend more on K-12 education than Massachusetts, who witnessed an increase in their FY2016 K-12 budget and its immediate dismissal by the Massachusetts Teachers Union as insufficient.^{viii} The rhetoric is largely the same regardless of their spending ranking or whether their K-12 budget increased by a small or large amount. After the Michigan Legislature *increased* K-12 funding, the President of the Michigan Association of School Boards asserted that there was an "assault on public education."^{ix} Michigan is near the top in per-pupil spending nationally and has the second highest indexed teacher pay.^x

In the boom years of the 1990s and mid 2000's when Arizona was raising education funding faster than the inflationary rate, the increases were quickly downloaded and dismissed as insufficient. The more than \$4 billion spent on capital funding since Students First is largely ignored. After an initiative to drive an additional \$360 million to K-12 schools annually was announced by Governor Doug Ducey in May 2015, the head of Arizona teacher's union described the increase as inadequate and that Arizona needed to be at the top of the per pupil spending ranks.

Arizona could both raise personal income taxes by 50%, add a cent to the statewide sales tax and direct all new revenues to K-12 and it would still not crack the top 30 of per pupil spenders. Arizona will continue to increase its student population; making it all the more difficult to reach states with decreasing population. The point is Arizona will remain at the low end of this particular measure for the foreseeable future regardless of incremental increases. Measuring by that yardstick alone is futile.

Policymakers should know the answer to the level of funding for education will always be "more." There isn't a state in the union where advocates believe K-12 education is funded adequately. Arizona needs a strategy to provide equitable funding with a stable trajectory which will provide predictability for taxpayers and education providers.

ⁱ NEA, 2014

ii Ibid

iii Ranking compiled by NEA, 2014. Their data is from Census Bureau and Bureau of Economic Analysis.

^{iv} Ibid

v 2013 Census Bureau Education report notes only government sponsored charters are counted

vi NEA Rankings and Estimates from 2014 and 2005

^{vii} Ibid

viii http://www.massteacher.org/news/archive/2015/house_ways_and_means_committee_releases_2016_budget_plan.aspx
ix http://www.masb.org/press-releases-719.aspx

^{*} NEA for 2014 Average Teacher Salary, BEA for 2012 Per Capita Personal Income