



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.....	276.7%
2 Georgia.....	213.1%
3 Arkansas.....	192.5%
4 Massachusetts.....	184.3%
5 Delaware.....	183.8%
6 Tennessee.....	183.7%
7 New Hampshire.....	181.3%
8 Texas.....	177.3%
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.....	\$9,147
38 New Mexico.....	\$8,899
39 Alabama.....	\$8,562
40 Colorado.....	\$8,548
41 South Dakota.....	\$8,446
42 Florida.....	\$8,372
43 Tennessee.....	\$8,294
44 Texas.....	\$8,261
45 Nevada.....	\$8,223
46 North Carolina.....	\$8,200
47 Mississippi.....	\$8,164
48 Arizona.....	\$7,559
49 Oklahoma.....	\$7,466
50 Idaho.....	\$6,659
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

42 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.

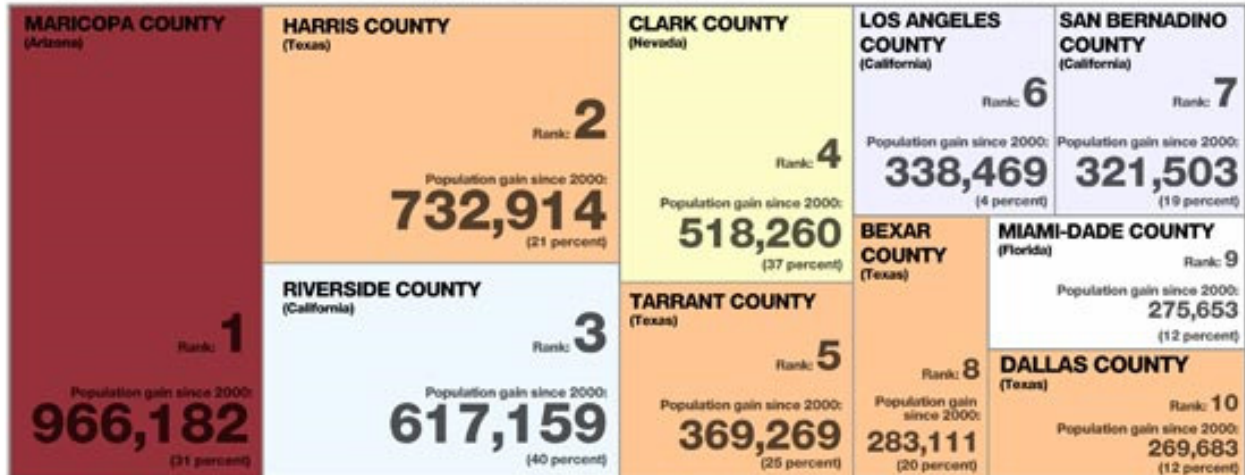
Arizona ranks #20 in state and local tax revenue for public education per \$1,000 of personal income, meaning its “weight of effort” is above the national average.

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.

Top 10 U.S. counties by population gain

(excluding counties with populations of less than 1 million)



Source: U.S. Census Bureau County Population Estimates.

Cronkite News Service graphic by Heather Billings

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.

% Under 18

1	Utah	31.1
2	Texas	26.8
3	Idaho	26.7
4	Alaska	25.6
5	Georgia	25.1
	Kansas	25.1
7	Mississippi	25
	Nebraska	25
9	Arizona	24.7
	New Mexico	24.7
11	Oklahoma	24.6
12	South Dakota	24.5
13	California	24.3
	Indiana	24.3
	Louisiana	24.3
16	Arkansas	24.1
	Nevada	24.1
18	Illinois	23.8
19	Colorado	23.7
	Minnesota	23.7
	U.S.	23.5
21	Iowa	23.5
	North Carolina	23.5
	Wyoming	23.5
24	Alabama	23.3
	Missouri	23.3
26	Kentucky	23.2
27	Ohio	23.1
	Tennessee	23.1
29	Washington	23
	Wisconsin	23
31	Michigan	22.9
	New Jersey	22.9
	South Carolina	22.9
34	Maryland	22.8
35	Virginia	22.7
36	Delaware	22.4
37	Connecticut	22.1
	Montana	22.1
	Oregon	22.1
40	North Dakota	22
41	Hawaii	21.8
	New York	21.8
43	Pennsylvania	21.5
44	Massachusetts	21.1
45	New Hampshire	20.8
46	Florida	20.7
	Virginia	20.7
48	Rhode Island	20.6
49	Maine	20
50	Vermont	19.8
51	D.C.	17.3

AZ #9 in %
of resident
population
under age 18

AZ #13 in % of
resident population
age 64+

AZ #49 in % of
resident
population age
18-64

% 18-64

1	D.C.	71.4
2	Alaska	65.8
3	Colorado	64.5
	Massachusetts	64.5
	New Hampshire	64.5
	Vermont	64.5
7	Rhode Island	64.3
	Virginia	64.3
9	Maryland	64.2
10	New York	64.1
11	Washington	63.8
12	California	63.6
	North Dakota	63.6
14	Georgia	63.4
	Wyoming	63.4
16	Connecticut	63.1
17	Hawaii	63
	Illinois	63
	New Jersey	63
	Oregon	63
21	Maine	62.9
	U.S.	62.8
22	Louisiana	62.8
	Nevada	62.8
24	Kentucky	62.7
	Minnesota	62.7
	North Carolina	62.7
27	Tennessee	62.6
	Wisconsin	62.6
29	Michigan	62.5
	Pennsylvania	62.5
	West Virginia	62.5
32	South Carolina	62.4
33	Delaware	62.3
	Texas	62.3
35	Montana	62.2
	Ohio	62.2
37	Alabama	62.1
	Indiana	62.1
39	Missouri	62
40	Mississippi	61.5
41	Oklahoma	61.4
42	Iowa	61.2
	Kansas	61.2
	Nebraska	61.2
	New Mexico	61.2
46	Florida	61.1
47	Arkansas	60.9
	South Dakota	60.9
49	Arizona	60.4
50	Idaho	59.9
51	Utah	59.4

% 65+

1	Florida	18.2
2	Maine	17
3	West Virginia	16.8
4	Pennsylvania	16
5	Montana	15.7
	Vermont	15.7
7	Delaware	15.3
	Iowa	15.3
9	Hawaii	15.2
10	Rhode Island	15.1
11	Arkansas	15
12	Oregon	14.9
13	Arizona	14.8
	Connecticut	14.8
	Ohio	14.8
16	Missouri	14.7
	New Hampshire	14.7
	Carolina	14.7
19	Michigan	14.6
	South Dakota	14.6
21	Alabama	14.5
22	Massachusetts	14.4
	North Dakota	14.4
	Wisconsin	14.4
25	New Mexico	14.2
	Tennessee	14.2
27	New Jersey	14.1
	New York	14.1
29	Kentucky	14
	Oklahoma	14
31	Nebraska	13.9
32	North Carolina	13.8
	U.S.	13.7
33	Kansas	13.7
34	Indiana	13.6
	Minnesota	13.6
36	Mississippi	13.5
37	Idaho	13.3
38	Illinois	13.2
	Washington	13.2
40	Nevada	13.1
	Wyoming	13.1
42	Maryland	13
	Virginia	13
44	Louisiana	12.9
45	California	12.1
46	Colorado	11.8
47	Georgia	11.5
48	D.C.	11.3
49	Texas	10.9
50	Utah	9.5
51	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.

Student Growth

Rank	State	2012 Student Count	Change from 1992
1	Nevada	428,526	101.5%
2	Arizona	942,738	42.7%
3	Colorado	843,120	41.8%
4	Georgia	1,669,156	41.5%
5	Texas	4,844,744	38.8%
6	Florida	2,658,559	32.6%
7	North Carolina	1,462,172	32.5%
8	Virginia	1,257,332	21.6%
9	Utah	553,873	21.2%
10	Washington	1,044,856	19.7%
11	Tennessee	998,638	18.9%
12	California	6,203,034	18.8%
13	Idaho	267,556	18.1%

Per Pupil Spending

Rank	State	Per-pupil \$\$
35	Georgia.....	9,247
36	California.....	9,183
37	South Carolina.....	9,147
38	New Mexico.....	8,899
39	Alabama.....	8,562
40	Colorado.....	8,548
41	South Dakota.....	8,446
42	Florida.....	8,372
43	Tennessee.....	8,294
44	Texas.....	8,261
45	Nevada.....	8,223
46	North Carolina.....	8,200
47	Mississippi.....	8,164
48	Arizona.....	7,559
49	Oklahoma.....	7,466
50	Idaho.....	6,659
51	Utah.....	6,206

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.

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
5	Connecticut.....	16,274
6	Vermont.....	16,040
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	Pennsylvania.....	13,340
14	Maine.....	12,189
15	Hawaii.....	12,054
16	Illinois.....	12,015
17	North Dakota.....	11,679
18	West Virginia.....	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

State	1992-2012 Student growth
Indiana	3.7%
Alabama	2.2%
Hawaii	0.9%
Iowa	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 Virginia	-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.

21	New Mexico	45,727	127.71%
22	Utah	45,695	127.32%
23	Idaho	44,465	126.53%
24	Wisconsin	53,679	126.38%
25	Hawaii	56,291	126.28%
26	Mississippi	42,187	126.13%
27	Vermont	55,958	125.91%
28	Arizona	46,026	125.67%
29	New Jersey	68,238	124.22%
30	Maine	49,232	123.50%
31	Tennessee	47,742	121.97%
32	Louisiana	49,067	120.80%
33	Maryland	64,546	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	Washington	52,969	112.57%
43	Kansas	48,221	111.16%
44	Nebraska	49,539	107.90%
45	Wyoming	56,583	107.84%
46	Oklahoma	44,549	107.61%
47	Colorado	49,615	107.13%

AZ #28 in indexed teacher pay

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>

^x NEA for 2014 Average Teacher Salary, BEA for 2012 Per Capita Personal Income