


Arizona State Funding Project: Addressing the Teacher Labor Market Challenge Executive Summary

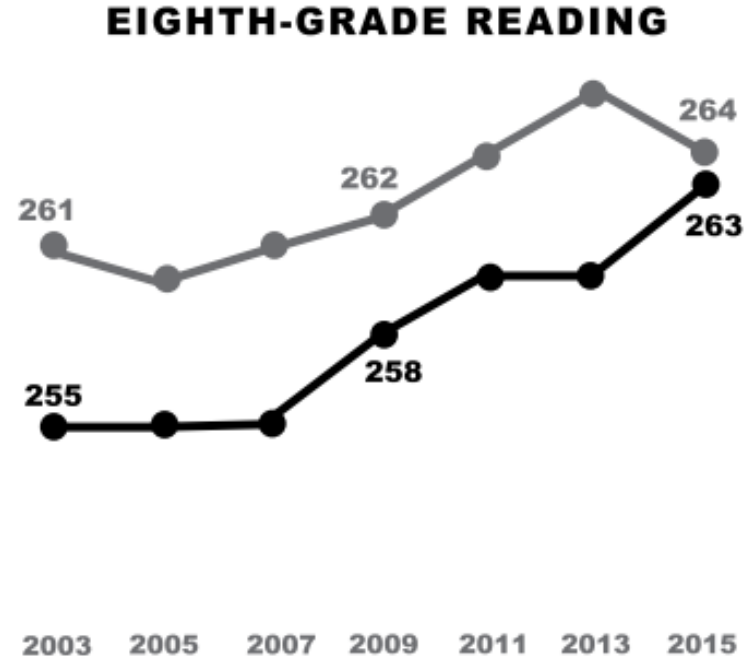
Research conducted by Education Resource Strategies 

Key findings

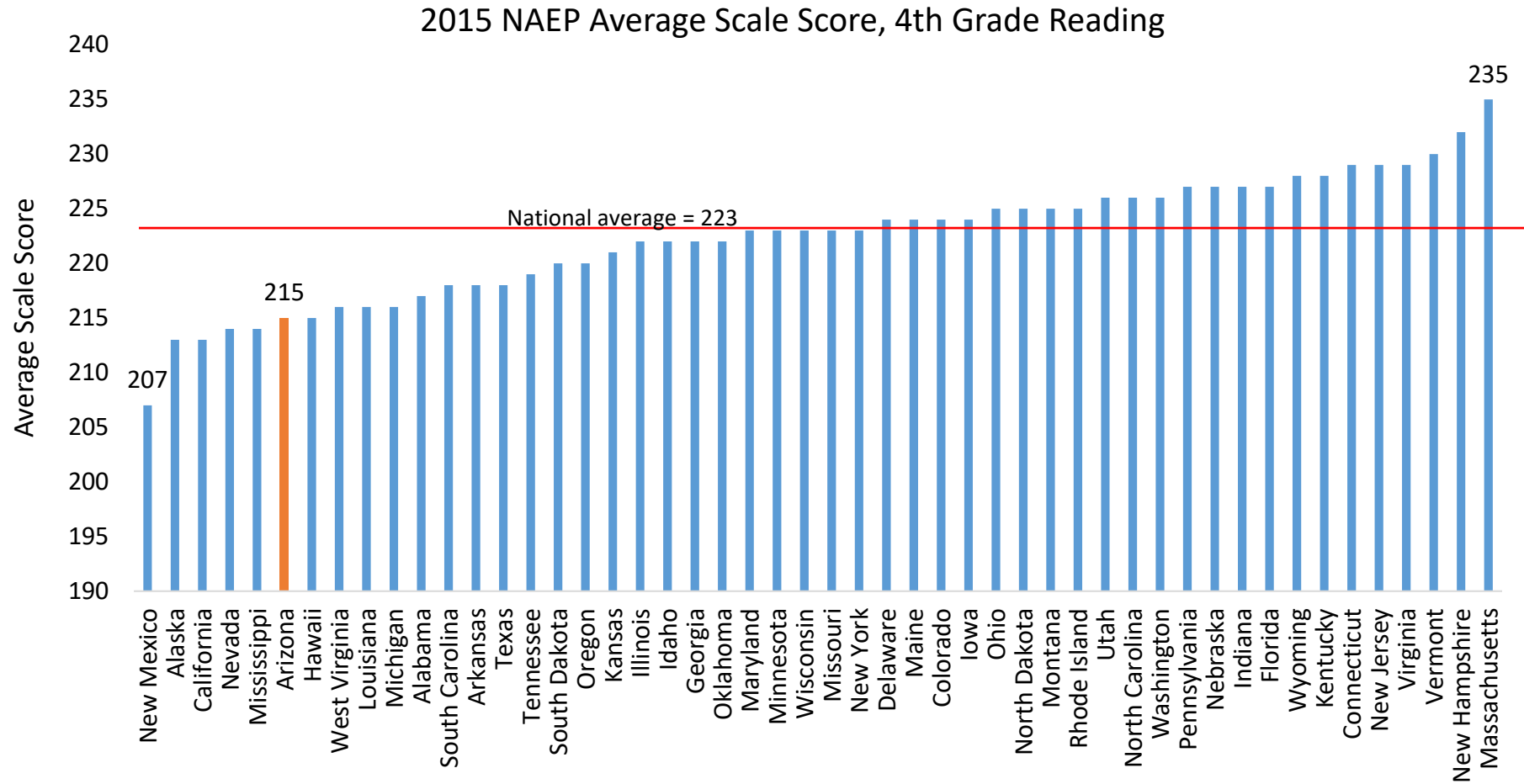
1. Student outcomes in Arizona lag behind the rest of the nation.
2. Arizona struggles to attract and retain a strong and effective teacher workforce.
3. Low teacher salaries are a primary challenge leading to this unhealthy teacher labor market.
4. Arizona per pupil funding and state commitment to K-12 funding is low and declining.
5. Addressing the teacher workforce challenge will require new and strategic investments.
6. Arizona districts may have some limited opportunities to shift current spending, but the state will need to generate additional revenue for teacher salary investments.

Student outcomes in Arizona lag behind the rest of the nation

Arizona students have made some recent gains on the NAEP assessment in reading

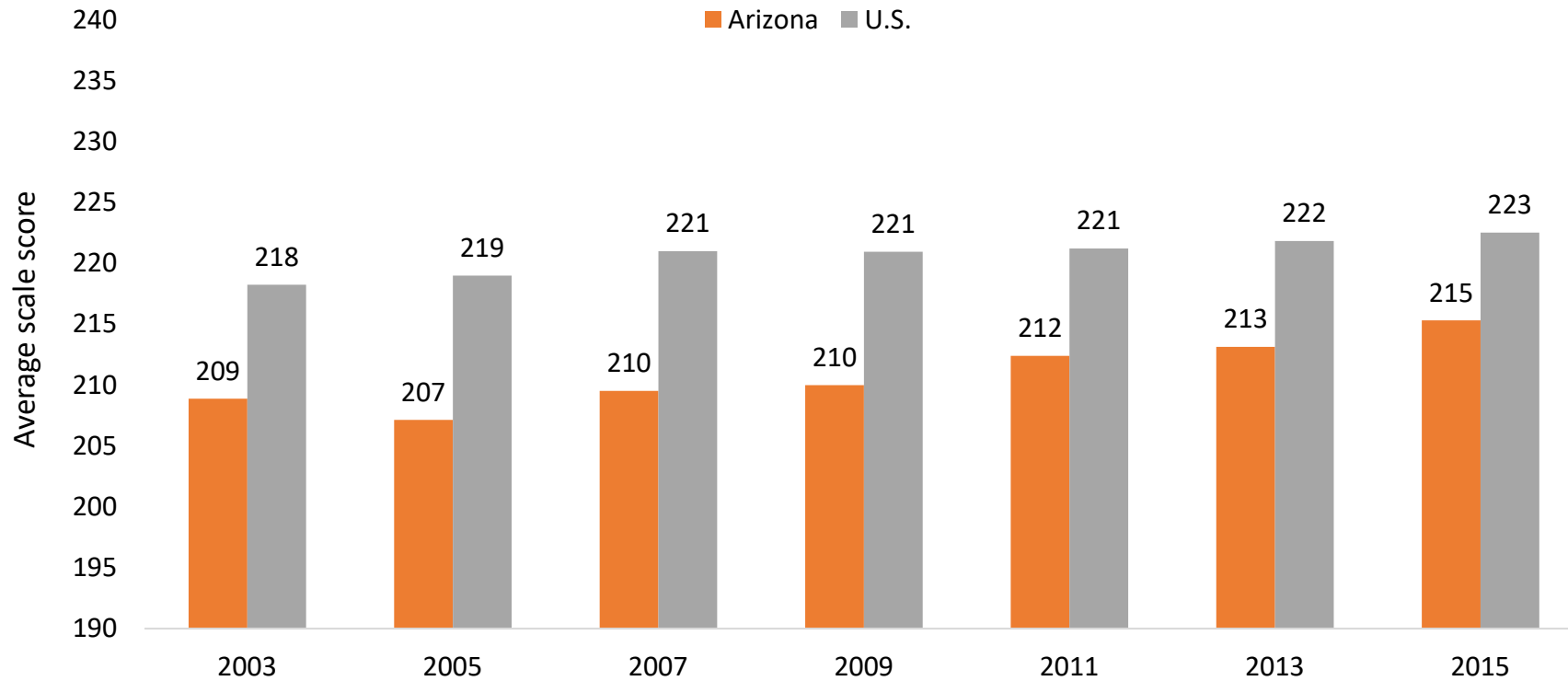


But overall Arizona performance remains at the bottom end of all states on the recent NAEP assessment



...where it has been for over a decade

2015 NAEP Average Scale Score, 4th Grade Reading, Arizona vs. U.S., 2003-2015



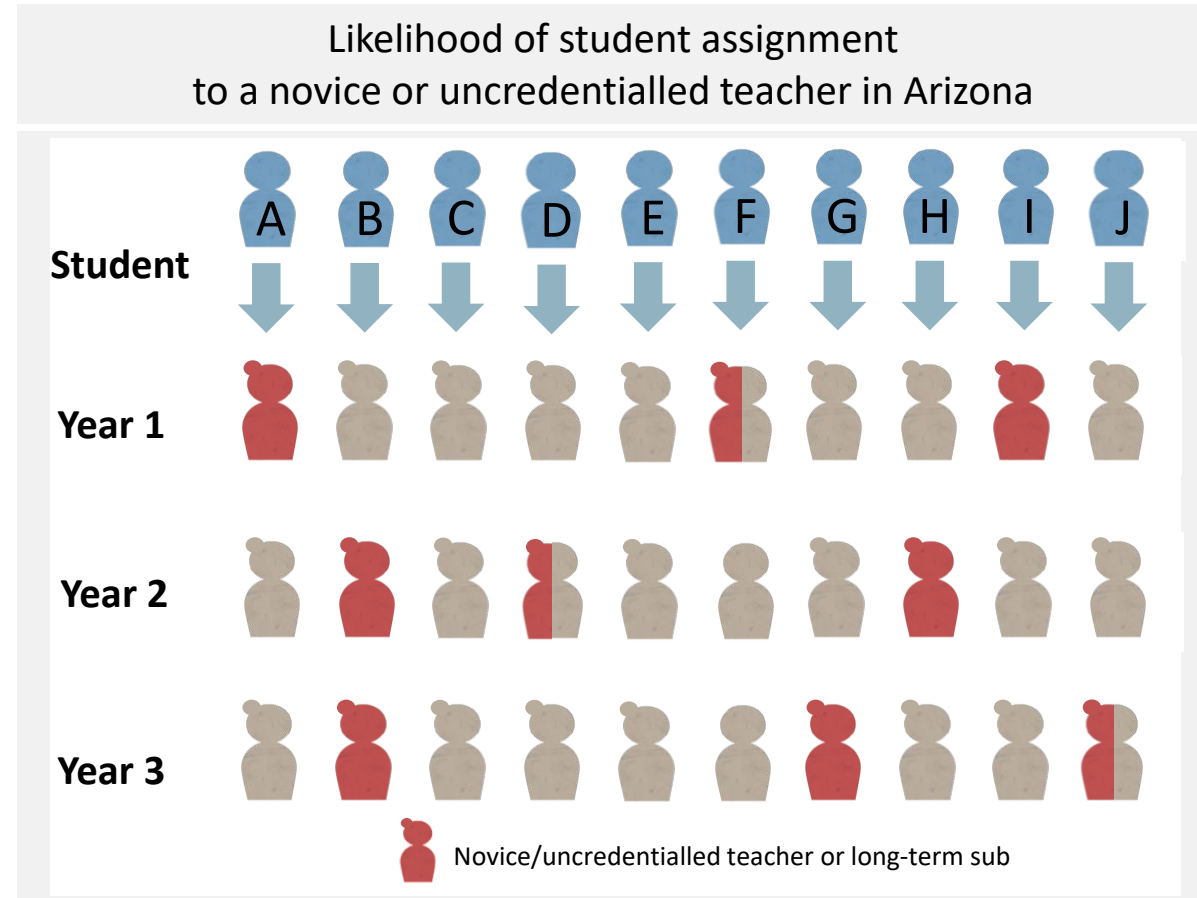
Arizona NAEP 4 th grade reading rank	2003	2005	2007	2009	2011	2013	2015
	43/50	47/50	47/50	47/50	45/50	45/50	44/50

Arizona struggles to attract and retain a strong and effective teacher workforce

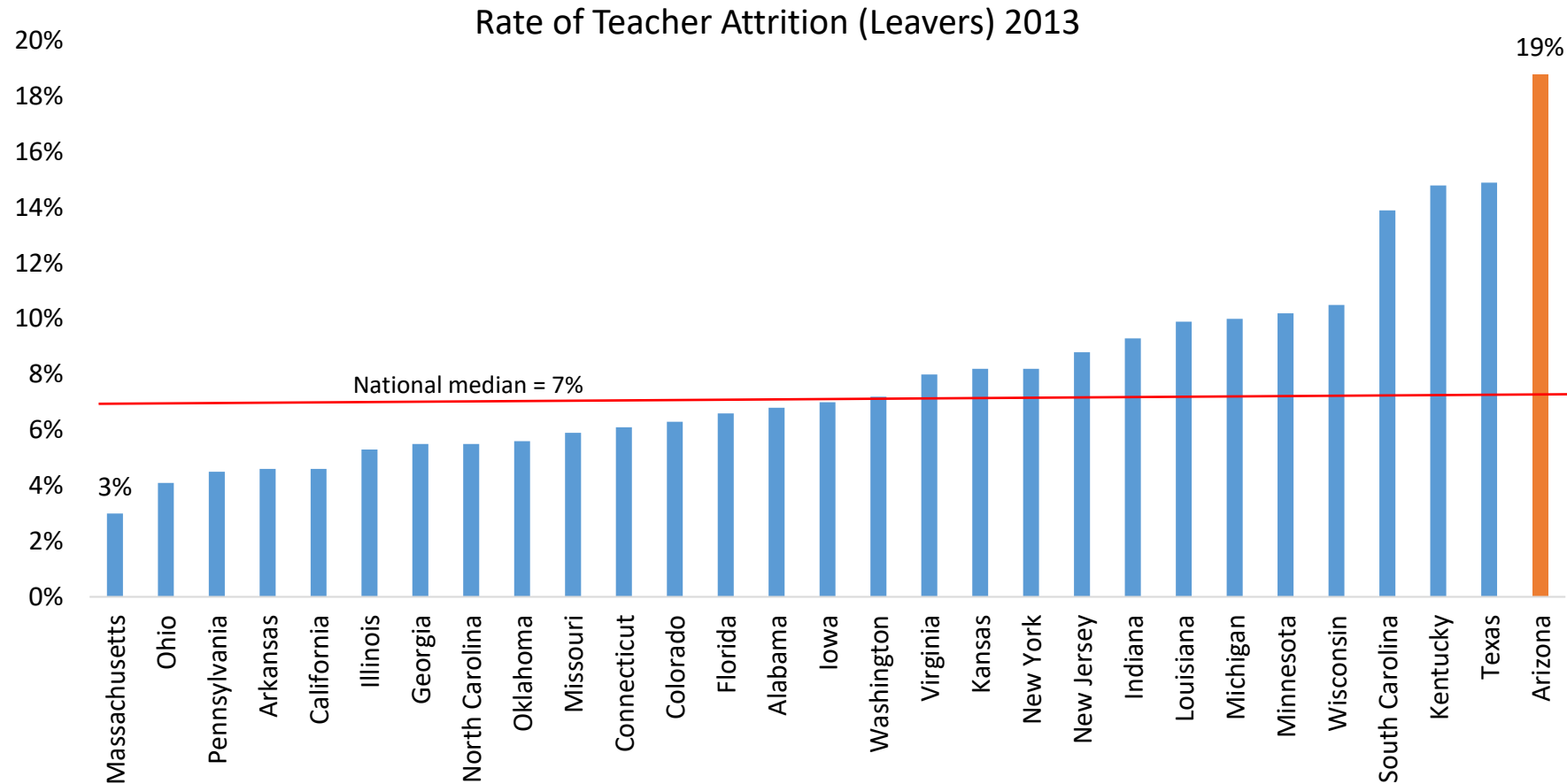
However, as a result of high turnover and attrition, Arizona students are unlikely to have a highly effective teacher three years in a row

Research shows that **teachers become more effective** in producing **student achievement gains after the first two years of teaching**, with continued increases in gains as experience increases.

Additionally, research shows that **teachers without certification** are **significantly less likely** to produce gains in student achievement.

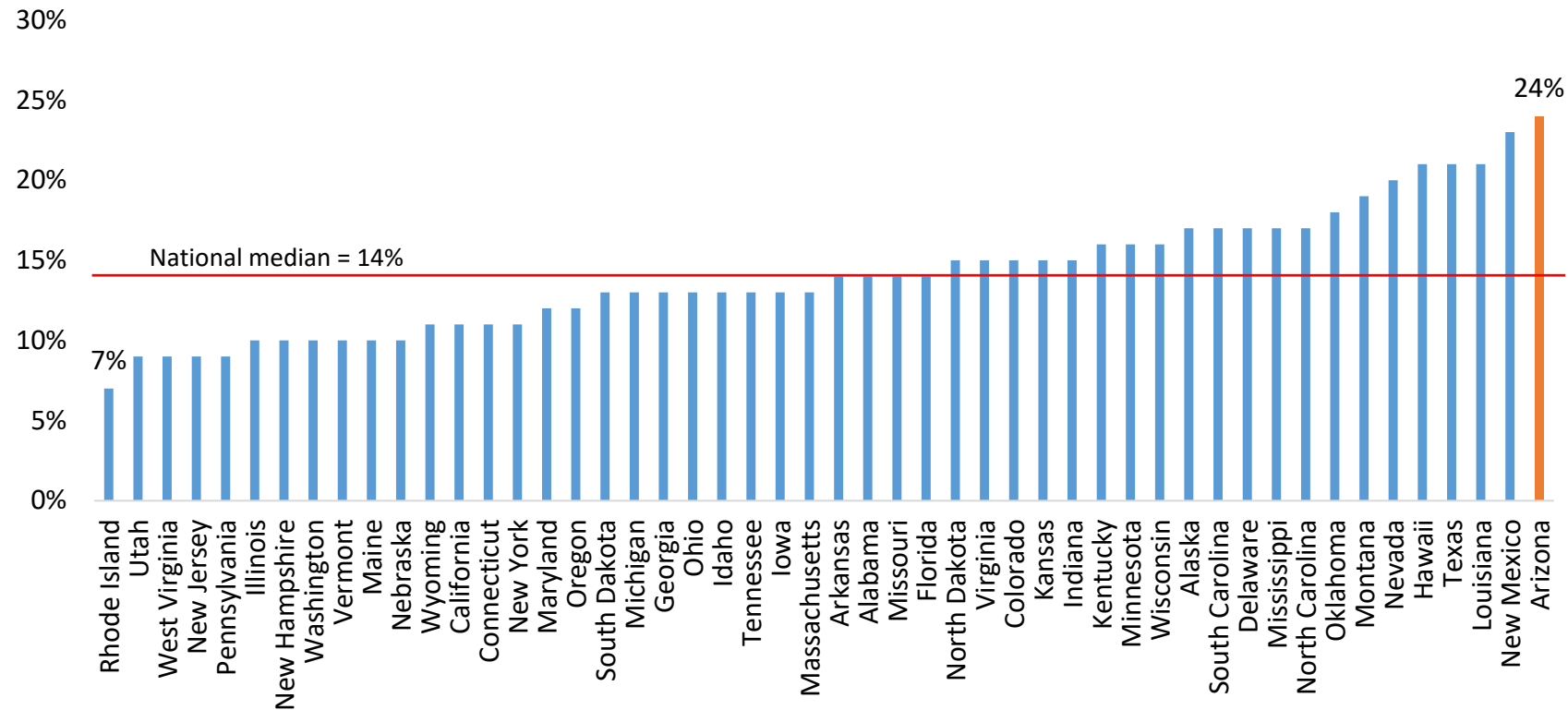


Arizona teachers leave the teaching profession at the highest rate in the country, nearly 3x higher than the national median



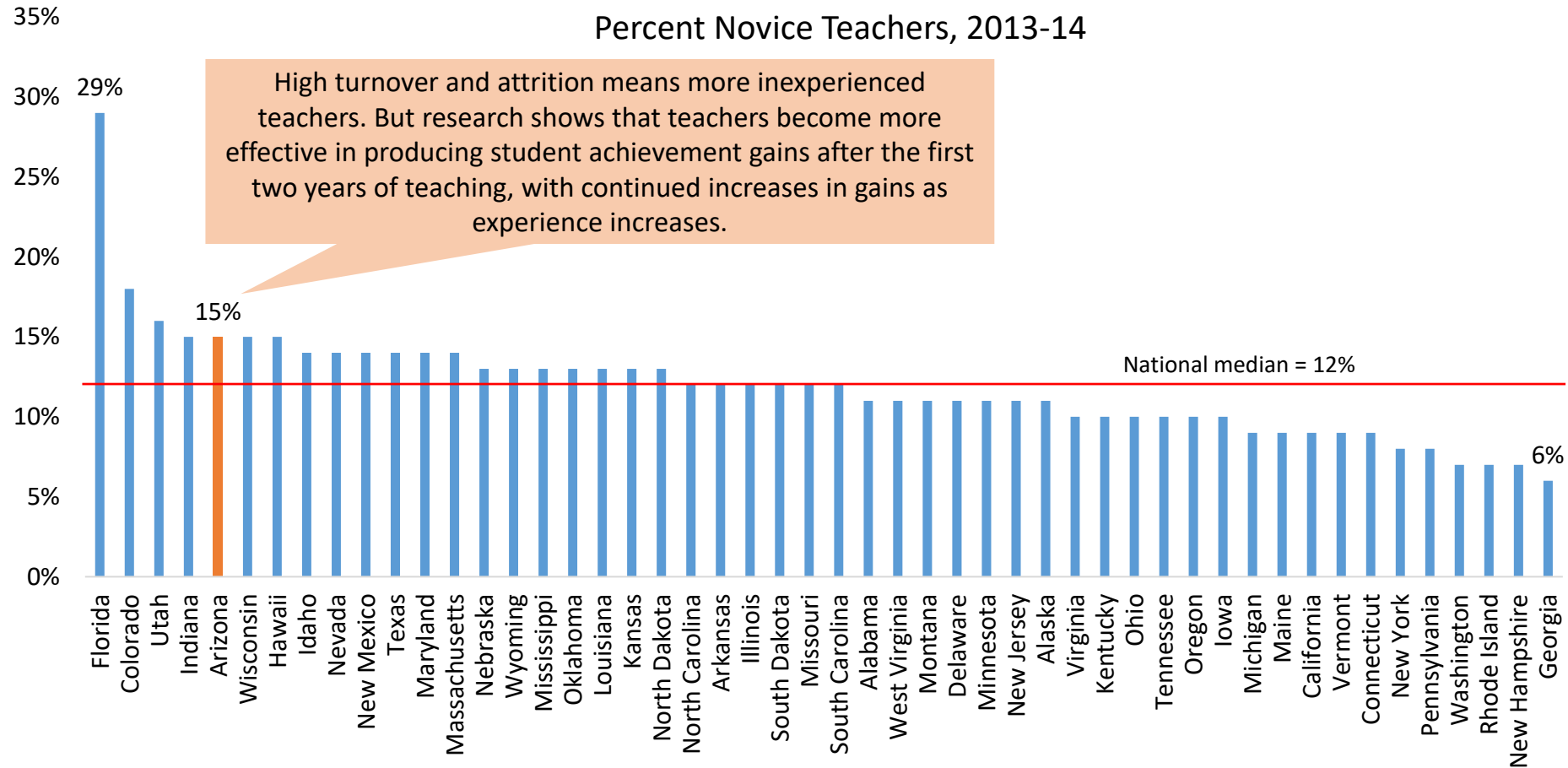
Considering all teachers who leave their schools, AZ has the highest turnover in the U.S., with close to a quarter of teachers leaving their schools annually, nearly double the national median of 14%

Rate of Teacher Turnover (Movers & Leavers) 2013



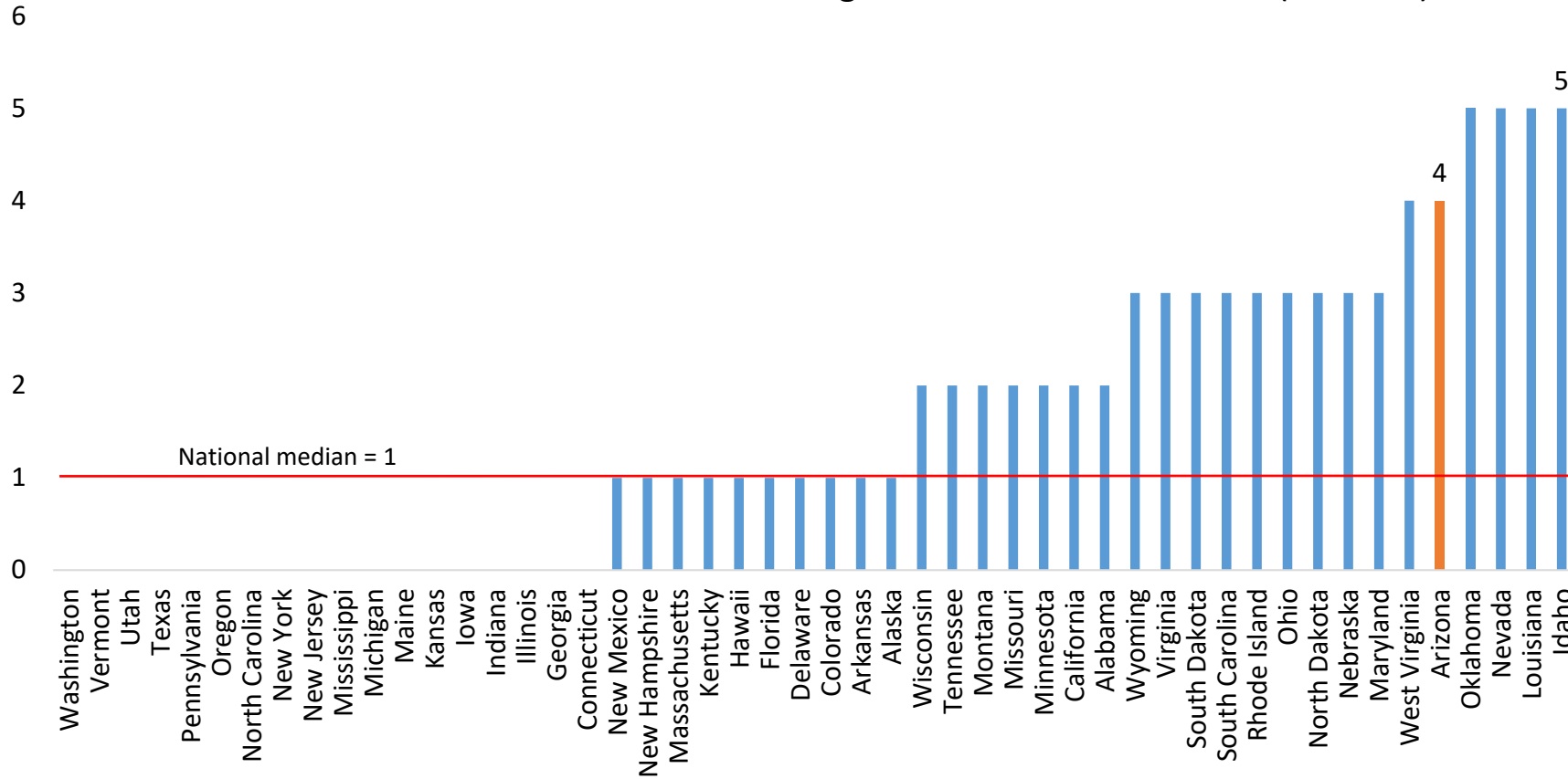
Data from the Arizona Department of Education shows that since 2013, 42% of Arizona teachers left within 3 years of being hired. 22% of the teachers hired from 2013-2015 lasted only one year.

Arizona is in the bottom five of all states for percent of teachers within their first two years in the classroom



High turnover and attrition in Arizona contributes to the impact of the ongoing (national) teacher shortage

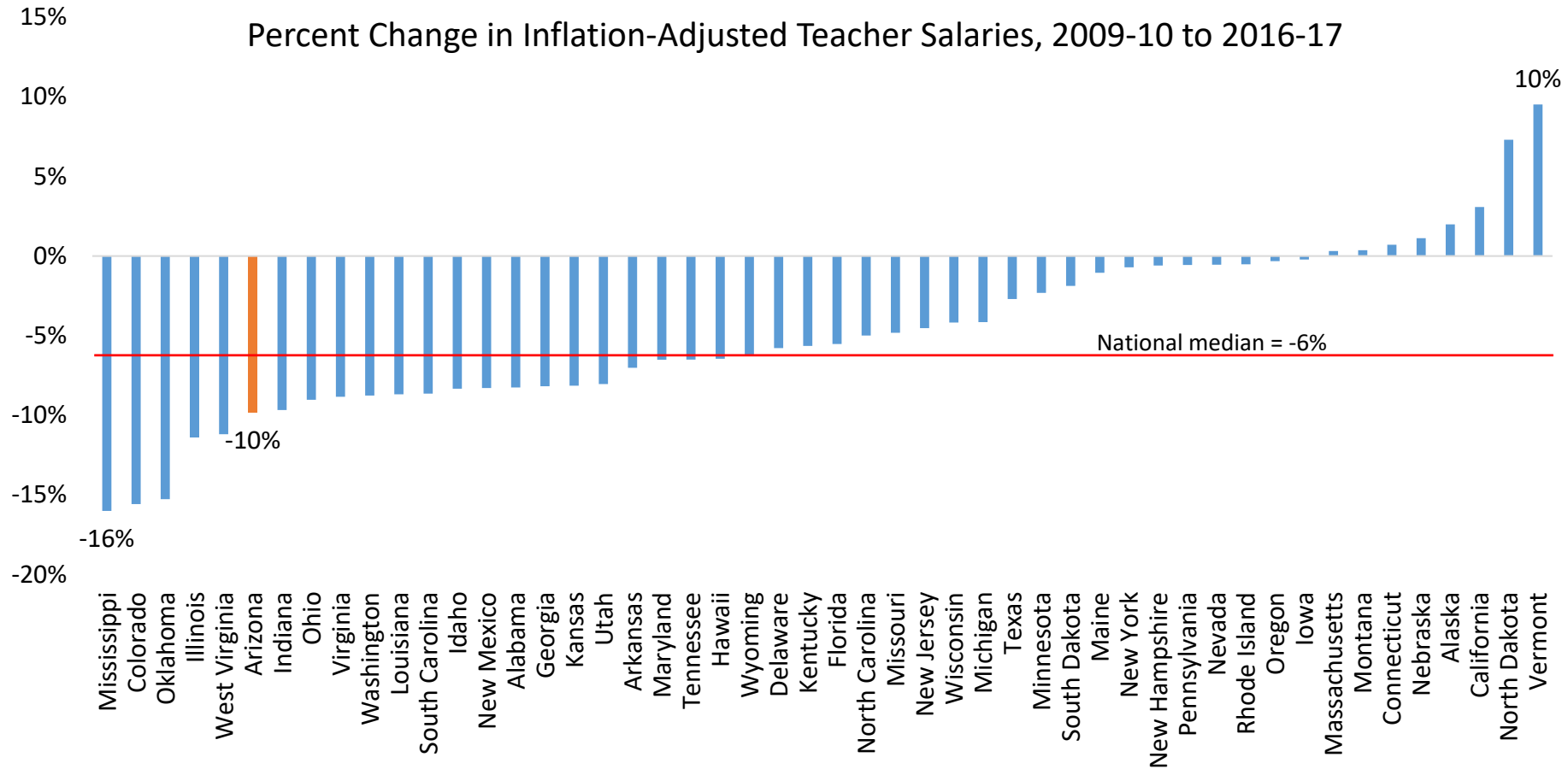
Count of Statewide Teacher Shortages in Easiest to Staff Areas (2017-18)



Arizona reports more teacher shortages in “easy to staff areas” than all but four states. In a recent survey, 81% of administrators reported difficulty hiring new teachers.

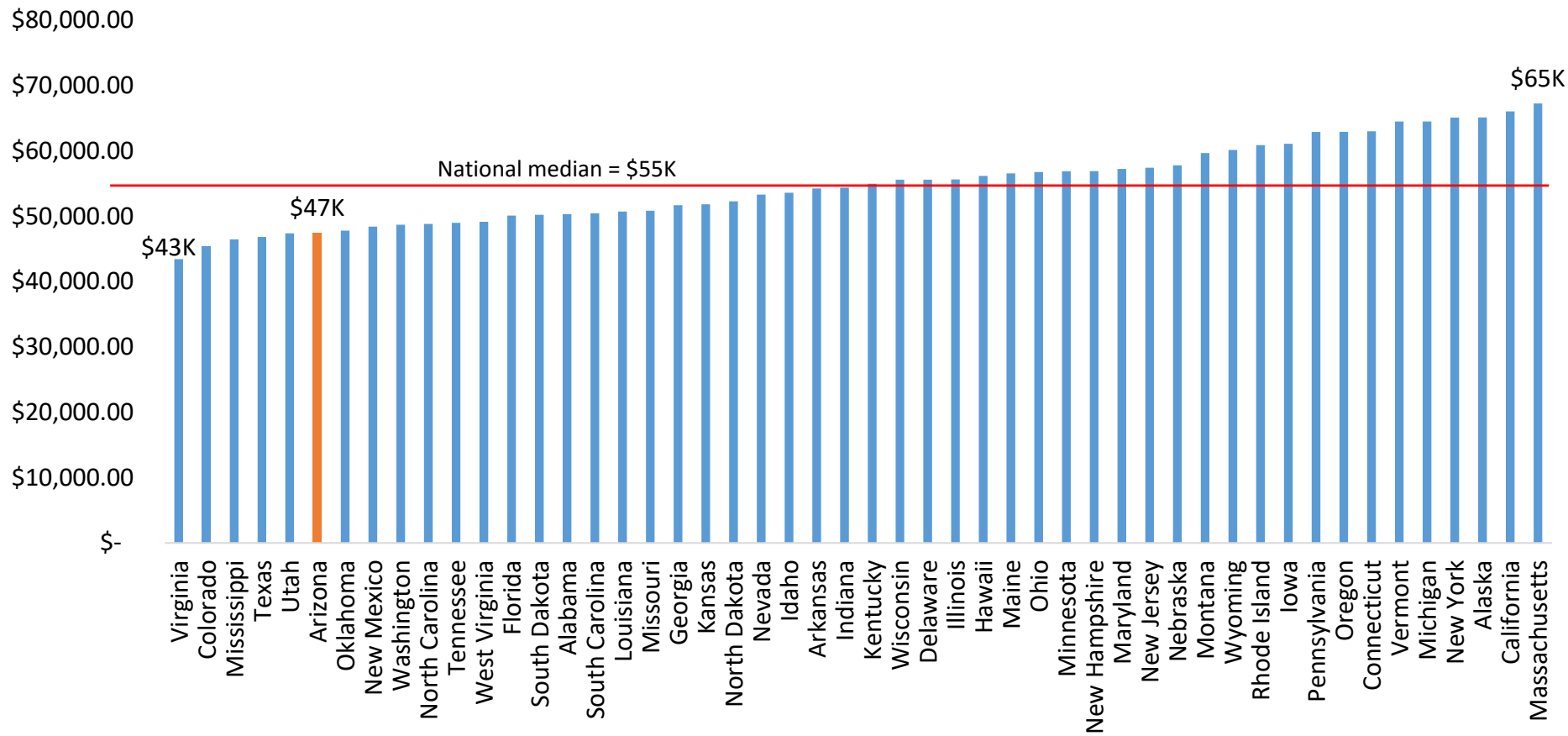
Low teacher salaries are a primary challenge leading to this unhealthy teacher labor market

Just since the 2008 recession, real inflation-adjusted teacher salaries in Arizona have declined 10%, more than in all but 5 states



Reaching the point where Arizona now has the sixth-lowest teacher salary in the U.S.

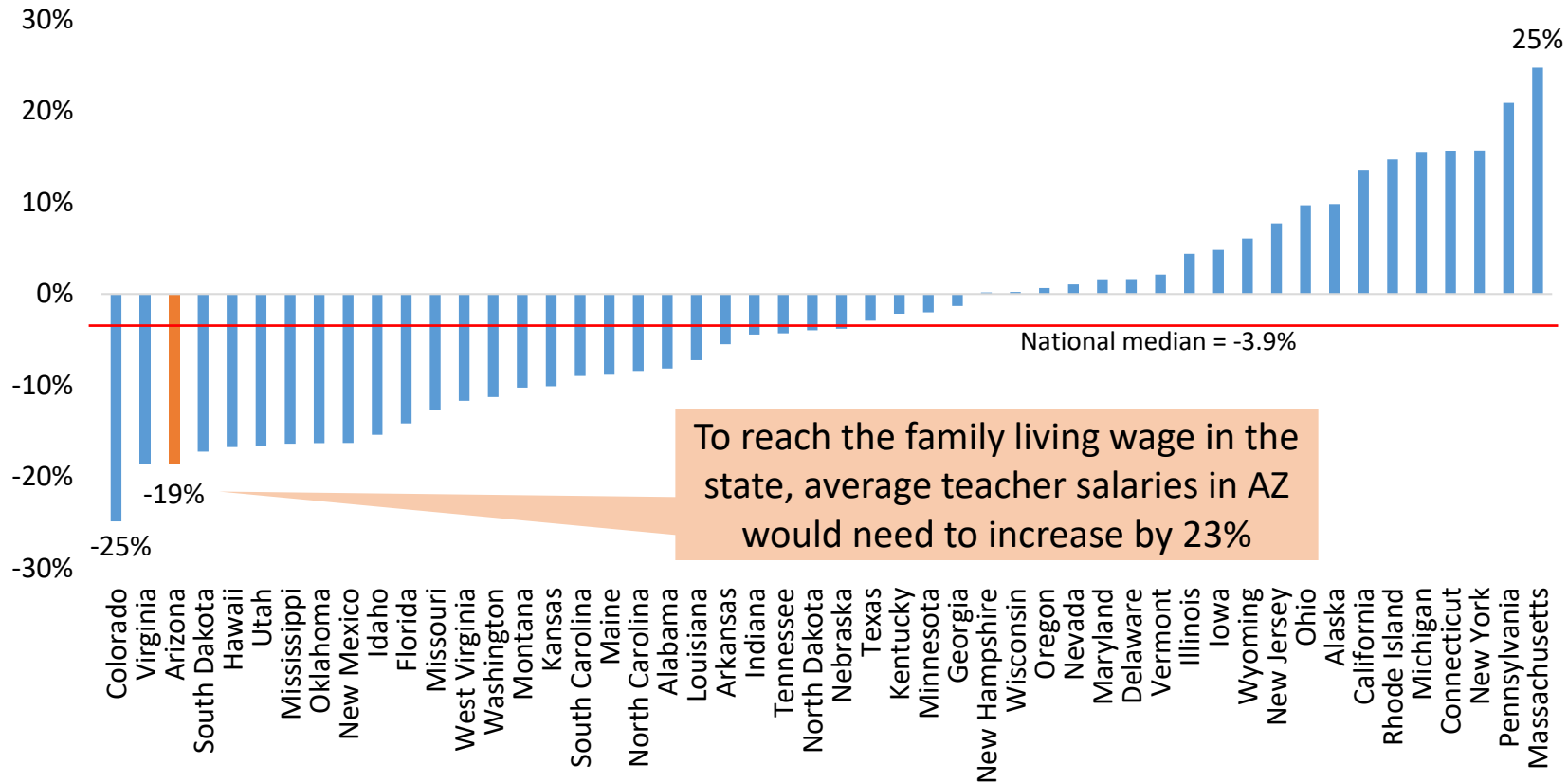
Average Teacher Salary, 2016-17, Adjusted for Geography



In a recent survey, more than 80% of AZ teachers reported increased pay as the top way to attract new teachers, with a similar percentage reporting low pay as the main reason teachers leave the profession

The average teacher salary in Arizona is 19% less than what is required for a family living wage in the state, the third largest gap in the nation

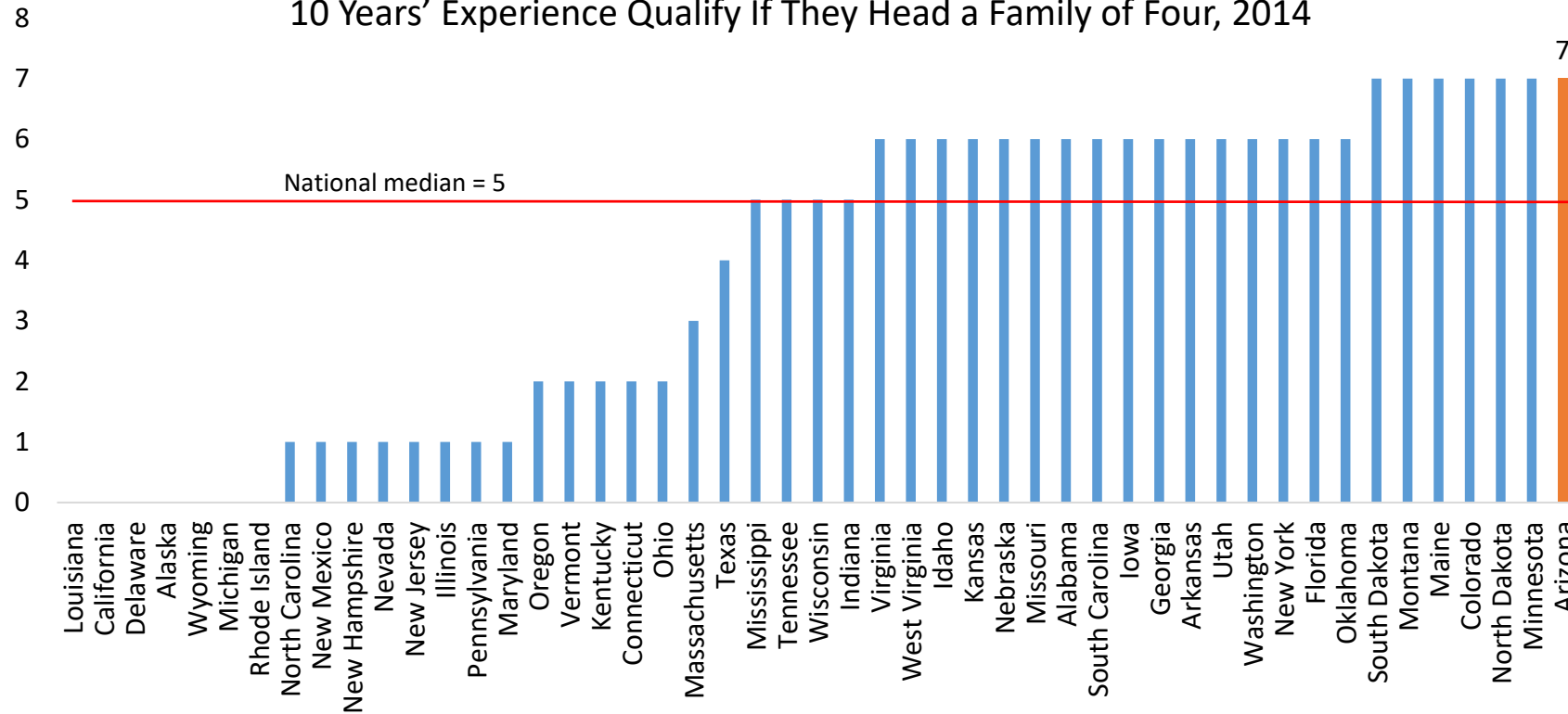
Gap From Average Teacher Salary to Family Living Wage, 2017



Based on the MIT Living Wage calculator, the family living wage is defined here as the minimum income needed to cover the basic needs and all relevant taxes for a family with one working adult, based on local costs.

Teachers in Arizona with 10 years of experience who head families of four qualify for the most public assistance programs of all states

The Number of Benefit Programs For Which Teachers With Bachelor's Plus 10 Years' Experience Qualify If They Head a Family of Four, 2014



If they head four-person households, more than half of teachers in Arizona would qualify for The Emergency Food Assistance Program (TEFAP).

Source: ERS analysis based on data from "Mid- and Late-Career Teachers Struggle With Paltry Incomes," Center for American Progress (July 2014); NCES Table 211.40 Average base salary for full-time public elementary and secondary school teachers with a master's degree as their highest degree, by years of full-time teaching experience and state: Selected years, 1993-94 through 2011-12; Arizona Department of Economic Security; Arizona Department of Education School District Employee Report. *Data not available for Hawaii; Analysis of TEFAP eligibility based on AZ DoE School District Employee Report of statewide distribution of teacher experience and uses average teacher salaries from 2011-12 (adjusted for inflation to 2016-17 dollars) for teachers with Master's degrees and experience ranges of ≤ 5 years, 6-10 years, and 11-20 years*

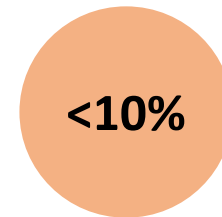
Arizona teachers cite pay as the main reason for leaving the profession in far greater rates than the national average

"The pay is extremely minimal, so much so that I can hardly afford living in a small apartment and paying my bills, including student loans."

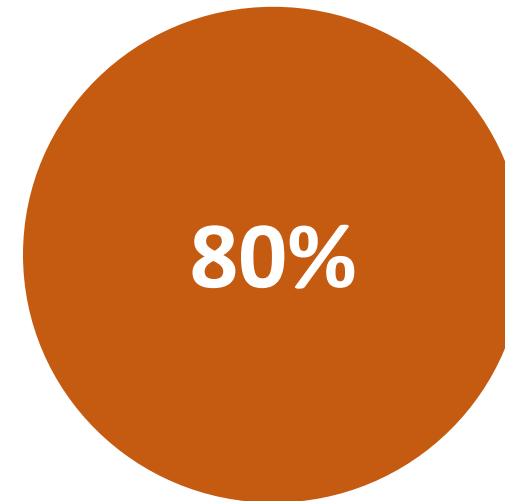
– Survey response from Tucson elementary school teacher

In a recent survey, more than 80% of Arizona teachers reported low pay as the main reason they leave the profession, with a similar percentage reporting increased pay as the top way to attract new teachers. In contrast, in a national survey, less than 10% of teachers who voluntarily left the profession cited salary or other benefits as their reason for leaving.

United States

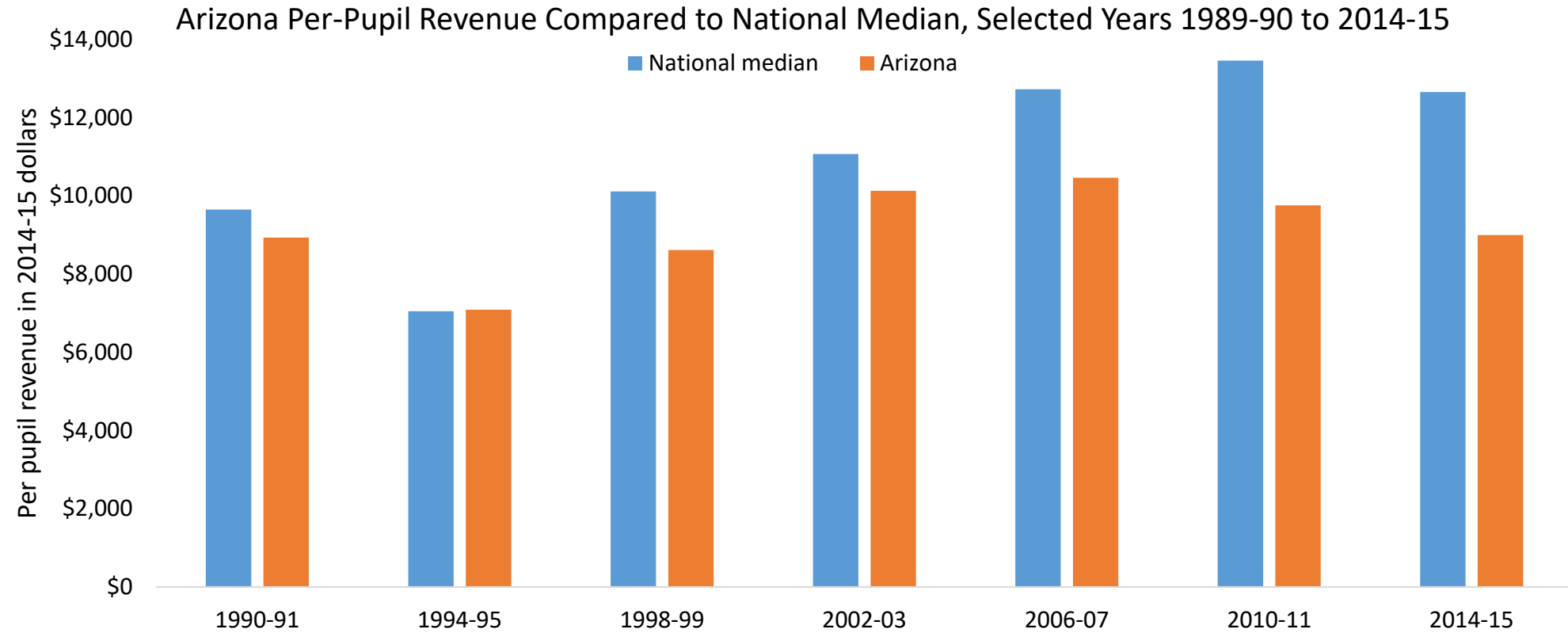


Arizona



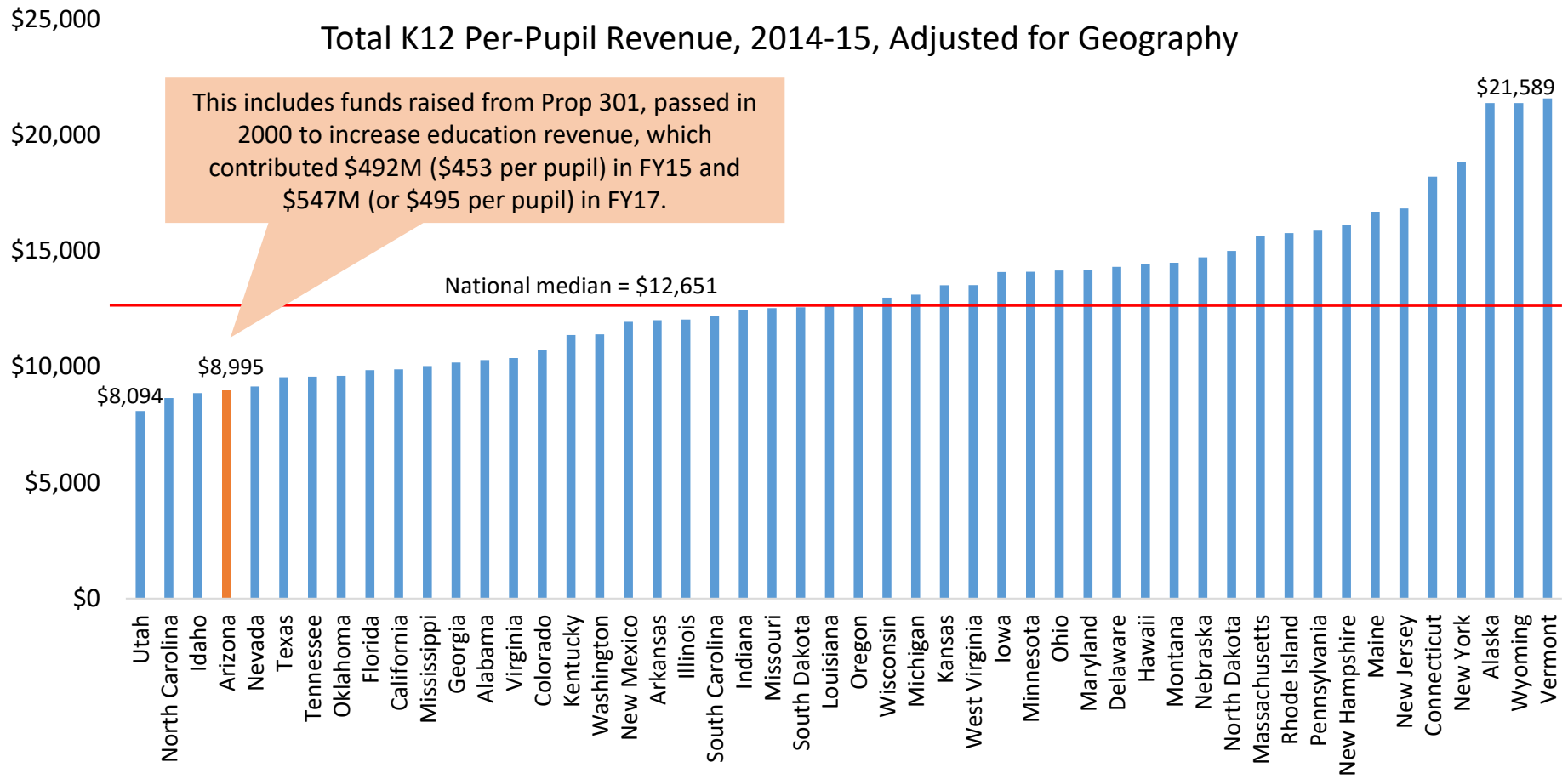
Arizona per pupil funding and state commitment to K-12 funding is low and declining

While Arizona per-pupil funding was once close to the national median, the gap has grown significantly in recent years

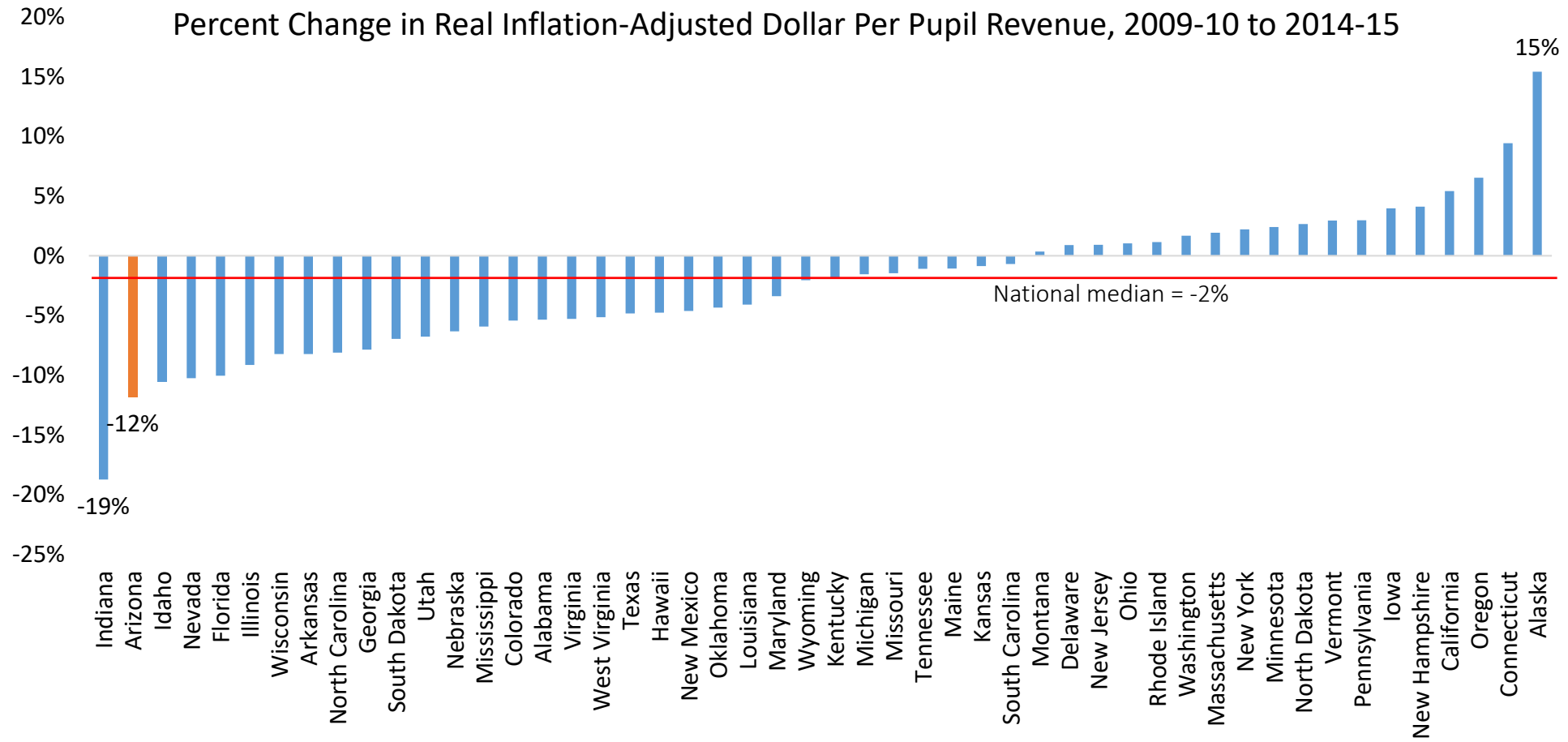


AZ funding rank	33/50	24/50	44/50	36/50	43/50	44/50	47/50
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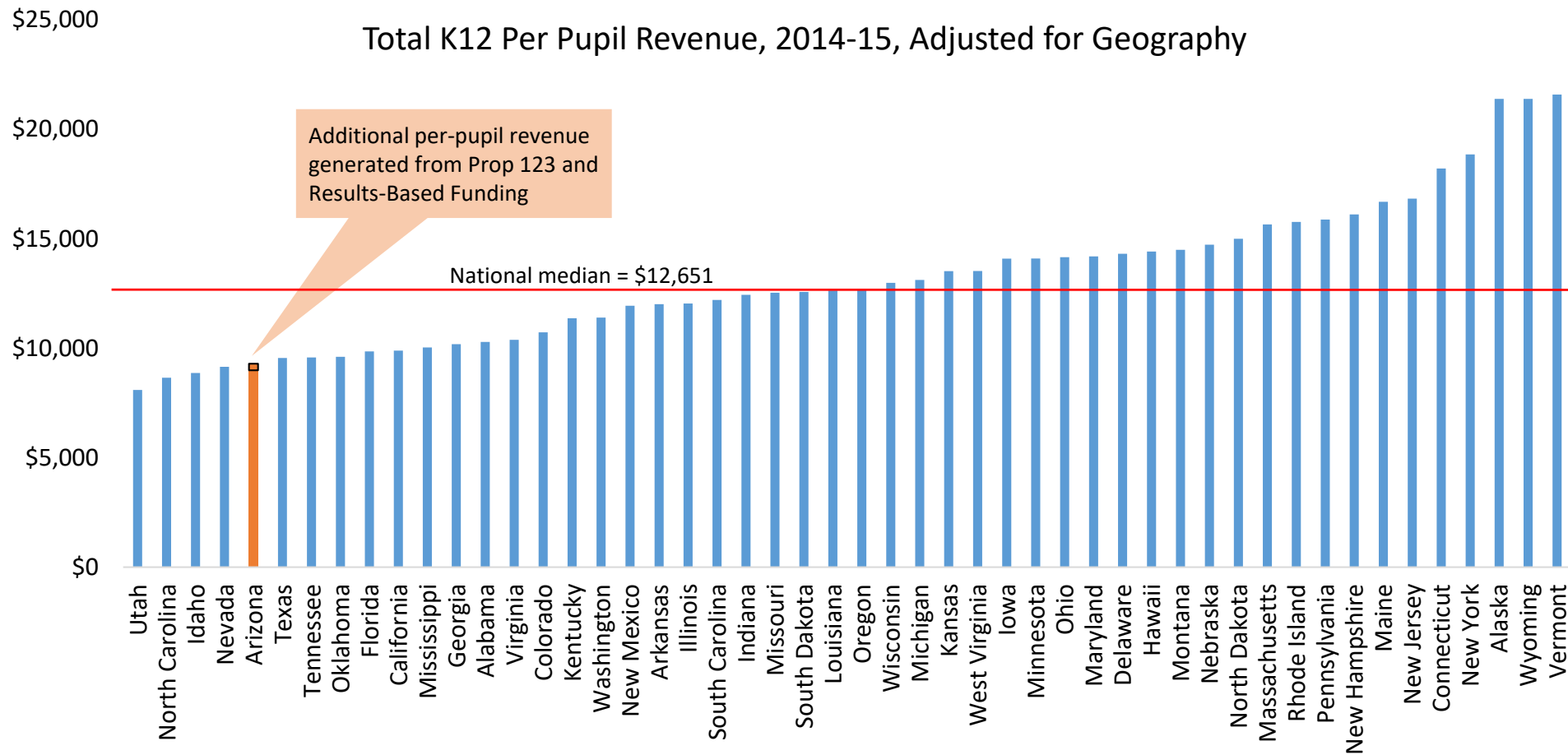
Arizona students are funded at 71% of the national median and only 42% of the highest funded state



Inflation-adjusted per-pupil funding in Arizona has actually declined 12% in recent years, more so than all but one state

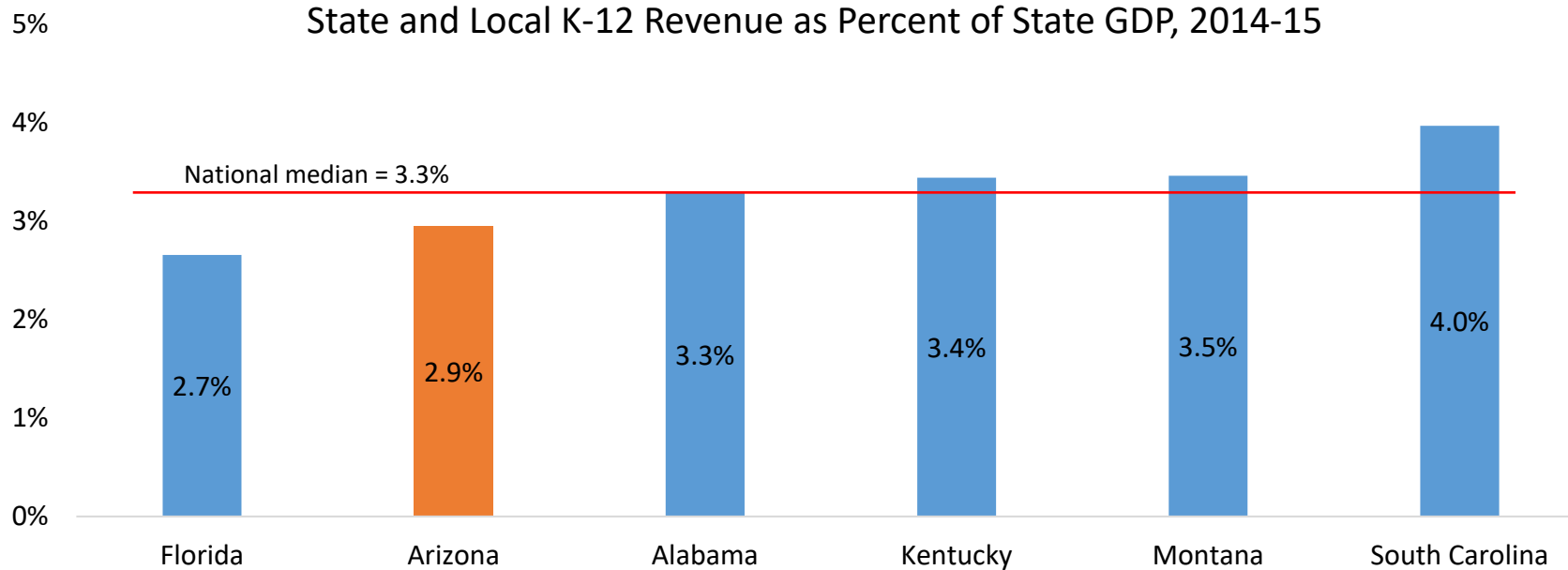


Prop 123 and Results-Based Funding together result in an additional \$330M annually, or \$298 per pupil, which still leaves Arizona investing less per pupil than most states



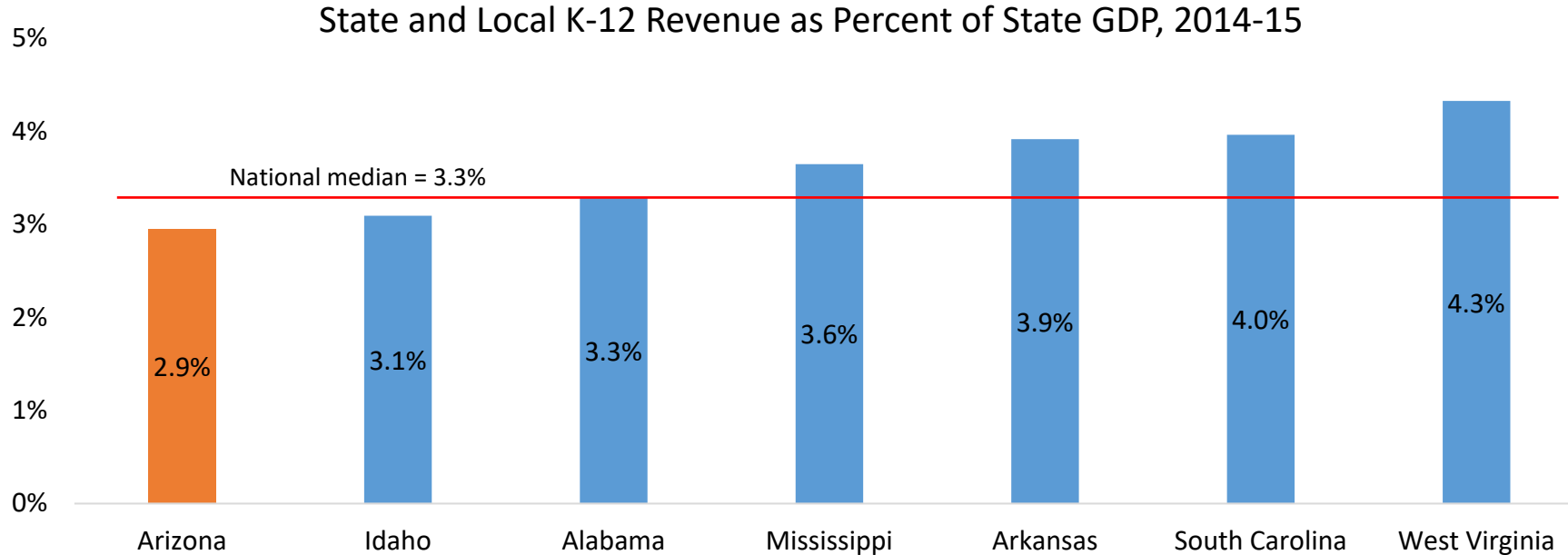
While some of this additional revenue has been targeted for teacher compensation, this amount isn't enough to address the labor market challenge.

State effort for K-12 in Arizona is low, even when compared with a group of conservative states with similar wealth



	Florida	Arizona	Alabama	Kentucky	Montana	South Carolina
Per-pupil revenue 2014-15 (adjusted for geography)	\$9,857	\$8,995	\$10,293	\$11,373	\$14,497	\$12,207
K-12 revenue per taxpayer 2014-15	\$2,451	\$2,975	\$3,214	\$3,454	\$3,181	\$3,704
Per capita GDP 2016	\$39,543	\$38,590	\$37,261	\$37,261	\$38,985	\$37,063
Change in per capita GDP 2009-2016	2.1%	2.0%	5.7%	7.5%	8.4%	6.1%

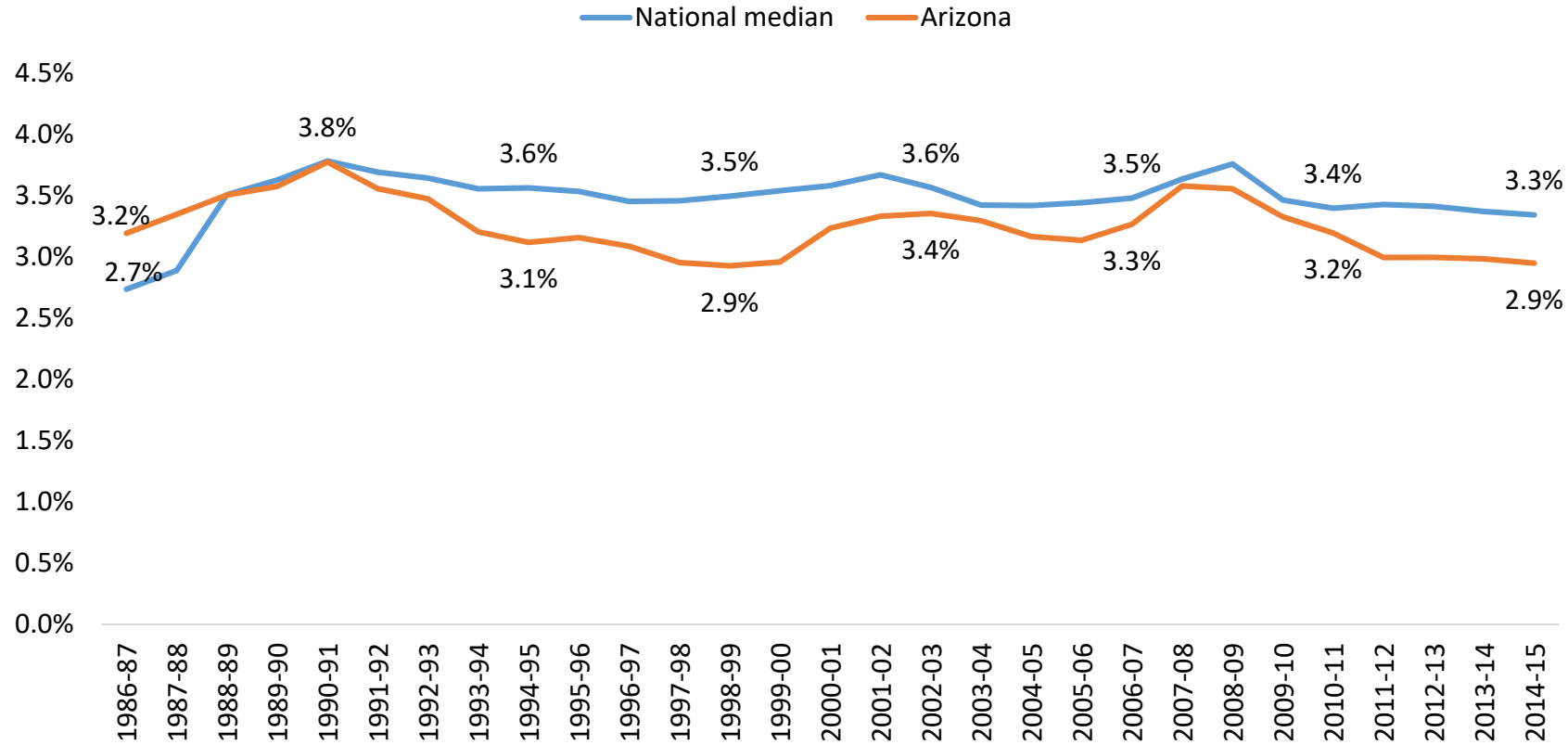
Every state that is poorer, invests more—and spends more of their GDP— on K-12 education



Per-pupil revenue 2014-15 (adjusted for geography)	\$8,995	\$8,870	\$10,293	\$10,036	\$12,015	\$12,207	\$13,531
K-12 revenue per taxpayer 2014-15	\$2,975	\$2,825	\$3,214	\$3,116	\$3,803	\$3,704	\$4,050
Per capita GDP 2016	\$38,590	\$35,466	\$37,261	\$31,881	\$36,368	\$37,063	\$36,315
Change in per capita GDP 2009-2016	2.0%	4.0%	5.7%	1.4%	7.9%	6.1%	4.9%

State commitment to education funding in Arizona has lagged the nation since 1990 and is at one of the lowest points of the last three decades

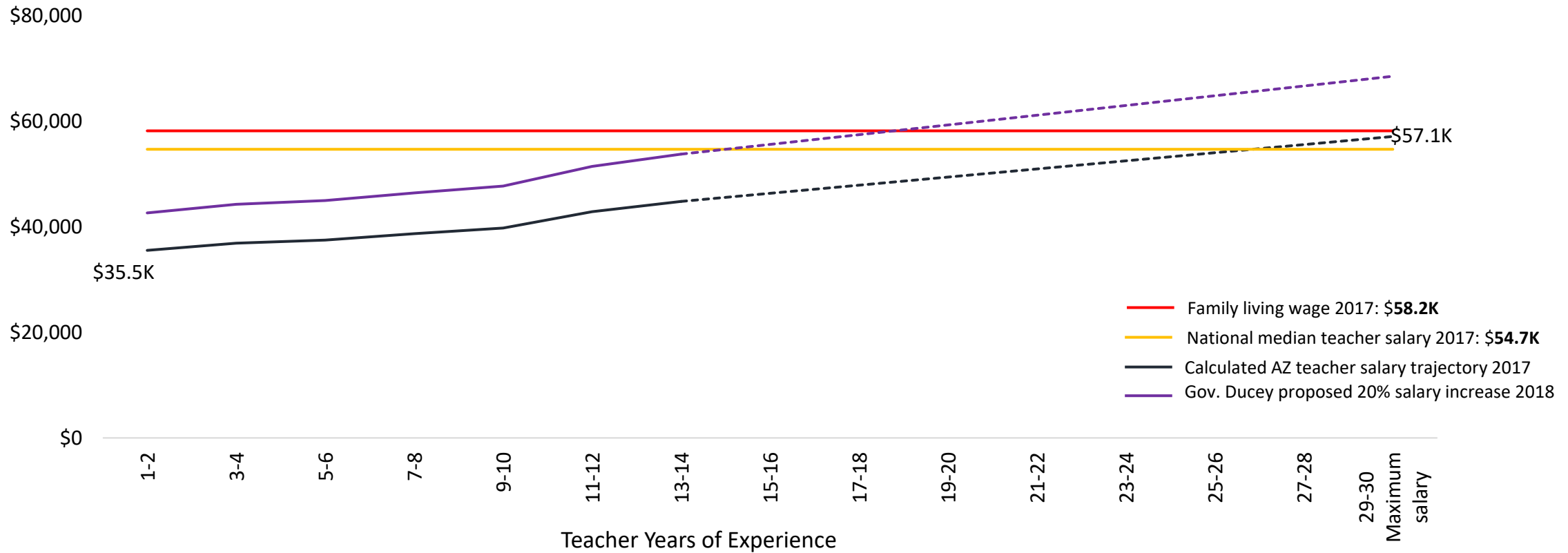
State and Local K-12 Revenue as Percent of State GDP, 1986-87 to 2014-15



Addressing the teacher workforce challenge will require new and strategic investments

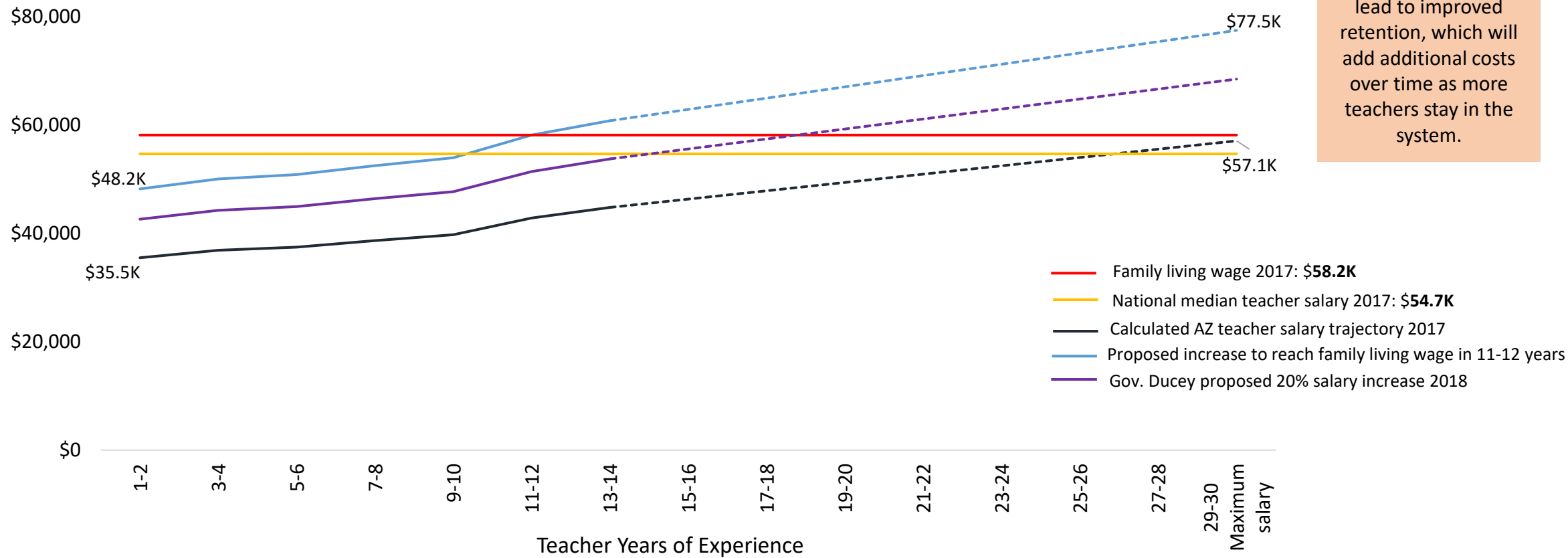
Currently, it takes the average Arizona teacher more than 25 years just to earn a family living wage

Calculated Average Teacher Salary by Years of Experience, 2016-17



Enabling teachers to reach the family living wage by mid-career would cost about \$900M-\$1.1B annually

Calculated Average Teacher Salary by Years of Experience, 2016-17



Improving compensation should lead to improved retention, which will add additional costs over time as more teachers stay in the system.

Source: ERS analysis based on NCES Schools and Staffing Survey Public Teachers and District Data Files 2011-12; Arizona Department of Education Teacher Experience Report FY17; Superintendent Annual Financial Report FY17; Expect More Arizona Progress Meter; Bureau of Labor Statistics Inflation Index; MIT Living Wage Calculator; US Census Bureau; Pew Research Center. *This analysis uses average salaries based on teacher experience from 2011-12, adjusted for inflation to 2016-17 dollars. Due to data availability, salary data beyond year 14 is estimated based on the reported 15+ year average and reported maximum salary. Total investment based on 2016-17 teacher FTE for both district and charter; includes estimated teacher salary investment of ~\$745M-\$893M and benefits investment of ~\$149M-\$179M (assumes 20% benefits rate excluding fixed costs of health, dental, and life insurance, based on data from Arizona School Boards Association)*

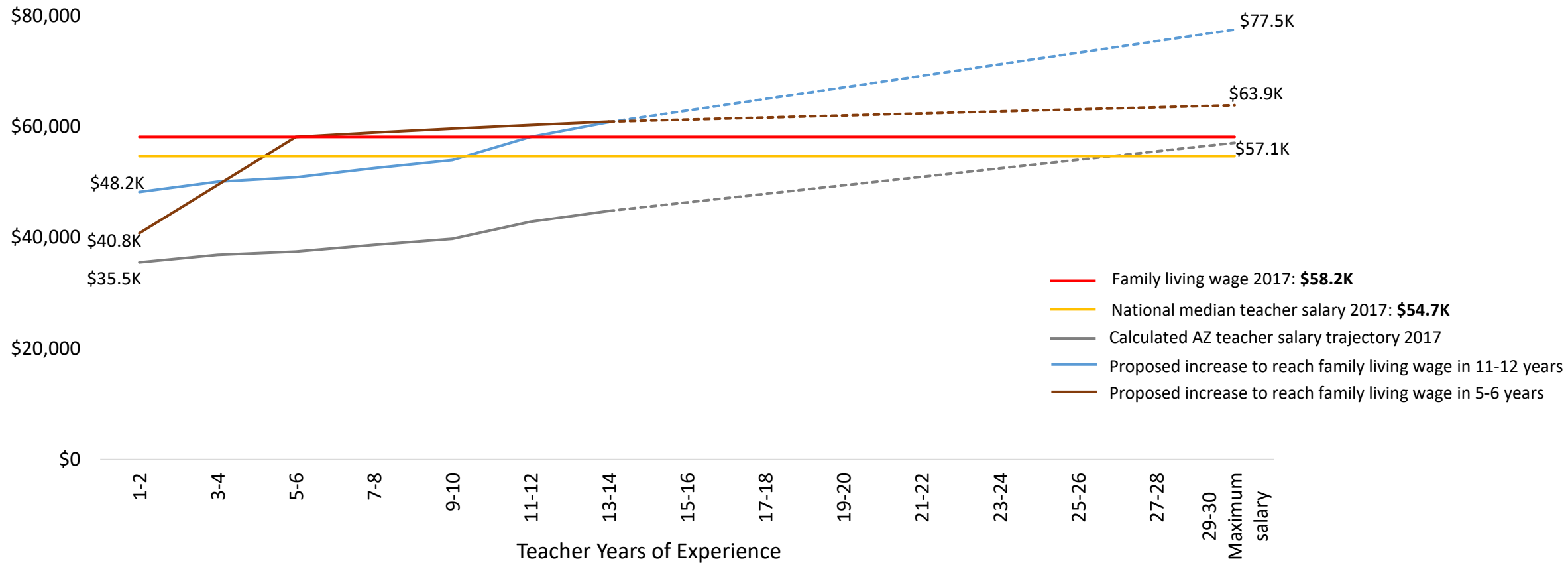
But Arizona cannot afford to funnel so many resources into an outdated system that does not attract and retain the best teachers or incentivize teachers to improve and contribute

Goals and Principles of a Strategic Teacher Compensation System

THE WHY A teacher compensation system should support the district's efforts to...	THE WHAT To accomplish this goal, the compensation system must ensure that...
COMPENSATION GOAL	COMPENSATION PRINCIPLE
Attract a high-potential teaching force.	The value proposition for new employees is clear, competitive, and differentiated based on needed knowledge and skills, and is carefully reviewed and improved on an ongoing basis.
Retain a high-performing teaching force and encourage low performers to leave the system.	Effective performers have predictable and greater career and compensation opportunities, while ineffective performers are not given automatic pay increases over time.
Leverage the highest performers for continuous improvement in district-wide student learning.	Strong performers based on clear criteria are given opportunities for expanded responsibilities and reach to contribute to student and teacher learning, while efforts are made to minimize the reach of the lowest performers.
Strategically align the teaching force in support of district priorities and performance goals.	The value proposition should reward behaviors that are aligned with district priorities. This includes incentives to attract educators to more challenging assignments or harder-to-staff subject areas as well as toward greater professional collaboration and innovation.
Compensate a high-performing teaching force in a fiscally sustainable way.	The value proposition is flexibly structured to reflect changing short- and long-term economic realities and emphasizes important nonmonetary factors.

Arizona districts could use that \$900M-\$1.1B investment to frontload pay raises to help teachers reach the family living wage sooner and minimize the high rates of attrition for new teachers

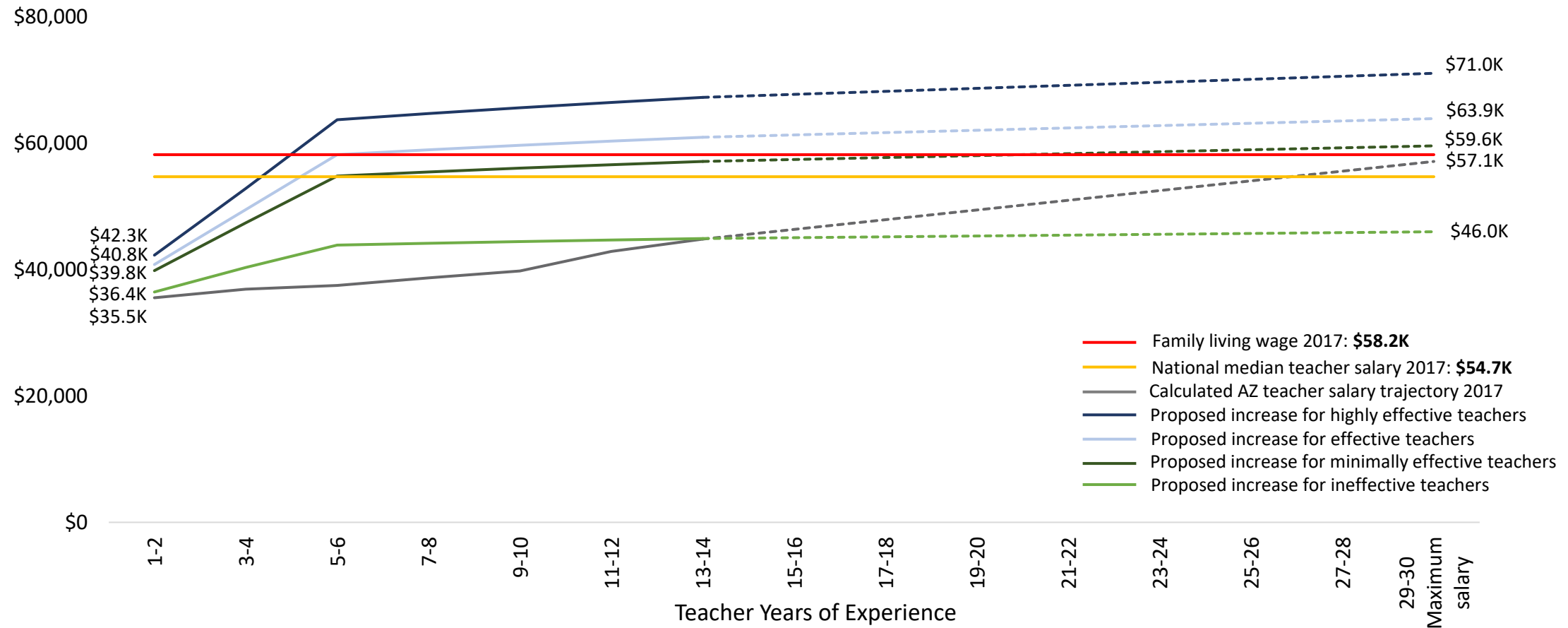
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Alternately, districts could use that \$900M-\$1.1B investment to differentiate salary based on contribution to improve recruitment and retention of the most effective teachers

Calculated Average Teacher Salary by Years of Experience, 2016-17

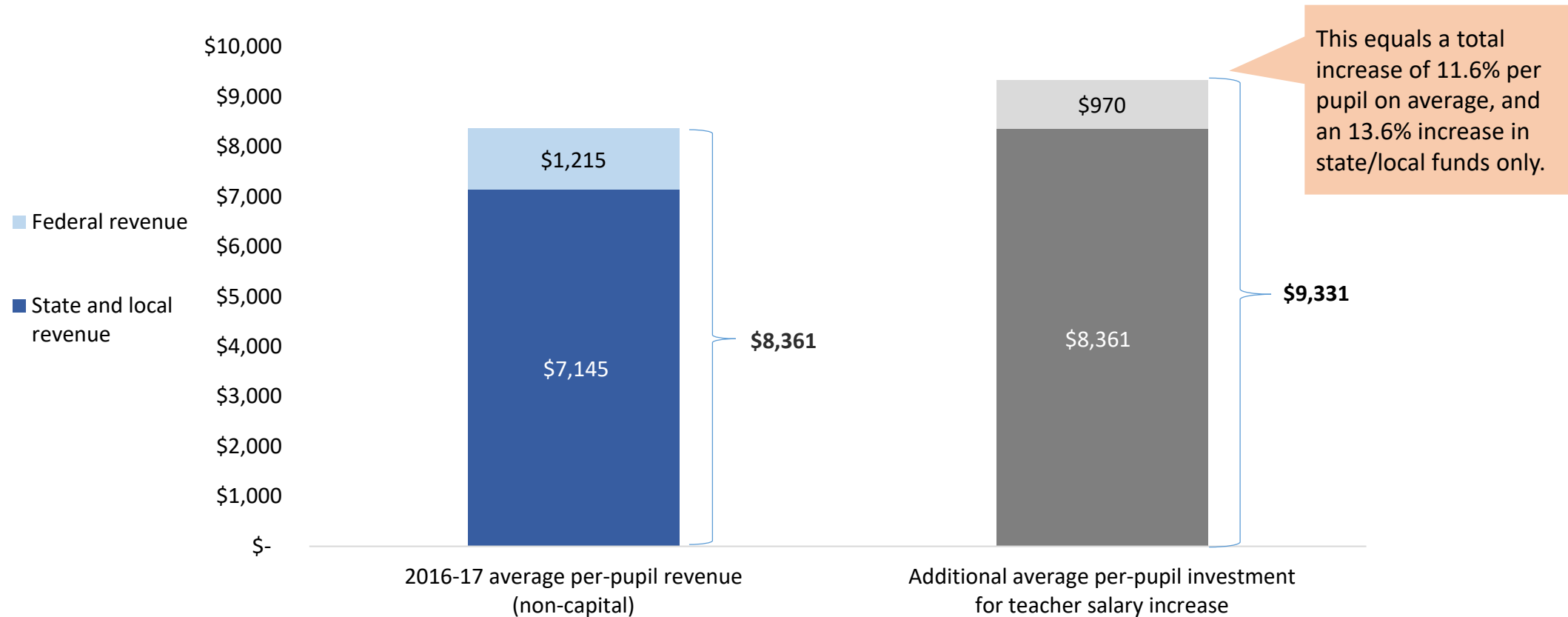


Source: ERS analysis based on NCES Schools and Staffing Survey, Public Teachers and District Data Files 2011-12; Arizona Department of Education Teacher Experience Report FY17; Superintendent Annual Financial Report FY17; Expect More Arizona Progress Meter; Education Sector Inside IMPACT: D.C.'s Model Teacher Evaluation System; Bureau of Labor Statistics Inflation Index; MIT Living Wage Calculator; US Census Bureau; Pew Research Center. *This analysis uses average salaries based on teacher experience from 2011-12, adjusted for inflation to 2016-17 dollars. Due to data availability, salary data beyond year 14 is estimated based on the reported 15+ year average and reported maximum salary. Due to lack of AZ effectiveness data, analysis uses effectiveness breakdown from DCPS (selected because of history of strong teacher evaluation system and aligned compensation model) of 2% ineffective, 16% minimally effective, 67% effective, and 15% highly effective. Total investment based on 2016-17 teacher FTE for both district and charter; includes estimated teacher salary investment of ~\$745M-\$893M and benefits investment of ~\$149M-\$179M (assumes 20% benefits rate excluding fixed costs of health, dental, and life insurance, based on data from Arizona School Boards Association)*

Arizona districts may have some limited opportunities to shift current spending, but the state will need to generate additional revenue for teacher salary investments

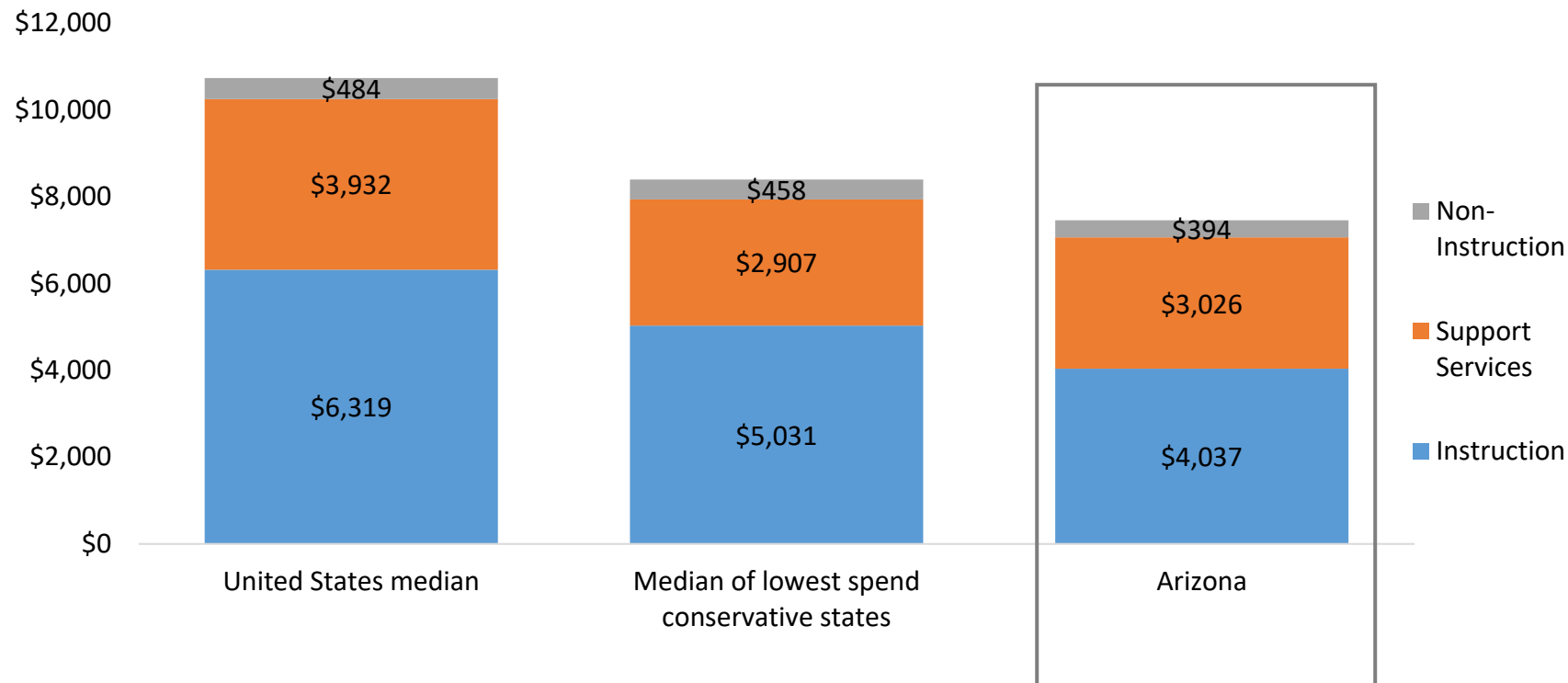
To effectively improve the teacher workforce, Arizona would need to invest about \$900M-\$1.1B annually, or ~\$970 per pupil

Estimated Average Per-Pupil Revenue Required for Teacher Salary Investment



Compared to the lowest-spend conservative states, Arizona districts spend slightly more on support services

Per-Pupil Expenditure by Use, 2013-14, Adjusted for Geography

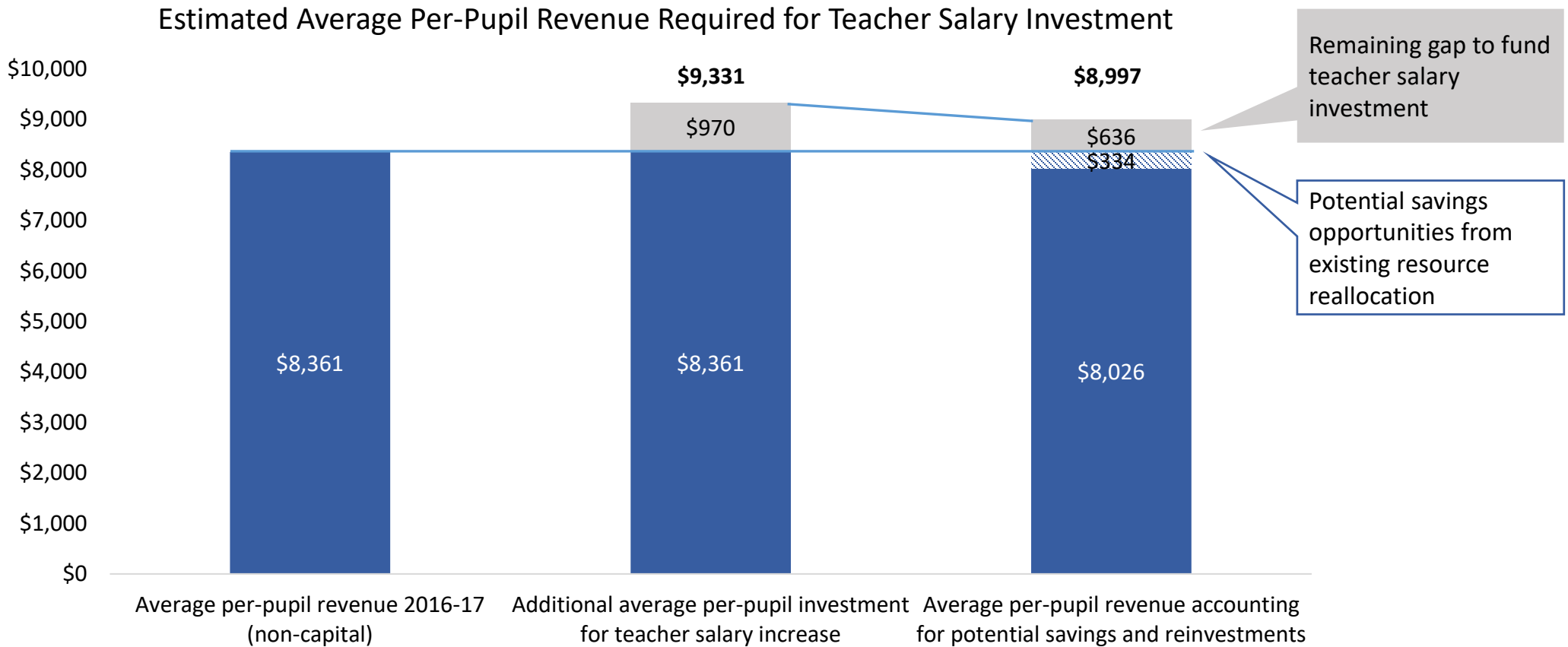


There may be an opportunity to reallocate some resources from student support and O&M to help fund this teacher salary investment

Compared to the median of the other lowest spend conservative states:

- Within student support services, Arizona spends an additional **0.8% per pupil on purchased services** and **0.8% per pupil for compensation** (due to low student support staffing ratios)
- Within operations and maintenance, Arizona spends an additional **2.0% per pupil on purchased services** and **0.4% per pupil on supplies**

Together, these savings opportunities are not enough to meet the teacher investment revenue gap



Source: ERS analysis based on data from NCES Student Support Services Subtotal [State Finance] 2013-14, Instruction Support Services Subtotal [State Finance] 2013-14, General Administration - Subtotal [State Finance] 2013-14, School Administration - Subtotal [State Finance] 2013-14, Operations & Maintenance - Subtotal [State Finance] 2013-14, Student Transportation - Subtotal [State Finance] 2013-14, Other Support Services - Subtotal (STE28) [State Finance] 2013-14 ; Fall Membership (MEMBR) [State Finance] 2013-14; NCES Comparable Wage Index; Arizona Joint Legislative Budget Committee Non-Capital Funding Report 2017; ERS analysis of teacher salary investments; \$334 per pupil savings based on previous savings calculations totaling 4% of total expenditure in 2013-14, and applying that 4% savings to a per pupil revenue of \$8,361 in 2016-17; Analysis assumes high end of teacher compensation investment, \$1.1B

After reallocating half of these resources, Arizona could fund the remaining teacher salary investment by increasing state effort for education to 3.2%

AZ Total State and Local Revenue 2016-17 (Non-Capital) and Projected, Based on Effort

