NC Commission on Access to a Sound Basic Education

February 20, 2018

**Every School. Every Child.
Ready for Tomorrow.**

ERS is a national nonprofit that **partners with district, school and state leaders** to transform how they **use resources** (people, time, and money) so that **every school prepares every child for tomorrow**, no matter their race or income.

We believe….

- **All students deserve a great education** tailored to their needs
- One school-at-a-time reform is not enough; **we must redesign school systems** to create the conditions for all schools to succeed
- **It's not** *just* **about how much you have, but how well you use it**: districts can restructure their resources to meet their strategic goals and schools' unique needs.
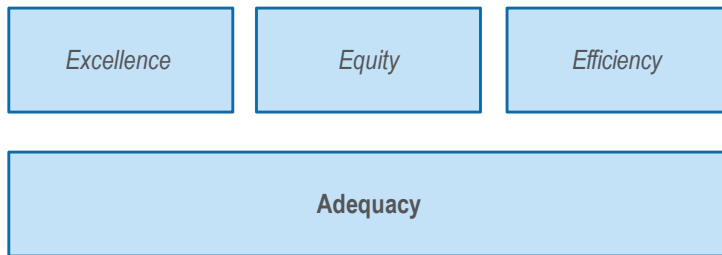
ERS

2

Agenda

- What does a state funding system need to accomplish?
- Understanding "Adequacy"
- What would it mean to allocate resources equitably?
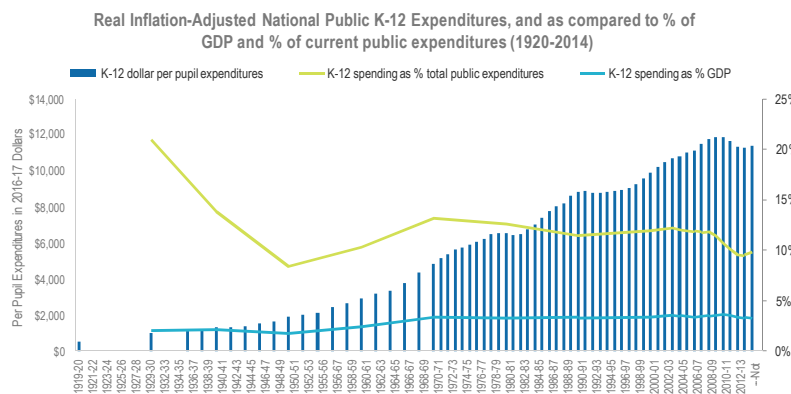- How might a state system support excellence and efficiency?

3

Funding systems can enable high performance

Excellence	*Equity*	*Efficiency*

Adequacy

4

National Context

Real spending on education has increased sharply over the last 50 years (until the great recession), fueled mostly by growth in the economy

Real Inflation-Adjusted National Public K-12 Expenditures, and as compared to % of GDP and % of current public expenditures (1920-2014)

Just since 1970, real inflation-adjusted per-pupil funding increased 220%

NOTE: Expenditures shown include instruction, support services, food services, and enterprise operations, and exclude capital outlay and interest on debt.
Source: ERS analysis using data from NCES Table 236.55. Total and current expenditures per pupil in public elementary and secondary schools: Selected years, 1919-20 through 2013-14; NCES Table 236.10. Summary of expenditures for public elementary and secondary education and other related programs, by purpose: Selected years, 1919-20 through 2013-14; Bureau of Economic Analysis, Table 3.1 Government Current Receipts and Expenditures 1929-2016; NCES Table 106.70. Gross domestic product price index, Consumer Price Index, education price indexes, and federal budget composite deflator: Selected years, 1919 through 2014; Bureau of Economic Analysis, Current-Dollar and "Real" Gross Domestic Product 1929-2016

5

National Context

Since 1970, staff per pupil have increased 72%, and teachers per pupil have increased 88%, yet real inflation-adjusted teacher salaries have only increased 7%.

Staff per 100 students and Teacher per 100 students over time, compared to changes in teacher salary

— Staff members per 100 students — Teachers per 100 students — Average teacher salary
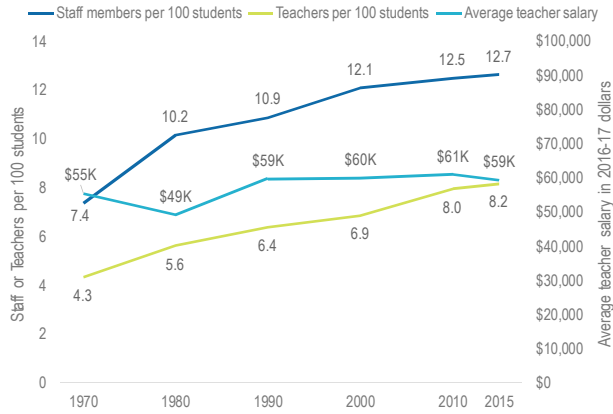
	1970	1980	1990	2000	2010	2015
Pupil to staff ratio	13.6	9.8	9.2	8.3	8.0	7.9
Pupil to teacher ratio	22.3	18.7	17.2	16.0	16.0	16.1

National Context

This means that while teacher pay has kept pace with inflation, it has not kept pace with comparable jobs

Wage Gap between Public School Teachers and Similar Workers
*Accounts for hours worked and other factors*
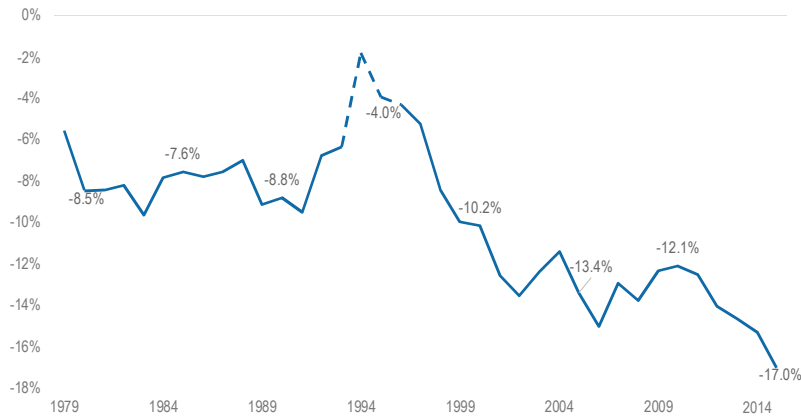
Source: Economic Policy Institute, "The Teacher Pay Gap is Wider Than Ever", 2016
Note: From the report: "Figure compares weekly wages. Regression-adjusted estimates include controls for age (quartic), education, race/ethnicity, geographical region, marital status, and gender for the pooled sample. Data are for workers age 18–64 with positive wages (excluding self-employed workers). Non-imputed data are not available for 1994 and 1995; data points for these years have been extrapolated, and are represented by dotted lines."

The aptitude of new teachers has also declined in lock-step with this growing wage gap

Distribution of Teacher Aptitude Based on Mean College SAT Scores

■ 1963 ■ 2000

	Lowest	2	3	4	5	Highest
1963	16%	26%	26%	15%	12%	5%
2000	36%	31%	17%	11%	4%	1%
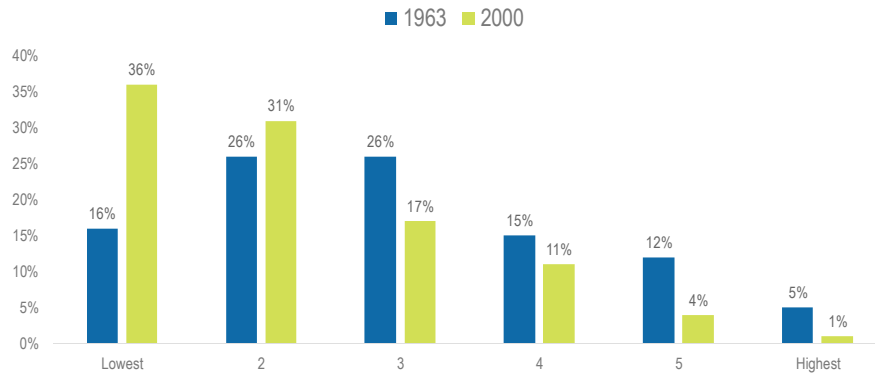
Did you know? As of 2010, only 24% of U.S. teachers came from the top third of their college graduating classes, only 14% in poor communities. In some countries, 100% of teachers come from the top third.

Source: Hoxby, Caroline, M., and Andrew Leigh. 2004. "Pulled Away or Pushed Out? Explaining the Decline of Teacher Aptitude in the United States." *American Economic Review*, 94(2): 236-240; Loeb, S., & Beteille, T. (2009).; McKinsey study url goes here...
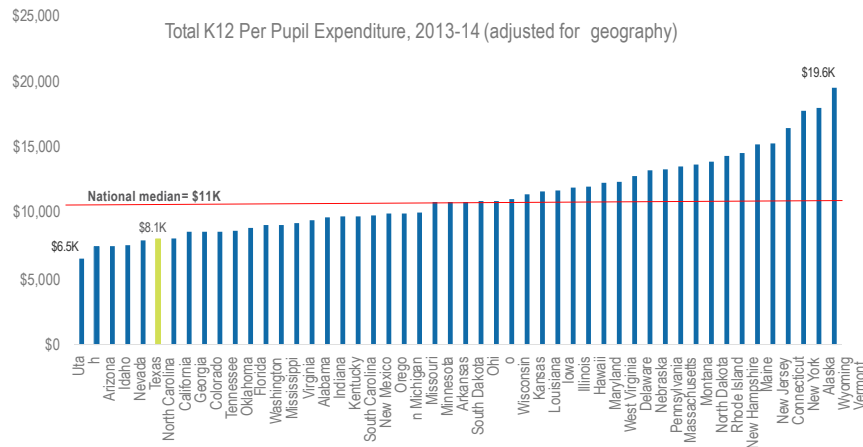
8

The resulting teacher shortages significantly impact student performance

- Reported increases in:
  - Unfilled vacancies
  - Emergency credentialed teachers
  - Shortage of applicants even in critical (easy to staff) subject areas
  - Teachers teaching out of subject

- Schools and districts are not set up to handle the growing influx of untrained adults who are being asked to enter classrooms, sometimes with little advance training at all
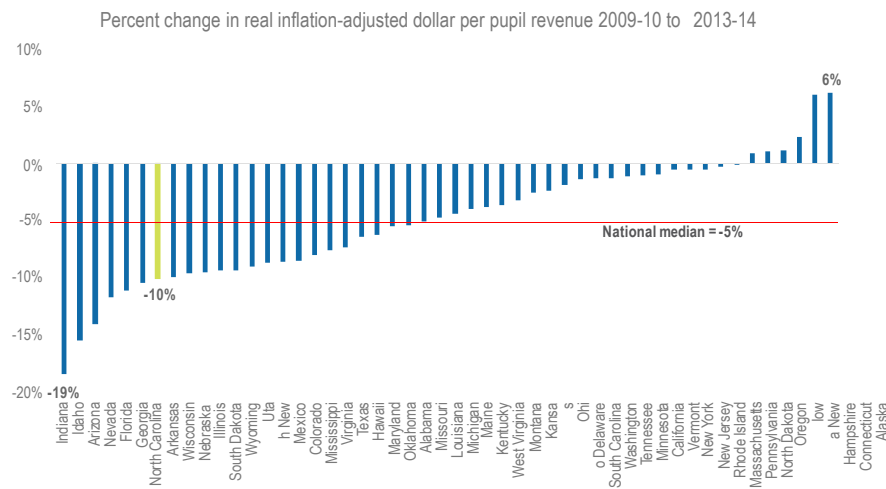
9

Nationally, North Carolina among the lowest funded states

Total K12 Per Pupil Expenditure, 2013-14 (adjusted for geography)

$19.6K

National median= $11K

$8.1K

$6.5K

Utah, Arizona, Idaho, Nevada, Texas, North Carolina, California, Georgia, Colorado, Tennessee, Oklahoma, Florida, Washington, Mississippi, Virginia, Alabama, Indiana, Kentucky, South Carolina, Oregon, n Michigan, Missouri, Minnesota, Arkansas, South Dakota, Ohi o, Wisconsin, Kansas, Louisiana, Iowa, Illinois, Hawaii, Maryland, West Virginia, Delaware, Nebraska, Pennsylvania, Massachusetts, Montana, North Dakota, Rhode Island, Maine, New Hampshire, New Jersey, Connecticut, New York, Alaska, Wyoming, Vermont

Source: NCES; per pupil expenditures adjusted using CWI; ERS analysis

10

Recently, real inflation-adjusted per pupil funding has declinedby 10%, 2X more than nationwide

Percent change in real inflation-adjusted dollar per pupil revenue 2009-10 to 2013-14

6%

National median = -5%

-10%

-19%

Indiana, Idaho, Arizona, Nevada, Florida, Georgia, North Carolina, Arkansas, Wisconsin, Nebraska, Illinois, South Dakota, Wyoming, Uta h New Mexico, Colorado, Mississippi, Virginia, Texas, Hawaii, Maryland, Oklahoma, Alabama, Missouri, Louisiana, Michigan, Maine, Kentucky, West Virginia, Montana, Kansa s, Ohi o Delaware, South Carolina, Washington, Tennessee, Minnesota, California, Vermont, New York, New Jersey, Rhode Island, Massachusetts, Pennsylvania, North Dakota, Oregon, Iow a New Hampshire, Connecticut, Alaska

Source: NCES, Common Core of Data; Bureau of Labor Statistics; ERS analysis

11

## Inflation-adjusted teacher salaries have declined 8% in the last three decades

Percent change in inflation-adjusted teacher salaries, 1989-90 – 2015-16
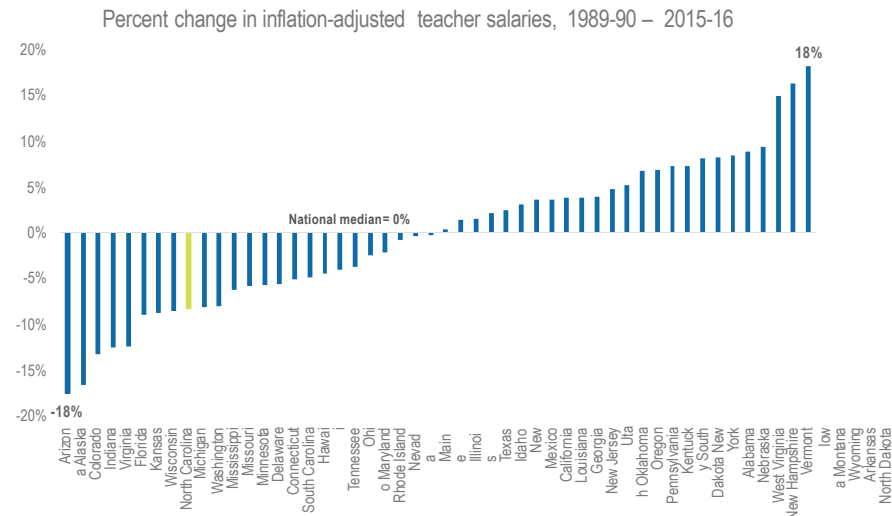
Source: NCES

12

After adjusting for differences in geography, NC has the 5th lowest average teacher salary in the nation

Average Teacher Salary 2015/2016, Adjusted for Geography
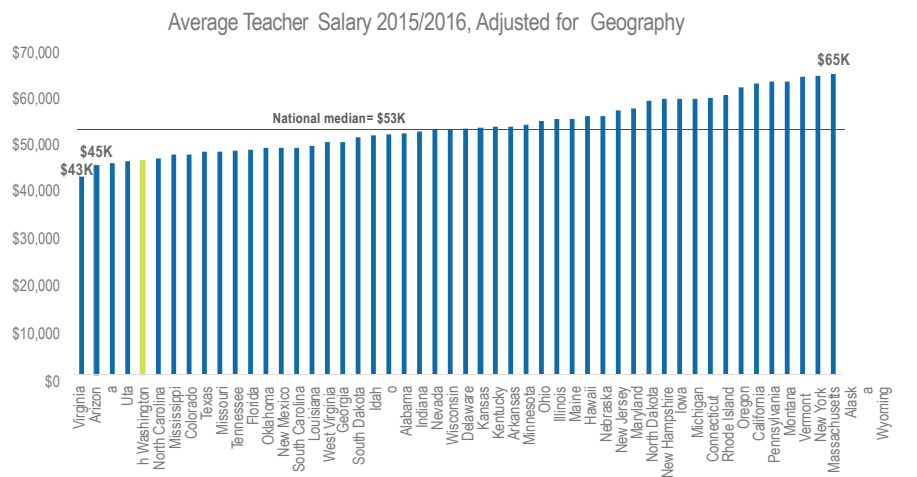

Source: NCES; NCES Comparable Wage Index; ERS analysis

13

NC teachers earn about 67% of what similarly educated non-teachers in the state earn, even after controlling for hours worked per week and year
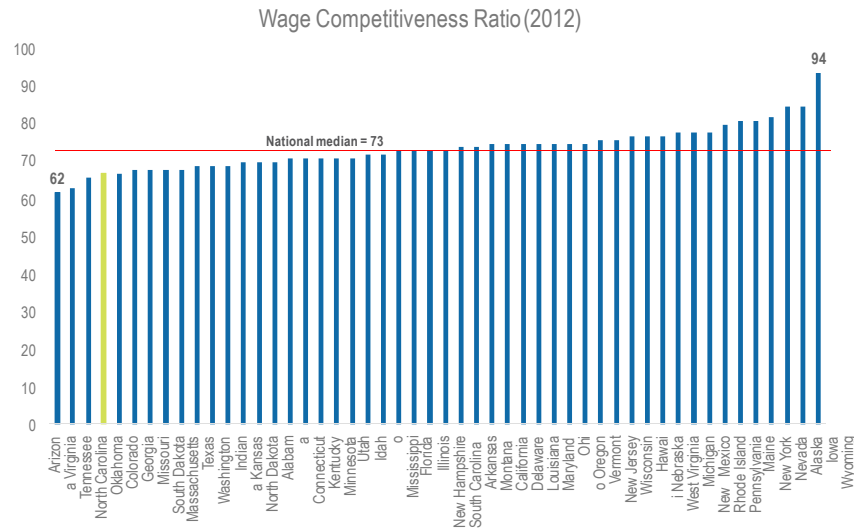
Wage Competitiveness Ratio (2012)

Source: "A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.", Learning Policy Institute 2016
The wage competitiveness ratio controls for age, education level, hours worked per week, and hours worked per year

14

The attractiveness of the teacher profession (pay and working conditions) is particularly low in North Carolina

State Total Scores for Opportunity & Competition and Academic and Work Environment (WalletHub)
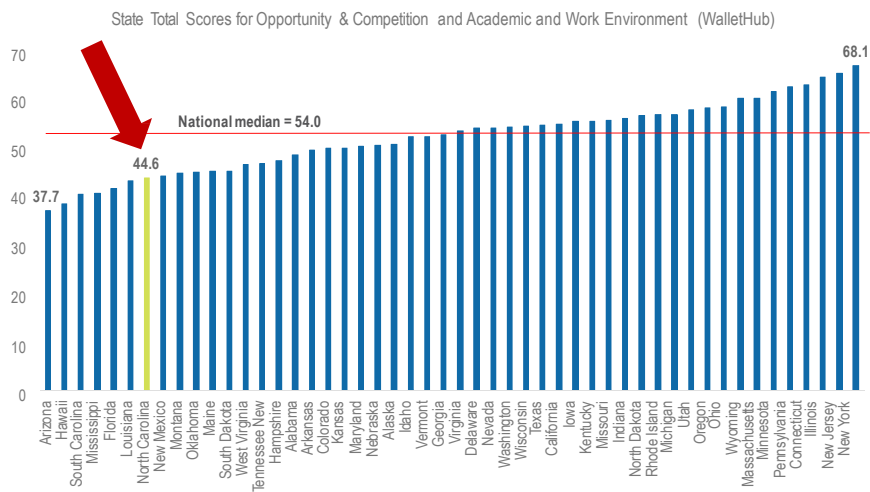
Source: WalletHub 2017
States were evaluated on 21 metrics including starting salary, income growth potential, average teacher pension, public school enrollment growth, pupil-teacher ratios, and turnover

15

NC has higher than median teacher turnover at 17% per year

Rate of Teacher Turnover (Movers & Leavers) 2013

National median = 14%
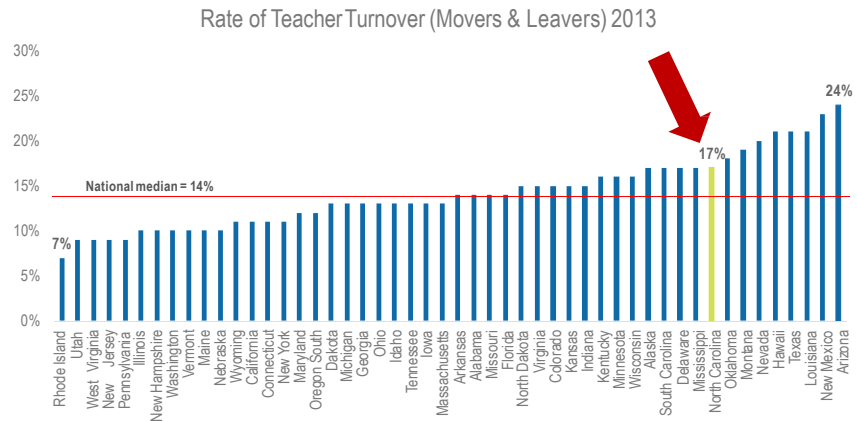
Data from the AZ Department of Education shows that since 2013, 42% of AZ teachers left within 3 years of being hired. 22% of the teachers hired from 2013-2015 lasted only one year.

Source: "A coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.", Learning Policy Institute 2016; "Finding and Keeping Educators for Arizona's Classrooms," Morrison Institute for Public Policy 2017

16

While spending levels don't always predict outcomes, at the lowest levels, they drastically limit possibility
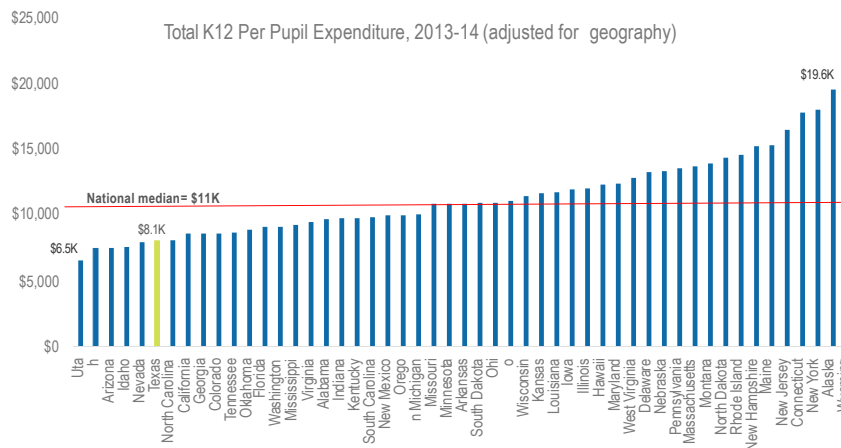
Total K12 Per Pupil Expenditure, 2013-14 (adjusted for geography)

National median= $11K

Source: NCES; per pupil expenditures adjusted using CWI; ERS analysis
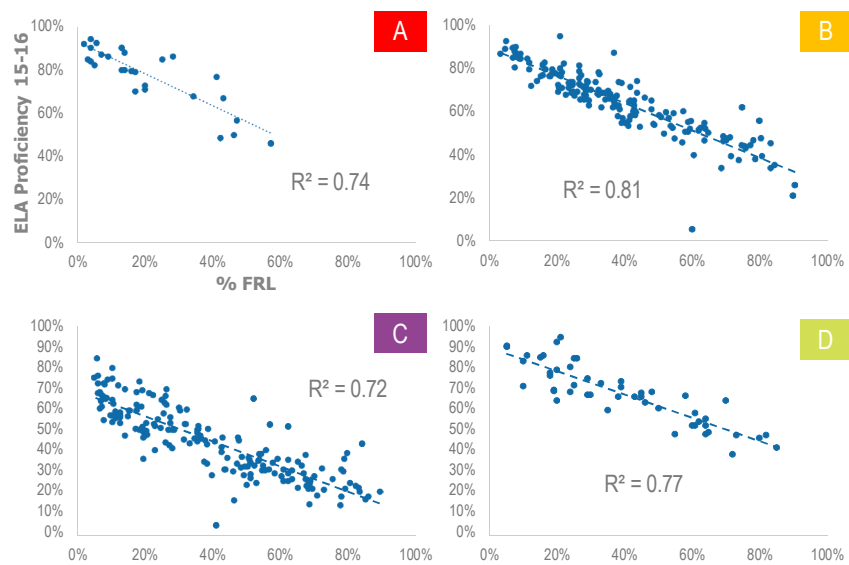
17

Agenda

- What does a state funding system need to accomplish?
- Understanding "Adequacy"
- What would it mean to allocate resources equitably?
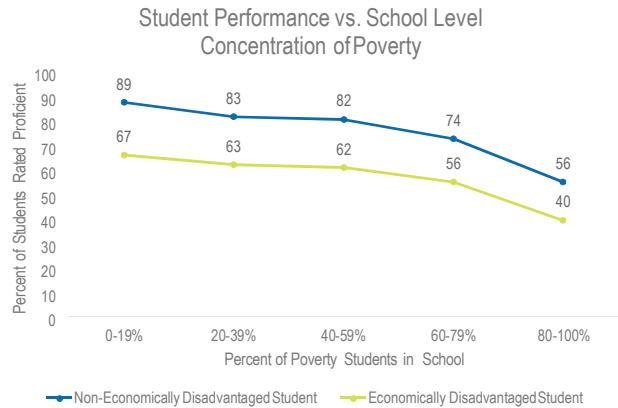- How might a state system support excellence and efficiency?

18

Unfortunately, we know that the concentration of poverty predicts outcomes in most cases

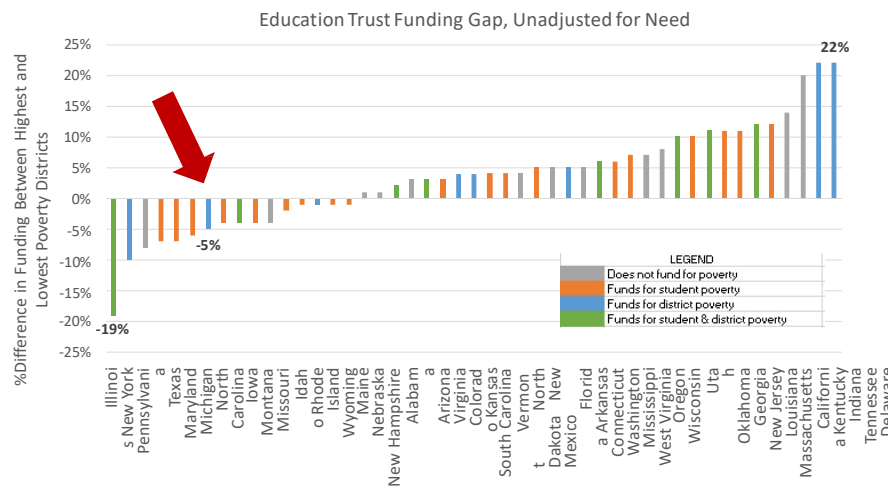**Data on school average proficiency from 4 large districts**

19
19

School level concentration of poverty lowers performance for ALL students

Student Performance vs. School Level Concentration of Poverty

Source: ERS Analysis of 8 large districts across 8 states

20

..And NC has a larger gap between low and high funded districts than most states

Education Trust Funding Gap, Unadjusted for Need

21

Dimensions of Resource Equity

School Funding	Teaching Excellence	School Leadership	Early Learning & Early Intervention	Academic Rigor: Curriculum, Instruction, & Course-taking
Personalized Time & Attention	Instructional Time: Length of Day/ Year	Social & Emotional Supports	Diverse & Inclusive Schools	Support for Parental Engagement

Want to receive this content electronically? Leave your card and contact information with Jonathan.

Developed by ERS in partnership with Chiefs for Change

22

Agenda

- What does a state funding system need to accomplish?
- Understanding "Adequacy"
- What would it mean to allocate resources equitably?
- How might a state system support excellence and efficiency?

23

Organizing for high performance means making big shifts from traditional ways of organizing

Design Essential	From:		To:
Teacher Collaboration	Teaching as an individual enterprise.	→	Teams of teachers who work together to execute a collective vision for excellent instruction, and their own professional improvement.
	A "one-size-fits-all" teaching job.	→	Roles and assignments that match each individual's unique skills and expertise to needed roles.
Personalized Time & Attention	Standardized class sizes in "one-teacher classrooms."	→	Groups of teachers and students that vary across subjects, activities and students.
	Rigid time allocations.	→	Flexible schedules that allow time to vary with needs of students.
Whole Child	Investments in culture and social-emotional support that remove resources from core instruction.	→	Investments that are embedded within and reinforce the school's core instructional work.

24

And is the result of transformational changes in how people, time, and money are used

| Design Essential	Examples of Transformational Resource Changes
Teacher Collaboration	✓ 90 min+ weekly for shared-content teacher teams to collaborate ✓ 100% of teams facilitated by an instructional expert ✓ Coaching ratios of 8-12 teachers per full-time instructional expert
Personalized Time & Attention	✓ Struggling students receive 50% more time in target areas than students who are proficient ✓ Targeted student groups are adjusted more than 4x/yr based on student progress ✓ Teacher load in high-priority classes is fewer than 50 students
Whole Child	✓ Regular time exists in student schedules to deliver an SEL curriculum that is developmentally appropriate ✓ Classroom teachers and school-based SEL staff meet regularly to review student data and action-plan

25

Supporting and Enabling Higher Performing School Designs requires funding flexibility in order to:

- Design new teacher and principal compensation structures that attract and keep the most effective
- Shift staffing resources to highest priority subjects
- Enable more flexible roles in schools that fit today's work world
- Explore innovative ways of delivering instruction through technology and outside partners
- Extend and vary instructional time

26

Funding systems can enable high performance

Excellence	Equity	Efficiency
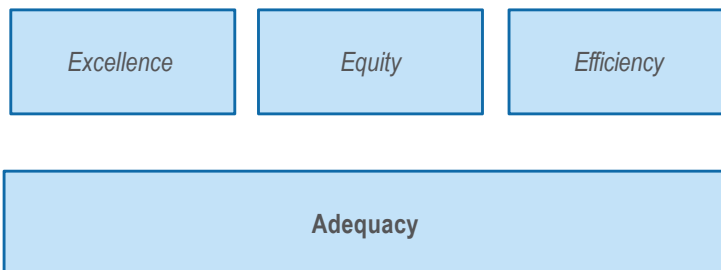
Adequacy

While NC must address adequacy, funding reform must also ensure that new dollars do not flow into legacy staffing and compensation structures that no longer work for students or teachers

4