

The State of Vermont Public Education

Rebecca Holcombe,
Secretary of Education

January 2015

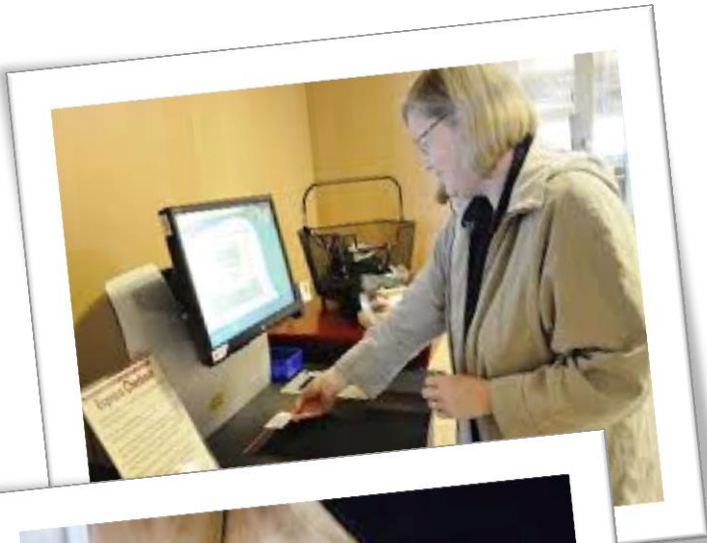
Our Goals

- To ensure all children develop the skills they need to thrive in both their career and civic life.
- To provide this education in the most effective, efficient and accountable way.
- To reduce inequity of outcomes across the state.

The New Basic Skills

a.k.a. what computers can't do [yet]

- ❑ Solve unstructured problems
- ❑ Work with new information and reason from evidence
- ❑ Complete non-routine tasks
- ❑ Communicate and persuade
- ❑ Collaborate on complex tasks
- ❑ Exercise judgment



Education Quality Standards

- Focus on **proficiency** (not seat time)
- Emphasis on **personalization and purpose**
- Systems to **support continuous professional growth and learning** of educators

Education Quality Standards

Students must demonstrate learning in:

- ✓ literacy
- ✓ mathematical content and practices
- ✓ scientific inquiry and content knowledge
- ✓ global citizenship
- ✓ physical education and health education
- ✓ artistic expression
- ✓ transferable skills

Challenge:

How to put complex ideas into practice, at scale and across diverse contexts, in the absence of systems and in a climate of scarce resources?

Flexible pathways, project-based learning and a focus on application:

[Mechatronics at North Country CTE](#)



“I realized people used to do the work machines like this do. Now people write programs that make the machines do the work people used to do.”

-boy at North Country Career and Technical Center

<http://vimeo.com/100144145>

Education is no longer just grades K-12

Act 77 – Dual Enrollment and Early College



Indicator	Low	High
Class of 2012 post secondary enrollment (includes students from historical academies)	36.7%	77.3%

Education is no longer just grades K-12

Ages 0 to 5

Grades
K-12

Act 166 –
Universal PreK

Probability a VT child will be kindergarten ready by years of preK

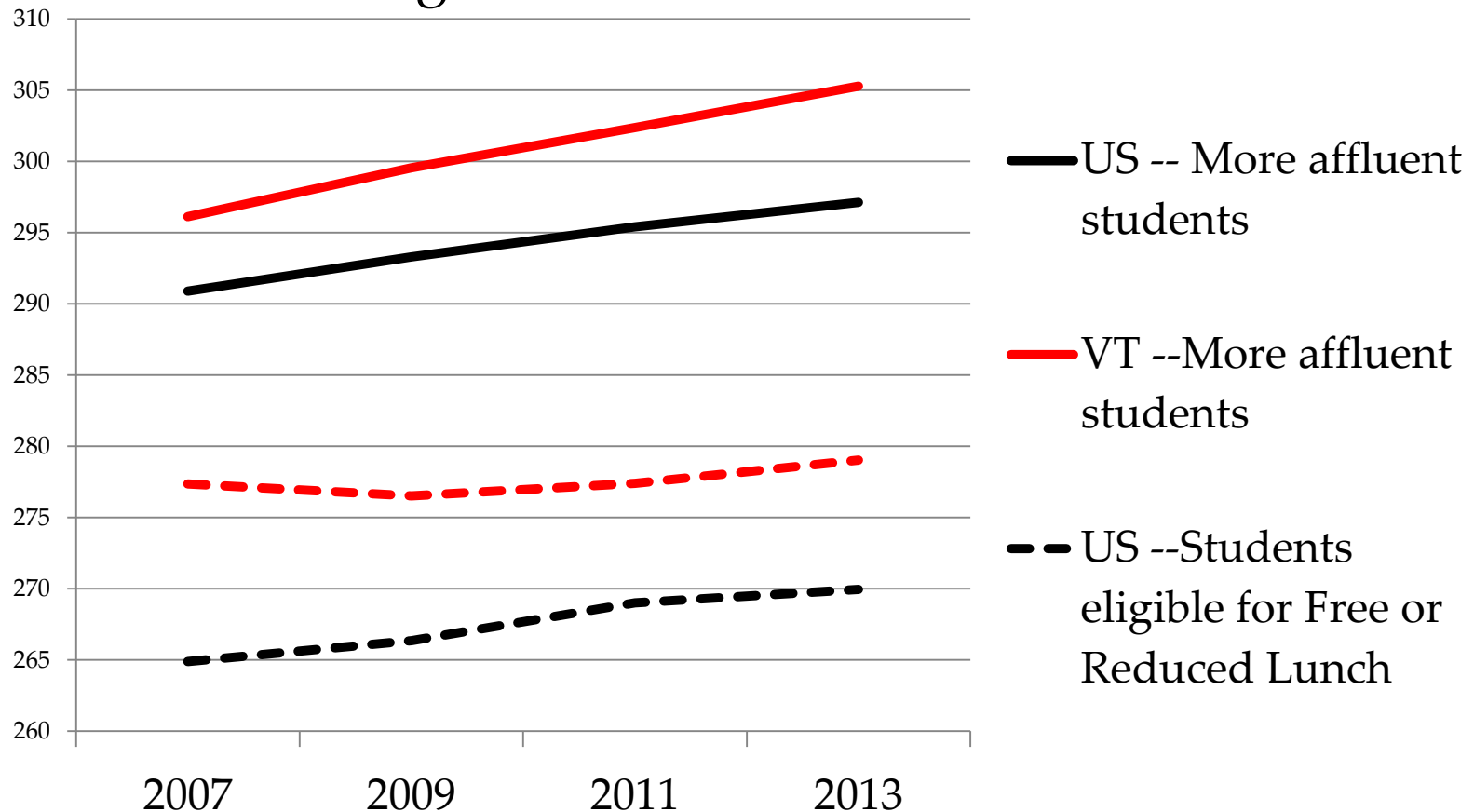
Children in Poverty		Children <u>not</u> in Poverty	
Years of PK	Probability	Years of PK	Probability
0	30%	0	58%
1	35%	1	58%
2	53%	2	70%

Our Challenge:

We must ensure our **system**
delivers this in an **equitable**
and **affordable** way.

How are Vermont students doing?

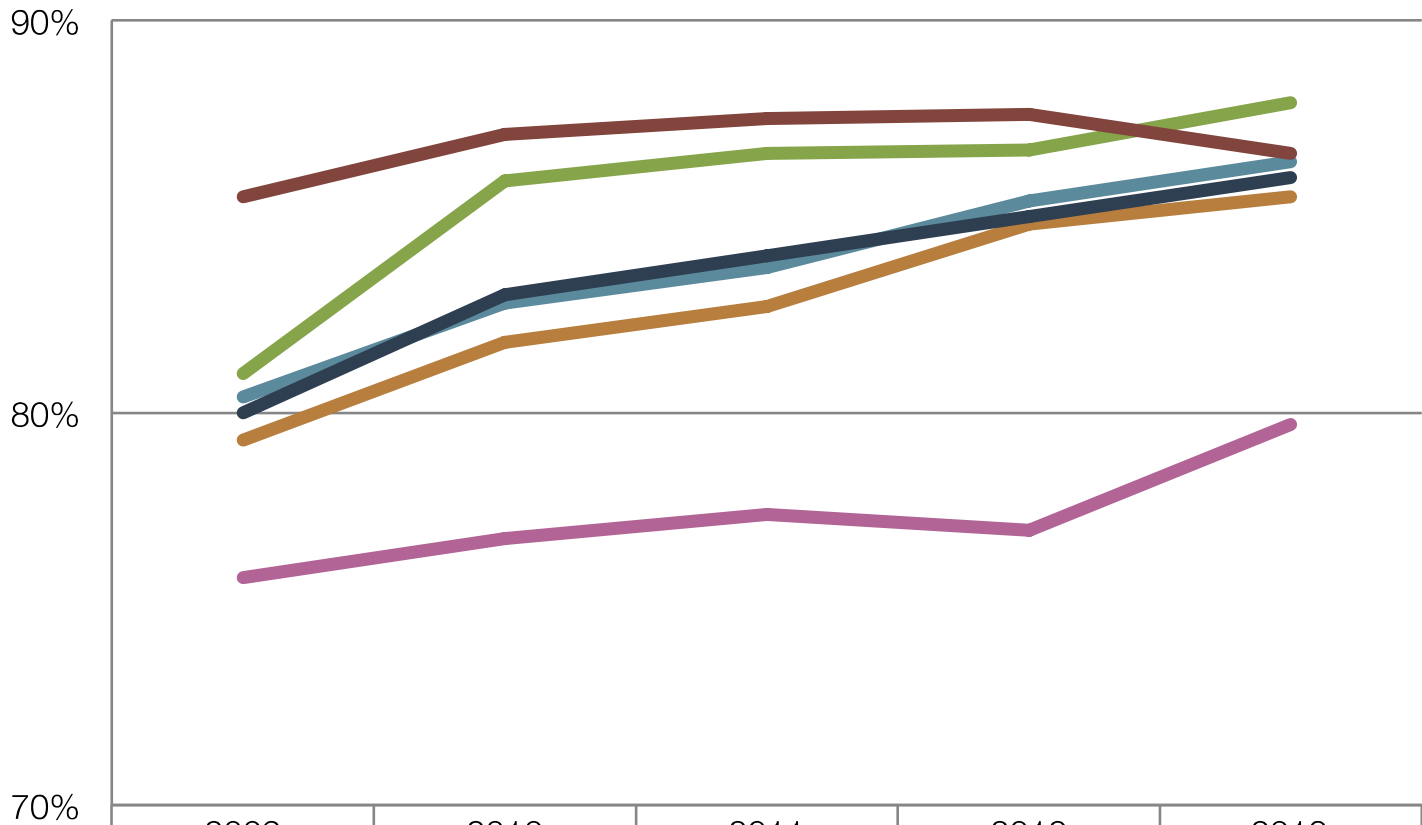
NAEP 8th grade math scores for students eligible and ineligible for free or reduced lunch



Similar outcomes in VT public high schools and Historical Academies

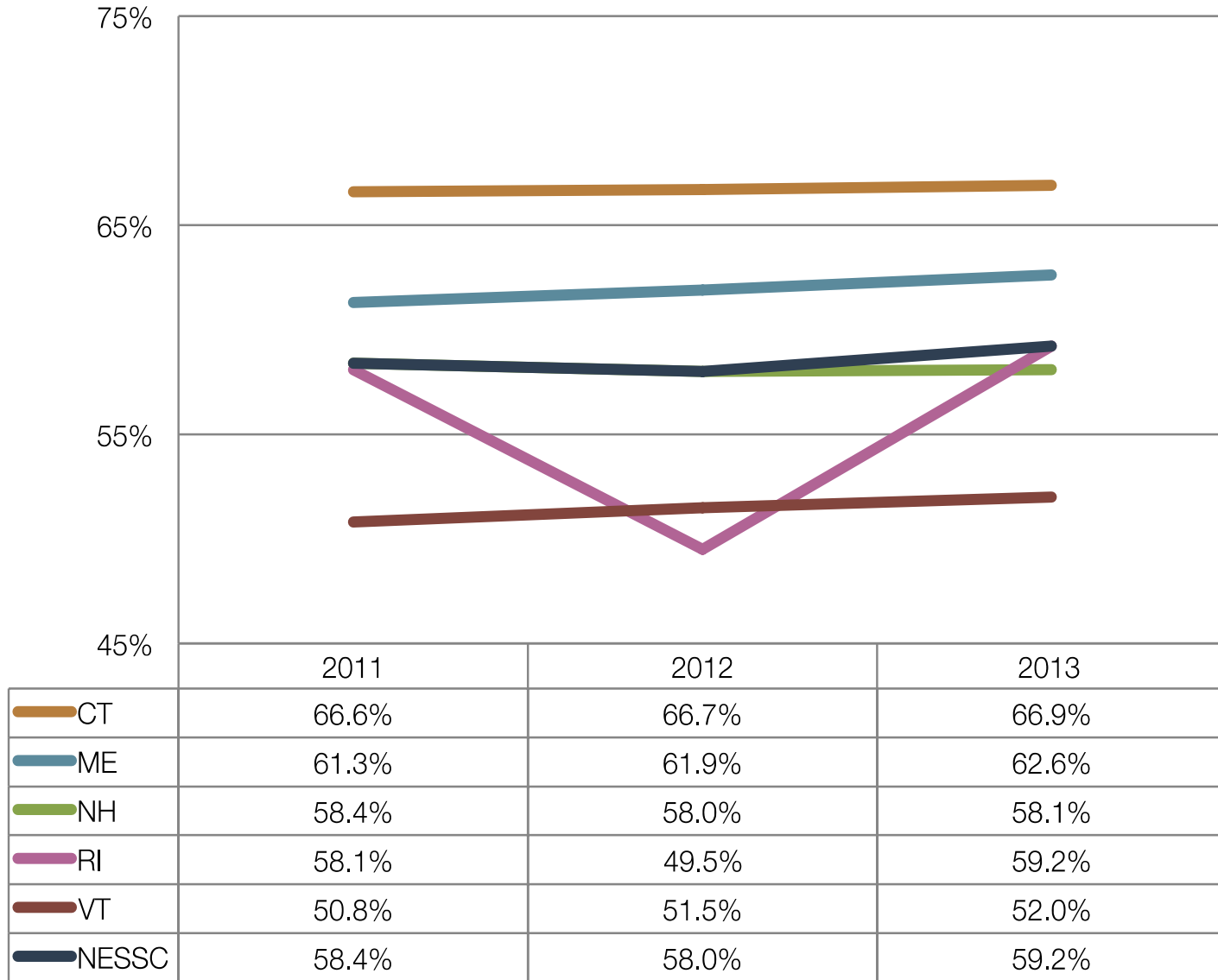
	Average Scale Score 11 th Grade Assessments, 2014		
Test	Public High Schools	Historical Academies	Difference
NECAP Reading	46.80	45.96	0.84
NECAP Math	35.10	36.07	-0.97

Graduation Rates: Five-Year Trend



	2009	2010	2011	2012	2013
CT	79.3%	81.8%	82.7%	84.8%	85.5%
ME	80.4%	82.8%	83.7%	85.4%	86.4%
NH	81.0%	85.9%	86.6%	86.7%	87.9%
RI	75.8%	76.8%	77.4%	77.0%	79.7%
VT	85.5%	87.1%	87.5%	87.6%	86.6%
NESSC	80.0%	83.0%	84.0%	85.0%	86.0%

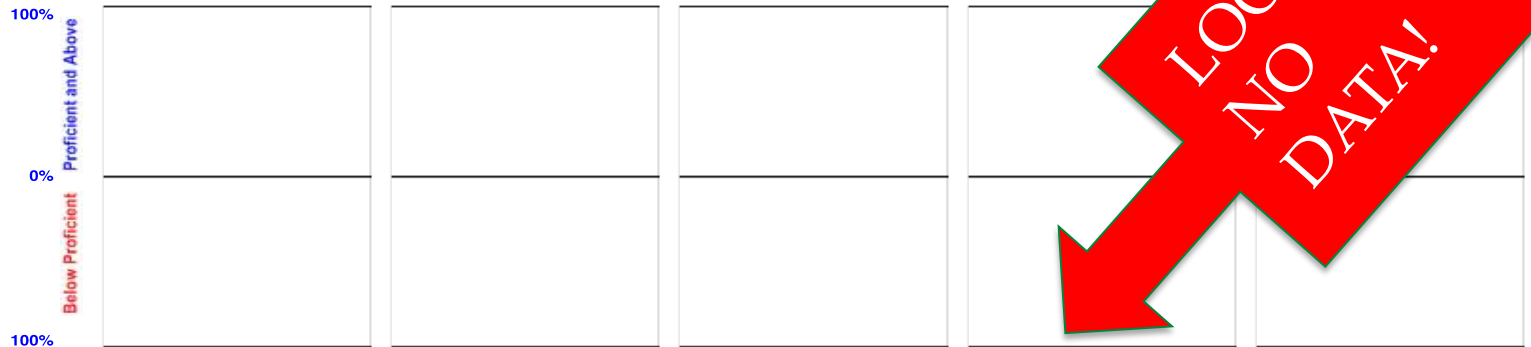
2013 College Enrollment: Three-Year Trend



Many small schools and their SUs currently get limited (if any) school performance data

NECAP Assessment Report

Organization:	Concord Graded/High School
Teaching Year:	2012-2013
Test/Subject:	NECAP Math Grade 11
Breakdown:	Differences in achievement by family income?
Comparison:	Over Time?

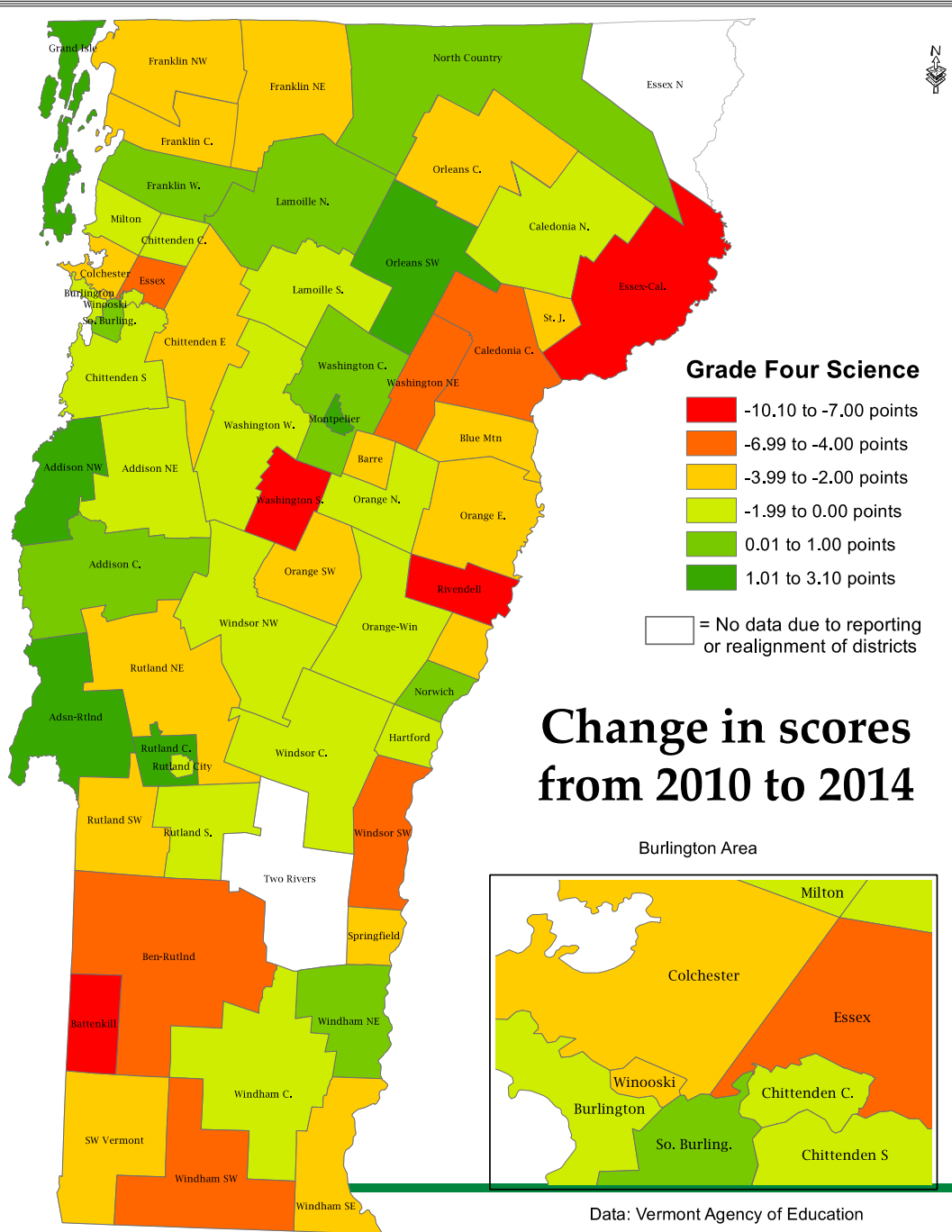


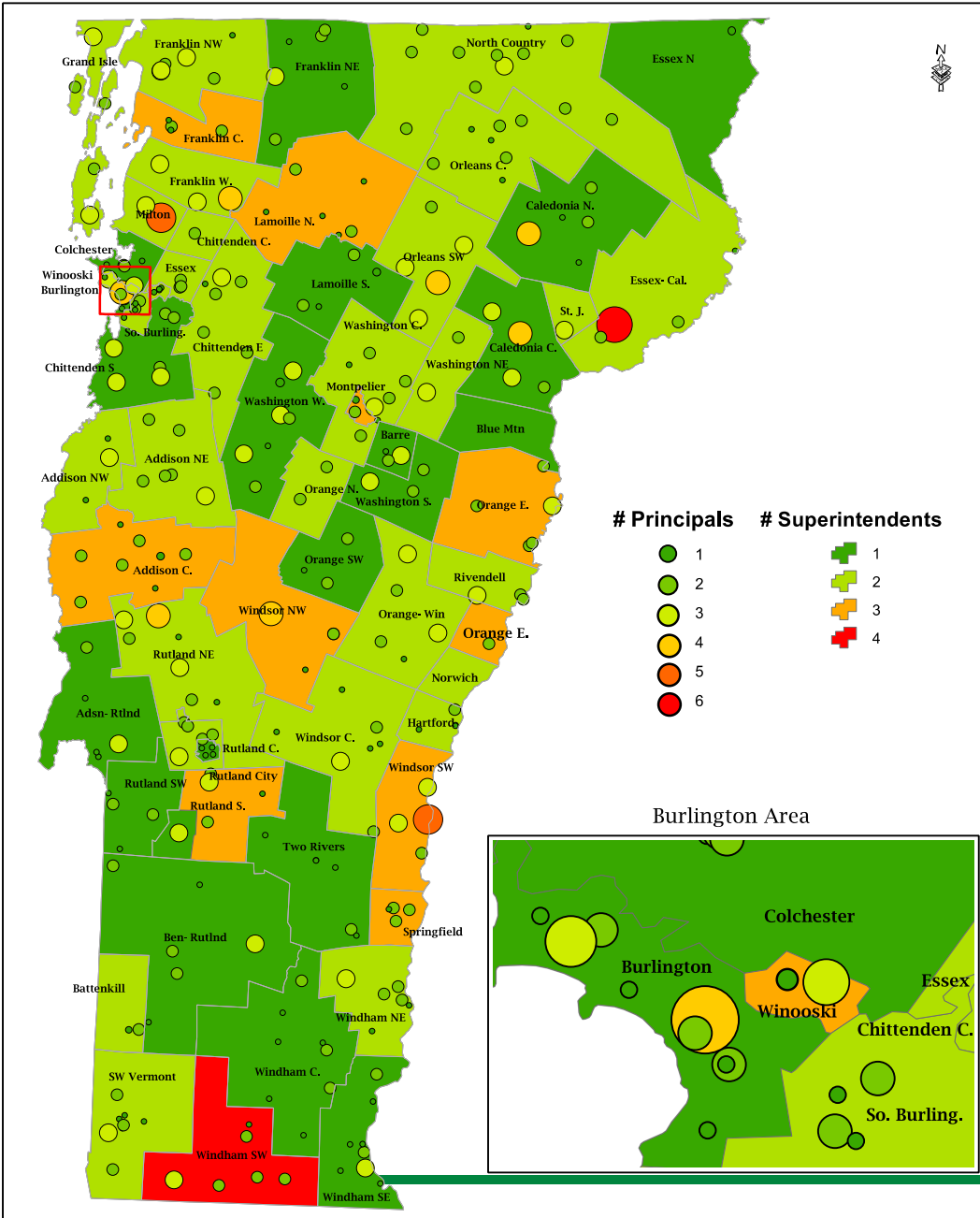
	2009		2010		2011		2012		2013	
	Not FRL	FRL	Not FRL	FRL	Not FRL	FRL	Not FRL	FRL	Not FRL	FRL
Number of Students Tested	++	++	++	++	++	++	++	++	++	++
Proficient With Distinction	++	++	++	++	++	++	++	++	++	++
Proficient	++	++	++	++	++	++	++	++	++	++
Partially Proficient	++	++	++	++	++	++	++	++	++	++
Substantially Below Proficient	++	++	++	++	++	++	++	++	++	++
Total Proficient and Above	++	++	++	++	++	++	++	++	++	++
Total Below Proficient	++	++	++	++	++	++	++	++	++	++
Average Scaled Score	++	++	++	++	++	++	++	++	++	++

Variability statewide in ability to support improvement statewide

RED = scores DOWN a lot

GREEN = scores UP slightly





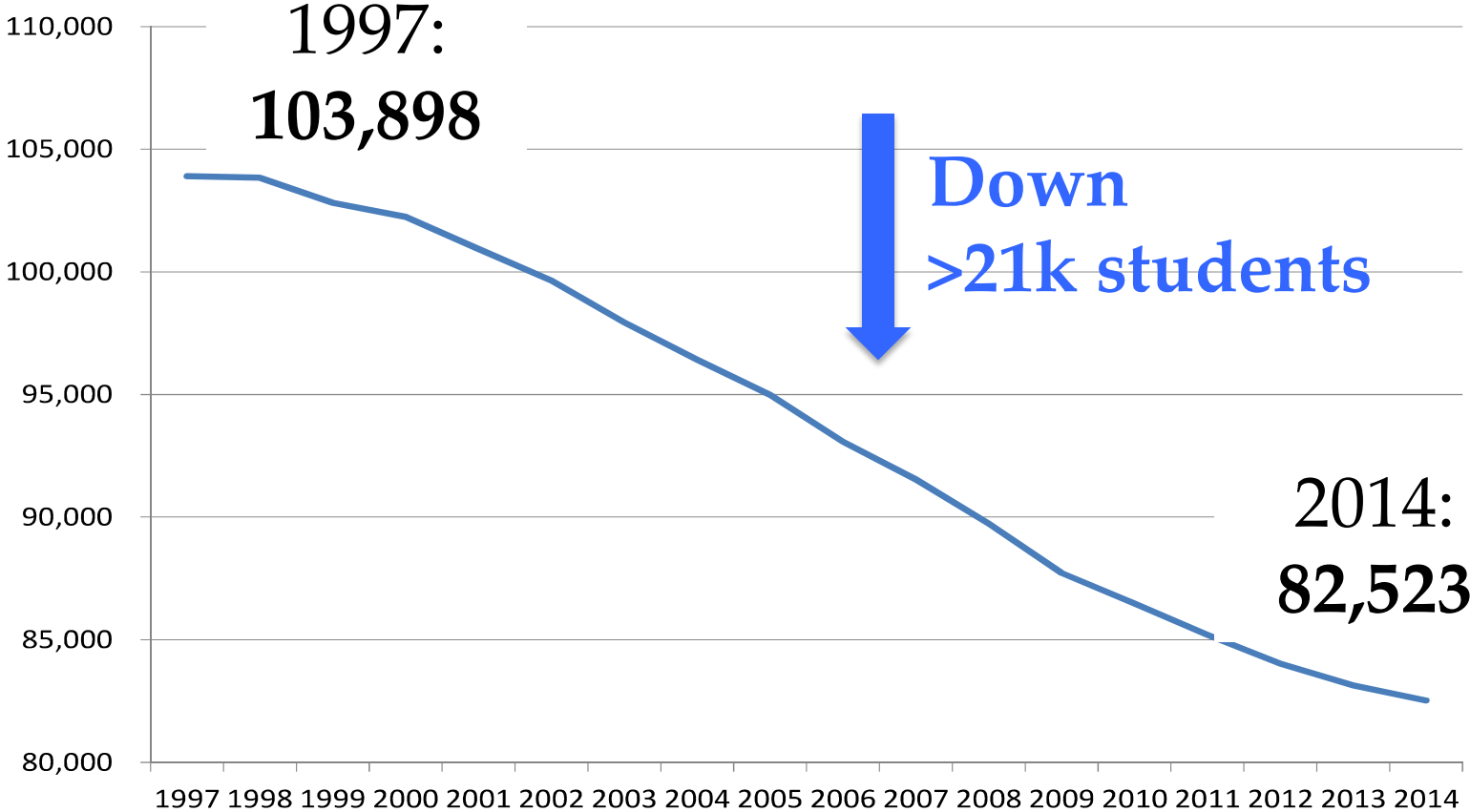
Leadership Turnover

Why is everyone talking
about declining
enrollments?

...And what does that have
to do with my taxes?

Our student numbers are declining

K-12 Average Daily Membership Totals, FY 1997- FY 2014

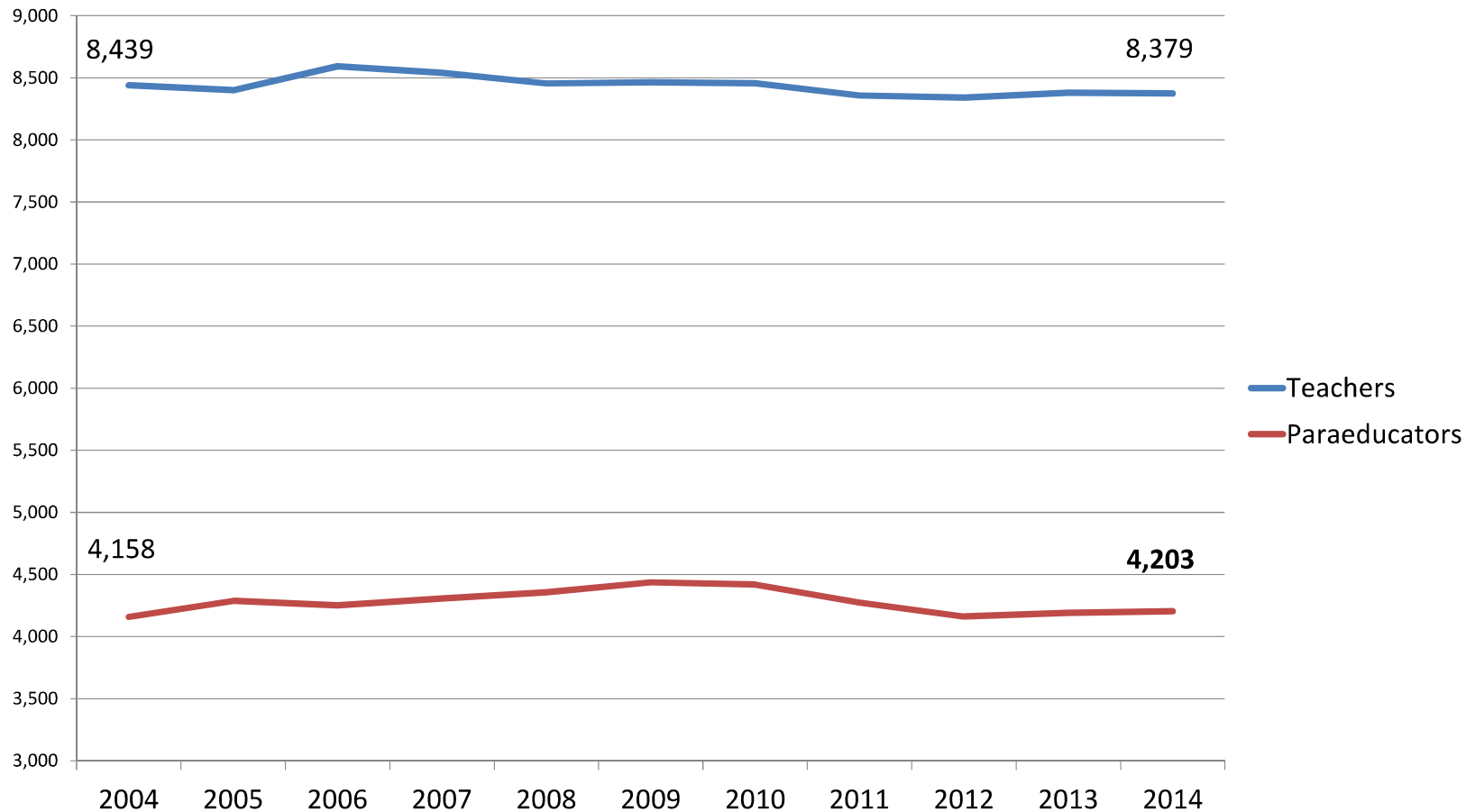


Source: Vermont Agency of Education

Meanwhile...

teachers and paraeducators has NOT declined

Public School FTE Teachers and Paraeducators: FY 2004 – FY 2014



Per Pupil Formulas

If your enrollment is declining, you will either:



cut your spending, or

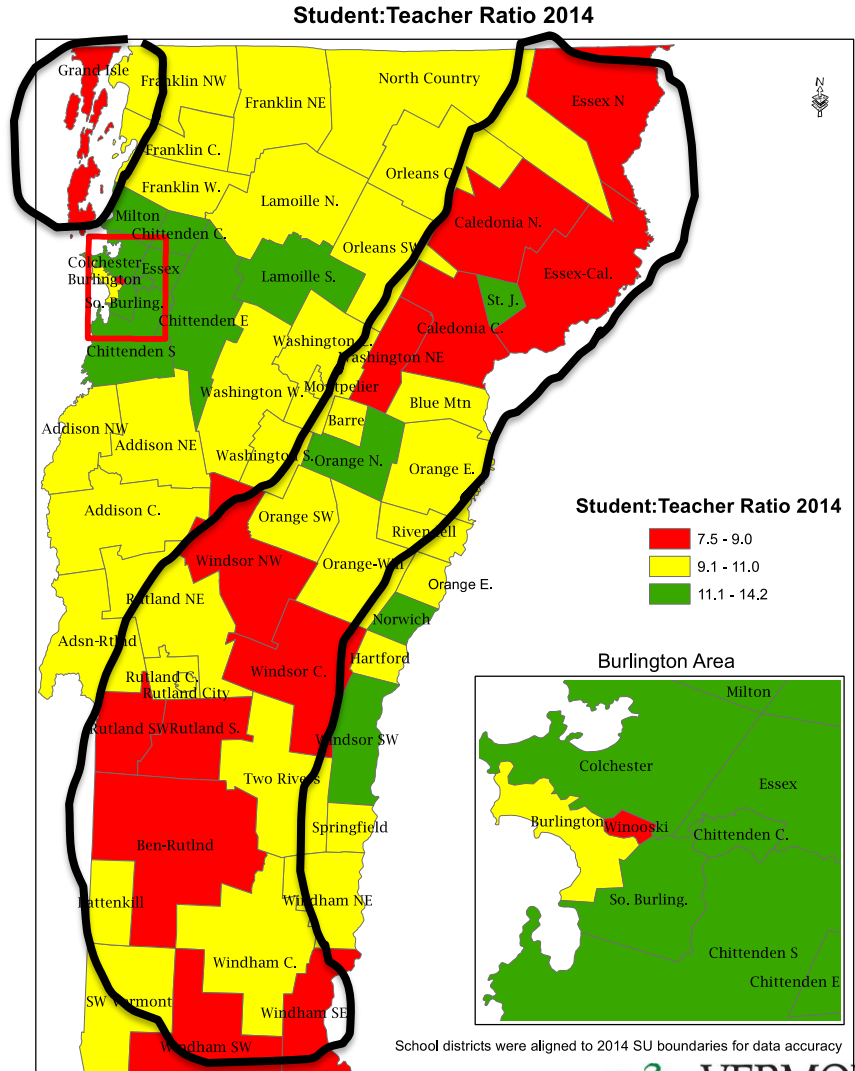
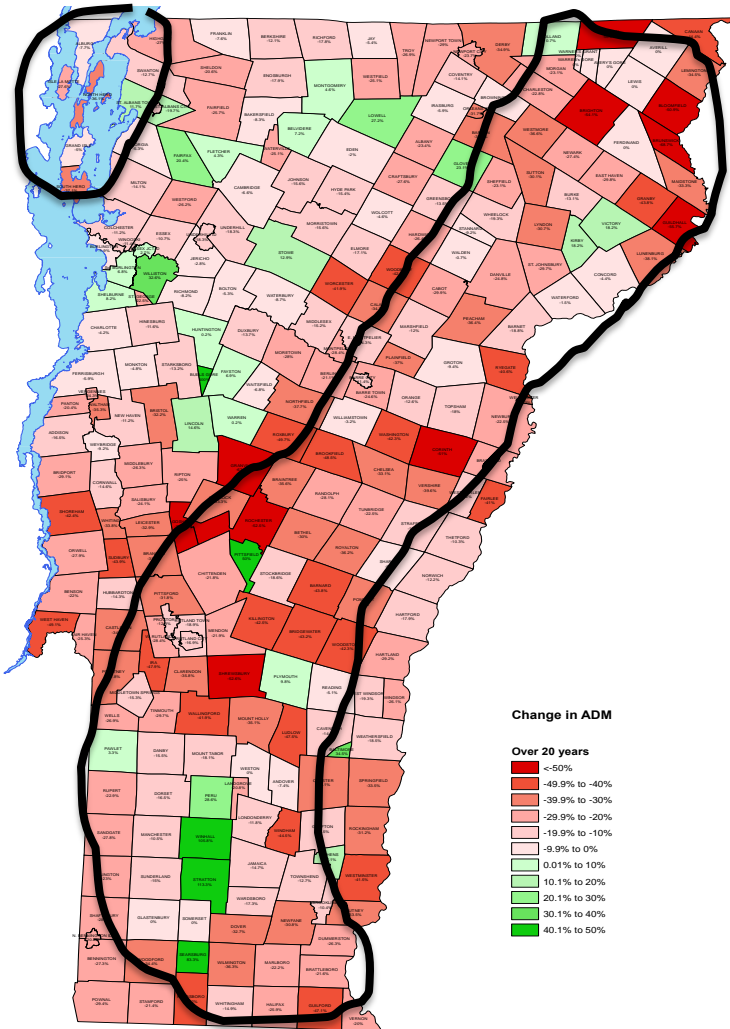


increase your tax rate to maintain the same level of overall spending

Note: The “hold harmless” provision limits a district’s decline (or increase) in pupils to 3.5% per year, which creates “phantom students” for funding purposes.

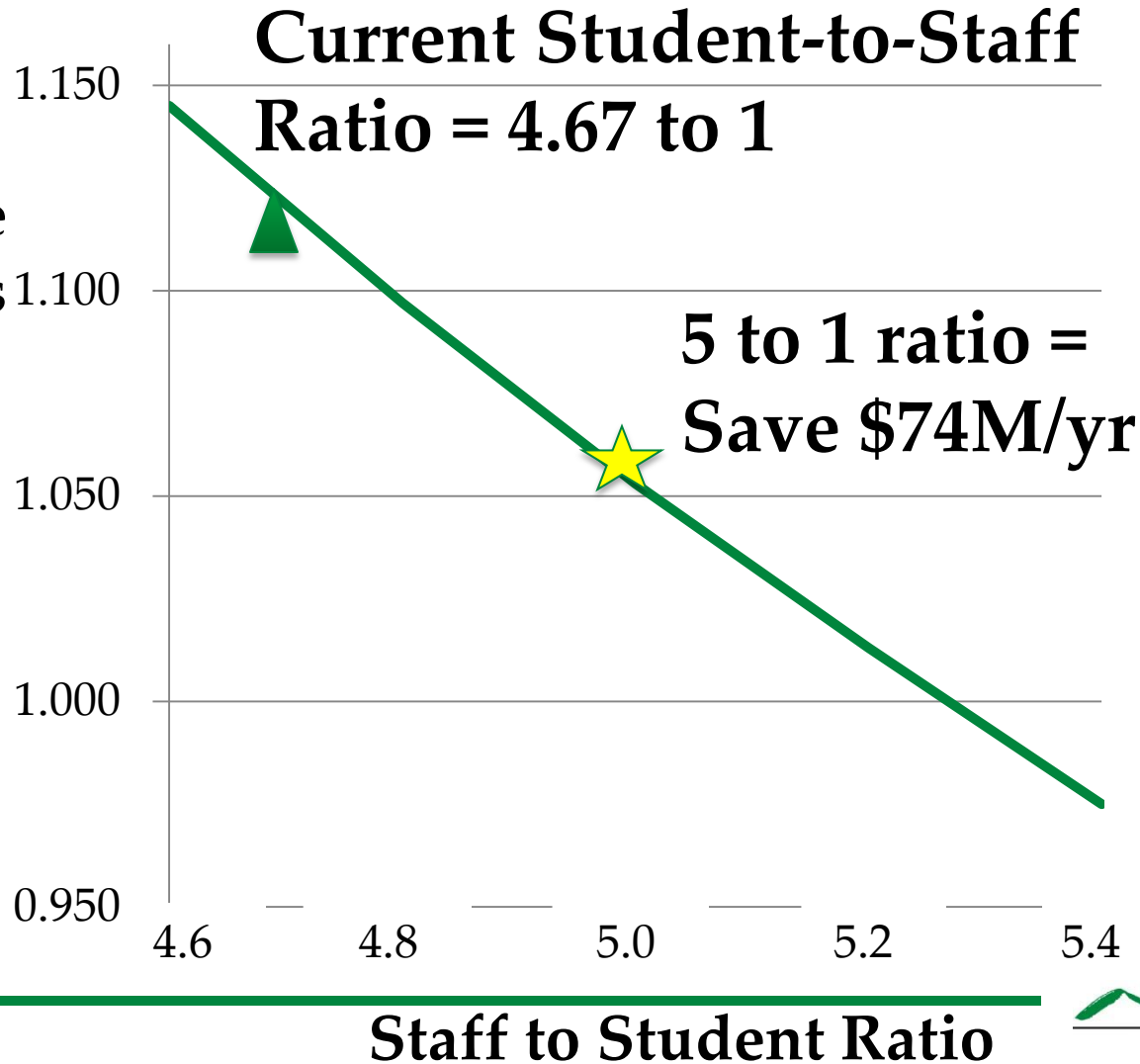
Student DECLINE >50%

Student-to-Teacher Ratio 7.5-9.0



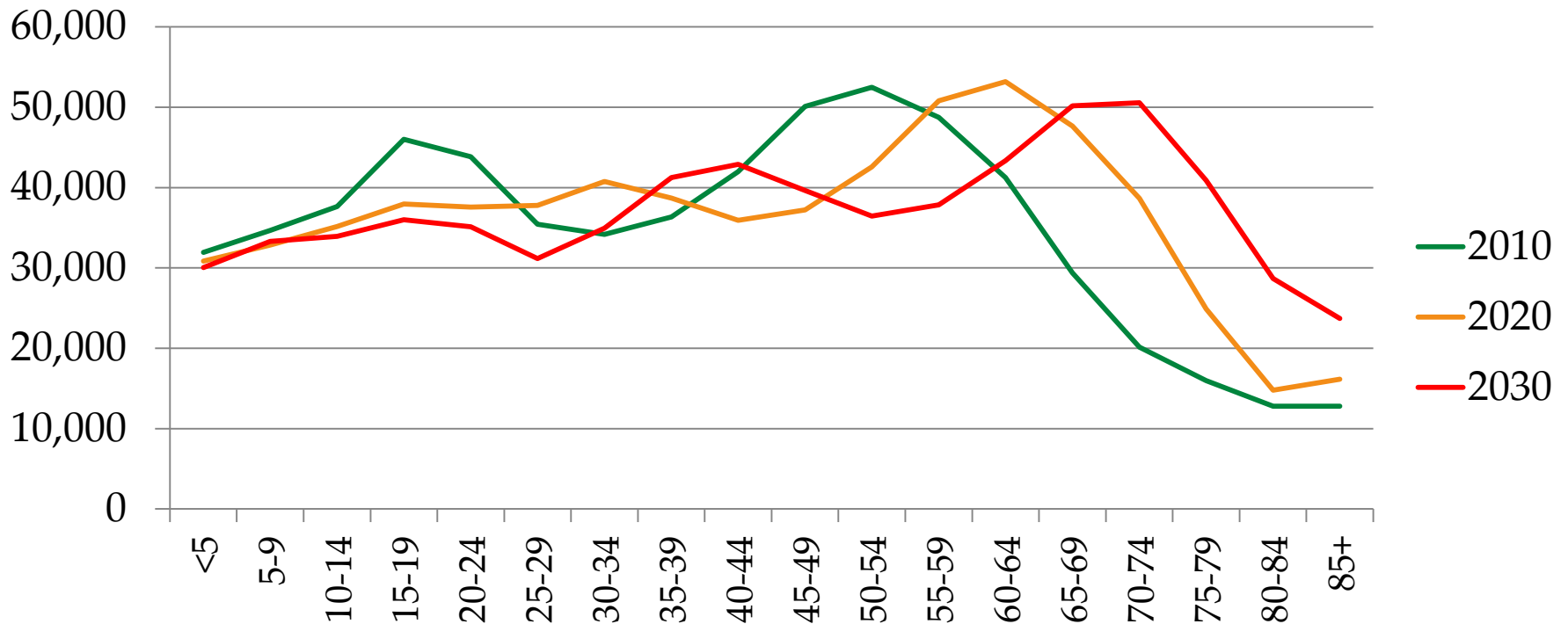
WHY THIS MATTERS

\$ Billion
Estimated
expenditure
s on salaries
and
benefits



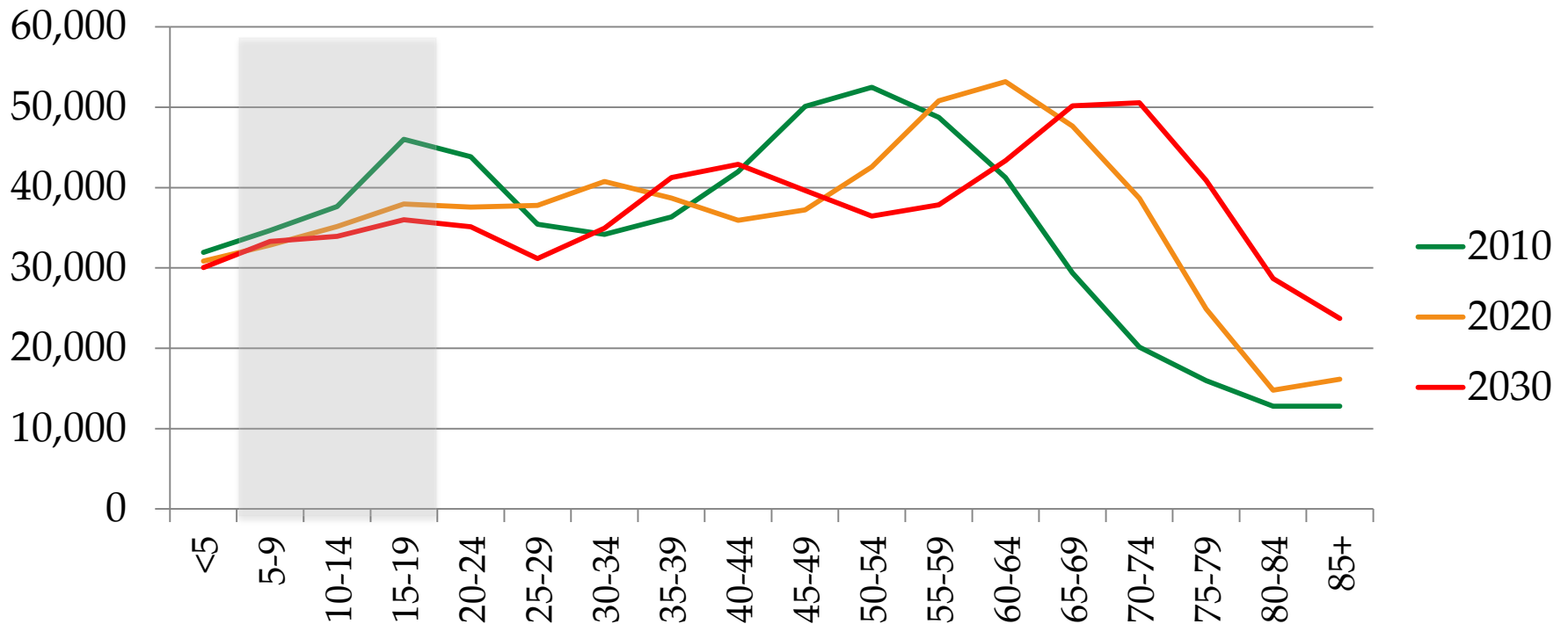
We are not just losing students.

Vermont Population Projections. 2010 Census, 2020, 2030
Ken Jones, Ph.D., Economic Research Analyst
Vermont Agency of Commerce and Community Development



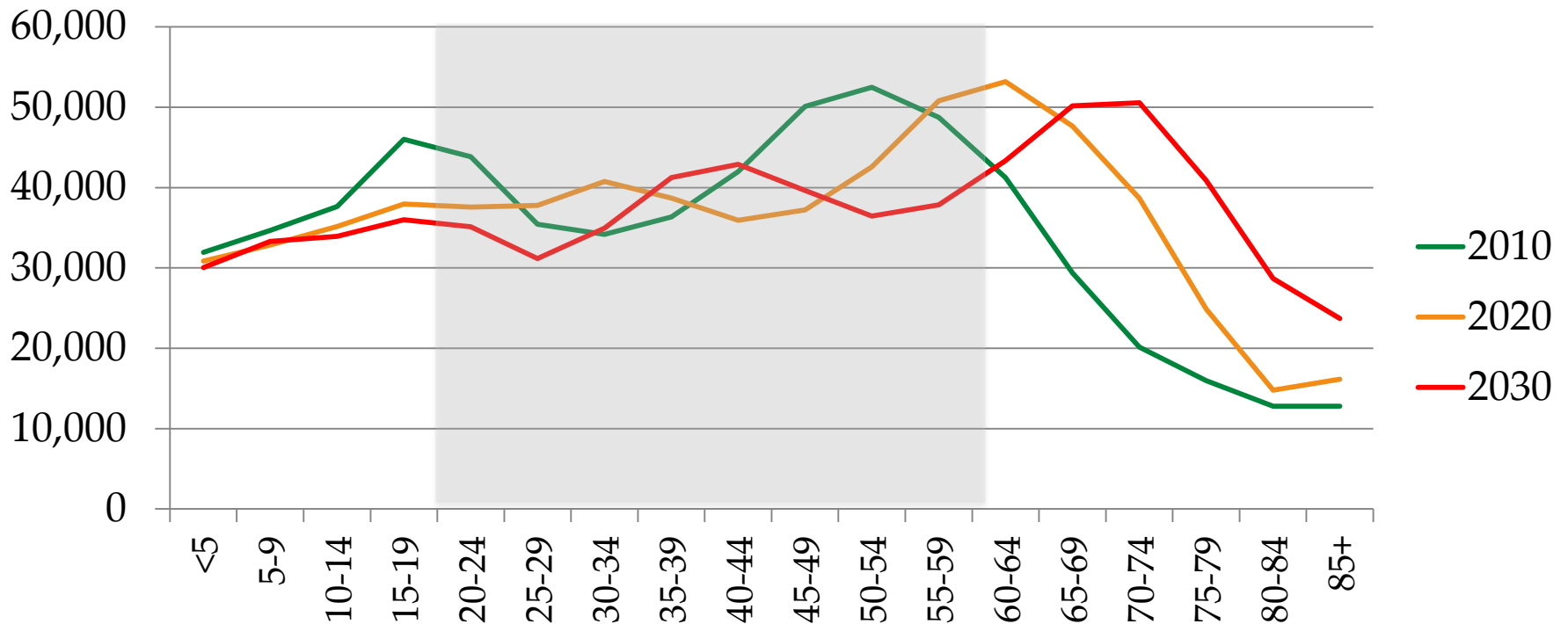
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Why are our property taxes
so high?

(a.k.a. *We all* have issues.)

I'm sure glad the
hole isn't in our
end o o o



THE TIPPING POINT

Freedom and Unity

- Voters decide whether to operate schools or not.
- If operating:
 - Voters decide how to structure the school(s)
 - Voters decide on the local budget
 - Boards provide oversight for multimillion dollar systems.
- Small units assume responsibility for all the same legal obligations as large units.





Freedom and Unity

The Ed Fund has to
raise enough statewide
to pay for all the
budgets voted on locally.

Challenges in Tuition Districts

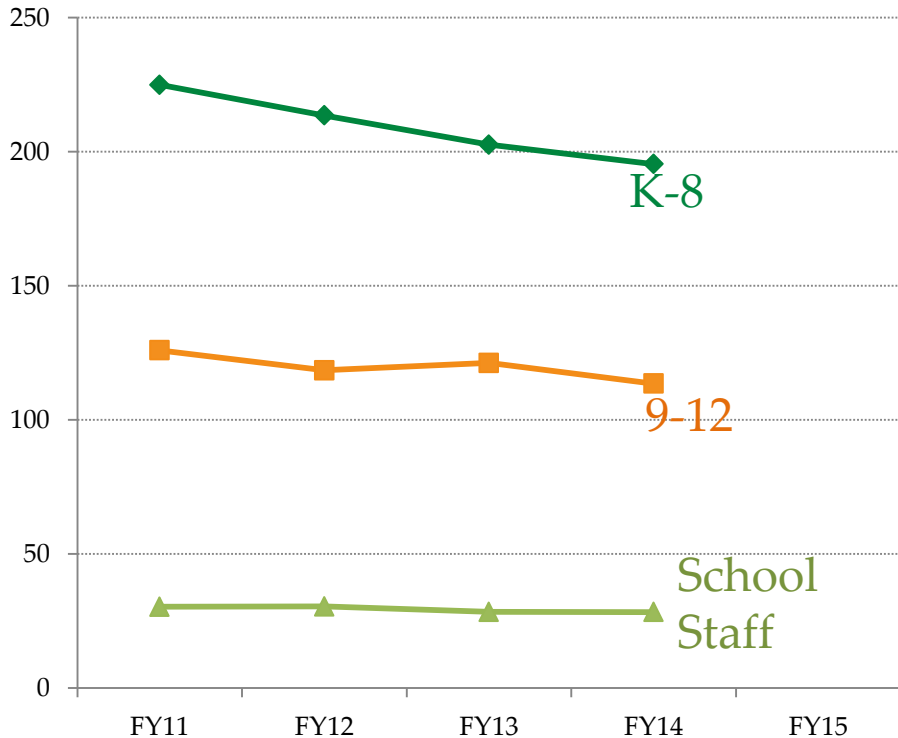


While student and staff #s decrease

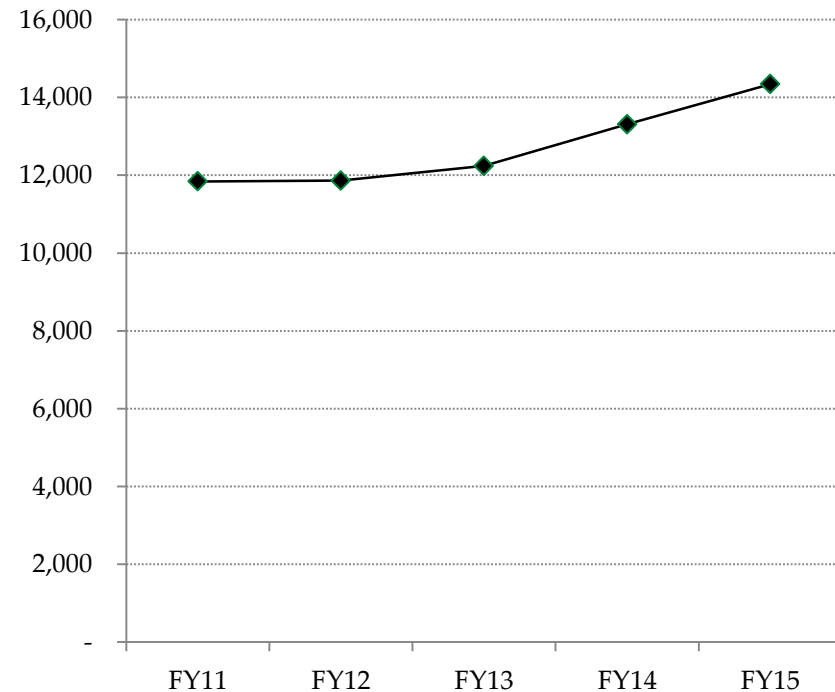


Per pupil spending increases

Students & Staff



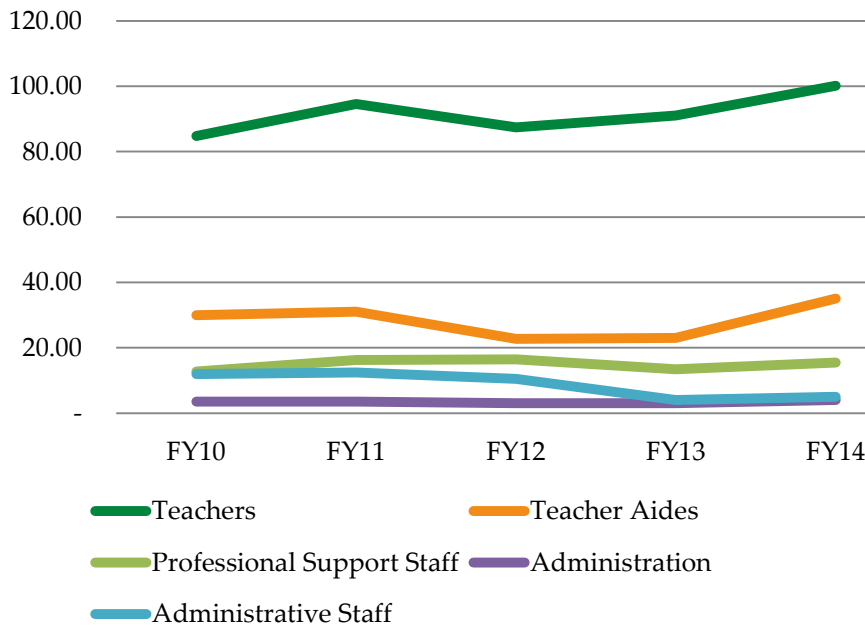
Ed Spend per EqPup



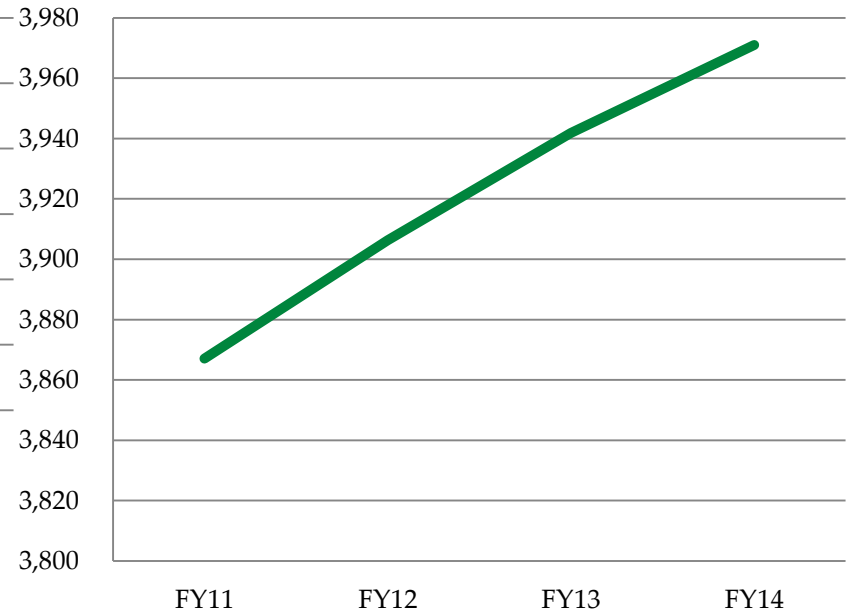
New instructional needs = Costs UP

There are more Burlington students and they speak 40 languages

Staffing at Burlington High School

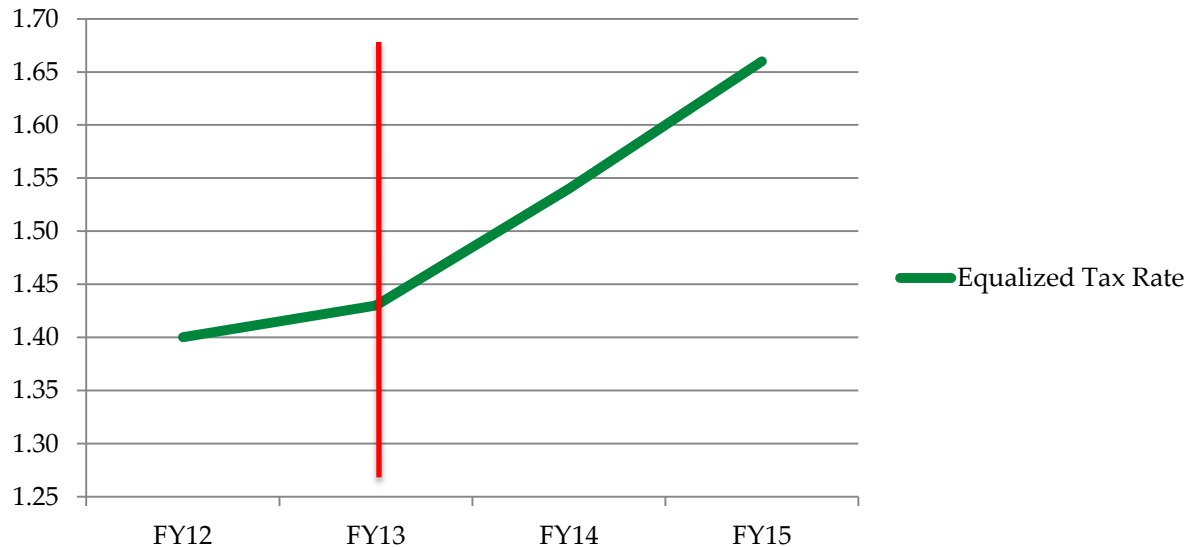


Average Daily Membership in Burlington, FY11-14



Even districts that privatize are seeing increases in tax rates

**North Bennington:
Equalized Tax Rate**



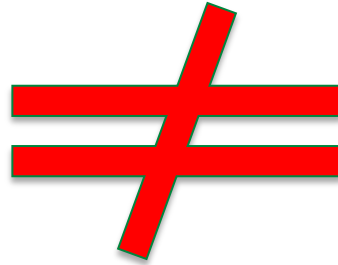
FY13 = last year of public school operation



Does size matter? (Learning)

Scale affects the breadth of opportunities you can provide onsite for the same per pupil expenditure.

Science at
School A
(300 Students)



Science at
School B
(80 Students)

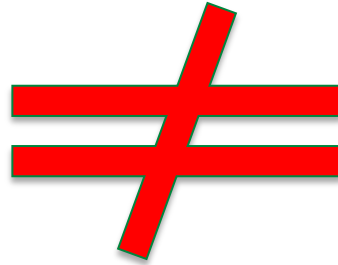


Scale affects the breadth of opportunities you can provide onsite for the same per pupil expenditure.

**Science at
School A
(300 Students)**



Earth Science
Biology
Biology—Other
Chemistry
Physics
AP Physics B
AP Environmental Science
Technical Science
Life and Physical Sciences—
Proficiency Development
Life and Physical Sciences—
Independent Study



**Science at
School B
(80 Students)**



Biology
Physical Science
Forensics

National empirical studies: Effects of School Size

“The policy-relevant question may not be whether *small* contexts are more beneficial for student learning than *large* contexts, but whether *medium*-size environments are preferable to large environments, at least in relation to class size.” (Ready and Lee, 2007)

Effect of School Size on Learning

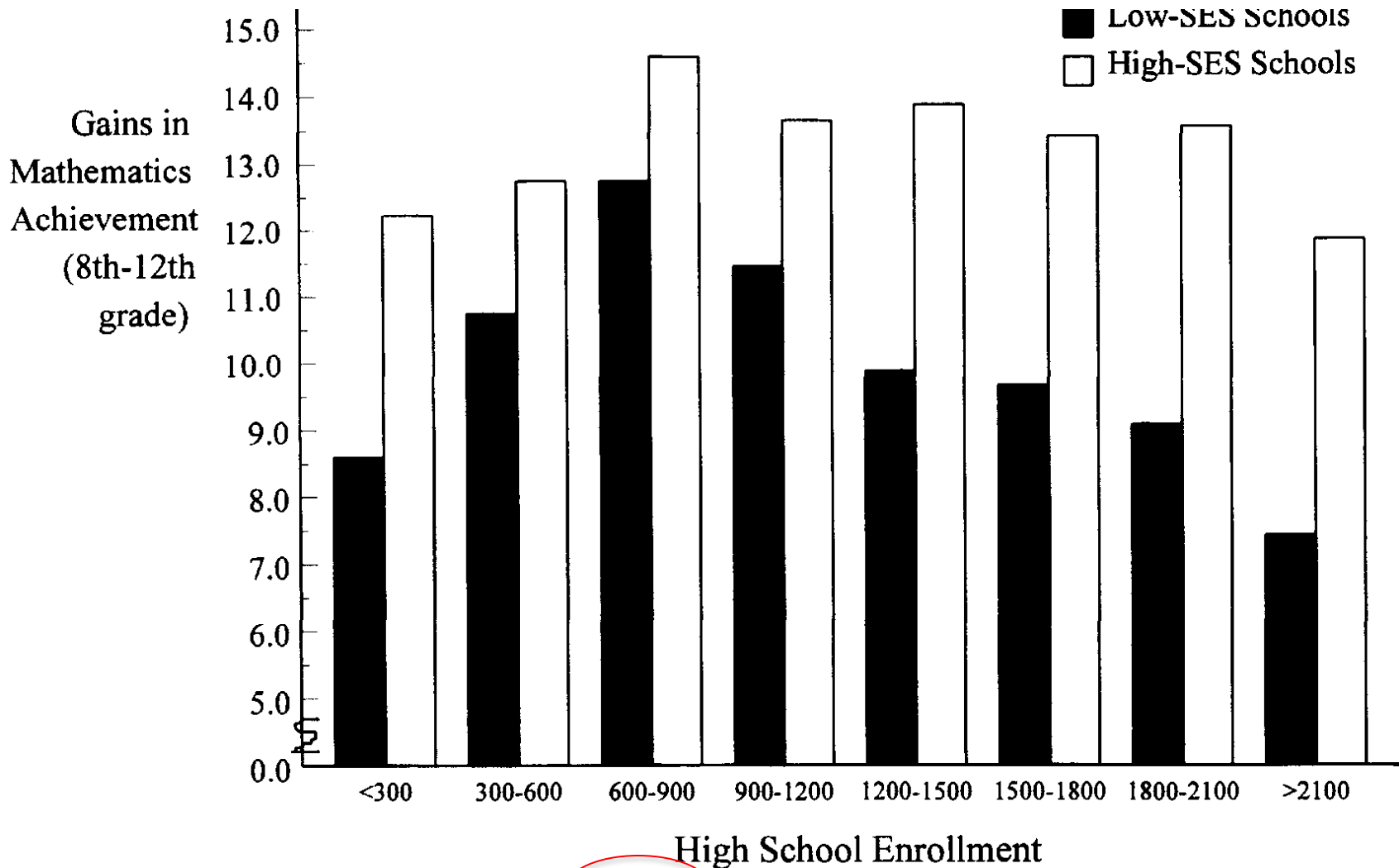


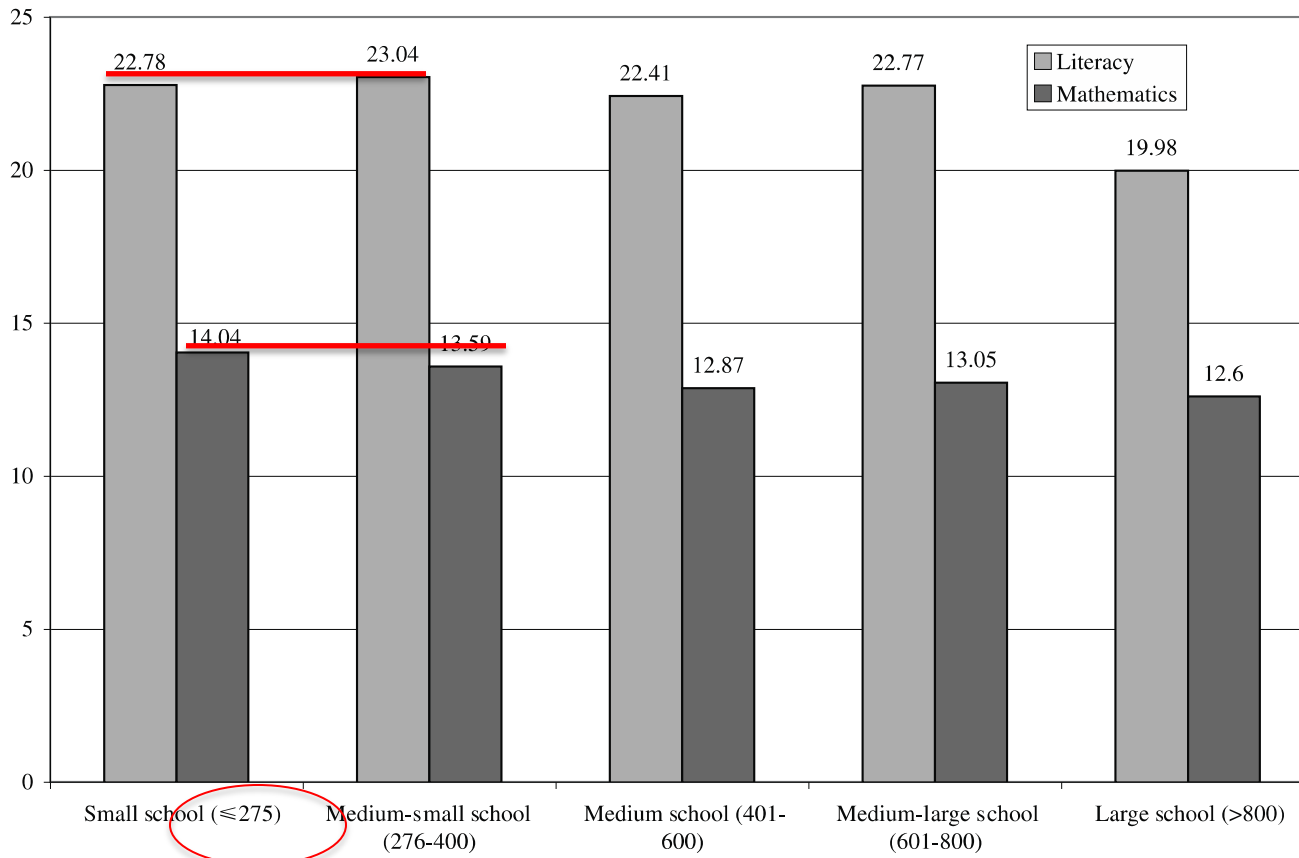
FIGURE 4. Average gains in mathematics achievement by high school size in low-SES and high-SES high schools.

Multivariate Models: Which Size High School Works Best for Whom?

Three findings are evident from Figure 4. The first is unsurprising, although noteworthy and trou-

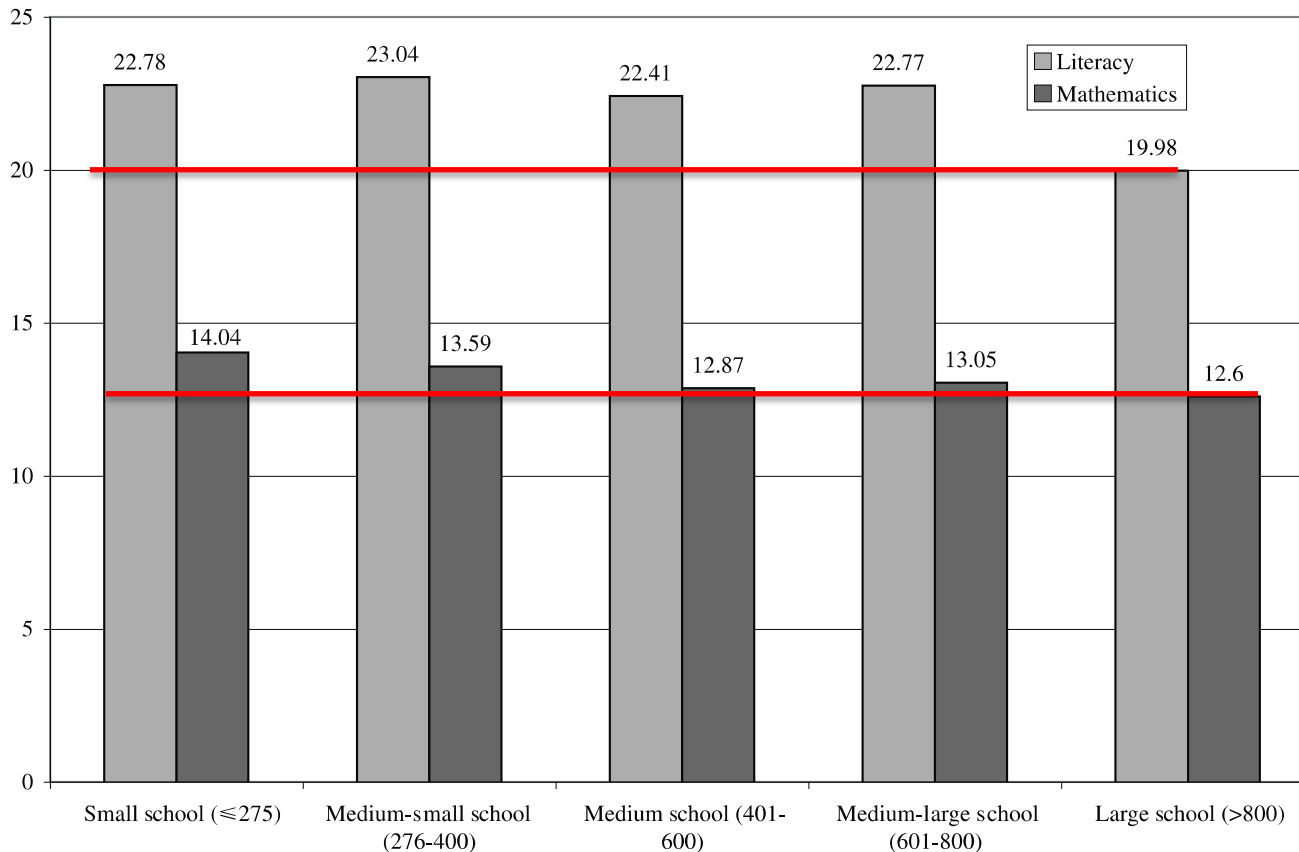
Minor performance differences between “small” (<275 children) and medium” (275-600 children) elementary schools

Points of learning per academic year



Notable performance differences between “large” (>800 children) and “medium” (275-600 children) elementary schools

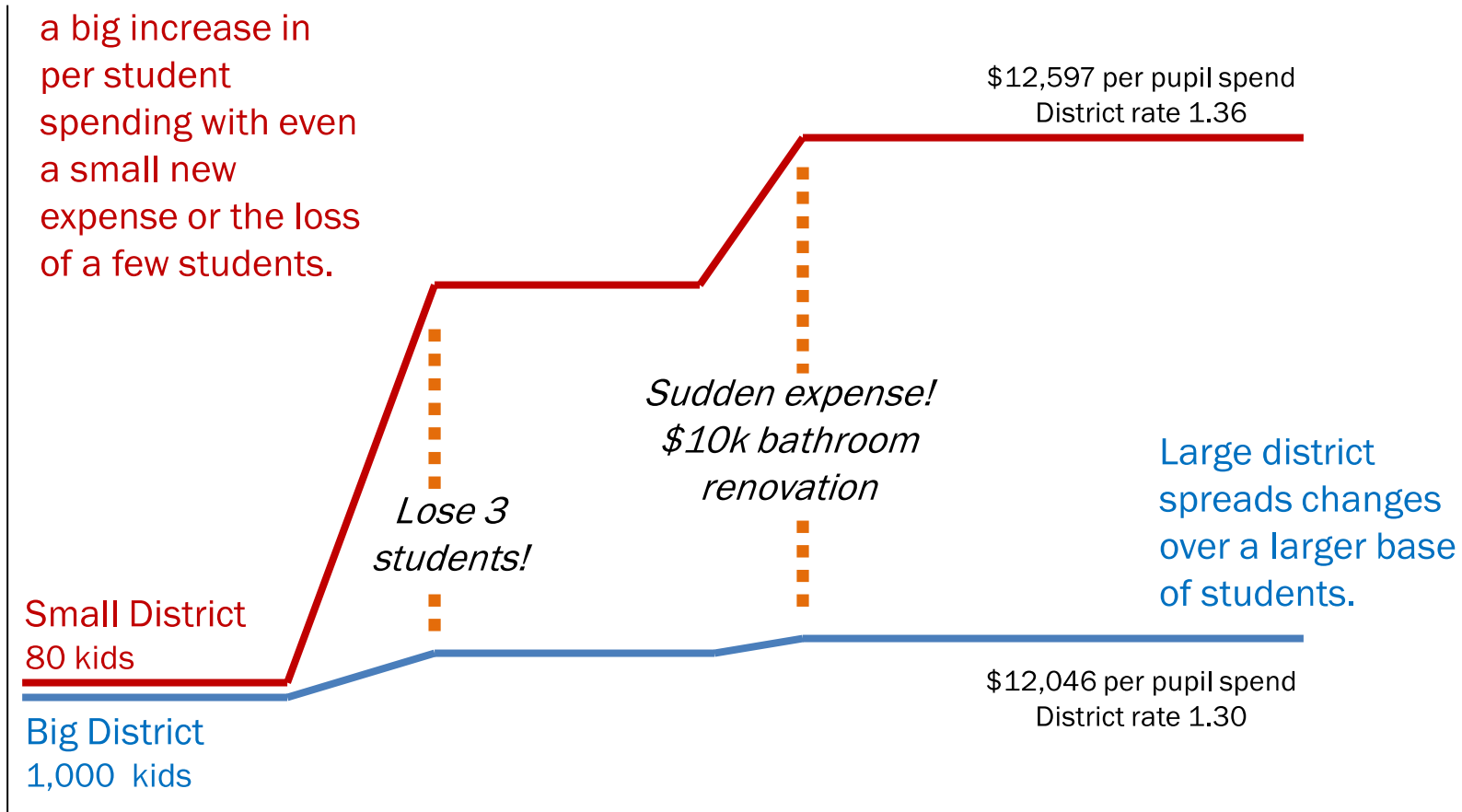
Points of learning per academic year



Does size matter?
(Finances)

SCALE matters

Small district sees a big increase in per student spending with even a small new expense or the loss of a few students.



Per pupil spending is at the heart of the funding formula. This is a challenge for small districts.

NY experience: merging can yield substantial cost savings for very small districts

Two districts,
300 pupils each

= **31%** cost savings



Two districts,
1500 pupils each
= **14%** cost savings



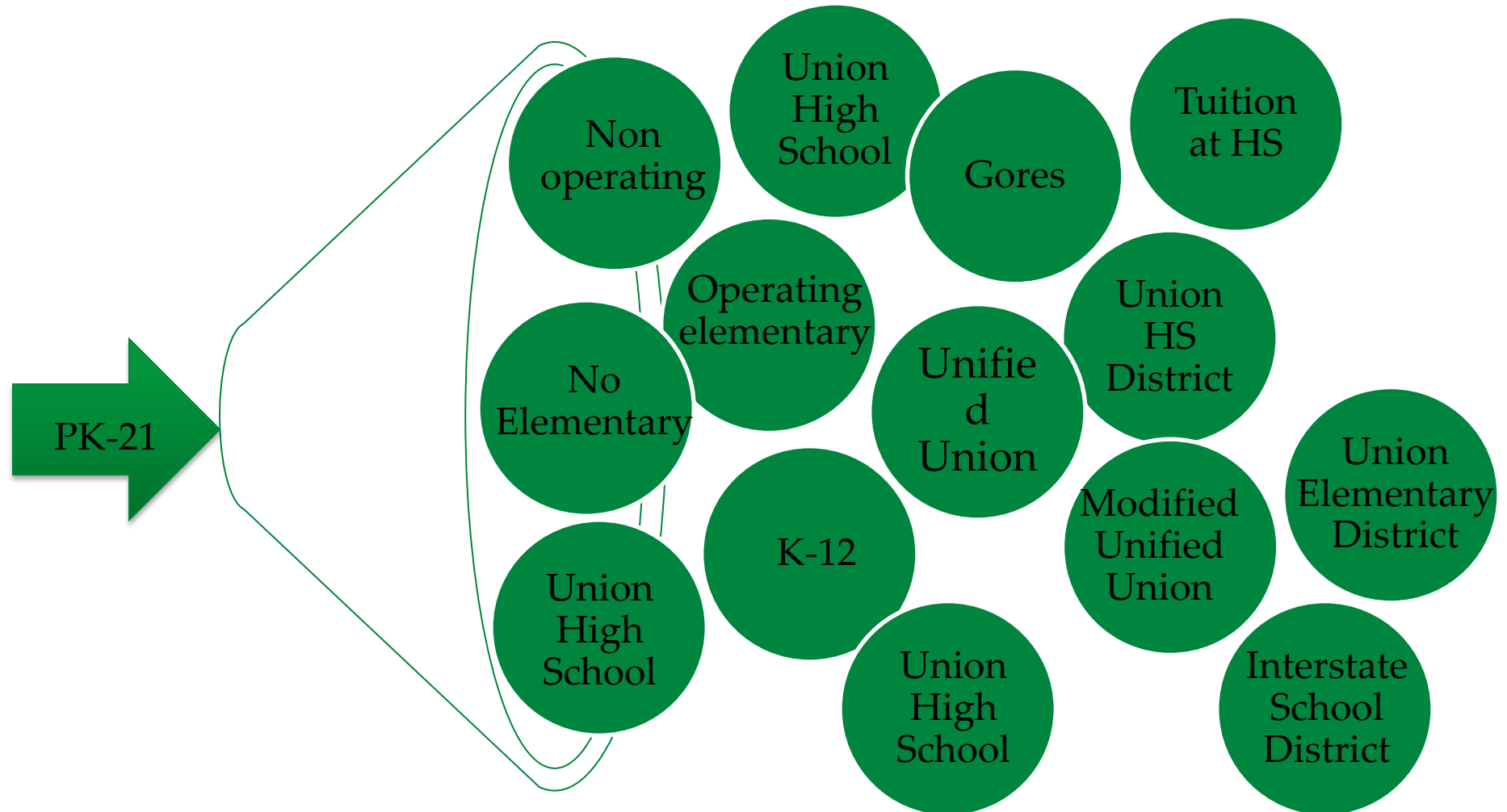
Duncombe and Yinger (2007)

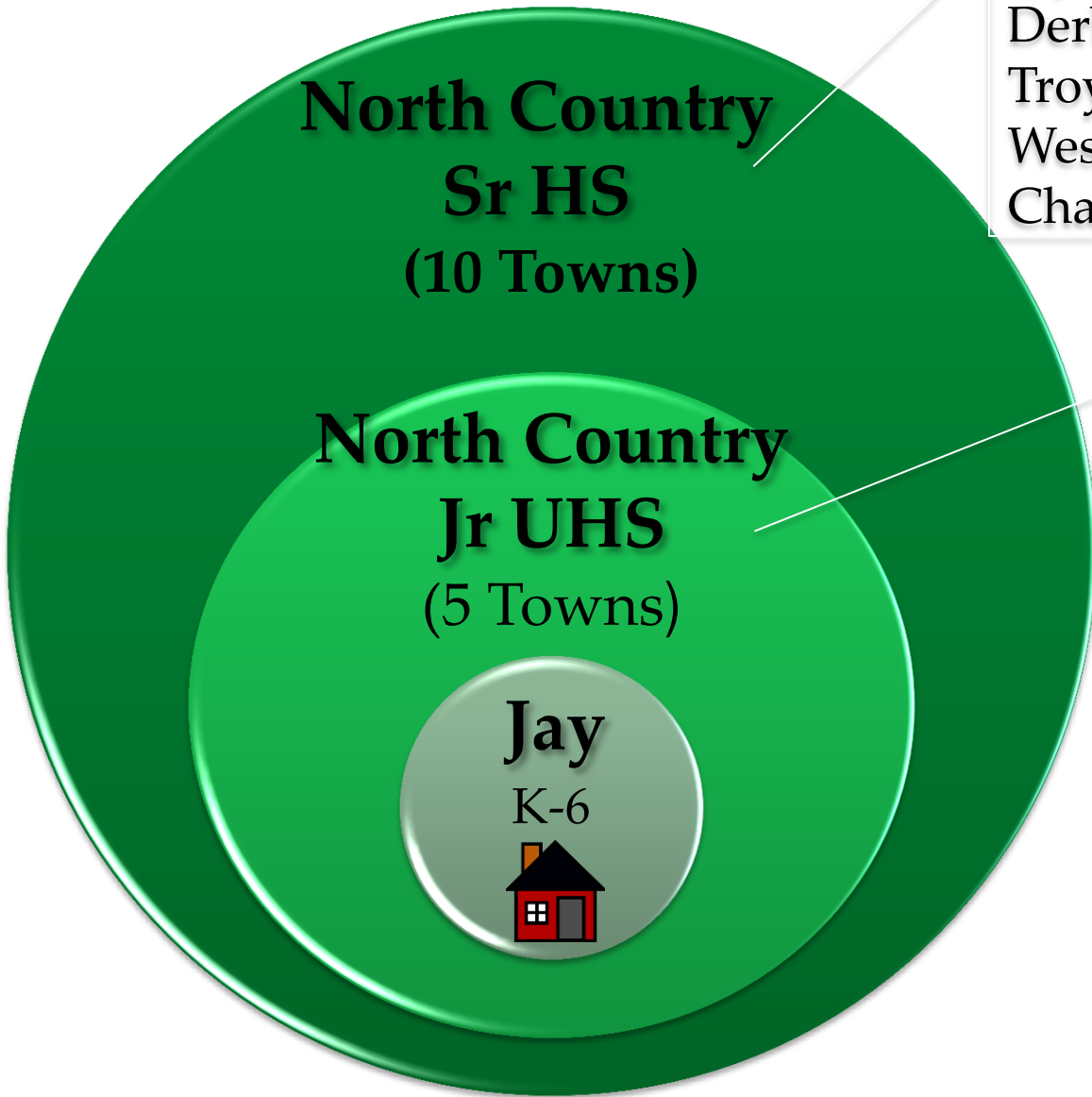
Do we even have a
Vermont “system”?

94% of all failure is the result of the system, not people.

W. Edwards Deming

13 Current Forms of School Governance



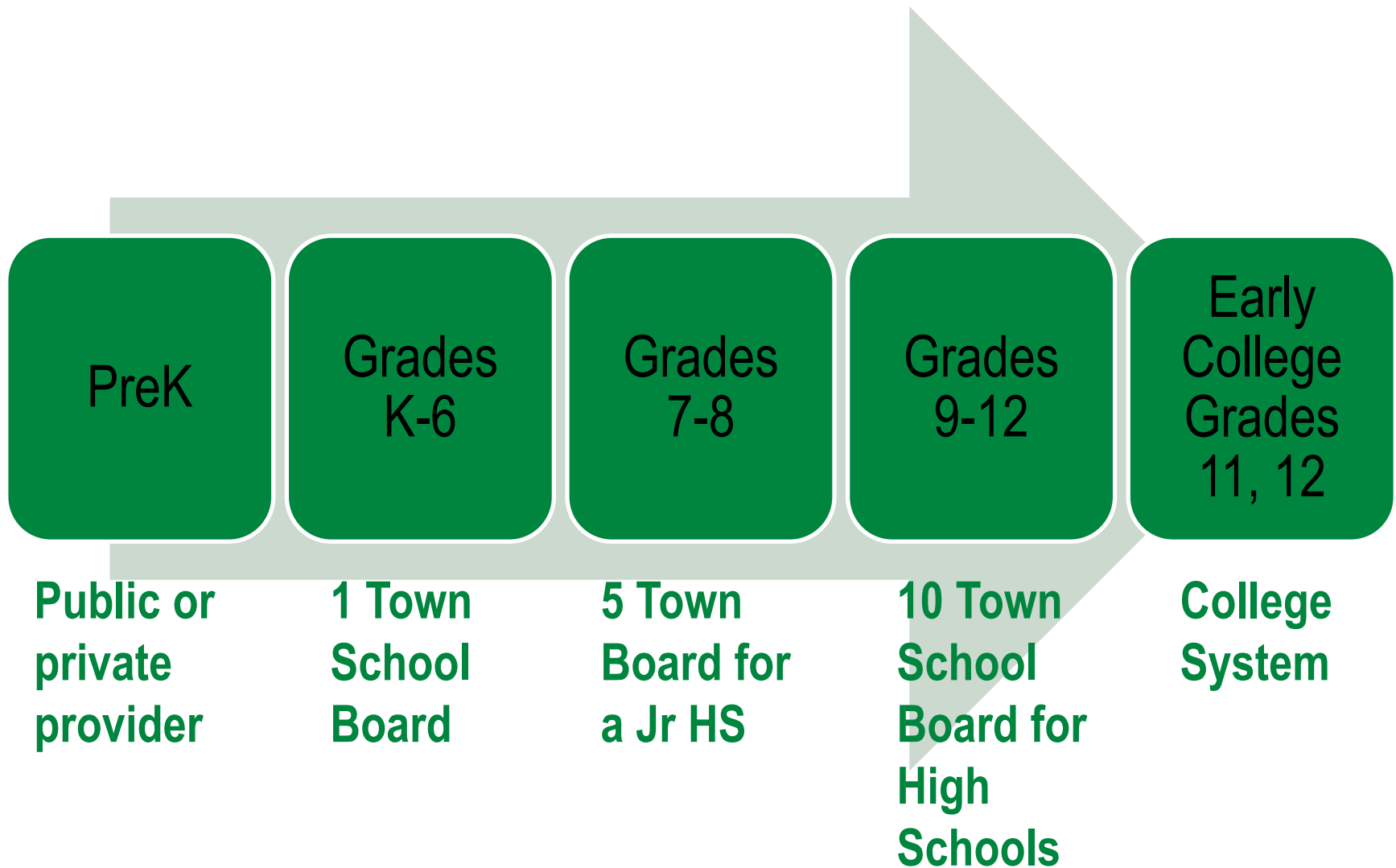


Jay, Morgan, Holland,
Derby, Newport City,
Troy, Newport Town,
Westfield, Lowell,
Charlestown, Brighton

Jay, Morgan,
Holland, Derby,
Newport City,

One home often
belongs to
multiple districts.

Fragmentation of Governance?



Think about the job of the superintendent in this Supervisory Union:

Governance Structure

School districts within the Bennington-Rutland Supervisory Union are governed by 11 school boards.

- Danby - a town school district governed by a 3-person board for resident students in grades 7-12
- Dorset - a town school district governed by a 5-person board for resident students in grades K-12, operates The Dorset School (K-8)
- Manchester - a town school district governed by a 5-person board for resident students in grades K-12, operates the Manchester-Elementary Middle School (preK-8)
- Mountain Towns Regional Education District - a RED governed by an 8-person board for resident students in grades PreK-12 for the towns of Langrove, Londonderry, Peru, and Weston, will operate the Flood Brook Union School effective July 1, 2013 (K-8)
- Mt. Tabor - a town school district governed by a 3-person board for resident students in grades 7-12
- Pawlet - a town school district governed by a 3-person board for resident students in grades 7-12
- Rupert - a town school district governed by a 3-person board for resident students in grades 7-12
- Sunderland - a town school district governed by a 5-person board for resident students in grades K-12, operates the Sunderland Elementary School (K-6)
- Union District #23 - a union school district composed of the Danby and Mt. Tabor town school districts for resident pupils in grades K-6, operates the Currier Memorial School (K-6)
- Union District #47 - a union school district composed of the Pawlet and Rupert town school districts for resident pupils in grades K-6, operates the Mettawee Community School (K-6)
- Winhall - a town school district governed by a 3-person board for resident students in grades K-12.

These districts belong to the Bennington-Rutland Supervisory Union which is governed by a 21-person board: each of the above districts that operates a school sends 3 representatives to the supervisory union board and the other boards each have one representative.



So if we could save money, simplify governance, get better performance data and invest in closing opportunity gaps through governance reform, why don't we?



Vermonters want a voice in their schools
and in the education of our children.
School identity is linked to community
identity.

How do we encourage communities to
respond proactively to the very real
challenges they face?