



THE WHOLE PICTURE OF PUBLIC EDUCATION IN NEW HAMPSHIRE

February 21, 2020
NH Fiscal Policy Institute


REACHING
HIGHER NH

WHAT INFLUENCES STUDENT LEARNING AND SUCCESS?

The Whole Picture of Public Education looks beyond individual classrooms and schools to explore the **family**, **community**, and **statewide factors** that impact learning, and begins to unpack how we can best support our students.

Student Outcome Indicators

- Student proficiency rates for Grades 4, 8, and 11 (SY17)
- Attendance rates (SY08, SY12, SY17)
- Graduation rates (SY10, SY14, SY17)
- Dropout rates (SY10, SY14, SY17)

Student & Teacher Indicators

- Enrollment trends (SY08, SY12, SY17)
- Student-to-teacher ratios (SY08, SY12, SY17)
- Class size (SY08, SY12, SY17)
- Teacher salary (SY08, SY12, SY17)

Community Indicators

- Income & poverty (SY08, SY12, SY17)
- Property wealth & housing costs (2006-2016)
- Unemployment (2006-2016)
- Educational attainment (2012-2016)
- Health indicators (2010-2017)

School Finance Indicators

- State & local funding sources (SY08, SY17)
- Spend per student (SY08, SY12, SY17)
- Town-level property tax data (SY17)

Sources Used: U.S. Census Bureau, NH Department of Education, NH Department of Revenue Administration, Vital Records Administration

Project Limitations

- Student Outcomes: We measure “student learning” using district performance on statewide assessments.
 - We fully acknowledge that one test cannot fully capture student learning and growth. However, the **assessment results are common yardsticks for district performance.**
- Availability and Reporting of Data

Fourth grade outcomes were most strongly associated with the concentration of families navigating poverty in a community.



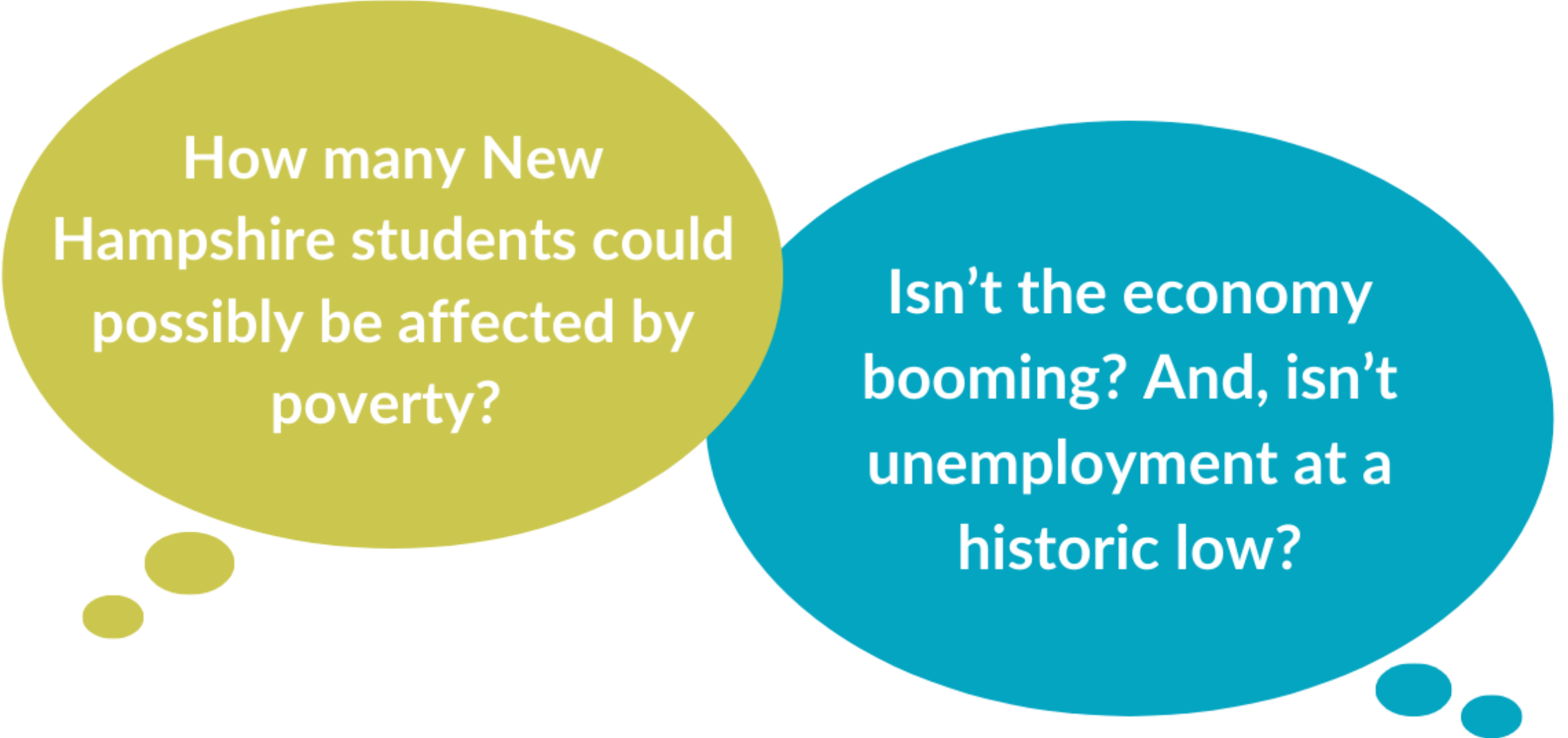
Source: NH Department of Education, 2017

Why might family income be crucial to 4th graders?

- When considering fourth grade students, their access to the outside world is based on their family and household.
- We also analyzed student-to-teacher ratios, district size, and the relative wealth of the community, but they fell flat when compared to family income.

This **does not mean** that students are not capable of scoring proficient on these tests.

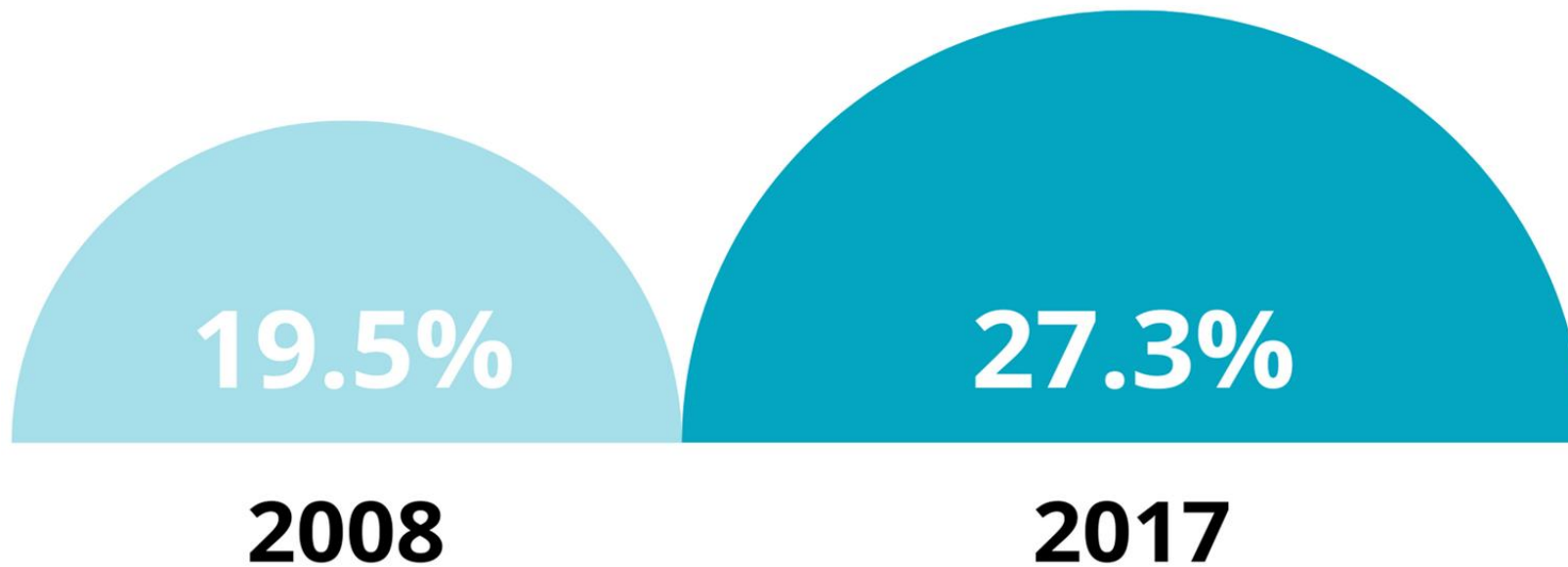
- The unique challenges that many students navigate – food insecurity, housing instability, and lack of basic needs like a healthy environment and access to doctors when they are sick – have proven to be particularly difficult to overcome.
- There are family, school, and community-based interventions that can **help remove barriers to learning** and create environments where students can thrive.



How many New
Hampshire students could
possibly be affected by
poverty?

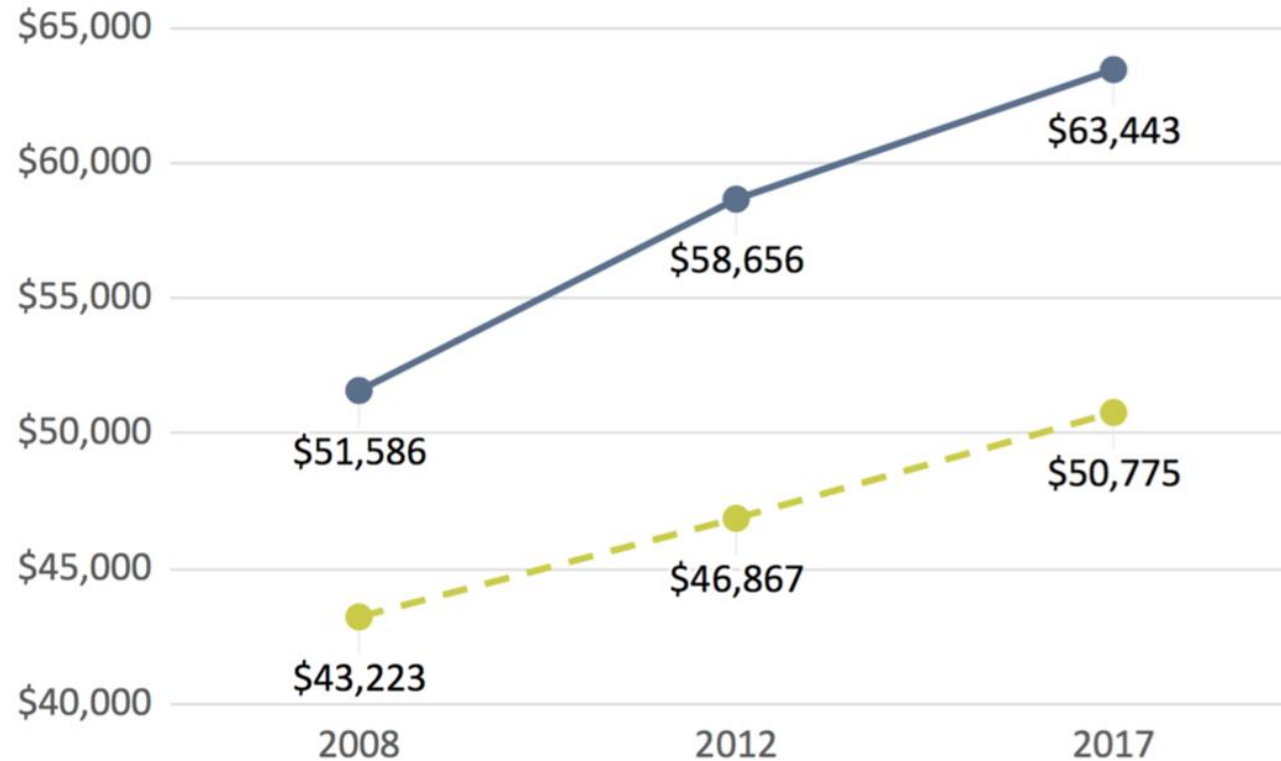
Isn't the economy
booming? And, isn't
unemployment at a
historic low?

The percentage of students
navigating poverty in New Hampshire
increased by 40% in nearly a decade.



Source: NH Department of Education

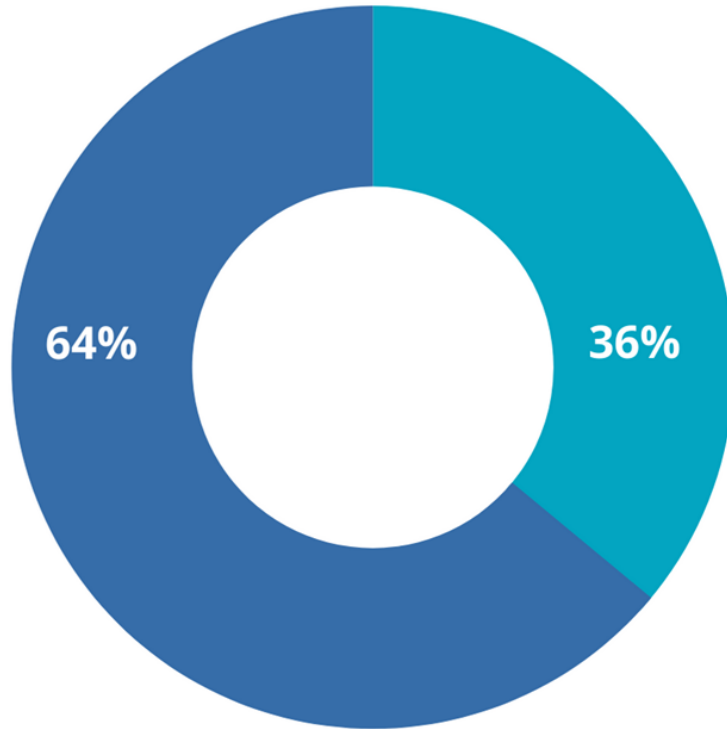
Average Teacher Salary, by Upper (Blue) and Lower (Green) Quartiles of Economic Advantage



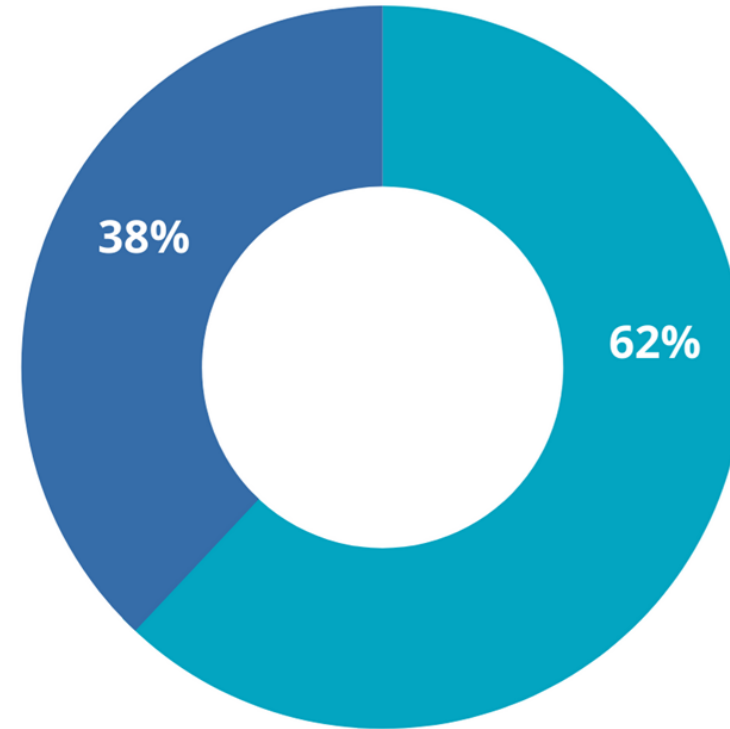
Source: NH Department of Education, 2017

As students get older, the predictors of their academic outcomes expand to include both family income **and** the educational attainment of the broader community.

IN DISTRICTS WHERE MOST
COMMUNITY MEMBERS HAVE
UP TO AN ASSOCIATE'S DEGREE,
36% OF EIGHTH GRADE STUDENTS
WERE PROFICIENT IN MATH



IN DISTRICTS WITH HIGH
CONCENTRATIONS OF
FOUR-YEAR COLLEGE GRADUATES,
62% OF EIGHTH GRADE STUDENTS
WERE PROFICIENT IN MATH



Source: NH Department of Education, 2017

As students get older, the predictors of their academic outcomes expand to include both family income **and** the educational attainment of the broader community.

We offer two **hypotheses**.

Educational Attainment of the Community

Hypothesis 1:

Older students have the opportunity to engage with the community-at-large, both with and without the aid of their parents or guardians. They may have mentors who encourage their interests and passions, who can help guide them in choosing classes, finding internships, or seeking other opportunities to develop and pursue their goals and also support them in staying on track as they experience challenges along the way.



Educational Attainment of the Community



Hypothesis 2:

We suspect that the educational attainment variable indirectly reflects other community-level factors for which we do not have data.

For example, we were unable to collect community-level data on health and wellness outcomes, environmental factors, community violence, substance use, mental health, and childhood trauma, abuse, and neglect, but research shows clear relationships between these factors and student learning.

Tableau Visualizations

<https://public.tableau.com/profile/reaching.higher.nh#!/>

Community profiles

<https://reachinghighernh.org/communityprofiles/>

Entire project

<https://reachinghighernh.org/wholepic/>

