May 18, 2020
NH Commission to Study School Funding

Charlie Toulmin
Liz Canada
Christina Pretorius
Dr. Adam Gilbert

THE WHOLE PICTURE OF PUBLIC EDUCATION IN NEW HAMPSHIRE
About Reaching Higher NH

- RHNH serves as a nonpartisan public policy and community engagement resource for New Hampshire families, educators, elected officials, and the broader public
- RHNH’s leading policy priority is informing & supporting public engagement on school funding through research & resources to make informed decisions
- RHNH has a broad set of research questions and community engagement initiatives we are exploring in 2020 and beyond
- Our ongoing research: The Whole Picture of Public Education in NH, Education Funding Network Newsletter (sign up at bit.ly/edfundingnews)
Today’s Agenda

- Project Introduction
- Key Findings of the Project
- Recent Research
- Continuing Research Priorities and Other Resources
Project Introduction
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.
<table>
<thead>
<tr>
<th>Student Outcome Indicators</th>
<th>Student &amp; Teacher Indicators</th>
<th>Community Indicators</th>
<th>School Finance Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Student proficiency rates for Grades 4, 8, and 11 (SY17)</td>
<td>· Enrollment trends (SY08, SY12, SY17)</td>
<td>· Income &amp; poverty (SY08, SY12, SY17)</td>
<td>· State &amp; local funding sources (SY08, SY17)</td>
</tr>
<tr>
<td>· Attendance rates (SY08, SY12, SY17)</td>
<td>· Student-to-teacher ratios (SY08, SY12, SY17)</td>
<td>· Property wealth &amp; housing costs (2006-2016)</td>
<td>· Spend per student (SY08, SY12, SY17)</td>
</tr>
<tr>
<td>· Graduation rates (SY10, SY14, SY17)</td>
<td>· Class size (SY08, SY12, SY17)</td>
<td>· Unemployment (2006-2016)</td>
<td>· Town-level property tax data (SY17)</td>
</tr>
<tr>
<td>· Dropout rates (SY10, SY14, SY17)</td>
<td>· Teacher salary (SY08, SY12, SY17)</td>
<td>· Educational attainment (2012-2016)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>· Health indicators (2010-2017)</td>
<td></td>
</tr>
</tbody>
</table>

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
Key Findings of the Project
Key Findings

• Fourth grade outcomes were most strongly associated with the concentration of families with school-aged children navigating poverty.

• As students get older, the predictors of their academic outcomes expand to include both the concentration of families navigating poverty and the educational attainment of the broader community.

• In high school, districts with higher teacher salaries outperformed their counterparts in academic outcomes and graduation rates.
Fourth grade outcomes were most strongly associated with the concentration of families with school-aged children navigating poverty.

% Students Eligible for Free and Reduced Price Lunch

% Students Proficient

Source: NH Department of Education, 2017
Fourth grade outcomes were most strongly associated with the concentration of families with school-aged children navigating poverty.

We also analyzed student-to-teacher ratios, district size, and the relative wealth of the community, but they fell flat when compared to a district’s concentration of poverty.
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.
Poverty in New Hampshire

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

- In every county in New Hampshire, children are significantly more likely than senior citizens to live in poverty.
- The percentage of students living in poverty has increased, even as the overall student population has decreased 12% since 2008.

Source: NH Department of Education
<table>
<thead>
<tr>
<th>District</th>
<th>2017 Enrollment</th>
<th>2017 FRL Eligible</th>
<th>2017 % Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exeter Region Cooperative (Middle and High School)</td>
<td>2,997</td>
<td>287</td>
<td>9.6%</td>
</tr>
<tr>
<td>Cooperative Towns’ Elem Schools</td>
<td>1,865</td>
<td>200</td>
<td>10.7%</td>
</tr>
</tbody>
</table>

Source: NH Department of Education
<table>
<thead>
<tr>
<th>District</th>
<th>2017 Enrollment</th>
<th>2017 FRL Eligible</th>
<th>2017 % Eligible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manchester School District (Middle and High Schools)</td>
<td>6,396</td>
<td>3,293</td>
<td>51.5%</td>
</tr>
<tr>
<td>Manchester School District (Elem Schools)</td>
<td>5,101</td>
<td>3,204</td>
<td>62.8%</td>
</tr>
</tbody>
</table>

Source: NH Department of Education
As of January 2020, the NH Department of Education identified 19 schools that are eligible for the **Community Eligibility Provision (CEP)**, which allows schools to offer free breakfast and lunch to all students without collecting household paperwork. These schools represent 6,347 students.

An additional 35 schools were identified as “near eligible.” These schools represent 12,165 students.

*Source: NH Department of Education*
As students get older, the predictors of their academic outcomes expand to include both concentration of families navigating poverty 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 the concentration of poverty and the educational attainment of the broader community.

We offer two hypotheses.
Educational Attainment of the Community

Hypothesis 1
Social Capital

Hypothesis 2
Availability of Data
In high school, districts with higher teacher salaries outperformed their counterparts in academic outcomes and graduation rates.
## Average Teacher Salary and Graduation Indicators, 2017

<table>
<thead>
<tr>
<th></th>
<th>High School Graduation Rate</th>
<th>High School Dropout Rate</th>
<th>K-12 Student Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottom 20%</td>
<td>87.4%</td>
<td>3.0%</td>
<td>13,305</td>
</tr>
<tr>
<td>(&lt;$48,132)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top 20%</td>
<td>94.5%</td>
<td>0.8%</td>
<td>37,014</td>
</tr>
<tr>
<td>(&gt;=$62,970)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: NH Department of Education, 2017
Average Teacher Salary, by Upper (Blue) and Lower (Green) Quartiles of Economic Advantage

Source: NH Department of Education, 2017
Recent Research

Student Enrollment and Demographic Trends in New Hampshire
Updated analysis

- Updated analysis includes data from 2018
- Most findings have remained
  - Concentration of families with school-aged children who are navigating poverty
  - Educational attainment
  - Average teacher salary
School Funding Formula

**Base Adequacy Aid**
- Student Enrollment

**Differentiated Aid**
- Students Navigating Poverty
- Students with Disabilities
- Multilingual Students Receiving Language Instruction
- 3rd Graders Not Proficient in Reading*
Change in Student Enrollment, 2017-2019

Note: This figure now includes full day kindergarten

Source: NH Department of Education
Change in Number of Students Navigating Poverty, 2017-2019

Source: NH Department of Education
Change in Number of Students Navigating Poverty by County, 2017-2019
<table>
<thead>
<tr>
<th>Category</th>
<th>Number of Towns</th>
<th>Number of Students</th>
<th>Average % of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 12%</td>
<td>53</td>
<td>37,372</td>
<td>6%</td>
</tr>
<tr>
<td>12% - 48%</td>
<td>163</td>
<td>105,120</td>
<td>29%</td>
</tr>
<tr>
<td>48% or more</td>
<td>29</td>
<td>26,240</td>
<td>55%</td>
</tr>
</tbody>
</table>

Source: NH Department of Education
Change in Number of Students with Disabilities, 2017-2019

% Students with Disabilities

Source: NH Department of Education
Change in Number of Students with Disabilities, by County, 2017-2019
Change in Number of Multilingual Students, 2017-2019

Source: NH Department of Education
Change in Number of Multilingual Students, by County, 2017-2019
Continuing Research Priorities and Other Resources
Research in 2020 and Beyond

How do families, students, educators, business and community leaders, and the broader public view public education?

When it comes to equitable opportunity to an adequate education, do student opportunities vary by place?
Research in 2020 and Beyond

How remote learning is affecting students’ mental health

Adjustments, disappointments, and silver linings: Students reflect on remote learning

“We’re just trying to take it day by day”: Educators reflect on challenges and see opportunities with remote learning

Educators face challenges in delivering support services and addressing new hardships
Questions?

Get in Touch!

Charlie Toulmin, Interim Executive Director: charlie@reachinghighernh.org
Liz Canada, Interim Deputy Director & Director of Policy and Practice: liz@reachinghighernh.org
Christina Pretorius, Communications Director: christina@reachinghighernh.org
Adam Gilbert, PhD, Data Consultant: adam@reachinghighernh.org

Follow us on Social Media
fb.com/reachinghighernh
twitter: @ReachHigherNH
www.reachinghighernh.org

Sign up for the Education Funding Network Newsletter
Additional Resources

The Community Eligibility Provision Fact Sheet, Apr 2015, US Department of Agriculture

Community Eligibility Provision Annual Notification of Schools, Jan 2020, NHDOE