The Class of 1964 Policy Research Shop — Celebrating 10 Years of Service to New Hampshire and Vermont —

CONSOLIDATION AS A POTENTIAL COST SAVING MEASURE FOR NEW HAMPSHIRE’S EDUCATION SYSTEM

Presented to the New Hampshire House of Representatives Finance Committee-Division II

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EXECUTIVE SUMMARY

This study examines the consolidation of schools, school districts, and SAUs in New Hampshire as cost saving measures for the state’s education system. With declining enrollments and a shrinking school-age population, New Hampshire’s schools may benefit from consolidation without education performance and quality tradeoffs. Taking into account New Hampshire’s demographics, this study finds that consolidation has the most potential in non-rural, non-remote areas, which are least susceptible to losses in education measures and increases in transportation costs.

1. INTRODUCTION

In 2008, New Hampshire adopted a new public school funding model in response to various New Hampshire Supreme Court rulings regarding the state government’s role in funding its schools. In addition, the state has also experienced declining enrollments across a variety of school districts, a trend that will likely continue in the foreseeable future. This section identifies opportunities for improvement by evaluating the current education system in New Hampshire and the strains imposed on it.

1.1 Governing Statutes

New Hampshire’s current education model is largely defined by past New Hampshire Supreme Court cases. Specifically, the series of decisions made in the Claremont School District cases determined the state’s requirements for educational adequacy. In its decision for Claremont II (1997), the New Hampshire Supreme Court stated that the state must meet seven criteria, ranging from oral and written communication skills to academic and vocational skills, to satisfy its constitutional burden to provide its citizens with an adequate education. The state’s Supreme Court added additional accountability measures to the state educational adequacy mandate in its decision in Claremont VII (2002).

To meet these educational adequacy mandates, the New Hampshire state government passed a series of measures that revised its previous school funding statutes. HB 927 (2007) was passed to update the meaning of an adequate education to what was defined by the Supreme Court cases, modeling the state’s education adequacy guidelines directly after the court’s criteria laid out in Claremont II. SB 539 (2008) was passed in response to Londonderry School District (2008), which alleged that the state was once again not meeting its constitutional duties. The bill provided a formula to determine the cost of an adequate education and showed that the state was making an effort to meet its duties, helping dismiss the Londonderry court case. Together, HB 927 and SB 539 are the two main governing statutes of New Hampshire’s educational funding model, determining both the main elements that the education system must provide and the ways in which the state shall meet its burden to do so.
1.2 Funding Model

Each school in New Hampshire has three main sources of revenue: local taxes, state grants, and federal grants. This section examines how the state of New Hampshire allocates its funds to the different schools. In 2008, after the New Hampshire House of Representatives passed HB 927 and defined the opportunity for an adequate education, the New Hampshire State Senate passed SB 539, which quantified the cost of this opportunity. The Supreme Court approved this new model.

SB 539 has three main components. The first describes an “Opportunity for an Adequate Education” which includes a universal cost, money granted to all students, and a differentiated aid, which grants funds to at-risk students. The second component is the fiscal disparity aid, which goes to communities who struggle to raise revenues from their own local taxes. The third section covers transition costs from the previous formula to the new one. The state aid is calculated on a per student basis, shifting resources to bigger schools and, as a consequence, incentivizes schools to align their student-teacher ratios to maximize funding. As a result, SB 539 increased the average per pupil cost by 11 percent from the previous model. The plan’s specific formula for the “Universal Cost,” written by the Costing Committee, highlights the ideal staff-to-student ratios (Appendix 1).

1.3 Challenges

In the search for an alternative funding model for its education system, New Hampshire faces several challenges. In particular, the state’s demographic trends, such as the aging population and declining school-aged population, will heavily influence the long-term feasibility of any new models. In addition, the fact that New Hampshire’s current education funding model is significantly impacted by the State Supreme Court’s decisions will constrain attempts to make broad and sweeping changes to the formula.

1.3.1 Demographic Trends

In keeping with the general demographic trends in New Hampshire, the school-aged population, and therefore public school enrollment, is also declining steadily. Over the past decade, enrollment in public schools has fallen more than 10 percent, and population projections forecast that it will continue to decline until 2025. The latest statewide population projection specifically predicts that the school-aged population aged 5 to 19 years will fall from 256,000 in 2010 to less than 222,000 by 2025, declining by 13.4 percent.

Public schools have already started to feel the impact of this decline in the school-aged population. Since 2000, the number of public schools has declined by 10, all of which is due to elementary schools consolidating or closing in response to the decrease of students. The size of the average school district in New Hampshire has also seen
significant change, going from 1,166 students in 2000-01 to 1,064 students in 2012-13. Going forward, the public school system needs to take into consideration this ongoing decline in the student population and the impact it has on the sustainability of maintaining its current schools in formulating a cost-saving plan.

1.3.2 Legal Limitations

Because the statutes (HB 927 and SB 539) governing the current educational funding are bound closely to the adequacy requirements set out by Supreme Court cases, it is difficult for New Hampshire to alter the funding formula significantly without breaking the constitutional mandate determined by the Court. There are only a few components in the cost formula — such as custodial services, facilities maintenance, and transportation — not tied to the definition of adequacy. As a result, any attempt to change the funding formula while upholding the constitutional mandates of the state will only affect a small portion of the formula.

1.4 Policy Goals

After defining the existing public education structure in New Hampshire in the above sections, this report explores possible reforms, specifically consolidation and resource sharing, which may reduce costs while maintaining or improving educational outcomes.

2. CONSOLIDATION

School systems seeking to improve fiscal efficiency often consider consolidation as a possible policy option. Consolidation attempts to improve resource distribution by combining existing entities together at both the district and school level. This section reviews the existing literature on school consolidation and identifies the conditions under which New Hampshire might pursue this policy, analyzing possible implementation methods.

2.1 Literature Review

According to the National Center for Education Statistics, 117,108 school districts provided elementary and secondary education in 1939-40. By 2006-07, the number of districts had dropped to 13,862, a decline of 88 percent. While consolidation appears to be a national trend, it is not always a successful transition due to increased transportation costs and reduced academic benefits.

2.2 School Consolidation

School consolidation is defined as “closing one or more schools and shifting its student population to another school or schools.” Because it involves the physical relocation of
students as well as closing buildings, school consolidation tends to have a more direct impact on the surrounding community than district consolidation does. This translates into unique opportunities and obstacles.

2.2.1 Benefits

The main benefit of school consolidation is increased savings through economies of scale. In a study done by Miley & Associates, Inc., the authors found that smaller schools tend to spend more per student than larger schools, and that these schools could save money through consolidation by distributing the fixed costs associated with maintaining a physical plant among several schools. In addition, school consolidation also divides the costs of teacher salaries among the member institutions. In New Hampshire, some schools have student-to-teacher ratios as low as 4.3:1. While there are undeniable educational benefits to having a low student-to-teacher ratio, schools can still benefit from the more efficient allocation of resources provided through consolidation, reducing the expenditure per pupil.

Another benefit of school consolidation is the schools’ increased ability to provide students with more curricular options. A study conducted in the state of Vermont found that in high schools with 400 or fewer students, curricular options, and, in particular, advanced course offerings and electives, were severely limited. While the study notes that participation in such curricular options may decline in large high schools with enrollments above 900 pupils, it maintains that the general unavailability of opportunities in these smaller high schools demonstrates that school consolidation may benefit their student bodies. In New Hampshire, roughly 40 percent of the 98 high schools in the state enroll fewer than 400 students, indicating that school consolidation is an area for exploration.

2.2.2 Disadvantages

There are also several drawbacks to school consolidation. One such disadvantage is the potential negative impact of school consolidation on students’ academic progress. Several studies suggest that smaller schools have greater achievement equity than larger ones do, indicating that school consolidation may lead to a wider achievement gap among students as well as less equitable and lower-achieving school systems. In addition, school consolidation does not guarantee lower operating costs. In order to accommodate the larger number of students, schools receiving students through consolidation may be forced to engage in more capital construction.

Furthermore, consolidating geographically isolated schools will increase the average distance, and, in turn, the average costs, of transportation for students. This increased transportation time not only poses an obstacle for schools trying to save money but may also disrupt student academic experiences. Specifically, “long commutes to and from
school have been associated with decreased parent involvement, lower grades, and lower student extracurricular participation.”

In addition, school consolidation may have a negative economic impact on the communities where affected schools are located. The loss of a neighborhood school may lower property values in the area. According to a report on small communities, those with a successful local school are more likely to attract parents with a higher per capita income and white collar jobs than communities without one, which in turn leads to construction of newer housing and higher overall housing values. Furthermore, by closing schools, the community may also lose a major source of employment and spending, specifically from the potential job loss for teachers and other school staff. In addition, since many parents are inclined to purchase goods and services in the communities where their children attend school, closing the local school can be a detriment to businesses in the area.

School consolidation may also have a negative impact on community values. In many communities, the local school serves as the focal point of community activities and where the symbolic identity of the community manifests. Closing a school would therefore reduce the community’s number of public meeting spaces as well as impact its identity. Both of these factors may, in turn, lead to decreased civic participation and parent involvement. A study by Post and Stambach on communities in North Dakota found that after communities closed their local schools, they “experienced a decline in community involvement with local organizations.” Duncombe and Yinger found that when neighborhood schools are closed, parental involvement in schools is also negatively affected, possibly due to the difficulty of actively participating in schools located further away.

2.2.3 Application in New Hampshire

New Hampshire’s small school sizes, as well as low student-to-teacher ratio compared to the national average, suggest that the state may benefit from the economies of scale associated with school consolidation without reaching the negative effects of large schools (elementary schools with 300-to-500 students and high schools with 600 to 900 students). In addition, since New Hampshire’s five-year moratorium on state building aid was lifted in 2015, many schools are behind on maintenance and may require renovation in the near future. By examining the possibility of school consolidation, the state may be able to reduce building and renovation costs. Moreover, the state may consider selling the land or buildings of consolidated schools to colleges and other private organizations to generate revenue.

Because many New Hampshire schools are located in geographically isolated places where transportation would be difficult, especially in the winter months, the state must consider whether transportation and other related costs could outstrip the gains achieved...
through reducing capital investments and teacher salaries. School consolidation may be most effective when evaluated on a case-by-case basis.

2.3 District Consolidation

Another consideration is school district consolidation, which benefit from “economies of size,” defined by the American Association of School Administrators as a circumstance in which spending on education per pupil declines as the number of pupils goes up, keeping school district performance constant. In Revisiting Economies of Size in American Education: Are We Any Closer to a Consensus?, researchers found that the optimal school district size is between 2,000 to 4,000 students and that smaller districts may realize sizable savings from consolidation. The Center for American Progress identified the same range in its study on consolidation, finding that small, non-remote school districts (1,000 students or fewer) across the nation might represent as much as $1 billion in lost annual capacity, or money that may be saved if the school districts were larger. It is important to note that that these savings can only be realized by consolidating small non-rural or non-remote districts. The research did not examine the effects of school district consolidation on rural areas. Rural and remote districts are defined as located on a “census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.”

William Duncombe and John Yinger from the Center for Policy Research at Syracuse University found that, controlling for student performance, school district consolidation of 12 districts in upstate New York, ranging from 250 to 1,990 students, from 1985 to 1987 resulted in significant operating costs savings but not capital costs savings. Specifically, the study found that “annual operating spending per pupil declines by 61.7 percent when two 300-pupil districts merge and by 49.6 percent when two 1,500-pupil districts merge.” The savings were especially significant in instruction and administration, but the study found no economies — or diseconomies — of size for student transportation. There are some demographic similarities between New Hampshire and New York. Appendix 4 shows an example of the sizes of districts that merged in New York, and Appendix 5 shows the transition of per pupil costs.

2.3.1 New Hampshire School Districts

New Hampshire currently has 175 school districts. More than half of New Hampshire’s school districts have fewer than 1,000 students enrolled (69 percent). While rural or remote designations may exempt many school districts from the benefits of consolidation, New Hampshire contains several school districts that are both small and non-rural. Given that the number of districts has remained the same despite student enrollment dropping by 9.5 percent from 205,229 students in 2000 to 186,223 students in 2013, the state New Hampshire may benefit school districts consolidation.
Table 1: Range of School District Sizes in NH

<table>
<thead>
<tr>
<th># of School Districts</th>
<th>0-100 Students</th>
<th>101-500 Students</th>
<th>501-1,000 Students</th>
<th>1,001-1,500 Students</th>
<th>1,501-2,000 Students</th>
<th>2,000-4,000 Students</th>
<th>4,000+ students</th>
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<tr>
<td></td>
<td>27</td>
<td>50</td>
<td>22</td>
<td>23</td>
<td>12</td>
<td>14</td>
<td>6</td>
</tr>
</tbody>
</table>

2.3.2 Application in New Hampshire

To determine the benefits of school district consolidation in New Hampshire, we will examine case studies in Vermont and Maine.

A recent study in Vermont assessed possible school district consolidation criteria for smaller states in more rural areas. In Vermont, districts that fall under the following criterion may be suitable for consolidation:

- Districts less than 10 miles from one another, center to center;
- Districts placed along relatively major state highways with few significant geographic barriers between them;
- Districts with high per pupil staffing costs compared to the rest of the state; and
- Districts with significantly low student enrollment compared to the rest of the state.

The study indicates that while school district consolidation may lead to savings, there are several considerations to take into account, in particular transportation and transition costs and salary disparities between districts. During consolidation, the school districts experience an increase in both operating spending and operating cost per pupil per pupil, followed by a gradual decline in the following years. Additionally, school district consolidation may affect housing prices, lowering property values by an average of $3,000. Additionally, geographic barriers may prevent school district consolidation in New Hampshire.

While Vermont is similar to New Hampshire in its demographics of its residents and its similarity in its geography, there are some important differences between their education systems that should be noted. First, student enrollment in Vermont is 88,690, significantly smaller than New Hampshire’s 186,310. Secondly, Vermont’s funding
formula is more dependent on state funding, as they spend a total of $18,288 per pupil. Of this, local revenue supplies $721 (3.9 percent) and state revenue accounts for $16,148 (88.3 percent). In comparison, New Hampshire spends a total of $14,928 per pupil, and local revenue funds accounts for $8,567 (57.4 percent) as opposed to the state funds, which account for $5,377 (36 percent).

The state of Maine recently consolidated its school districts and is comparable to New Hampshire based on its demographics and school funding structure. In the United States, Maine is the most similar to New Hampshire in total students enrolled in the 2013-2014 school year with 183,995 students to New Hampshire’s 186,310. Additionally, Maine has an average of 972 school administrators per district compared to an average of 772 per district in New Hampshire. It is important to note, however, that Maine has decreased its number of school administrators per district by 25 percent over the last five years, while New Hampshire’s numbers have remained constant. Maine also has a similar funding model as 40 percent of the $12,355 it spends per pupil comes from state revenue, while 50.9 percent comes from local revenue. This is similar to New Hampshire’s 36 and 57.4 percent, respectively.

In 2007, Maine’s then-governor, John Baldacci, proposed a law, later passed by the state legislature, mandating school district consolidation with the goal of reducing the state’s 290 districts to approximately 80. The 290 units in 2007-08 only reduced to 164 in 2011-12, and after some revision, the state changed the mandate to a voluntary transition. Research in the Maine Policy Review indicated that states should take the following into consideration, if they choose to consolidate school districts:

- “Effective communication and persuasion are needed at the state and local levels to build support for the policy, and the rationale should include educational benefits along with cost-savings.”
- “The policy should include a state implementation plan and time to put that framework into place before the districts begin their reorganization work, so the state is ready to support district work.”
- Fiscal incentives and start-up funds are helpful but may not be sufficient on their own to motivate districts to consolidate.”

2.4 SAU Consolidation

The third avenue of consolidation that New Hampshire may consider is through its School Administrative Units, or SAUs. The distinction between a district and an SAU is that “while each district has its own school board, responsible for school-level budgeting, such as salaries and maintenance costs, the SAU oversees matters such as transportation contracts, personnel and salary negotiations, curriculum coordination, and other matters that cross district lines.” SAUs are in charge of overseeing the business operations of its member districts, and every district is required to belong to an SAU. While SAUs often
house multiple districts, some SAU’s only have one district member. Each SAU consists of a Chief Executive Officer, and a board composed of board members from its respective districts.

The New Hampshire Center for Public Policy report on “School Consolidation in New Hampshire” suggests that the state considers SAU consolidation, since the number of SAUs has increased more than districts have. In 2000, the state contained 78 SAUs and 176 districts, which increased to 91 SAUs and 175 districts in 2012. An examination of the locations of the state’s SAUs (Appendix 3) and rural schools districts (Appendix 2) shows that SAUs are concentrated in the southeastern, generally non-rural portion of New Hampshire. Additionally, the state has never actively mapped or organized its SAUs, except to respond to the needs and desires of local school districts. This suggests that SAU consolidation may be a novel realm of exploration.

2.4.2 Application in New Hampshire

Current state statues make it difficult for SAUs to consolidate. For example, “state laws on cooperative school districts require a vote of the entire cooperative (i.e. each member community) to allow a single community to withdraw.” According to state education officials, “this type of requirement prevents districts from adopting new administrative models that reflect changing demographic, academic and economic trends.”

Traditionally the New Hampshire State Board of Education has had the power to veto a district’s decision to withdraw or enter from an SAU. However, in 1996, revisions were made so that “policymakers allowed districts to withdraw from an SAU over the opposition of other districts within the SAU and the state Board of Education.”

Without changes to existing policies, SAU consolidation in New Hampshire is difficult. With the mention constraints relaxed, however, the state may consider consolidation under the same standards that school districts are parsed.

2.5 Resource Sharing

As an alternative to consolidation, some districts and SAUs have elected to cut costs by sharing resources through various types of institutions and agreements, whether through third-party agencies that provide services for various districts in a particular geographic area or direct collaboration between districts to provide services.

Resource sharing through cooperative-purchasing agreements, formed when “two or more districts join together to share services such as human resources, workers’ compensation, health care, special education, professional development, or a gifted and talented program,” may help reduce costs for New Hampshire’s schools. One example of this model is the Boards of Cooperative Education Services (BOCES) in New York. A BOCES serves essentially as the central business and operations office for the member

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districts — the “administrative hub, overseeing human resources, transportation, accounting, insurance, food services, purchasing, information technology, and other possible functions for member districts.”

In New Hampshire, three regional, education alliances exist: the North County Education Services, the Southeastern Regional Service Center, and the Strafford Learning Center. Currently, they provide a range of resources to their member SAUs, including professional development and consulting. According to the School Consolidation in New Hampshire Report, these alliances are beneficial to its members and may be an avenue for expansion. For example, these alliances could take on roles similar to New York’s BOCES and function more as a central business and operations office for the member districts or SAUs.

3. CONCLUSION

There are various strategies New Hampshire may adopt to facilitate consolidation efforts where appropriate conditions are present. Evidence from consolidation in similar states and national literature both indicate that the process would most benefit non-rural and non-remote areas in New Hampshire. The literature recommends that states do not attempt to impose a one-size-fits-all approach. New Hampshire may also consider incentive systems to encourage consolidation or provide funding for transition costs to alleviate short-term costs.
APPENDICES

Appendix 1: SB 539 Funding Formula

Table 1

<table>
<thead>
<tr>
<th>Staff and Non-Personnel Costs to Schools</th>
<th>Grades</th>
<th>Staff/Student Ratios (based on minimum approval standards)</th>
<th>Cost Per Pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>TEACHERS</td>
<td>K-2</td>
<td>1 teacher/ 25 students</td>
<td>$1,891</td>
</tr>
<tr>
<td></td>
<td>3-12</td>
<td>1 teacher/ 30 students weighted average</td>
<td>$1,576</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rationale: A teacher with a bachelor's degree and 3 years experience (generally, administrators have 3 years to evaluate a new teacher). Salary is the state average plus benefits at 33%.</td>
<td></td>
</tr>
<tr>
<td>SPECIALTY TEACHERS</td>
<td>K-2</td>
<td>1 teacher/ 25 students</td>
<td>$378</td>
</tr>
<tr>
<td></td>
<td>3-12</td>
<td>1 teacher/ 30 students weighted average</td>
<td>$315</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rationale: Generally, students spend 20% of their school time in physical education, art, music, etc. Salary estimate is the same as other teachers at 20% per pupil.</td>
<td></td>
</tr>
<tr>
<td>PRINCIPALS</td>
<td>K-12</td>
<td>1 principal/ 500 students</td>
<td>$202</td>
</tr>
<tr>
<td>ADMINISTRATIVE ASSISTANT</td>
<td>K-12</td>
<td>1 admin/ 500 students</td>
<td>$84</td>
</tr>
<tr>
<td>GUIDANCE COUNSELOR</td>
<td>K-12</td>
<td>1 counselor/ 400 students</td>
<td>$130</td>
</tr>
<tr>
<td>LIBRARY MEDIA SPECIALIST</td>
<td>K-12</td>
<td>1 specialist/ 500 students</td>
<td>$95</td>
</tr>
<tr>
<td>TECHNOLOGY COORDINATOR</td>
<td>K-12</td>
<td>1 coordinator/ 1,200 students</td>
<td>$39</td>
</tr>
<tr>
<td>CUSTODIAN</td>
<td>K-12</td>
<td>1 custodian/ 500 students</td>
<td>$73</td>
</tr>
<tr>
<td>INSTRUCTIONAL MATERIALS</td>
<td></td>
<td></td>
<td>$250</td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td></td>
<td></td>
<td>$75</td>
</tr>
<tr>
<td>TEACHER DEVELOPMENT</td>
<td></td>
<td></td>
<td>$20</td>
</tr>
<tr>
<td>FACILITIES OPERATION AND MAINTENANCE</td>
<td></td>
<td></td>
<td>$195</td>
</tr>
<tr>
<td>TRANSPORTATION</td>
<td></td>
<td></td>
<td>$315</td>
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<tr>
<td>TOTAL PER PUPIL &quot;UNIVERSAL&quot; COST</td>
<td></td>
<td></td>
<td>$3,456</td>
</tr>
</tbody>
</table>

Appendix 2: Rural Districts in NH


Appendix 3: State of New Hampshire SAU Map

Appendix 4: Districts Sizes in New York before Consolidation

Table 1
New York School Districts Consolidating Between 1987 and 1995

<table>
<thead>
<tr>
<th>District Pair</th>
<th>Year of Consolidation</th>
<th>Enrollment</th>
<th>District Pair</th>
<th>Year of Consolidation</th>
<th>Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivar</td>
<td>1995</td>
<td>690</td>
<td>Dannemora</td>
<td>1989</td>
<td>250</td>
</tr>
<tr>
<td>Richburg</td>
<td>1995</td>
<td>300</td>
<td>Saranac</td>
<td>1989</td>
<td>1360</td>
</tr>
<tr>
<td>Bolivar-Richburg</td>
<td>1995</td>
<td>1070</td>
<td>Saranac</td>
<td>1989</td>
<td>1610</td>
</tr>
<tr>
<td>Cobleskill</td>
<td>1994</td>
<td>1860</td>
<td>Broadalbin</td>
<td>1988</td>
<td>970</td>
</tr>
<tr>
<td>Richmondville</td>
<td>1994</td>
<td>390</td>
<td>Perth</td>
<td>1988</td>
<td>620</td>
</tr>
<tr>
<td>Cobleskill-Richmondville</td>
<td>1994</td>
<td>2250</td>
<td>Broadalbin-Perth</td>
<td>1988</td>
<td>1590</td>
</tr>
<tr>
<td>Cohocton</td>
<td>1994</td>
<td>250</td>
<td>Cherry Valley</td>
<td>1988</td>
<td>480</td>
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<tr>
<td>Wayland</td>
<td>1994</td>
<td>1640</td>
<td>Springfield</td>
<td>1988</td>
<td>250</td>
</tr>
<tr>
<td>Wayland-Cohocton</td>
<td>1994</td>
<td>1890</td>
<td>Cherry Valley-Springfield</td>
<td>1988</td>
<td>730</td>
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<tr>
<td>Savona</td>
<td>1993</td>
<td>420</td>
<td>Jasper</td>
<td>1988</td>
<td>490</td>
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<td>Campbell</td>
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<td>Troupsburg</td>
<td>1988</td>
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<td>Campbell-Savana</td>
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<td>Jasper-Troupsburg</td>
<td>1988</td>
<td>740</td>
</tr>
<tr>
<td>Rushford</td>
<td>1992</td>
<td>310</td>
<td>Mohonasen</td>
<td>1987</td>
<td>920</td>
</tr>
<tr>
<td>Cuba-Rushford</td>
<td>1992</td>
<td>1320</td>
<td>Mohonasen</td>
<td>1987</td>
<td>2910</td>
</tr>
<tr>
<td>Mount Upton</td>
<td>1991</td>
<td>270</td>
<td>Edwards</td>
<td>1987</td>
<td>290</td>
</tr>
<tr>
<td>Gilbertsville</td>
<td>1991</td>
<td>260</td>
<td>Knox Memorial</td>
<td>1987</td>
<td>420</td>
</tr>
</tbody>
</table>

* Enrollment in the year before consolidation.
Appendix 5: Per Pupil Costs Before and After District Consolidation in NY

<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>Districts That Have Consolidated</th>
<th>Rural Districts Not Consolidating</th>
<th>Districts That Have Consolidating</th>
<th>Rural Districts Not Consolidating</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Aggregate spending:</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$6,516</td>
<td>$7,236</td>
<td>*</td>
<td>$11,905</td>
</tr>
<tr>
<td>Total without capital (with debt service)</td>
<td>$6,231</td>
<td>$6,526</td>
<td>*</td>
<td>$9,128</td>
</tr>
<tr>
<td>Operating (all but capital and debt)</td>
<td>$5,979</td>
<td>$6,483</td>
<td>*</td>
<td>$8,255</td>
</tr>
<tr>
<td>Capital spending</td>
<td>$265</td>
<td>$407</td>
<td>**</td>
<td>$2,807</td>
</tr>
<tr>
<td><em>Spending by function:</em></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instructional</td>
<td>$4,001</td>
<td>$4,330</td>
<td>*</td>
<td>$5,920</td>
</tr>
<tr>
<td>Teaching</td>
<td>$3,600</td>
<td>$3,952</td>
<td>*</td>
<td>$5,346</td>
</tr>
<tr>
<td>Non-instructional</td>
<td>$2,243</td>
<td>$2,582</td>
<td>*</td>
<td>$5,141</td>
</tr>
<tr>
<td>Operating and maintenance</td>
<td>$708</td>
<td>$802</td>
<td>*</td>
<td>$3,257</td>
</tr>
<tr>
<td>Central administration</td>
<td>$467</td>
<td>$459</td>
<td>*</td>
<td>$528</td>
</tr>
<tr>
<td>Transportation</td>
<td>$474</td>
<td>$508</td>
<td>*</td>
<td>$597</td>
</tr>
<tr>
<td>Total revenue per pupil</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Local</td>
<td>$2,143</td>
<td>$2,986</td>
<td>*</td>
<td>$2,370</td>
</tr>
<tr>
<td>Federal</td>
<td>$302</td>
<td>$320</td>
<td>*</td>
<td>$454</td>
</tr>
<tr>
<td>State</td>
<td>$4,281</td>
<td>$3,891</td>
<td>**</td>
<td>$4,906</td>
</tr>
<tr>
<td>Operating aid</td>
<td>$2,606</td>
<td>$2,710</td>
<td>*</td>
<td>$2,030</td>
</tr>
<tr>
<td>Reorganization aid</td>
<td>$0</td>
<td>$9</td>
<td>*</td>
<td>$274</td>
</tr>
<tr>
<td>Building aid</td>
<td>$132</td>
<td>$171</td>
<td>*</td>
<td>$202</td>
</tr>
<tr>
<td>Transportation aid</td>
<td>$297</td>
<td>$408</td>
<td>*</td>
<td>$325</td>
</tr>
<tr>
<td>Average teacher salaries:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-5 years of experience</td>
<td>$22,074</td>
<td>$23,557</td>
<td>*</td>
<td>$28,655</td>
</tr>
<tr>
<td>11-15 years of experience</td>
<td>$31,045</td>
<td>$34,529</td>
<td>*</td>
<td>$36,103</td>
</tr>
<tr>
<td>21-25 years of experience</td>
<td>$39,979</td>
<td>$40,945</td>
<td>*</td>
<td>$45,449</td>
</tr>
</tbody>
</table>

* Means for consolidating and non-consolidating districts are statistically different at 5 percent significance level.
** Means for consolidating and non-consolidating districts are statistically different at 10 percent significance level.
* Twelve pairs of districts consolidated between 1997 and 1995, and are used in the calculation. Rural districts not consolidating from 1993 to 1997 are used as comparison. Sample size is 2,747.
* Adjusted using the fixed weighted GDP price deflator for state and local government purchases published by the U.S. Bureau of Economic Analysis.

Appendix 6:
For more information on shared services, please see:
Deloitte Research, and Reason Foundation.
DTT_DR_SS_Education_Nov05(1).pdf.
REFERENCES

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6 Ibid
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9 Ibid, 10.
10 Ibid, 5.
12 Ibid.
14 Ibid, 12.
17 Ibid.
19 Rooney, Kathryn, and John Augenblick. "An Exploration of District Consolidation."
21 Rooney, Kathryn, and John Augenblick. "An Exploration of District Consolidation." Pg. 15.
22 Ibid, 18.
23 Ibid, 19.
24 Ibid, 19.
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32 Ibid.
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38 Ibid.
39 Ibid.
40 Ibid.
41 Ibid.
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45 Ibid.
46 Ibid.
49 Ibid, 3.
50 Ibid, 3.


Duncombe, William D., and John Yinger. "Does School District Consolidation Cut Costs?"

Ibid.