

Introduction

This policy brief provides a summary of the academic research on the benefits and drawbacks of state-led efforts to encourage, or require, school districts with low enrollments or density to consolidate. Consolidation of school districts has existed throughout the 20th century. Between 1940 and 2013, the number of school districts in the United States decreased from approximately 117,000 to approximately 14,000.¹ This policy brief also summarizes Vermont's school district consolidation efforts with a specific focus on the content and impact of Act 46, passed in 2015, and Act 49, passed in 2017.

Academic Research

The effects of school district consolidation are typically measured on two main criteria, which are routinely the driving forces behind consolidation efforts:

1. Fiscal efficiency
2. Academic outcomes

Generally, the proponents of consolidation have used future savings, as produced by educational economies of scale, as the primary reason for pursuing consolidation efforts.² These potential future savings have been the topic of lengthy academic research over the past 20 years, with mixed findings as a result. A 2002 study by Andrews, Duncombe, and Yinger found that, "sizeable potential cost savings in instructional and administrative costs may exist by moving from a very small district (500 or fewer pupils) to a district with ca 2000-4000 pupils."³ In addition, Duncombe and Yinger concluded from a study of rural school districts in New York between 1985 and 1997 that the net cost savings of consolidation amounted to 31.5 percent for a 300-pupil district and 14.4 percent for a 1,500-pupil district over a 30-year period.⁴

However, these same authors caution in a 2010 report that, "Even though consolidation-induced cost savings may be large for an individual district, they are inevitably small for the state as a whole because only the smallest districts in the state are involved."⁵ In addition, Duncombe and Yinger did not find economies of scale in capital spending, as capital spending grew throughout the sample period of 1985 to 1997.⁶ An additional cautionary finding from Andrews, Duncombe, and Yinger is that diseconomies of scale may exist in large districts — defined as districts greater than 15,000 students.⁷ Given the typically higher need of the students within these districts, and the state resources directed toward these districts, with over 15,000 students in Connecticut, this may be an important topic for further review.

There is not a robust body of research on the effect of school district consolidations on the academic achievement of students. When studying the effect of district structure on academic performance, researchers have focused on the effect of changes in school enrollment⁸, and the effect of the size of the district.⁹ While district mergers could

produce larger schools and school districts, as measured by enrollment, as an output, such impacts are not unique to school district consolidation and could be caused by openings and closures as well. In addition, the changes in school and district sizes resulting from school district consolidation could occur at any size and scope, which means the presence of a school district consolidation, and the effects it has on school and district size, is not necessarily linked to improved academic performance.

Vermont Acts 46 and 49^A

Overview

Act 46 was passed in 2015 and changed the way public education in Vermont is governed, directed, and organized. Act 46 was created to encourage local decision-making to:

- Provide substantial equity in the quality and variety of educational opportunities statewide;¹⁰
- Lead students to achieve or exceed the State's Education Quality Standards, adopted as rules by the State Board of Education at the direction of the General Assembly;¹¹
- Maximize operational efficiencies through increased flexibility to manage, share, and transfer resources, with a goal of increasing the district-level ratio of students to full-time equivalent staff;¹²
- Promote transparency and accountability;¹³ and
- Deliver education at a cost that parents, voters, and taxpayers value.¹⁴

Impetus

The introduction to Act 46 provides several findings on education funding, spending, and governance in Vermont that prompted the changes specified in the Act. From 1997 to 2015, the Vermont student enrollment declined while at the same time student needs, as measured by special education and low-income populations, increased.¹⁵ The Act cites that, prior to the passage of Act 46, Vermont public school districts were not well-suited for economies of scale, and lacked the flexibility to collaborate with other districts and to provide a variety of quality educational opportunities to students.¹⁶ The Act cites research on the optimal school size for learning and the optimal district size for economies of scale, along with Vermont statistics showing most Vermont schools and districts fall below these optimal sizes.¹⁷

District Consolidation

Act 46 requires all school districts in Vermont to plan to move toward the preferred education governance structure, which is a prekindergarten–grade 12 supervisory district, or the alternative education governance structure of a supervisory union with member districts.¹⁸ Under Act 46, the Vermont Secretary of Education must also

^A For an overview of how Vermont funds public education, please see:

Verstegen, D. A. (2015). *A Quick Glance at School Finance: A 50 State Survey of School Finance Policies*. Reno, NV: University of Nevada, College of Education. Retrieved from <https://schoolfinancesdav.wordpress.com>.

EdBuild. (n.d.). *Funded: State Policy Analysis – Vermont*. Retrieved from <http://funded.edbuild.org/state/VT>.

propose, and the State Board of Education must formalize, a statewide plan for merging districts by November 30, 2018, in alignment with the educational priorities of the state.¹⁹ Act 46 does not require districts to close schools,²⁰ but districts not voluntarily merging before the establishment of the statewide district plan will be merged by the State in alignment with the published plan.²¹ The two types of school districts at the center of Act 46 are detailed below:

1. **Pre-kindergarten - Grade 12 Supervisory District:** This school district type is defined as being responsible for education of all resident Pre-kindergarten through Grade 12 students. The district is its own supervisory district; has a minimum average daily membership of 900; and either operates schools for students in Pre-kindergarten through Grade 12, operates schools for specified grades and pays tuition for the remaining grades, or operates no schools and pays tuition for students in all grades.²²
2. **Supervisory Union with Member Districts:** This school district type has member districts responsible for the education of all grade-level students in the supervisory union. This type of district, which has a combined average daily membership over 1,100 students, is developed to help maximize operating efficiencies and minimize the number of member school districts.²³

Act 46 provides three phases for towns and districts to choose to consolidate to a Pre-kindergarten - Grade 12 supervisory district. Each phase has different timelines, eligibility criteria, and transition incentives that are detailed below in Table 1.

Table 1: Comparison of Consolidation Phases in Act 46

Requirements and Processes	Phase 1: Accelerated Merger ²⁴	Phase 2: Regional Education Districts and Their Variations ²⁵	Phase 3: Conventional Mergers ²⁶
Overview	All districts within an existing supervisory union merge into a single unified union school district that is its own supervisory district. The only district acceptable is the preferred prekindergarten-12 supervisory district.	Merging the governance structures of two or more districts into a Regional Education District ^B or: a Side-by-Side ^C Merger, a Layered Merger ^D , or a Modified Unified Union School District. ^E	Merging two or more districts to a new district, regardless of whether they are originally in the same supervisory union or are contiguous. The preferred prekindergarten-12 supervisory district must be used but will not receive the level of transition assistance of the Phase 1 districts.
Step 1: Form a study committee, prepare a report to be presented to the State Board of Education, obtain final local voter approval.	On or before July 1, 2016.	On or before July 1, 2017.	No deadline.
Step 2: District Officers are elected, organizational meeting occurs, and new school district is operational.	On or before July 1, 2017.	On or before July 1, 2019.	On or before July 1, 2019.
Eligibility	The eligibility criteria for each phase are quite complex. For discussions of phase 1, 2, and 3-eligibility, please see the individual summaries cited in the header row.		

^B A Regional Education District (RED) is created when school districts merge to form a union school district if the proposed resulting district has an average daily membership of at least 1,250, and includes at least four districts. A RED is responsible for grades Pre-K through 12.

Source: 2012 Acts and Resolves No. 156, Sec. 13.

^C Side-by-Side mergers create two or more newly merged districts, each from the merger of at least two districts.

Source: Source: 2012 Acts and Resolves No. 156, Sec. 15.

^D Layered Mergers describe the consolidation of local elementary schools, in towns that already contribute to a union high school, into a district that operates all grades not offered by the high school.

Source: 2012 Acts and Resolves No. 156, Sec. 16

^E Modified Unified Union School Districts describe the consolidation into a Pre-K through 12 unified union school district by a majority of elementary school districts that are already part of a union high school district. The non-merging elementary school district(s) remain as a distinct district(s).

Source: 2012 Vt. Acts and Resolves No. 156, Sec. 17; as amended by 2013 Vt. Acts and Resolves No. 56, Sec. 3.

Transitional Assistance & Incentives		
Equalized homestead property tax rate	<p>The new district's equalized homestead property tax rate shall be decreased by:</p> <ul style="list-style-type: none"> • \$0.10 in the first fiscal year of operation, • \$0.08 in the second, • \$0.06 in the third, \$0.04 in the fourth, and • \$0.02 in the fifth. <p>During the years in which the homestead property tax is reduced, the equalized tax rate for each town will not increase by more than five percent in a single year.</p>	<p>The new district's equalized homestead property tax rate shall be decreased by:</p> <ul style="list-style-type: none"> • \$0.08 in the first fiscal year of operation, • \$0.06 in the second, • \$0.04 in the third, and • \$0.02 in the fourth. <p>During the years in which the homestead property tax is reduced, the equalized tax rate for each town will not increase or decrease by more than five percent in a single year until it reaches the unified rate (if Phase 2).</p>
Merger Support Grant	<p>If one or more of the merging districts received a Small School Support Grant²⁷ in fiscal year 2016, then the new district will receive an annual Merger Support Grant in an amount equal to the Small School Support Grant(s) received:</p> <ul style="list-style-type: none"> • Payment of the grant will continue in perpetuity (unless repealed by the legislature). • Payment will be discontinued in the fiscal year following closure of the small school. • If a small school is closed and another school is renovated or constructed in connection with the closure, then the grant continues until the capital debt is paid. 	
Transition Facilitation Grant	<p>Pursuant to voter approval, the transitional school board will receive a Transition Facilitation Grant equal to the lesser of:</p> <ul style="list-style-type: none"> • 5% of the base education amount (\$9,285²⁸) multiplied by the greater of either the combined enrollment or the average daily membership of the merging districts or; • \$150,000. <p>(Less any State reimbursement of study committee expenses).</p>	N/A

Districts not choosing to pursue consolidation through the voluntary pathways must complete several tasks before July 1, 2019.²⁹ Districts must evaluate their ability to meet or exceed the goals in Act 46, meet with other school district boards on methods for collaboration in meeting district goals, and report to the State Board of Education on how the district proposes to 1) maintain or change current governance structures and 2) meet or exceed the goals of Act 46 through the identification of specific actions.³⁰

Districts that do not merge are not eligible for the Small Schools Grant or hold-harmless provisions of education funding, which minimize the potential decrease in equalized pupils in districts to 3.5 percent per year.³¹ This hold-harmless provision has resulted in artificially low property tax rates in previously eligible communities by inflating the equalized pupil count^F used to calculate funding formula aid by as much as 77 percent.³²

Progress

While progress was made on accelerated mergers toward the preferred governance structure, revisions to the merger structure options and timelines were deemed necessary. Act 49 was passed in 2017 to revise Act 46 based on the progress made over the two-year period toward the proposed goals in 2015.³³ From the passage of Act 46 up to October 25, 2017, 129 towns (out of 255 municipalities and 237 towns) voted to merge 132 school districts, which reduced the 132 school districts to 28 Pre-kindergarten - Grade 12 supervisory districts (the preferred governance structure) and four modified unified union school districts (Phase 2).³⁴ This activity means that approximately 65 percent of Vermont's Pre-kindergarten - Grade 12 students live, or will live, in a unified school district.^{G,35}

The introduction of Act 49 notes, however, that towns and districts have experienced difficulties in meeting the goals and timelines specified in Act 46, and revises Act 46 accordingly to add for more time and flexibility to the consolidation process while still maintaining the purpose of the Act.³⁶ The State Board of Education must still, however, put forth the statewide district governance plan by November 30, 2018, in preparation for statewide district realignment in 2019. Table 2 summarizes the changes implemented in Act 49 for each school district type originally set forth in Act 46. As the process for merging and consolidating districts is still underway, it remains to be seen what mandatory consolidations will be required in the statewide realignment plan required from the State Board of Education in November 2018.

^F Vermont calculates an equalized pupil count for use in funding formula aid. This equalized pupil count uses average daily membership over time, plus counts and weights for English Learners, low-income students, and different grades to account for student need.

Source: Vt. Stat. Ann. tit. 16, § 4010.

^G For an updated summation of district merger activity, please see:

State of Vermont, Agency of Education. (2017). Merge Activity: At a Glance. Retrieved from <http://education.vermont.gov/vermont-schools/school-governance/merger-activity>.

Table 2: Act 49 Changes to School District Types

	Pre-kindergarten - Grade 12 Supervisory Districts	Alternative Governance Structures: Supervisory Union with Member Districts ³⁷
Changes made per Act 49	N/A	<ul style="list-style-type: none"> Creates two new merger structures: Three-by-One Side-by-Side^H and Two-by-Two-by-One Side-by-Side.^I Increases flexibility in Side-by-Side structure by replacing the requirement that one side operate Pre-K through 12 with the requirement that each side operate schools or pay tuition through different grade levels. Extends Transition Facilitation Grant to Phase 3 mergers. Extends deadline for submitting proposals to November 30, 2017. Extends deadline for votes on merger proposals from July 1, 2017 to November 30, 2017. Reduces the minimum average daily membership guideline from 1,100 to 900. Requires the Vermont Secretary of Education to provide feedback on proposals, and the opportunity for districts to amend proposals in response to the Secretary's feedback. Permits the State Board of Education to approve a proposal at any time before November 20, 2018.

^H The Three-by-One Side-by-Side district is formed when three existing districts merge, and then merge with one existing district to become members of the same supervisory union.

Source: 2017 Vt. Acts and Resolves No. 49, Sec 3.

^I The Two-by-Two-by-One Side-by-Side district is formed when two merged districts merge with one existing district to become members of the same supervisory union.

Source: 2017 Vt. Acts and Resolves No. 49, Sec 4.

Appendices

Appendix A: Vermont School District Enrollment

Table 3 below displays the distribution of Vermont public school districts by student enrollment in 2016-17. Please note this chart uses “operating districts” as classified by the Vermont Agency of Education, rather than supervisory unions, as operating districts control the schools in which students are educated, and this level of detail is most germane to the discussion of Acts 46 and 49. *In addition, only four of the 132 Act 46 district mergers scheduled to occur as of October 25, 2017 were completed prior to the start of the 2016-17 school year.³⁸ The majority of the planned Act 46 mergers were scheduled to become operational on July 1, 2017 or later, and therefore, are not reflected in the table below.³⁹*

Table 3: Vermont School District Enrollment Distribution 2016-17⁴⁰

Enrollment	Number of Operating Districts	Percent of Districts	Number of Students Enrolled	Percent of State Students Enrolled
Less than 100 students	41	19.2%	2,858	3.4%
101 to 500 students	122	57.0%	27,962	33.1%
501 to 1,000 students	33	15.4%	24,316	28.8%
1,001 to 2,000 students	14	6.5%	18,085	21.4%
Greater than 2,000 students	4	1.9%	11,212	13.3%

Appendix B: Connecticut School District Enrollment^J

Table 4 below displays the distribution of Connecticut public school districts by student enrollment in 2016-17. Percent totals may not add to 100 percent due to rounding.

Table 4: Connecticut School District Enrollment Distribution for Local and Regional Boards of Education 2016-17⁴¹

Enrollment	Number of Local & Regional Districts	Percent of Local & Regional Districts	Number of Local & Regional Students Enrolled	Percent of Local & Regional Students Enrolled
Less than 500 students	37	22.3%	9,896	2.0%
501 to 1,000 students	18	10.8%	14,745	3.0%
1,001 to 2,000	28	16.9%	40,888	8.2%
2,001 to 5,000	58	34.9%	184,124	36.8%
5,001 to 10,000 students	16	9.6%	107,887	21.6%
10,001 to 15,000 students	4	2.4%	43,040	8.6%
Greater than 15,000 students	5	3.0%	99,195	19.8%

^J It is important to note Connecticut district and enrollment information is shown simply for comparison purposes and should not be interpreted as a recommendation by the Connecticut School Finance Project for the State of Connecticut to pursue a school consolidation plan similar to Vermont's.

Endnotes

- ¹ Boser, U. (2013). *Size Matters: A Look at School-District Consolidation*. Washington, DC: Center for American Progress. Retrieved from <https://www.americanprogress.org/wp-content/uploads/2013/08/SchoolDistrictSize.pdf>.
- ² Duncombe, W.D., & Yinger, J.M. (2010, May). School District Consolidation: The Benefits and Costs. *The School Administrator*, 67(5), 10-17. Retrieved from <http://www.aasa.org/SchoolAdministratorArticle.aspx?id=13218>.
- ³ Andrews, M., Duncombe, W.D., & Yinger, J.M. (2002). Revisiting economies of size in American education: Are we any closer to a consensus? *Economics of Education Review*, 21(3), 245-262.
- ⁴ Duncombe, W.D., & Yinger, J.M. (2007). Does School District Consolidation Cut Costs? *Education Finance and Policy*, 2(4), 341-375.
- ⁵ Duncombe, W.D., & Yinger, J.M. (2010, May). School District Consolidation: The Benefits and Costs. *The School Administrator*, 67(5), 10-17. Retrieved from <http://www.aasa.org/SchoolAdministratorArticle.aspx?id=13218>.
- ⁶ Duncombe, W.D., & Yinger, J.M. (2007). Does School District Consolidation Cut Costs? *Education Finance and Policy*, 2(4), 341-375.
- ⁷ Andrews, M., Duncombe, W.D., & Yinger, J.M. (2002). Revisiting economies of size in American education: Are we any closer to a consensus? *Economics of Education Review*, 21(3), 245-262.
- ⁸ Kuziemko, I. (2006). Using Shocks to School Enrollment to Estimate the Effect of School Size on Student Achievement. *Economics of Education Review*, 25(1), 63-75.
- ⁹ Berry, C., & West, M. (2010). Growing Pains: The School Consolidation Movement and Student Outcomes. *The Journal of Law, Economics, and Organization*, 26(1), 1-29.
- ¹⁰ 2015 Vt. Acts and Resolves No. 46, Sec 2.
- ¹¹ Ibid.
- ¹² Ibid.
- ¹³ Ibid.
- ¹⁴ Ibid.
- ¹⁵ 2015 Vt. Acts and Resolves No. 46, Sec 1.
- ¹⁶ Ibid.
- ¹⁷ Ibid.
- ¹⁸ Ibid.
- ¹⁹ 2015 Vt. Acts and Resolves No. 46, Sec 10.
- ²⁰ State of Vermont, Agency of Education. (2016). *Governance Fact Sheet*. Retrieved from <http://education.vermont.gov/sites/aoe/files/documents/edu-governance-fact-sheet.pdf>.
- ²¹ 2015 Vt. Acts and Resolves No. 46, Sec 10.
- ²² 2015 Vt. Acts and Resolves No. 46, Sec 5.
- ²³ 2015 Vt. Acts and Resolves No. 46, Sec 1.
- ²⁴ State of Vermont, Agency of Education. (2016). *Summary of Phase 1 Voluntary Mergers*. Retrieved from <http://education.vermont.gov/sites/aoe/files/documents/edu-governance-summary-phase1-voluntary-mergers-accelerated.pdf>.
- ²⁵ State of Vermont, Agency of Education. (2016). *Summary of Phase 2 Voluntary Mergers*. Retrieved from <http://education.vermont.gov/sites/aoe/files/documents/edu-governance-summary-phase2-voluntary-mergers-reds-variations.pdf>.
- ²⁶ State of Vermont Agency of Education. (2017). *Summary of Phase 3 Voluntary Mergers*. Retrieved from <http://education.vermont.gov/sites/aoe/files/documents/edu-governance-summary-phase3-voluntary-mergers-conventional.pdf>.
- ²⁷ Vt. Stat. Ann. tit. 16, § 4015.
- ²⁸ Vt. Stat. Ann. tit. 16, § 4011.
- ²⁹ State of Vermont, Agency of Education. (2017). *Merge Activity: At a Glance*. Retrieved from <http://education.vermont.gov/vermont-schools/school-governance/merger-activity>.
- ³⁰ 2017 Vt. Acts and Resolves No. 49, Sec 10.
- ³¹ Vt. Stat. Ann. tit. 16, § 4010.
- ³² 2017 Vt. Acts and Resolves No. 49, Secs. 1, 20.
- ³³ 2017 Vt. Acts and Resolves No. 49, Sec 1.

³⁴ State of Vermont, Agency of Education. (2017). Merge Activity: At a Glance. Retrieved from <http://education.vermont.gov/vermont-schools/school-governance/merger-activity>.

³⁵ Ibid.

³⁶ 2017 Vt. Acts and Resolves No. 49, Secs. 7-11.

³⁷ Ibid.

³⁸ State of Vermont, Agency of Education. (2017). *Report on Act 46 of 2015, Report on Act 153 of 2010*. Retrieved from <http://education.vermont.gov/sites/aoe/files/documents/edu-legislative-report-act46-act153-merger-activity-2017.pdf>; State of Vermont, Agency of Education. (2017). Merge Activity: At a Glance. Retrieved from <http://education.vermont.gov/vermont-schools/school-governance/merger-activity>.

³⁹ Ibid.

⁴⁰ State of Vermont, Agency of Education. (2017). School Report. Available from <http://education.vermont.gov/data-and-reporting/school-reports>.

⁴¹ Connecticut State Department of Education. (2017). Public School Enrollment. Available from <http://edsight.ct.gov/SASPortal/main.do>.