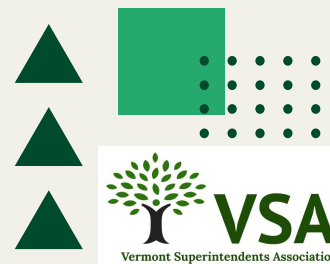


Instructional Scale: Balancing Educational Quality, Efficiency, Affordability, and Rural Realities in Vermont

January 31, 2025

These slides accompany a Policy Brief of the same title.



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Introduction



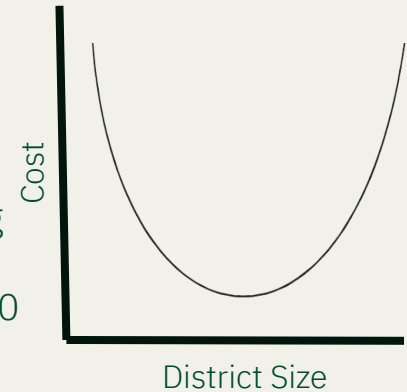
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- **The size and scale of educational structures are often considered influential factors in shaping the quality of instruction and overall student outcomes.**
- **However, research on their direct impact remains mixed. Their effectiveness is deeply intertwined with factors such as teacher quality, resource availability, and the unique needs of local communities.**
- **Balancing educational quality with efficiency and affordability requires careful consideration of research and contextual factors.**
- **Comprehensive education reform will have to focus on more than scale to achieve improvements in quality and realize cost savings.**

District Size and Governance

- Limited research on school district size suggests a complex and underexplored relationship between district size, cost efficiency, and educational quality
- U-Shaped Curve of Efficiency
- Smaller districts typically face higher per-pupil costs due to inefficiencies, such as higher administrative costs and underutilized facilities; consolidating small districts (300-500) may result in the biggest cost savings
- Very large districts may encounter diseconomies of scale at 10,000 to 15,000 students, where the benefits of increased size are outweighed by bureaucratic inefficiencies and challenges in maintaining educational quality
- Optimal district size for minimizing costs per pupil, while maintaining educational quality, appears to be in the 2,000 to 4,000 student range
- Achieving scale in district size can help gain efficiencies in central office leadership



District Size and Governance

- Learned through the implementation of Act 46 (2015), district consolidation is politically and logistically complex
- Differing operating configurations related to the grade levels they do or do not operate, leading to our out-of-district tuition program
- Broad expansion of tuitioning programs, including to out of state and country programs, can add significant inefficiencies in transportation and special education services, for example
- Supervisory Unions are complex and unusual structures consisting of multiple boards; according to the AOE, SUs have, on average, 1 board member for every 75 students
- Considerable administrative time spent on supporting each board and budgeting processes that could be spent on instructional leadership



District Size and Governance: Policy Recommendations

1. Determine and set ideal district sizes to be included in the District Quality Standards (Rule Series 100). Our recommendation is that this should be set at a minimum of 2,000-4,000 students. The Agency of Education should work with school districts to support the movement towards the ideal district sizes over a reasonable timeline and coordinate this effort with other requirements in the DQS and Education Quality Standards (Rule Series 2000). This will also require a close review of current law related to merging school districts to optimize efficiency while allowing for community input.
2. Require the reconfiguration of supervisory unions into unified school districts. In response to differing district operating structures, require that each newly formed school district designates up to three high schools public or approved independent schools outside of the district to serve as the public high school for mergers involving district with non-operating grades (ref. 16 V.S.A. § 827(a)).



School Size

“...the concept of school size is somewhat nebulous. It actually represents an amalgam of effects rather than just a raw number or a single effect. (Size) is important because it catalyzes conditions in terms of school climate, curricular offerings, student participation in extracurricular activities, student self-concept and self-esteem, teacher-student relationships, home-school relationships, and student opportunities to learn and grow. All of these have important roles to play in determining student outcomes.” – McCathren, 2004



School Size

- In their review of 57 studies, Leithwood and Jantzi (2009) found an optimal size of 500 students for elementary schools and 1,000 for secondary schools. They advised reducing these numbers to 300 and 600 for schools with high proportions of disadvantaged students. Lee and Smith (1997) found that students learned more in middle-sized secondary schools (600-900 students) than in smaller or larger high schools.
- Both very small and very large schools are negatively related to school quality.
- Vermont's infrastructure needs, topography, and current district configurations make achieving optimal school sizes difficult.
- Vermont's immediate facilities needs for the state are estimated to be \$228,613,264 and total costs \$6,352,324,952. Even when school districts want to reconfigure buildings, facility size, and condition can limit potential options.



School Size: Policy Recommendations

1. Determine and set ideal school sizes to be included in the District Quality Standards (Rule Series 100). Our recommendation is that this should set a minimum of 300 students for elementary schools and 600 for secondary schools. The Agency of Education should work with school districts to support the movement towards the ideal district sizes over a reasonable timeline and coordinate this effort with other requirements set in the DQS and EQS, beginning their efforts on secondary schools. Allow exceptions to be made for infrastructure constraints absent state investment into capital construction and based on reexamined definitions of geographical necessity.
2. Utilize school construction aid to incentivize follow-through on ideal district and school sizes.



Class Size & Staffing

- Vermont class sizes are already smaller than those outlined in research, and that research shows mixed results regarding the relationship between class size and student outcomes.
- Very small class sizes can create challenges for instruction. They can force grade configurations (e.g., a multi-age classroom for grades K-3) that change yearly, creating an inconsistent curricular experience. It is difficult for teachers to implement varied instructional practices (e.g., ability-mixed and ability-alike groupings, cooperative learning, etc) in very small classes.
- Education Quality Standards outline minimums but not maximums.
- Required class size district policies minimums range from 10 - 15 for K-3; 10 - 18 for 4-8; 10 - 23 for 9-12.
- Staffing for other categories of employees is not well defined. However, that should not imply that policies should disproportionately impact one category of employee over another.



Class Size & Staffing: Policy Recommendations

1. Require minimum average class sizes through the EQS and district board policy to be implemented by FY27. Multi-aged classrooms (excluding high school) shall be limited to two gradebands per classroom. The Agency of Education should approve exceptions based on geographic necessity that should be reexamined and defined in law. Our recommendation for minimum class sizes: K : 12; 1 to 5 : 15; 6 to 12 : 18. Some exceptions may need to be made for specialized high school and CTE courses.
2. Require the AOE to clearly define staffing reporting definitions by December 1, 2025, so that clear policy recommendations to move incrementally towards the New England staff-to-student ratio averages can be made in the second half of the biennium.



Conclusion



Addressing scale and instructional size should be an important component of education policy reform in Vermont. However, careful considerations must be made to balance both gains in efficiency and quality. The findings in this brief indicate that haphazard reforms that far exceed research-backed recommendations for scale, particularly district scale, are ill-advised in categories of both efficiency and quality. Comprehensive reform will marry thoughtful sequencing of change to governance, education delivery, and funding while setting and aligning these forms to a clear vision for high-quality education in Vermont.



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