

# Chapter 4

In the course of this project, Prismatic encountered a number of beliefs around class sizes, school sizes, and academics. Some of these were expressed in responses to various community survey items; others were expressed verbally during town meetings, focus groups, and interviews. As the district may ask its community for reconfiguration support via a public vote in March 2024, it is important to examine the research around these beliefs. For that reason, this chapter reviews research relevant to the research question. It then provides the consulting team’s findings relevant to reconfiguration options.

## Class Sizes

Of the beliefs encountered in this project, perhaps the most discussed among constituents was the ideal class size for optimal student learning. On the September community survey, a majority of respondents in every town and every age group agreed with the statement, “Students in really small classes (less than 10 students) are more likely to learn than students in classes with 20-25 students.” Multiple residents in town meetings made statements pointing to research that they felt proved “smaller is better.” However, a close reading of research on the topic does not lend support for the belief that class sizes of less than 10 students result in better learning.

When class sizes are small, students often miss the opportunity to work in groups and benefit from the diversity of classmates, which comes with larger classes. Students benefit from hearing thoughts and opinions different from their own, which is limited in small classes. Small classes also limit the opportunity for students to develop friendships. Student absences can drastically impact the instructional plan for the day if a class is extremely small.



Class size research typically refers to classes with 20 or fewer students as “small” in size. Given the ConVal context, it should be noted that in the research “class size” is defined as the number of students in the physical classroom, regardless of what grades might be represented. In elementary classes with 20 or fewer students, achievement, engagement, and long-term success were better overall, than classes with more than 20 students.<sup>1</sup> However, most of the research on the subject was not looking at class sizes of 8 or 9 students. The largest early study on the subject, Project STAR in Tennessee, looked at variations in class sizes that were categorized as “small” and “regular” – “small” was ~15 students, while “regular” was 25 students. In the study, the actual class sizes for “small” included classes with 13-17 students, while the “regular” ones included 22-25 students. Completed in the 1980s, Project STAR did find positive impacts on the academics of the students in the smaller class sizes, but they were modest and later researchers have questioned whether those gains could be solely attributable to class size changes.<sup>2</sup> More recent research has also pointed out the positive impacts on reading and math achievement when class sizes are smaller, but they are usually talking about a “smaller” that begins at more than 10 students in a class. For example, Blatchford, P. et al (2002) found that reading and math achievement declined for younger students as class sizes increased, but their starting point was classes of 14 students, not single digits, and continued through to classes of 34 students.<sup>3</sup> Slavin (1989) completed a meta-analysis of 8 studies focused on elementary students and concluded that smaller class sizes do have a positive effect on student achievement, but that the effect is not large.<sup>4</sup>

Finally, class size is not a magic bullet. It is not even the most effective known tool for positively impacting student achievement. Of influences which impact student achievement, reducing class size has recently been ranked 186 out of 252, with an effect size of 0.21 (generally considered to be small). Collective teacher efficacy, teacher quality, curriculum, and instructional strategies have a greater impact than reducing class size.<sup>5</sup>

## Other Relevant Research

### Small Schools

ConVal residents also indicated belief in the idea that “small schools” are better for student learning than larger schools. As with the class size research, the overlooked fact is that the research where small schools are noted to have better student academic outcomes is using a much larger definition of “small” than most ConVal residents likely would find comfortable. Holding onto this belief also requires ignoring research that has found no relationship between school size and student achievement.

In a work that has been endorsed by the National Council of Professors of Education Administration, authors Zoda, Combs, and Slate (2011)<sup>6</sup> provide an overview of the research on the relationship between elementary school size and student achievement. Looking at the previous 20 years of research on the topic, they found several studies where “small” school size correlated with student achievement. The studies they examined are shown below. Based on this work, the conclusion one can draw is not “the smaller the better” but that the research definition of “small” ranges from 1 to 300 students.

<sup>1</sup> <https://ncte.org/statement/why-class-size-matters/>

<sup>2</sup> Mosteller, F. (1995). *The Tennessee study of class size in the early school grades*.

<sup>3</sup> Blatchford, P., Goldstien, H., Martin, C. & Browne, W. (2002). *A study of class size effect in English school reception year classes*.

<sup>4</sup> Slavin, R.E. (1989). *Class size and student achievement: Small effects of small classes*.

<sup>5</sup> <https://visible-learning.org/hattie-ranking-influences-effect-sizes-learning-achievement/>

<sup>6</sup> Zoda, P., Combs, J. P. & Slate, J.R. (2011). *Elementary school size and student performance: A conceptual analysis*.

Moreover, 3 of the studies they examined did not find a favorable relationship between smaller schools and student achievement; 2 found no relationship and 1 found a positive relationship between larger schools and student achievement.

Author	# of Schools, Location	School Size and Relationship to Student Achievement	School Size Groupings
Howley, 1996	628 West Virginia	Not statistically significant	Did not use size groupings. Analyzed performance along a size continuum.
Lamdin, 1995	107 Maryland	Not statistically significant	Did not use size groupings. Analyzed performance along a size continuum. Schools ranged from 180 to 1,422, with an average of 469 students
Abbott, Joireman, & Stroh, 2002	1,035 Washington	Favors small schools	Did not use size groupings. Analyzed performance along a size continuum for grades 4 and 7, with average grade span size of 70 for grade 4 and 178 for grade 7.
Alspaugh & Gao, 2003	39 Missouri	Favors small schools	<200 was the smallest size grouping
Johnson, Howley & Howley, 2002	Not specified Arkansas	Favors small schools	Did not use size groupings. Analyzed performance along a size continuum.
Office of Policy, Planning and Research, 1999	1,529 Texas	Favors small schools	<300 was the smallest size grouping
Plecki, 1991	4,337 California	Favors small schools	1-200 was the smallest size grouping
Roeder, 2002	34 Kentucky	Favors large schools	Did not use size groupings. Analyzed performance along a size continuum. Schools ranged from 203 to 693, with an average of 466 students

The same authors also examined the existing research regarding what might be the optimal elementary school size. Five separate studies did reach conclusions regarding an optimal size. Of these, 3 recommended 300 or fewer students as optimal; the other 2 recommended 350 or fewer as optimal.

### Property Values

On the September community survey, 39% of respondents indicated agreement with the statement, “Property values in this town are higher because there is an elementary school located in it.” Another 31% were undecided about the statement.

Prismatic researched this issue and undertook a literature review. However, the consulting team could find no studies that explicitly researched the mere presence of a school building and an impact on property values. Several studies provide evidence for a positive relationship between good schools and property values:

- ◆ “Parents do pay more to live in areas with better schools.” – Wulsin, J. (2009)
- ◆ “...school quality variables...do have a positive relationship with respect to housing prices.” – Youngme, S. and Simons, R.A. (2009)

- ◆ “There is a general perception that, all else equal, houses in better school districts will cost more.” – Aliyu, A. A., et al (2016)

Prismatic also contacted two local realtors for their perceptions, each with multiple decades of local real estate experience. They asserted that they have seen no evidence that New Hampshire communities with schools located in them have consistently higher property values than similar communities without schools located in them.

### Multigrade Classrooms

On the September community survey, 22% of respondents indicated concerns with multigrade classrooms, while another 15% were undecided about them. A majority, 64%, indicated they would be okay with ConVal implementing them if the research showed they could be good for student learning.

Schools that face substantial enrollment decline usually also face a decline in funding. Schools unable to maintain one teacher per grade level are forced to consider multigrade classrooms. Multigrade classrooms contain students from more than one grade level taught by one teacher.

The placement of students must be carefully considered when implementing multigrade classrooms. Multigrade classes function at a higher level when students are “more independent” and “more motivated.”<sup>7</sup> Students who need more direction and more one-on-one support may not be best suited for multi-grade classrooms because of the instructional demands on the teacher. Students may often need to work independently or in small groups while the teacher provides instruction to students in the other grade level. The same is true for students who are less mature than peers or who struggle with behavior.

Although multigrade classrooms are not typically considered ideal, one study found that “there is no empirical evidence for the assumption that student learning may suffer in multigrade classrooms.”<sup>8</sup> In order to ensure all students in multigrade classrooms receive an education equitable to that of single-grade classrooms, teachers must be intentional about building relationships with each student and understanding their needs. Teachers also must be granted sufficient planning time to adequately prepare to teach both grade levels simultaneously, ensuring all students master the curriculum of their assigned grade level, and adapting the curriculum of both grade levels to challenge or remediate students accordingly.

In conducting research, interviews, focus groups, and observations for this project, Prismatic found that the implementation of multigrade classrooms in ConVal has been less than ideal. Teachers are not typically given long lead times when ConVal makes the decision to create a multigrade class, nor are they given explicit support in successfully leading a multigrade classroom.

### Later School Start Times

On the September community survey, 74% of residents agreed with the statement, “If the research shows that a later start time for ConVal high school would benefit those students, then it would be good for ConVal to do that.” In this case the majority opinion is in step with the latest research on the subject.

<sup>7</sup><https://repository.ubn.ru.nl/bitstream/handle/2066/28716/1/28716.pdf>

<sup>8</sup><https://www.jstor.org/stable/1170701#:~:text=Multigrade%20and%20multi%20Dage%20classrooms,phenomenon%20in%20our%20schools.>

The adequacy of school bell schedules, especially as it relates to sufficient sleep for youth, has been a national concern for decades. Contemporary research, consistent with dozens of older studies, consistently shows that U.S. adolescents not only are deprived of the sleep they need but also are in need of more sleep than their younger and older counterparts. Schools and school districts have spent recent years struggling with balancing the sleep health of their students with their myriad other responsibilities to stakeholders.

One of the first sizeable metropolitan school districts to take on this challenge was the Minneapolis Public School District (MPSD) in Minnesota, which shifted its high schools start times from 7:15 a.m. to 8:40 a.m. beginning in 1997-98. MPSD evaluated the impact and success of the adjusted bell schedules, and found numerous benefits, including:

- ◆ improved rates of continuous enrollment at individual schools over four years;
- ◆ moderately improved attendance, particularly among Black, Hispanic, and Native American students;
- ◆ a slight (but statistically insignificant) improvement in grades;
- ◆ an increase of approximately one hour in the average student’s sleep time;
- ◆ decreases in sleep-related tardiness, falling asleep in class, depressed moods, and illness-related absences; and
- ◆ increased student attention spans, according to teacher observations.

Since 2014, the American Academy of Pediatrics has recommended that middle and high schools not start before 8:30 a.m. As noted in their policy statement, “**the evidence strongly implicates earlier school start times**...as a key modifiable contributor to insufficient sleep.”<sup>9</sup> In this area, the word of the experts is clear.

In 2022-23, the State of California began requiring that middle schools begin no earlier than 8:00 a.m. and high schools no earlier than 8:30 a.m.<sup>10</sup> While perhaps the tipping point in the movement, California is not the first place where secondary schools start later. Indeed, it used to be the norm. In the 1950s and 1960s, most American schools started between 8:30 a.m. and 9:00 a.m.<sup>11</sup>

<sup>9</sup> <https://pediatrics.aappublications.org/content/pediatrics/early/2014/08/19/peds.2014-1697.full.pdf>

<sup>10</sup> <https://calmatters.org/education/k-12-education/2019/10/how-school-start-time-law-will-work-in-california/>

<sup>11</sup> <http://www.center4research.org/early-morning-classes-sleepy-students-risky-behaviors/>

## Prismatic Findings

Based on the extensive data collected and analyzed for this project, Prismatic developed multiple findings that bear on the reconfiguration question, “What is best for ConVal students and taxpayers?” These findings are presented in this section.

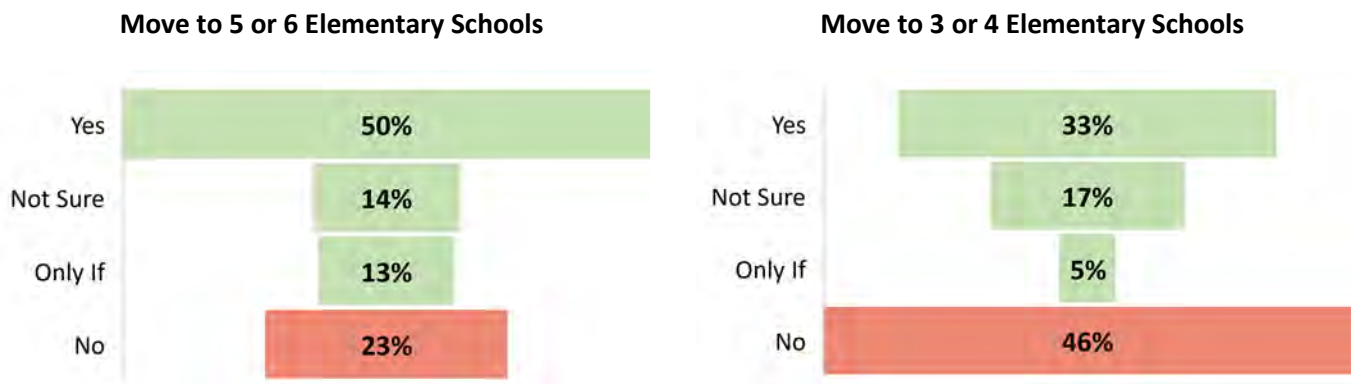
### COMMUNITY INPUT

#### Finding 1 – Support for Alternatives to Status Quo

Within each town there is at least some support for changing the status quo. On the September community survey, a majority in 6 towns expressed support for looking at options for reducing the number of schools if ConVal enrollment continues to decline. A majority in every town expressed openness to multigrade classrooms.

ConVal community members also expressed an openness to education options that are not directly related to school reconfiguration. Nearly 3/4<sup>th</sup> of September survey respondents could be in favor of adjusting school start times.

On the October follow-up survey, **63% of respondents felt that ConVal should take action on the reconfiguration question in 2024**. Given only limited background information, half stated they would support a plan to reduce the number of ES from 8 to 5 or 6. Only 23% outright opposed this option. One-third stated they would support a plan to reduce the number of ES from 8 to 3 or 4; less than half outright opposed this option.



Overall, community sentiment on the various issues around possible reconfiguration options was not monolithic. In each town meeting, there were at least a few extremely outspoken opponents of making any changes. Some felt that costs should not matter at all in considering options. Others felt that the opportunity for their children and grandchildren to learn within the same walls that they, their parents, and grandparents had should outweigh all other considerations. On the September community survey, a percentage of residents in each town felt that a ConVal ES should never be closed, no matter how small its student population.

Once a ConVal elementary school has less than ____ students, we should consider closing it.									
	Antrim	Bennington	Dublin	Francestown	Greenfield	Hancock	Peterborough	Sharon	Temple
<b>25</b>	69%	76%	55%	52%	79%	71%	88%	91%	44%
<b>50</b>	48%	52%	33%	33%	59%	48%	75%	61%	20%
<b>75</b>	17%	19%	9%	14%	23%	17%	40%	33%	10%
<b>100</b>	4%	10%	5%	6%	10%	8%	20%	19%	6%
<b>Never close</b>	31%	24%	45%	48%	21%	29%	12%	9%	56%

**CONVAL SCHOOL DISTRICT OVERALL**

**Finding 2 – ConVal Tax Rates**

ConVal has higher local education tax assessments than most of its peers. ConVal’s local education tax rate is 21% above the peer average and 36% higher than the state average. On the September community survey, 55% of ConVal residents overall and 50% of current parents of ConVal students indicated that they felt the district’s current property tax rates likely deter families from moving here. A majority in every town would prefer reduced taxpayer costs for the same academic rigor.

**Comparison of District Tax Rates, 2022**

District	Equalized Valuation for Local Taxes	Local Education Tax Assessment	Tax Rate \$ per \$1,000 of Equalized Valuation Local Education
Berlin	\$799,172,880	\$8,147,399	10.19
Fall Mountain Regional	\$1,779,562,517	\$19,474,867	10.94
Gilford	\$3,717,053,285	\$15,724,125	4.23
Kearsarge	\$5,660,238,201	\$32,565,642	5.75
Litchfield	\$1,667,723,488	\$15,481,269	9.28
Monadnock Regional	\$2,023,236,506	\$17,734,809	8.77
Windham	\$4,673,961,892	\$44,631,565	9.55
<b>Peer Average</b>	<b>\$2,902,992,681</b>	<b>\$21,965,668</b>	<b>8.39</b>
<b>ConVal</b>	<b>\$3,668,303,415</b>	<b>\$37,319,602</b>	<b>10.17</b>
		<b>State Average</b>	<b>7.5</b>

Source: NHDOE Office of School Finance

**REGULAR EDUCATION**

**Finding 3 – Elementary Spending Impacts Secondary Spending**

The choice to keep 8 ES in operations does have an impact on ConVal’s secondary school operations. There are less coursework options in ConVal HS compared to some peers. Students and district staff pointed out opportunities they would like secondary students to have but that are currently not available.

Perhaps the easiest way to see the lost secondary opportunity is through district spending. In 2021-22, ConVal had the highest per student cost of all the peers, but it also had one of the lowest differences

between overall and high school student spending. Most of the peers spent more per high school student than they did overall per student. On average the peers spend an additional \$1,509 per high school student beyond the overall student average. In comparison, ConVal spent only an additional \$91 per high school student.

#### Comparison of Costs Per Student, 2021-22

District	Enrollment	# of Schools	Cost Per Student Overall	Cost Per Student HS Only	Difference Between Overall and HS Cost Per Student	Total Exp
Berlin	1,063	2	\$20,083	\$24,298	\$4,215	\$22,764,232
Fall Mountain Regional	1,448	9	\$21,840	\$21,933	\$93	\$33,951,026
Gilford	1,127	3	\$20,598	\$20,400	-\$198	\$24,205,455
Kearsarge	1,730	7	\$22,497	\$24,833	\$2,336	\$42,890,108
Litchfield	1,230	3	\$17,836	\$18,882	\$1,046	\$26,371,528
Monadnock Regional	1,615	6	\$20,046	\$21,176	\$1,130	\$36,233,255
Windham	3,032	4	\$16,058	\$18,001	\$1,943	\$54,338,508
<b>Peer Average</b>	<b>1,606</b>	<b>5</b>	<b>\$19,851</b>	<b>\$21,360</b>	<b>\$1,509</b>	<b>\$34,393,445</b>
<b>ConVal</b>	<b>2,062</b>	<b>11</b>	<b>\$24,030</b>	<b>\$24,121</b>	<b>\$91</b>	<b>\$51,365,385</b>

Source: <https://my.doe.nh.gov/iPlatform/Report>

The NHDOE Office of School Finance provides slightly different figures than the NHDOE iPlatform tool. However, the overall trend is similar. Among the peers, 4 of the 7 spend somewhat more per HS student than their overall spend per student. On average, the peers spend \$59 more per high school student. In contrast, ConVal spends \$1,201 less per HS student than it does overall per student. Looking at the difference in spending between ES and HS students, 5 of the 7 peers spend more per HS student, but on average, the peers spend \$266 less per HS student. In contrast, ConVal spends \$2,759 less per HS student than it does per ES student.



### Comparison of Costs Per Student by School Level, 2021-22

District	Elementary	Middle	High School	Overall Cost Per Student (PreK-12)	Difference Between Overall and HS Cost Per Student	Difference Between ES and HS Cost Per Student
Berlin	\$20,245	\$16,527	\$22,341	\$20,083	\$2,258	\$2,096
Fall Mountain Regional	\$22,802	\$0	\$19,991	\$21,840	-\$1,849	-\$2,811
Gilford	\$22,609	\$20,060	\$19,607	\$20,598	-\$991	-\$3,002
Kearsarge	\$22,381	\$22,335	\$22,818	\$22,497	\$321	\$437
Litchfield	\$17,107	\$18,995	\$17,594	\$17,836	-\$242	\$487
Monadnock Regional	\$20,704	\$16,643	\$20,712	\$20,046	\$666	\$8
Windham	\$15,382	\$17,713	\$16,307	\$16,058	\$249	\$925
<b>Peer Average</b>	<b>\$20,176</b>	<b>\$16,039</b>	<b>\$19,910</b>	<b>\$19,851</b>	<b>\$59</b>	<b>-\$266</b>
<b>ConVal</b>	<b>\$25,588</b>	<b>\$23,355</b>	<b>\$22,829</b>	<b>\$24,030</b>	<b>-\$1,201</b>	<b>-\$2,759</b>

Source: NHDOE Office of School Finance

### Finding 3 – Teacher Salaries

Attracting good teachers to the district is a growing issue. Teachers have pointed out that pay levels in the ConVal district are not competitive with surrounding school districts by as much as \$10,000. The same was mentioned for administrative salaries. Supporting new teachers (first year teachers) is an issue, as well as on-boarding experienced teachers who move to ConVal District.

The peer average teacher salary was lower than that of ConVal, but at the same time 4 of the 7 peers had a higher average than ConVal. Moreover, the average salary includes a measure of longevity, since more senior teachers earn a higher salary.

### Comparison of Teacher Data, 2022-23

District	Enrollment	# of Teachers	# of Students per Teachers	Average Teacher Salary
Berlin	1,010	94.0	10.8	\$66,422
Fall Mountain Regional	1,418	135.3	10.1	\$57,286
Gilford	1,126	102.0	11.0	\$64,527
Kearsarge	1,717	163.7	9.9	\$67,426
Litchfield	1,204	96.3	12.5	\$63,790
Monadnock Regional	1,618	125.0	11.7	\$53,573
Windham	3,005	195.4	13.8	\$66,825
<b>Peer Average</b>	<b>1,441</b>	<b>130.2</b>	<b>11.4</b>	<b>\$62,836</b>
<b>ConVal</b>	<b>1,969</b>	<b>200.0</b>	<b>10.0</b>	<b>\$61,456</b>

Source: <https://my.doe.nh.gov/iPlatform/Report>

When compared to peer districts, the salary for beginning teachers in ConVal is below average. The same is true for teachers with 5, 10, and 15 years of experience. Below average salaries make the recruitment and retention of teachers much more difficult.

Teachers who are new to teaching may be willing to accept a lower salary if the salary scale catches up to that of peer districts within the first few years. The salary discrepancy between ConVal and the highest paying peer district for beginning teachers is \$2,563. The discrepancy grows with each year of experience, creating a difference of \$12,942 for teachers with 15 years of experience. Salary discrepancies after teachers are experienced may cause teachers to gain the needed experience to assist them in obtaining teaching positions in higher paying districts.

#### Comparison of Teacher Salaries, 2022-23

District	Year 1	Year 5	Year 10	Year 15
Berlin	\$40,673	\$48,320	\$57,678	\$67,436
Fall Mountain Regional	\$43,663	\$49,402	\$55,894	-
Gilford	\$42,773	\$49,116	\$55,457	\$61,801
Kearsarge	\$40,852	\$49,021	-	-
Litchfield	\$41,612	\$47,955	\$56,022	\$64,274
Monadnock Regional	\$40,750	\$43,250	\$47,150	-
Windham	\$40,852	\$47,208	\$56,650	\$68,402
<b>Peer Average</b>	<b>\$41,596</b>	<b>\$47,753</b>	<b>\$54,809</b>	<b>\$65,478</b>
<b>ConVal</b>	<b>\$41,100</b>	<b>\$45,100</b>	<b>\$50,100</b>	<b>\$55,100</b>

Source: Various district websites

#### REGULAR EDUCATION

As detailed in Chapter 2, the ConVal regular education program suffers from substantial variations in class size across its ES, ranging from an average of 5.0 students per grade (1/2) in a combined class of 10.0 at TES to an average of 15.0 in grades 1-2 at BES/Pierce. The district also has generally lower class sizes than the peer districts, but this has not translated into routinely higher rates of success on state assessments. Student access to specials (art, music, PE/health, and library/media) is not equal across the ES. As detailed in Chapter 3, ConVal teachers feel they do not have sufficient time for collaboration, which would serve to improve horizontal and vertical instructional alignment. These findings have been documented in those chapters. The findings presented here are in addition to those.

#### Finding 4 – School Administrative Expenses

Making the decision to have a school has baked into it assumptions about additional costs. This includes the state requirement to have a principal at each school. The impact of this can be seen in the percentage of its budget that ConVal spends on school administration compared to its peers. From 2018-19 through 2021-22, ConVal spent an average of 2% more of its budget on school administration than its peers did. In each of the 4 years, ConVal spent a higher percentage of its budget on school administration than all of the peers, with the exception of Gilford in 2021-22. The 1.6% difference between ConVal's spending and the peer average in 2021-22 equates to \$822k in ConVal expenditures.

### Comparison of Spending on School Administration

District	Percent of Spending on School Administration				# of Schools
	2018-19	2019-20	2020-21	2021-22	2023-24
Berlin	3.7%	5.0%	4.1%	4.1%	2
Fall Mountain Regional	5.5%	5.2%	5.5%	4.9%	9
Gilford	6.9%	7.3%	7.1%	7.4%	3
Kearsarge	5.7%	5.8%	5.7%	6.0%	7
Litchfield	5.9%	6.0%	6.1%	6.0%	3
Monadnock Regional	6.1%	6.0%	5.9%	6.0%	6
Windham	3.9%	4.4%	4.7%	5.4%	4
<b>Peer Average</b>	<b>5.4%</b>	<b>5.7%</b>	<b>5.6%</b>	<b>5.7%</b>	<b>5</b>
<b>ConVal</b>	<b>7.6%</b>	<b>7.5%</b>	<b>8.0%</b>	<b>7.3%</b>	<b>11</b>

Source: <https://my.doe.nh.gov/iPlatform/Report>

#### Finding 5 – Field Trip Equity

Equity of instructional quality and learning opportunities across schools in a district is a typical concern and one that Prismatic specifically assessed on this project. One area of inequity found was field trips. Field trips can be a valuable learning opportunity, particularly with lower income students.

In 2022-23, ConVal did not allocate field trip monies on an equitable basis across the ES or the MS. District staff stated that field trip monies are allocated on a per student basis, considering Kindergarteners and up. Even so, some small ESs received more field trip funds per student than larger ESs. Funding for the 2 MS had the same problem. Also according to district staff, how much a school receives for field trips depends largely on the school's priorities and how much of that budget is spent depends largely on the initiative of school staff and availability of field trip drivers. This resulted in students in the larger schools, AES and PES, receiving the benefit of far fewer field trip dollars than students in all of the smaller ES. Likewise, SMS students received fewer field trip dollars than GBS students on a per student basis.

### ConVal Field Trip Budgets and Expenses, 2022-23

School	Budget	Expenses	Budgeted per K+ Student	Expenses per Student
AES	\$6,875	\$2,369	\$67.40	\$23.23
BES/Pierce	\$4,180	\$3,830	\$64.31	\$58.92
DCS	\$3,460	\$2,810	\$59.66	\$48.45
FES	\$2,530	\$1,268	\$60.24	\$30.19
GES	\$3,905	\$3,790	\$52.77	\$51.21
HES	\$2,800	\$2,711	\$50.00	\$48.41
PES	\$13,200	\$2,903	\$57.64	\$12.68
TES	\$2,420	\$2,137	\$73.33	\$64.75
<b>ES Average</b>			<b>\$60.67</b>	<b>\$42.23</b>
GBS	\$9,960	\$6,099	\$43.88	\$26.87
SMS	\$10,650	\$6,033	\$31.32	\$17.74
<b>MS Average</b>			<b>\$36.35</b>	<b>\$21.40</b>

Source: ConVal School District, 2023

#### Finding 6 - Student Support Services

In addition to class size discrepancies, access to resources and supports has not been equitable across ES. In 2023-24, AES is the only ES with a full-time reading interventionist on staff. Only PES has a full-time school counselor. The remaining 7 ES share 2 school counselors. Four elementary schools have full-time school nurses, while the remaining 4 ES share 1 school nurse.

#### SPECIAL EDUCATION

#### Finding 7 - Special Education Costs

The district spends slightly more than \$4.5M per year educating its 171 elementary special education students, an average of \$26,867 per special education student. The per student cost ranges from \$20,722 at HES to \$36,935 at TES.

The allocation of funds for special education students is based on weighted child counts on a per student basis from both state and Federal sources. State and Federal funding of special education falls short of ConVal's current average per student, which is not unusual – districts frequently face that situation. The lack of funding pushes the burden of the remaining funding on local sources of revenue. There is no legal option for school districts or communities to not fund these services, so it is incumbent on every decisionmaker involved with schools to seek service delivery efficiency.

To assess the district's special education costs, the consulting team analyzed the data in this way:

- ◆ Special education costs for elementary schools were calculated from the 2022-23 financial reports with updates of actual costs for 2023-24 where available. The average salary for a category of employees was utilized when some positions were not yet filled or the computations were not readily available. These costs also account for split assignments by using the percentage of time and corresponding portion of salary for each school where personnel are assigned. The school-based administrative costs for the special education coordinator positions

for each level of the district are apportioned out to each school based on the number of special education students served in the school.

- ◆ The same process was utilized for district special education administrative costs. Administrative costs were totaled and apportioned to each school in the district based on the number of special education students attending and receiving services at each school. The district special education administrative costs include salaries of the relevant central office staff, tuition costs for out of district placements, contractual services for service providers needed but unavailable to hire into the district, transportation costs for special education and transportation costs for out of district placements, plus, specialized equipment costs, mileage reimbursements for all staff being required to travel to two or more job sites, and program costs that enhance the delivery of service to special education students.
- ◆ The item that is not included is the cost of educating special education students for a portion of their day in regular education classrooms. Public schools are required by state and federal laws to maintain the effort and expenditures in regular classrooms for special education students. The funding received from state and Federal sources then must be spent on the excess cost above that maintenance of effort.

The resulting per-student special education costs vary widely across the district. One factor driving the comparatively higher per-student costs at PES is the ILS program housed there. The ILS program serves students in need from all elementary schools district-wide, but costs are apportioned to PES. The same approach is true of special education PreK programs. Although the PreK programs serve children from all elementary schools, the costs are apportioned out to their locations (AES, GES, HES, and PES).

The smaller schools, in terms of the number of special education students served, frequently have substantially larger per student costs than the larger schools. While it is difficult to separate out the financial impact of the ILS program at PES, the per-student costs at AES, which does not have a similarly intensive program, but does have a PreK program, offers insight into what the district's more typical special education costs could be.

### ConVal Elementary School Special Education Cost Analysis, 2022-23

School	SPED Teacher Costs <sup>12</sup>	Related Services Costs	Para Costs	SPED Admin Costs PK-4	District SPED Admin Costs	Total SPED Cost per Site	SPED Cost per Student
AES	\$292,242	\$153,385	\$216,515	\$18,319	\$135,054	\$815,515	\$23,300
BES/Pierce	\$145,573	\$53,975	\$73,730	\$7,523	\$107,286	\$388,087	\$27,721
DCS	\$65,576	\$93,312	\$60,535	\$6,804	\$109,504	\$335,731	\$25,825
FES	\$16,513	\$40,299	--	\$3,140	\$167,918	\$227,870	\$37,978
GES	\$199,575	\$171,214	\$178,944	\$11,515	\$109,474	\$670,722	\$30,487
HES	\$112,200	\$101,441	\$102,223	\$10,991	\$108,306	\$435,161	\$20,722
PES	\$575,722	\$352,278	\$290,682	\$27,216	\$179,869	\$1,425,767	\$27,419
TES	\$77,032	\$77,375	--	\$4,187	\$136,886	\$295,480	\$36,935
<b>Totals</b>	<b>\$1,484,43</b>	<b>\$1,043,28</b>	<b>\$922,629</b>	<b>\$89,695</b>	<b>\$1,054,298</b>	<b>\$4,594,333</b>	<b>\$26,867</b>

Source: ConVal School District, Compiled by Prismatic, October 2023

#### Finding 8 - Elementary Special Education Teacher Caseloads

The caseloads of ConVal’s elementary special education teachers are low, compared to standards set forth by the State of New Hampshire.<sup>13</sup> Caseload data demonstrate that ConVal teacher resource caseloads at the elementary level are at 40% to 50% of their maximums under the NH guidelines. PreK and ILS programs are running at 50% to 60% of the NH maximums. As is typical in the provision of special education services, the district makes programming decisions at the level of each special education student, via the development of an Individualized Educational Plan (IEP), and the district cannot control the types or levels of service its special education students may need. Nonetheless, the caseload data suggest there would be opportunities to consolidate programs at fewer sites without any loss of service to students needing special educational services.

There are 171 students placed in elementary special education programs. Based on the NH caseload model, the consulting team calculates that there is room for another 122 special education students. At the elementary level there is one teacher for every 8 special education students and 1 paraprofessional for every 3 students. Both could be adjusted through attrition to improve program efficiency. Future staffing could be based on a combination of caseload and workload models of staffing.

#### Finding 9 - Related Services by School and Category of Service

Generally, students who have multiple services show more difficulty with at least some portions of their learning experience. Early intervention can have a big impact, but it also adds to the pull-out nature of service delivery. These students have a regular teacher, a special education teacher, and then may have one or more related services, such as a speech pathologist (SLP), occupational therapist (OT), physical therapist (PT), psychologist, or behavioral specialist. The complexity of managing a program for these students goes without saying. New Hampshire gives no guidance on caseloads for related services staff and instead leaves it up to the school district to set the standard. In some of the professions, like SLP and OT/PT, the professional organization provides guidance, usually based on workload models. The

<sup>12</sup> Includes PreK costs.

<sup>13</sup> *Guide to the NH Standards for the Education of Children with Disabilities pages 118-119*

states who have set guidelines all use caseload models to do so. The most common is a caseload of 50 for SLPs and OTs with slightly lower caseloads for PTs and even lower for psychological and behavioral specialists.

At the ConVal ES, the SLP and OT caseloads are generally between 13 and 30 students, with one OT carrying 50. In the MS, the district has several SLPs and OTs with mixed caseloads of elementary and middle school students to achieve caseloads ranging from 20 to 56. Several more have picked up HS and MS students to get caseloads of 20 through the 60s. One PT serves all 3 levels of the district and has a caseload of 31, while a contracted, part-time PT has a caseload of 11.

The analysis of ConVal data is provided in the following table. The district had data for 853 students listed on various related services caseloads files. With 449 identified special education students in the district, the data reflect more than 1 service being provided to a large percentage of special education students. The analysis suggests that collectively:

- ◆ SLPs have a caseload cushion of 96 students.
- ◆ OTs have a caseload cushion of 44.
- ◆ PTs have a caseload cushion of 10, perhaps more.
- ◆ The 3 psychologists have a cushion of ~16.

Caseload data on 2 psych/ social workers, the contracted behavioral therapists, and 1 contracted psychologist at the HS were not available. The extent to which the caseload cushions were driven by the number of school locations could not be determined definitively.

### ConVal Related Services Provider Caseloads

School	SLP +SLPA	Pre-KSLP	OT-1	PKOT	PT-1	Tch of Deaf+	Psych-1	BCBA/ABA	SLP-1	Psych-2	OT -2	SLP-2	SLPA	OT-3	SLP-3	Psych-3	PT-2	Pre-K SLP	SLP-4	OT-4	COTA	SLP +SLPA	SLPA	BCBA	Psych-4	OT -5 + COTA	Students Served	Total Related Services
AES	20	13	25	8	5	3	9	5																			88	
BES/Pierce					2			2		5	14	7	X														30	
DCS					2	1		1	6	3	8																21	
FES						1				2		2	X	1													6	
GES					2							7	X	7	11	8	6										41	
HES				2	1			4		5	7	8	X				5										32	
PES					8	4		15	7						12	14	5		18	50	X						133	
TES					1				6					5													12	
<b>Total ES</b>	<b>20</b>	<b>16<sup>1</sup></b>	<b>25</b>	<b>10</b>	<b>21</b>	<b>9</b>	<b>9</b>	<b>27</b>	<b>30<sup>2</sup></b>	<b>15</b>	<b>29</b>	<b>24</b>		<b>13</b>	<b>23</b>	<b>22</b>	<b>11</b>	<b>5</b>	<b>18</b>	<b>50</b>							<b>377</b>	<b>363</b>
GBS	25		25		2	3	13																	2			70	
SMS					1	3												26				20	X	20	16	20	106	
<b>Total ES/MS</b>	<b>45</b>		<b>56<sup>3</sup></b>				<b>22</b>												<b>44</b>			<b>20</b>		<b>22</b>	<b>16</b>	<b>20</b>	<b>245</b>	<b>239</b>
HS Caseload					7	7																47		29		40	130	
<b>ConVal Total</b>					<b>31</b>	<b>22</b>																<b>67</b>		<b>51</b>		<b>60</b>	<b>231</b>	<b>231</b>

\*Grand Total Students PK-12 Receiving SPED Related Services (reflects multiple services for many students)

<sup>1</sup>3 out of district

<sup>2</sup>11 out of district

<sup>3</sup>6 out of district

Source: ConVal School District, Compiled by Prismatic, October 2023





The caseloads of related services staff currently range from 5 students (preschool therapist) to 67 (HS tele-therapist). The caseload maximums are based on no more than 50 for SLP, OT, and PT, and 25 for Psych Staff. The only lower caseload is for educators for hearing impaired, which has a resource maximum of 20 students. The analysis simply indicates how many students could potentially be added to staff caseloads. There is space available to make reconfiguration adjustments without affecting the quality of student programming. How much space is available for caseload adjustments depends on travel between schools, the needs of the students for therapy and the workloads for teachers necessary to assure quality services.

#### Opportunities for Related Services Caseload Adjustments, District-Wide

Related Service	SPED Students	Caseload	Caseload Space
Teacher 1 +SLPA	45	50	+5
Teacher 2 Pre-K SLP	16	50	+34
Teacher 3 SLP	30	50	+20
Teacher 4 SLP+ SLPA	24	50	+26
Teacher 5 SLP	23	50	+27
Teacher 6 Pre-K SLP	5	50	+45
Teacher SLP	18	50	+32
Teacher SLP +SLPA	67	50	-17
Teacher OT	56	50	-6
Teacher PKOT	10	50	+40
Teacher OT	29	50	+21
Teacher OT	13	50	+37
Teacher OT + COTA	50	50	0
Teacher OT + COTA	60	50	-10
Teacher PT	31	50	+19
Teacher PT	11	50	+39
Teacher Deaf + Interpreter	22	20	-2
DD StCyr Psych	22	25	+3
Psych Contractor	15	25	+10
M Mans Psych	22	25	+3
B Foecking Psych	16	25	+9
BCBA/ABA	27	Behavioral Services Contract	
BCBA	51	Behavioral Services Contract	
<b>Total</b>		<b>920</b>	<b>370</b>

Source: ConVal School District, Compiled by Prismatic, October 2023

#### Finding 10 – Special Education Paraprofessionals

There is a high reliance on 1:1 paraprofessional services in ConVal, that at least in part, could be attributed to the current number of school sites. The disadvantage of 1:1 paraprofessional assignment is that some special education students become dependent on adults and fail to develop the more independent and adaptive behavior prescribed for in their IEP. There are cost savings opportunities if students are assigned and served in small groups (up to 3 students).

The New Hampshire state contribution to special education funding is the lowest in the nation. ConVal is a primary plaintiff in a lawsuit against the state that seeks to increase the state funding for special

education services. While that lawsuit is progressing, the lack of adequate funding means schools must fund and meet the needs of special education students with available funding. In ConVal, special education students comprise close to 1/4<sup>th</sup> of all students. In previous district studies of reconfiguration/consolidation, the impact of having 8 ES on special education costs was not specifically addressed.

Reviewing the Individualized Education Plans (IEPs) of all ConVal special education students was beyond the scope of this project. Nevertheless, having a greater number of special education students in 1 ES versus smaller numbers of students spread across multiple schools could provide opportunities to meet students' paraprofessional needs with fewer staff positions.

## **FACILITIES FINDINGS**

### **Finding 11 – Bonded Indebtedness**

At the end of 2023-24, all bonded indebtedness at ConVal will have been retired. Approximately \$180,000 will be paid this year. Without doubt, having and not necessarily needing the full bonding capacity is better than needing and not having it. This is an excellent position for the district to be in at the current time. Should the district adopt a reconfiguration plan, it will have a potential source of funding to address any renovations deemed necessary.

### **Finding 12 – Facilities Deferred Maintenance**

Prismatic found the building condition of all facilities to be high. The district's deferred maintenance is convincingly 5% or less of building replacement value, which indicates facilities maintenance spending at a best practices level. A common metric in facilities maintenance used as an indicator of sufficient effort to maintain facilities is the percentage of an organization's budget spent on maintenance and repair. The generally accepted best practice, as recommended by the Building Research Board of the National Research Council,<sup>14</sup> is that a district spend 2-4% of the current replacement value of its building on maintenance and repair. Prismatic estimates that the current replacement value of ConVal facilities is ~\$220M, meaning that the district would need approximately that amount to completely replace its current building stock. ConVal's current annual operations and maintenance expenditures are within the 2-4% range and have generally been within that range for a number of years.

For reconfiguration considerations, this means that all 8 ConVal schools are in good repair and there is no need to consider closing a particular school because it is in relatively poor repair. Likewise, this means that any schools that could be closed would be received by their towns in good repair.

### **Finding 13 – Elementary Facilities Capacity**

Depending on the measurement method, ConVal has between 1,540 and 1,623 available seats across its 8 elementary schools. NESDEC projects that K-4 enrollment in ConVal as of 2031-32 will be 798. This means that ConVal has roughly twice as many elementary seats as it will have students in the near future. Continuing to offer PreK would fill some of the empty seats, but it will not fill all.

<sup>14</sup> <https://www.nap.edu/read/9807/chapter/1>

### Regular Education Student Capacities of Each ConVal Elementary Facility

School	# of Classrooms	Maximum Capacity per NHDOE	Capacity at 20 Students Per Class <sup>15</sup>
AES	14	278	260
BES/Pierce	7	154	120
DCS	8	154	140
FES	8	154	140
GES	8	154	140
HES	8	154	140
PES	24	443	460
TES	8	154	140
<b>Total</b>	<b>155</b>	<b>1,623</b>	<b>1,540</b>

Source: Compiled by Prismatic, 2023

## OPERATIONS FINDINGS

### Finding 14 – Food Service Program Finances

The food service program is not financially self-sustaining, despite the switch to contractor operations. In 2022-23, the overall loss was \$203,498. Those losses had to be covered by the district's general funds.

Committee meeting minutes indicate that the district has known for the last several years that the satellite operations in the smaller ES cost more to operate than the revenue they generate. Also contributing to the financial difficulties:

- ◆ Bad debt – these debts are created when parents do not keep their students' meal accounts paid up. At the end of 2022-23, bad debts totaled \$86,804.
- ◆ Insufficient contractor oversight – The contractor has control over all the direct costs of the program, while ConVal is required to pay them. It does not appear that the district has historically monitored cost breakdowns of all cost categories to help ensure that the contractor's expenses do not become excessive.
- ◆ Low breakfast participation - The June 2023 claim showed a district average daily participation rate of 16% of enrollment for breakfast. This rate was well below industry standard best practices. Among the ConVal ES, June 2023 breakfast participation averaged just 22%, ranging from a low of 13% at HES to a high of 36% at FES. Moreover, the data indicate that at BES/Pierce, HES, and PES the breakfast participation rates are lower than the percentage of students eligible for free/reduced-price meals. This means that some portion of lower-income students at those schools are not obtaining valuable nutrition.

<sup>15</sup> This column includes the subtraction of 1 classroom per facility for non-regular education use.

### Best Practice Breakfast Participation Rates

School Level	Best Practice <sup>16</sup>
Elementary	35%
Middle	35%
High	25%

- ◆ Low lunch participation - The June 2023 claim showed a district average daily participation rate of 39% of enrollment for lunch. This rate was well below industry standard best practices. Among the ConVal ES, June 2023 lunch participation averaged just 48%, ranging from a low of 37% at GES to a high of 58% at PES.

### Best Practice Lunch Participation Rates

School Level	Best Practice HUSC <sup>17</sup>	Best Practice Pannell-Martin <sup>18</sup>
Elementary	75%	70%
Middle	75%	60%
High	65%	50%

#### Finding 15 – Food Service Equity

Meal options are not equitable across the ES. AES and PES students are offered meals that are similar to those offered in the middle and high schools, while students in the remaining ES are offered meals in white plastic bags. AES and PES students are given more meal options; having options has been shown to increase student participation in school meal programs.

#### Finding 16 – Transportation Expenses

Although a frequent concern members of the community offered when discussing potential reconfiguration options was a likely increase in transportation costs, the district's current transportation expenses are generally below most of its peers and below industry practice.

According to 2021-22 expenditures data from NHDOE, ConVal's transportation expenditures as a percentage of their total expenditures were lower than most peer districts, at 4% of total expenditures. Berlin had busing expenses of just 2% and Gilford of 2.8%. The other 5 peers though, had higher transportation expenditures relative to total expenditures. It should be kept in mind while considering these busing cost comparisons that ConVal is the largest of these school districts, approximately 250 square miles, and that distances travelled by school buses are a primary driver of costs. For anyone concerned that ConVal's favorable standing among its peer districts may stem from an "apples to oranges" comparison of dissimilar busing programs, 4 of the 7 peer districts for which the consulting team obtained bus schedules and contractor identification indicated they have busing programs similar

<sup>16</sup> *Healthier US School Challenge Criteria, 2014*

<sup>17</sup> *Healthier US School Challenge Criteria, 2014*

<sup>18</sup> Pannell-Martin, D. (2000). *School food and nutrition management for the 21<sup>st</sup> century* (4<sup>th</sup> ed.). School Nutrition Association.

to ConVal’s: a 2-tier system with MS/HS students being dropped off by ~7:30 am and ES students being dropped off by 8:30 am and with busing provided by a large, national bus contractor.

District	Enrollment 2021-22	Percent of Spending on Transportation				# of Schools 2023-24
		2018-19	2019-20	2020-21	2021-22	
Berlin	1,063	2.1%	1.7%	1.4%	2.0%	2
Fall Mountain Regional	1,448	4.8%	4.2%	4.2%	4.9%	9
Gilford	1,127	3.3%	3.0%	2.3%	2.8%	3
Kearsarge	1,730	5.8%	5.5%	4.8%	5.2%	7
Litchfield	1,230	5.2%	4.3%	4.0%	4.6%	3
Monadnock Regional	1,615	6.0%	5.3%	4.8%	5.7%	6
Windham	3,032	5.2%	5.2%	4.2%	4.6%	4
<b>Peer Average</b>	<b>1,606</b>	<b>4.6%</b>	<b>4.2%</b>	<b>3.7%</b>	<b>4.3%</b>	<b>5</b>
<b>ConVal</b>	<b>2,062</b>	<b>5.4%</b>	<b>5.2%</b>	<b>4.6%</b>	<b>4.0%</b>	<b>11</b>

Source: <https://my.doe.nh.gov/iPlatform/Report>

ConVal’s transportation expenditures also compare favorably to a desired threshold of 5% or less, set in Best Practices in Student Transportation by Dan Roberts (p. 143, 2013).

ConVal could spend ~\$500,000 more annually on transportation and still be under the 5% threshold. It should be noted though, that ConVal’s transportation expenditures do not include fuel that the district buys for STA. In 2022-23 ConVal spent \$165,372 on fuel. Fuel costs vary from year to year, and ConVal operations have varied in recent years as it moved in and out of COVID restrictions. In the past 6 years, fuel costs have ranged from a low of \$98,000 in 2019-20 to a high of \$202,000 in 2021-22.

ConVal’s transportation expenditures do not include special education bus monitors either. The costs for bus monitors are included in personnel budget lines. In 2022-23, 6 in-district routes were identified as special education routes; if each of them had a monitor assigned and monitors worked a 5-hour day for 180 days, then bus monitor expenses would have totaled about \$121,000. Even after adding fuel and bus monitor costs though, ConVal’s transportation expenses would remain below the 5% threshold, and remain near to or below several of its NH peer districts’ spending levels.