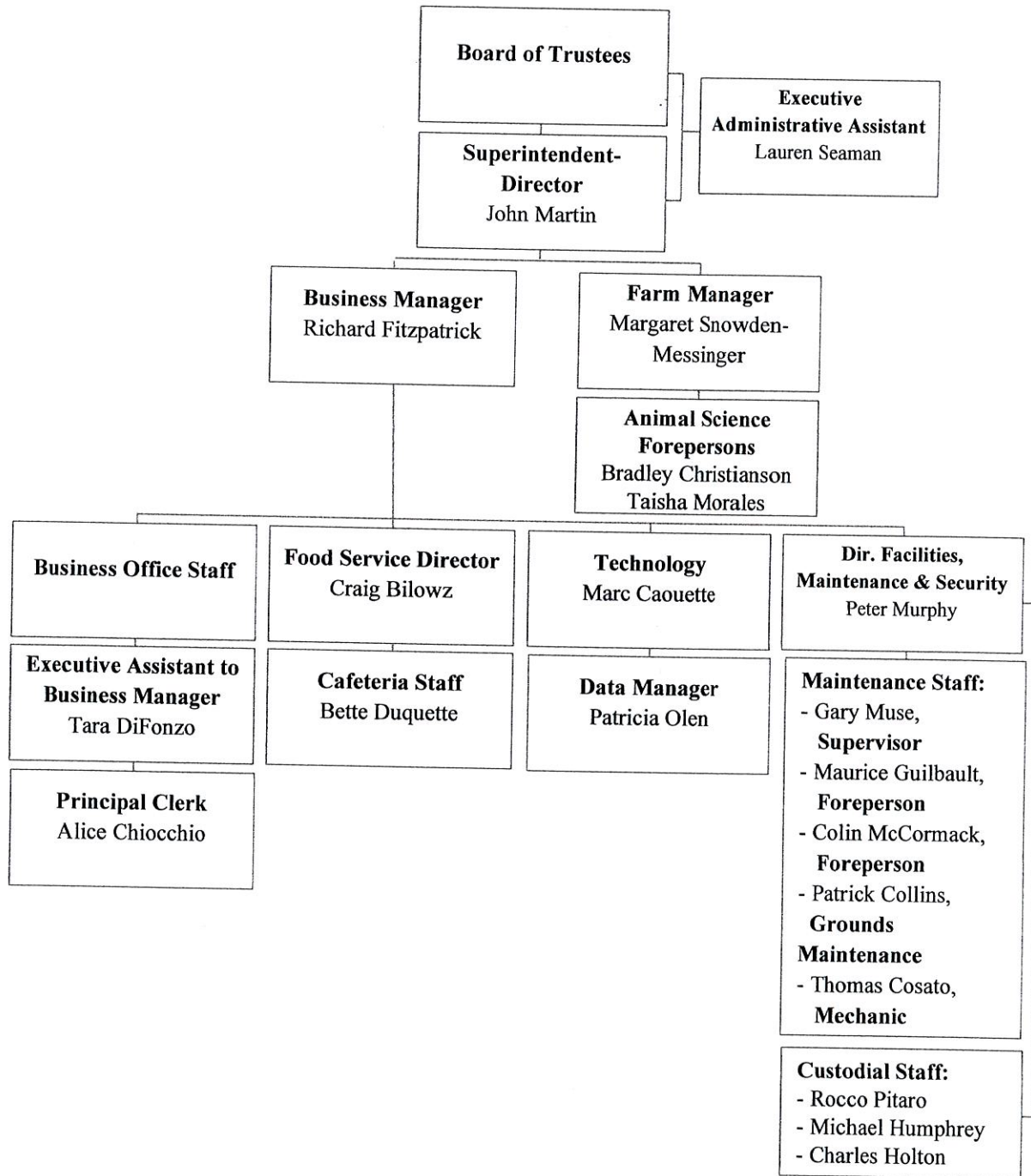


13. NORFOLK COUNTY AGRICULTURE HIGH SCHOOL (NCAHS)

The Norfolk County Agricultural High School (NCAHS), located in Walpole, is one of three such schools in Massachusetts charged with promoting agriscience and agribusiness opportunities. The school's seven-member Board of Trustees is comprised of the three County Commissioners and four members with staggered four-year terms that are appointed by the Governor of the Commonwealth. A table of organization is presented below. The table only includes non-academic staff. Our scope does not include the academic function.



The Norfolk County Agriculture High School (NCAHS) review will analyze data, staffing levels, and management practices to provide a list of best practices along with recommendations on how to achieve financial improvements in the school.

1. General Operations Benchmarking Analysis

We have performed an extensive benchmarking analysis of Norfolk County Agricultural High School (NCAHS) using Massachusetts Department of Elementary and Secondary Education (DESE) data. We have used the DESE analytical tools **Resource Allocation and District Action Reports (RADAR)**, **District Analysis and Review Tools (DARTs)**, and **Edwin Analytics**. Initially our plan was to compare NCAHS to only the other three agricultural high schools in Massachusetts, Bristol County Agricultural, Essex North Shore Agricultural & Technical, and Northampton's Smith Vocational & Agricultural. While acknowledging that NCAHS is a unique school, we believe than looking at comparisons to other districts and state averages may provide insights for the administration. The RADAR analysis includes, for comparison, the other three agricultural high schools in the state, along with the six Regional Vocational Technical High Schools (Regional Vocational Technical High Schools) that Norfolk County communities belong to; Blackstone Valley, Blue Hills, Minuteman, South Shore, Southeastern, and Tri-County. It should be noted that Minuteman has been included because Dover and Needham are regional district members. Minuteman is an extraordinarily different school than any others included, and expenditure comparisons are for your information, but not necessarily for significant meaning. We have extracted parts of the NCAHS RADAR here , but the best way to review the report is online. The first tab is instructions for using the RADAR. The RADAR data includes instructional information. We note that that an analysis of NCAHS instructional services is beyond the scope of our study.

Home Tab: The second tab, **Home**, lays out the basic structure of the RADAR. NCAHS is in the middle of the pack regarding total enrollment (551 students), economically disadvantaged students (13.4%), students with disabilities (20.1%) and relative district wealth (84%). It is the highest of the four agricultural schools for 2019 in-district per pupil spending (\$24,228) as shown on the following table from the RADAR. It is also higher than all of the Regional Vocational Technical High Schools except Minuteman.

In terms of relative wealth NCAHS is tied with Smith as the second wealthiest district, wealthier than Bristol and less wealthy than Essex. It is wealthier than all the Regional Vocational Technical High Schools.

Select up to ten comparison districts in the blue cells (use drop-down or type district name) Delete and re-select comparison names if you select a new target district above	Grades Served	2019 \$/In-district Pupil	2020 Relative District Wealth*	2020 Students			
				Total Enrolled	Econ Disadv	SWD	EL
				#	%	%	%
Norfolk County Agr	9-12	\$24,228	84%	551	13.4	20.1	0.2
Bristol County Agricultural	9-12	\$21,986	54%	451	25.3	13.1	--
Essex North Shore Ag/Tech	9-12	\$19,537	91%	1,492	17.8	16.6	0.3
Northampton-Smith Voc/Agr	-	\$22,867	84%	496	32.5	40.7	1.0
Southeastern RVT	9-12	\$20,322	39%	1,458	33.1	13.9	2.2
Blackstone Valley RVT	9-12	\$19,976	61%	1,224	9.6	10.6	0.2
Blue Hills RVT	9-12	\$23,184	75%	856	25.7	25.5	0.9
Tri-County RVT	9-12	\$19,869	70%	969	17.3	31.1	--
Minuteman RVT	9-12	\$37,059	111%	598	19.9	51.0	2.3
South Shore RVT	9-12	\$21,157	62%	638	24.6	29.0	0.5
	--	--	--	--	--	--	--

We have also observed that the cost of benefits and fixed costs are higher than most other districts and significantly higher (72%) than the state average.

2. Expenditures and Staffing

We have commented on educational staffing levels using the RADAR results and other tools. As indicated in our proposal, NCAHS has higher per pupil costs in the areas of administration, teaching and operations and maintenance. In our view it seems that this is due to staffing, sometimes impacted by economies of scale. We have compared actual staff levels with other districts and have discussed our findings with NCAHS administration to incorporate their perspective. We have analyzed custodial and food service staffing based on standard staffing statistics in later sections. We have also commented on IT staffing as part of our IT review.

State Context:

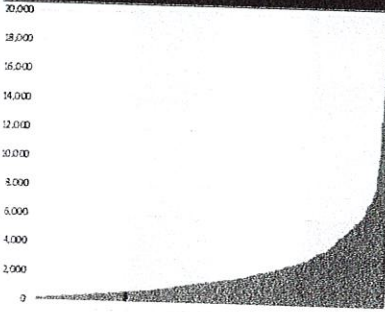
The second section of the RADAR (third tab, **StateContext**) shows NCAHS versus state averages in a series of graphs.



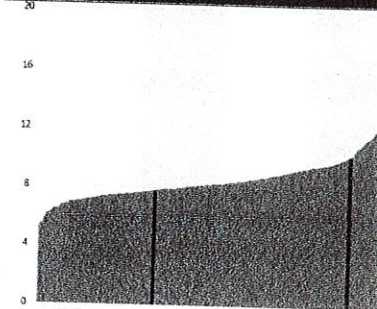
RADAR Benchmarking
Norfolk County Agr in State Context

Each chart has the most current data, but data years may be different. These charts include charter school districts, but some financial indicators are not available for charters. Gaps at the right end of charts indicate that some districts have no data.

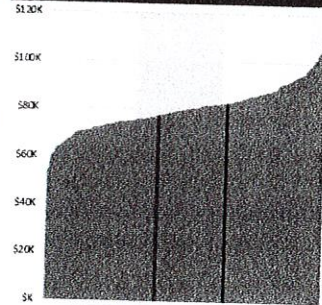
2020 Student Enrollment



2020 Teachers per 100 Students

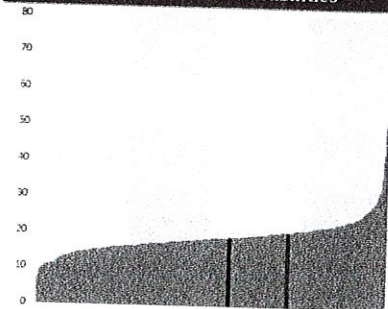


2019 Average Teacher Salary



Charter school salaries not available

2020 Percent Students with Disabilities

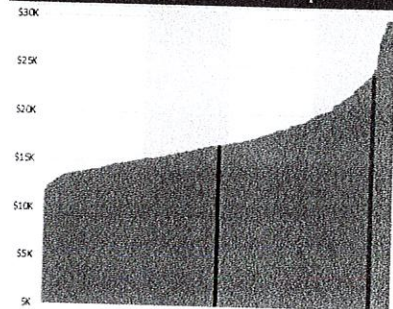


How can you use this report? It includes measures that are independent of district decision-making, such as enrollment and Chapter 70 aid, and other measures that result from decisions made about staffing, salaries, expenditures, special education identification and so on.

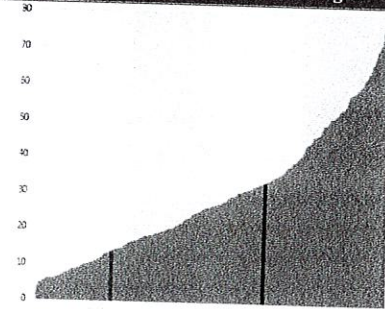
Comparing an individual district to the other 300+ municipal and regional districts in the state puts it in context. For example, a district might ask, compared to other districts do we have a larger percentage of English learner students? Do we have more or less staffing and financial resources?

— State — Selected district

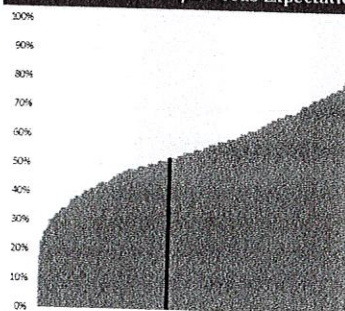
2019 Expenditure Per In-district Pupil



2020 Percent Economically Disadvantaged

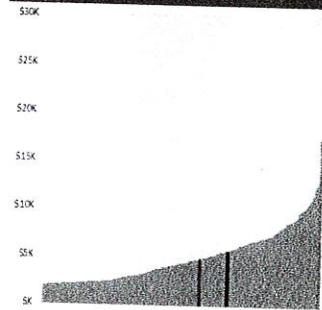


2019 ELA: Pct Meets/Exceeds Expectations*



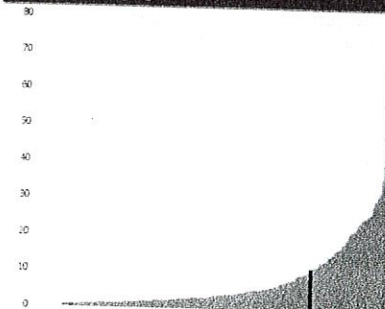
* Grades 3-8 Only

2019 Chapter 70 Aid per F'ndation Enrollment

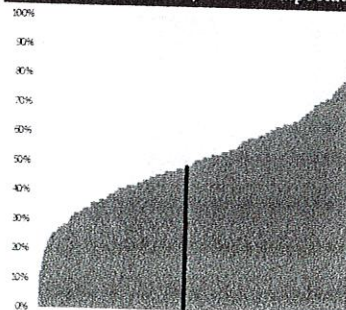


* Charter schools do not receive Chapter 70 funds

2020 Percent English Learners

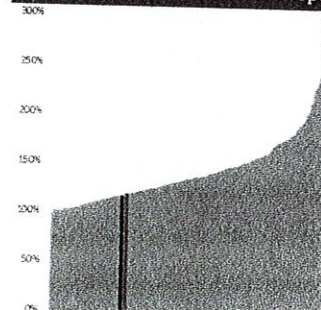


2019 Math: Pct Meets/Exceeds Expectations*



* Grades 3-8 Only

2019 Actual/Required Net School Spending



* Charter schools do not receive Chapter 70 funds

While the statistics for a Chapter 74 vocational school often differ dramatically from the state, the

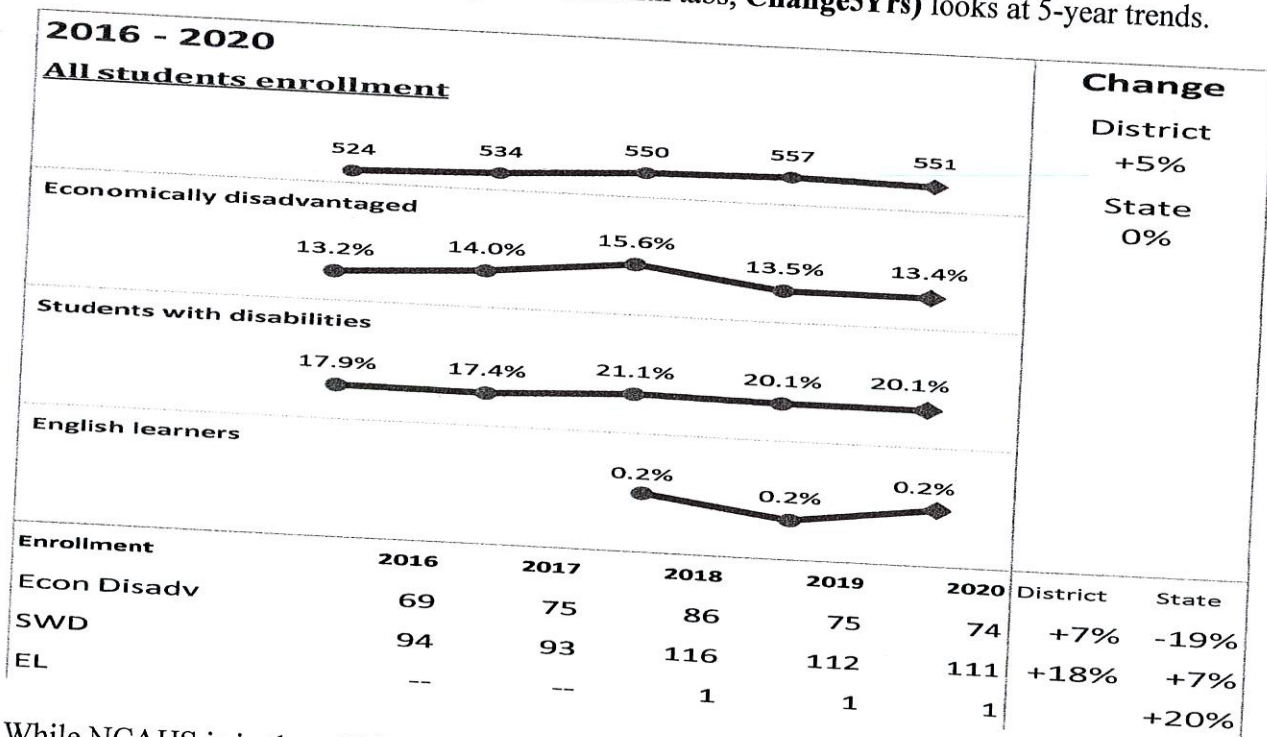
following are of note:

- As expected for a vocational, there are significantly more teachers per 100 students than the state average (7.7 vs.10.2)
- There are more students with disabilities (SWD) than the state average (20.1% vs, 18.4%)
- There are significantly less economically disadvantaged students than the state average. (13.4% vs. 32.8%)
- There are significantly less English Learners (EL) than the state (.2% vs. 10.8%)
- As expected for a vocational, expenditures for in district pupils is significantly higher than the state average. (\$24,228 vs. \$16,581)
- Chapter 70 Aid per Foundation Enrollment is similar but lower than the state average (\$4,645 vs. \$5,017).
- Net School Spending (NSS) is about 17% above the state requirement as compared to 15% for the average school district.

Chapter 70 Aid and NSS are analyzed in depth below.

5-Year Trends

The third section of the RADAR (fourth and fifth tabs, **Change5Yrs**) looks at 5-year trends.

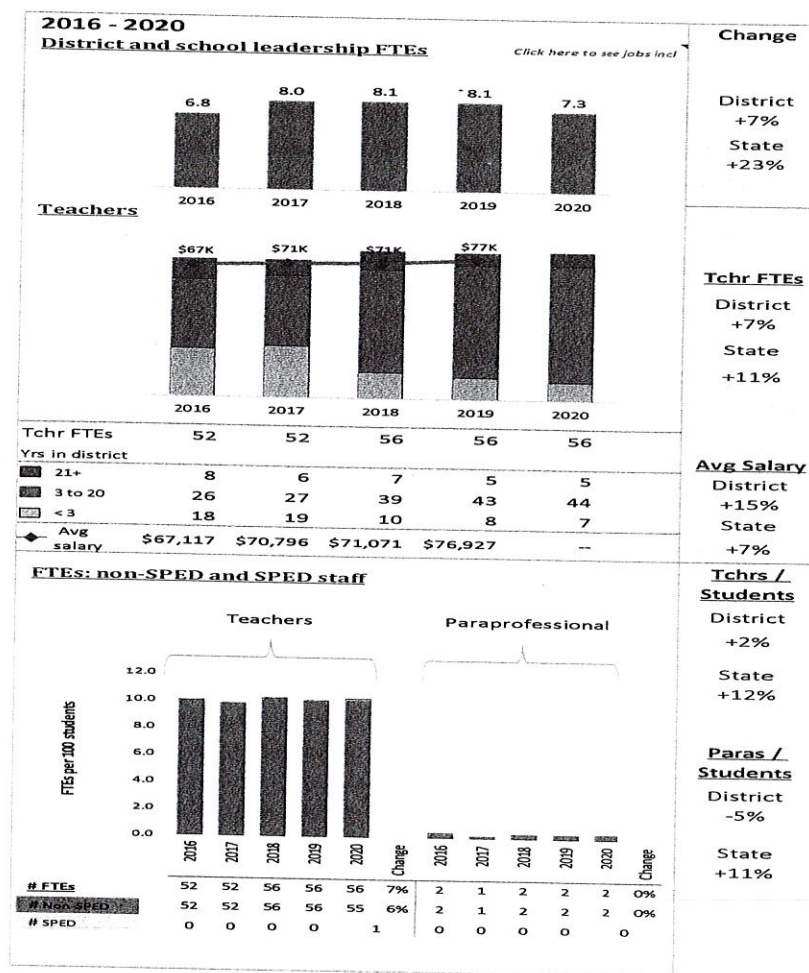


While NCAHS is in the middle of the pack, its enrollment has increased by 5% over the past five years. Over this time state enrollments have stayed level. While NCAHS's economically disadvantaged numbers have increased by 7%, the state percentage has decreased by 19%.

disadvantaged numbers have increased by 7%, the state percentage has decreased by 19%. Students with Disabilities numbers have increased by 18% while the state level has increased by 7%. There is only one English Learner reported, an insignificant number. Thus, NCAHS should see a small, but positive impact from the Student Opportunities Act.

This tab also shows 5-year trends in staffing: district and school leadership (administration), teachers, and paraprofessionals. Significant issues include:

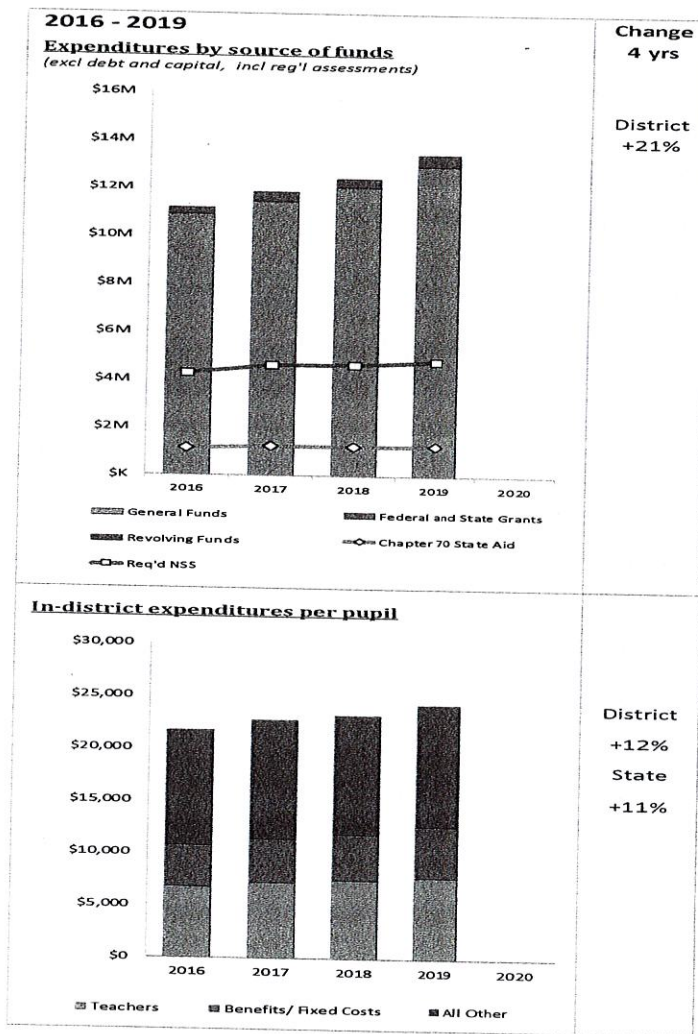
- Administration has stayed about the same with some fluctuations.
- Teacher salaries have risen year to year.
- The number of teachers has increased slightly.
- The number of paraprofessionals has stayed the same.



This tab also shows 5-year trends in expenditures:

- General fund expenditures have increased by about 19%
- NSS has increase by about 13%
- Chapter 70 aid has increased about 11%

- With respect to revenues, Norfolk Aggie relies mostly on general fund sources with little revolving and grant funding. It spends well in excess of its net school spending requirement which is important particularly since it receives proportionally a small amount from Chapter 70 aid.



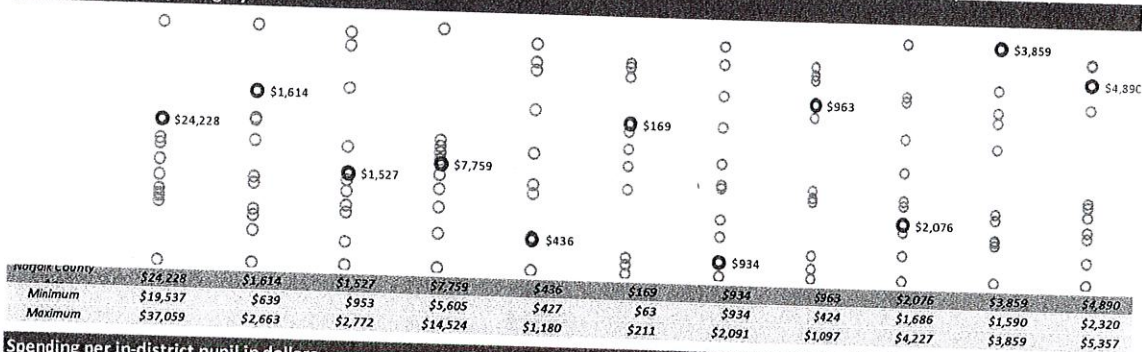
Per Pupil Expenditures:

The next section (sixth tab **PerPupilExpenditures**) is an analysis of per pupil expenditures as compared to the other 3 agricultural high schools and 6 Regional Vocational Technical High Schools.

Spending per in-district pupil by category

Per In-district Pupil	Total	Admin	Instr'l Leaders	Teachers	Other Teaching Services	Prof Dev	Instr'l Mat'ls	Guidance & Psych	Pupil Services	Operation & Maintenance	Benefits and Fixed Costs
Norfolk County Agr	\$24,228										
Bristol County Agricultural	\$21,986										
Essex North Shore Ag/Tech	\$19,537										
Northampton-Smith Voc/Agr	\$22,867										
Southeastern RVT	\$20,322										
Blackstone Valley RVT	\$19,976										
Blue Hills RVT	\$23,184										
Tri-County RVT	\$19,869										
Minuteman RVT	\$37,059										
South Shore RVT	\$21,157										

Spending ranked by category



Spending per in-district pupil in dollars

	Total	Admin	Instr'l Leaders	Teachers	Other Teaching Services	Prof Dev	Instr'l Mat'ls	Guidance & Psych	Pupil Services	Operation & Maintenance	Benefits and Fixed Costs
Norfolk County Agr	\$24,228	\$1,614	\$1,527	\$7,759	\$436	\$169	\$934	\$963	\$2,076	\$3,859	\$4,890
Bristol County Agricultural	\$21,986	\$1,430	\$953	\$5,605	\$1,052	\$211	\$1,887	\$524	\$3,101	\$1,866	\$5,357
Essex North Shore Ag/Tech	\$19,537	\$837	\$1,404	\$7,081	\$641	\$155	\$1,446	\$925	\$2,288	\$2,439	\$2,320
Northampton-Smith Voc/Agr	\$22,867	\$1,419	\$2,057	\$7,845	\$1,010	\$63	\$1,713	\$1,042	\$1,686	\$2,735	\$3,298
Southeastern RVT	\$20,322	\$639	\$2,473	\$7,447	\$611	\$164	\$1,223	\$716	\$2,249	\$1,637	\$3,163
Blackstone Valley RVT	\$19,976	\$1,027	\$1,684	\$6,534	\$734	\$199	\$1,367	\$726	\$2,774	\$1,590	\$3,341
Blue Hills RVT	\$23,184	\$1,066	\$1,302	\$8,328	\$427	\$78	\$1,582	\$744	\$2,518	\$2,651	\$4,489
Tri-County RVT	\$19,869	\$784	\$1,480	\$8,017	\$444	\$146	\$1,354	\$1,061	\$1,988	\$1,653	\$2,942
Minuteman RVT	\$37,059	\$2,663	\$2,772	\$14,524	\$1,180	\$208	\$2,091	\$1,097	\$4,227	\$2,956	\$5,340
South Shore RVT	\$21,157	\$1,293	\$1,247	\$8,163	\$861	\$134	\$1,132	\$424	\$3,146	\$1,923	\$2,835

Spending per in-district pupil by category as percent of total spending

	Total	Admin	Instr'l Leaders	Teachers	Other Teaching Services	Prof Dev	Instr'l Mat'ls	Guidance & Psych	Pupil Services	Operation & Maintenance	Benefits and Fixed Costs
Norfolk County Agr	\$24,228	7%	6%	32%	2%	1%	4%	4%	9%	16%	20%
Bristol County Agricultural	\$21,986	7%	4%	25%	5%	1%	9%	2%	14%	8%	24%
Essex North Shore Ag/Tech	\$19,537	4%	7%	36%	3%	1%	7%	5%	12%	12%	12%
Northampton-Smith Voc/Agr	\$22,867	6%	9%	34%	4%	0%	7%	5%	7%	12%	14%
Southeastern RVT	\$20,322	3%	12%	37%	3%	1%	6%	4%	11%	8%	16%
Blackstone Valley RVT	\$19,976	5%	8%	33%	4%	1%	7%	4%	14%	8%	17%
Blue Hills RVT	\$23,184	5%	6%	36%	2%	0%	7%	3%	11%	11%	19%
Tri-County RVT	\$19,869	4%	7%	40%	2%	1%	7%	5%	10%	8%	15%
Minuteman RVT	\$37,059	7%	7%	39%	3%	1%	6%	3%	11%	8%	14%
South Shore RVT	\$21,157	6%	6%	39%	4%	1%	5%	2%	15%	9%	13%

- **Administration:** The function administration is central office staff. NCAHS has the highest per pupil cost of the agricultural schools and is second only to Minuteman when compared to the Regional Vocational Technical High Schools. Appendix 13.1 is an EDWIN Analytics breakdown of the administrative detailed costs. We do not see any outstanding figures in this analysis that would explain the high per pupil cost. Appendix 13.2 shows the staffing for the 4 agricultural high schools and 6 Regional Vocational Technical High Schools. NCAHS has 2 central office administrators, less than the other 3 agricultural high schools. Again, NCAHS has the same administrative staffing as Blue Hills and less than the other five Regional Vocational Technical High Schools. It is our conclusion that the high per pupil cost for administration is partially due to economies of scale for the larger schools and accounting differences. The Business Manager is analyzing accounting charges using DESE's End of Year Report vs. EPIMS crosswalk.
- **Instructional Leaders:** This function is school level and instructional administrators such as principals and special needs administrators. Among the agricultural schools, NCAHS has the second highest per pupil cost after Smith. Including the six Regional Vocational Technical High Schools, NCAHS falls in the middle. Four schools have higher per pupil costs and five are lower. Appendix 13.3 is an EDWIN breakdown of the instructional leaders category of expenditures. NCAHS fall in the middle in each object code. Appendix 2 shows the staffing for the four agricultural high schools, NCAHS has the second fewest number of staff, higher than Bristol and lower than Smith and Essex. Appendix 13.2 also shows comparative staffing against the six Regional Vocational Technical High Schools. NCAHS is on the low side with fewer instructional leaders than all except Blue Hills and South Shore.

Administration and Instructional Leader costs and staffing are often combined to reflect total administrative costs. Using that metric NCAHS has the second highest per pupil cost among agriculturals after Smith and third highest overall after Smith and Minuteman. In terms of staffing NCAHS has a lower student to administrative staff ratio than all schools except Minuteman and Bristol. We would conclude that NCAHS has relatively more administrative staff and higher per pupil costs than its peers, but not to the extreme. As above, we recommend that the Business Manager analyze the reporting of costs and staff to determine if this reporting is consistent with DESE guidelines.

- **Teachers and Other Teaching Services (primarily paraprofessionals):** NCAHS's per pupil costs for teachers is second only to Smith among the agricultural schools but falls in the low middle when compared with the Regional Vocational Technical High Schools. NCAH's per pupil cost for other teaching services is the lowest among the agriculturals and second lowest overall.
- **Professional Development, Instructional Materials, Guidance & Psychology, and Pupil Services:** These functions are of somewhat minor importance in terms of cost analysis. NCAHS per pupil costs generally fall in the middle compared to their peers. It should be noted that their per pupil expenditure on instructional materials is the lowest of all ten schools.

- **Operations & Maintenance:** NCAHS's per pupil costs in this area are extremely high, 41% higher than the second highest agricultural, Smith, and 30% higher than the highest Regional Vocational Technical High Schools, Minuteman. These costs are analyzed in section 11 Facilities / Maintenance.
- **Benefits and Fixed Costs:** This function is principally health insurance, retirement benefits, and other insurance costs. NCAHS has the second highest per pupil cost, after Bristol, among the agriculturals, and third highest overall after Bristol and Minuteman. The County health benefits package determines NCAHS's health benefits. The County has acknowledged that their benefits are a better, more expensive package than most government agencies and their 70/30 employer/employee split is higher than most.

Staff FTE's per 100 Students: The next section (seventh tab, **StaffFTEper100Students**) analyzes staffing levels 10 schools.

It should be noted that per pupil cost figures come from the annual End of Year Financial Report, while staffing data comes from the Education Personnel Information Management System (EPIMS). These two systems are not perfectly aligned, which may lead to inconsistent comparisons. DESE has developed a crosswalk to help better align the two.

- **Leadership:** NCAHS has the third highest FTE per 100 students for leadership positions among the agricultural schools but higher than all of the Regional Vocational Technical High Schools except Minuteman. The staffing is broken down by school leaders (principals), instructional leaders (curriculum, special needs), and central administration, NCAHS is second highest for school leaders among the agriculturals, and only Minuteman is higher for the Regional Vocational Technical High Schools. They are about the same as all of the schools for instructional leaders, and on the low / middle range for central office staff. This is generally the same as the per pupil cost data with variances likely to be from differences in reporting.
- **Clerical/Technology Support:** NCAHS is tied with Essex for the least clerical staff per 100 students among all 10 schools. They have the second highest level for tech staff among the agriculturals but are tied for lowest among the Regional Vocational Technical High Schools. Once again these are fractional differences, and this category is often misreported due to the large number of job titles for tech staff. We will have additional information on IT staffing in section 10 Data Processing. There are no comparable categories for per pupil expenditures.

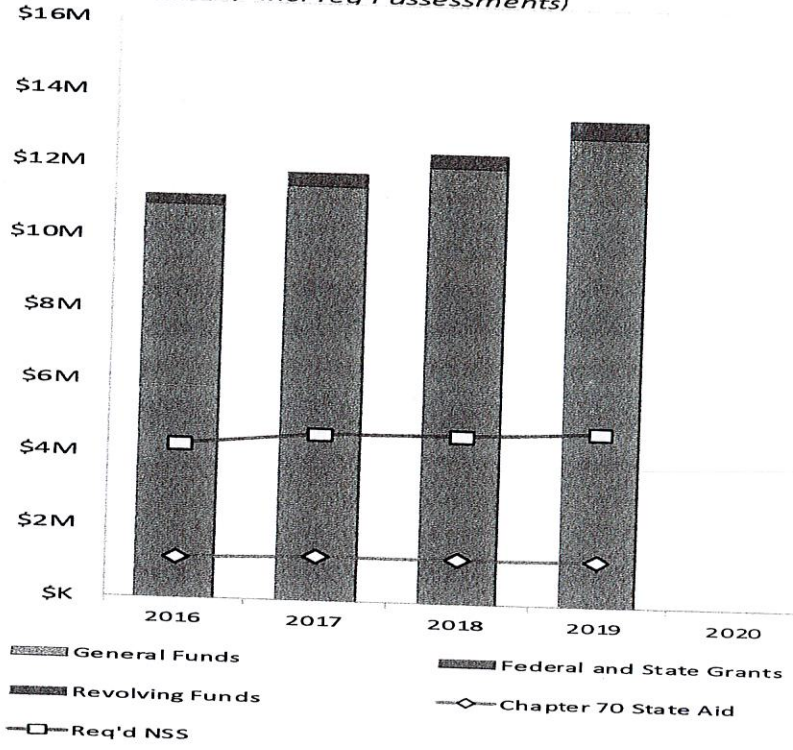
Our scope does not include the academic function of the high school. However the RADAR reports have extensive information. Some academic data from RADAR appears above and the bulk of it appears in Appendix 13.4.

MoreAboutData and **AcronymsAndResources**, the ninth and tenth tabs, have additional information to help the reader.

3. Chapter 70 and Net School Spending

Norfolk Aggie relies mostly on general fund sources with little revolving and grant funding. It spends well in excess of its net school spending requirement which is important particularly since it receives proportionally a small amount from Chapter 70 aid.

Expenditures by source of funds
(excl debt and capital, incl req'l assessments)



The County receives about \$1.3 million in Chapter 70 aid. In fact, Chapter 70 aid has been relatively flat for the past several years.

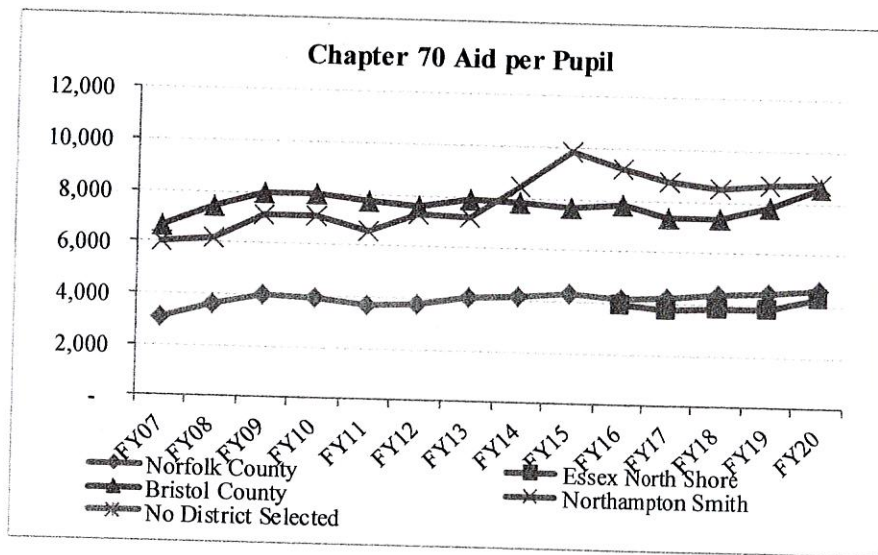
	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY 22
Chapter 70 Aid	1,119,501	1,126,276	1,216,940	1,225,310	1,251,353	1,291,559	1,291,559	1,300,079

Norfolk County is considered a “wealthy” district based on its member community’s wealth factors (equalized valuation and aggregate income). Its state aid target share of 23% is reflective of this wealth. Thus, it receives relatively little state aid compared to its educational spending.

It receives about \$78,000 more in base aid over foundation aid. Thus, its Chapter 70 aid distribution was level funded for FY21 at its FY20 base aid amount based.

915 Norfolk County	
<u>Aid Calculation FY21</u>	
Prior Year Aid	
1 Chapter 70 FY20	1,291,559
Foundation Aid	
2 Foundation budget FY21	4,921,620
3 Required district contribution FY21 Administrative Update:	3,697,639
4 Foundation aid (2 -3)	1,223,981
5 Increase over FY20 (4 - 1)	0
Minimum Aid (Not Funded)	
6 Minimum \$30 per pupil increase	0
7 Minimum aid amount	0
(if line 6 - line 5 > 0, then line 6 - line 5, otherwise 0)	0
Non-Operating District Reduction to Foundation	
8 Reduction to foundation	0
FY21 Administrative Update: Chapter 70 Aid	
Sum of 1,5,7 minus 8	1,291,559

Its Chapter 70 aid per pupil is low compared to the other agricultural schools as shown on the following table, on par with Essex North Shore but lower than Bristol Aggie and Northampton Smith.



The Commonwealth requires a minimum amount of spending for elementary and secondary education. Across the Commonwealth, the state wide average of actual net school spending is 15% above the requirement. Norfolk County spends 17.2% above the requirement which is the highest among the comparative high schools.

County	FY20 Budgeted Chapter 70 and Net School Spending							
	Foundation Enrollment	Foundation Budget	RLC	Ch 70 Aid	Required NSS	Actual NSS	Amount > RNSS	% > RNSS
Bristol	377	\$ 6,469,201	\$ 3,230,305	\$ 3,238,896	\$ 6,469,201	\$ 7,467,191	\$ 997,990	15.40%
Essex/North Shore	1,110	\$ 18,580,519	\$ 13,828,438	\$ 4,752,081	\$ 18,580,519	\$ 20,342,116	\$ 1,761,597	9.50%
Norfolk	278	\$ 4,971,876	\$ 3,680,317	\$ 4,971,876	\$ 5,828,976	\$ 857,100	\$ 857,100	17.20%
Northampton Smith	104	\$ 18,580,519	\$ 13,828,438	\$ 4,752,081	\$ 18,580,519	\$ 20,342,116	\$ 1,761,597	2.70%

The Department of Elementary and Secondary Education (“DESE”) has issued final Chapter 70 and Net School Spending numbers for FY 2022 as follows:

FY 2022 Chapter 70 Aid

<u>Aid Calculation FY22</u>	
Prior Year Aid	
1 Chapter 70 FY21	1,291,559
Foundation Aid	
2 Foundation budget FY22	5,268,917
3 Required district contribution FY22	3,999,047
4 Foundation aid (2 -3)	1,269,870
5 Increase over FY21 (4 - 1)	0
Minimum Aid	
6 Minimum \$30 per pupil increase	8,520
7 Minimum aid amount	8,520
(if line 6 - line 5 > 0, then line 6 - line 5, otherwise 0)	8,520
Subtotal	
8 Sum of 1,5,7	1,300,079
Minimum Aid Adjustment	
9 Minimum aid adjustment	1,300,079
10 Aid adjustment increment	0
(if line 9 - line 8 > 0, then line 9 - line 8, otherwise 0)	0
Non-Operating District Reduction to Foundation	
11 Reduction to foundation	0
Hold harmless aid based on Municipal Revenue Growth Factors used in House 1	
12 Hold harmless aid increment	0
FY22 Chapter 70 Aid	
13 Sum of 1,5,7,10 minus 11 plus 12	1,300,079

The calculation begins with Chapter 70 aid from FY 2021, the prior fiscal year, of \$1,291,559. Foundation aid is then computed by subtracting member community’s required district contribution from the district’s foundation budget. Norfolk County’s FY 2022 foundation aid is \$1,269,870. The State must fund all districts at foundation. However, the County’s prior year aid is more that the amount it needs in foundation aid. Thus, the County will not receive additional foundation aid. Note that there is an excess of prior year aid over foundation aid of \$26,699.

The calculation continues with minimum aid. Each district is guaranteed to receive at least its prior year aid and an increase in aid of \$30 per pupil in the district’s foundation enrollment. Thus, in FY 2022, the County will receive minimum aid of \$30 multiplied by its FY 2022 foundation enrollment of 284 students which equates to \$8,520. Thus, the County will receive \$1,291,559 in prior year aid plus \$8,520 in minimum aid for a total of \$1,300,079 in aid, an increase of 0.66% over aid received in FY 2021.

Chapter 70 Aid Projections

As part of the financial forecast, we were asked to project Chapter 70 aid for the County through FY 2026. To do that, we need to include the impact of the Student Opportunities Act (“SOA”). The Governor’s FY 2022 budget funds the SOA in full for the first year, FY 2022. The pandemic deferred the full funding of SOA for one year. DESE provided the projected foundation budgets for the SOA period, while holding foundation enrollment constant.

Norfolk County Projections	FY22	FY23	FY24	FY25	FY26
Enrollment	274	274	274	274	274
Foundation budget	5,208,727	5,425,444	5,651,312	5,917,249	6,163,058
Annual \$ Increases		216,717	225,868	265,937	245,809
Annual % Increases		4.2%	4.2%	4.7%	4.2%

DESE would not provide Chapter 70 aid projections nor the required district contributions from the member communities, since DESE’s projections are not available, two projection methods have been developed.

The first method is the base aid (prior year) method which uses FY21 base aid as a constant that is increased or decreased by minimum aid, which is based on foundation enrollment. The district’s foundation enrollment has declined in each of the last five years (FY 2017 – FY 2021). Foundation enrollment increased by 10 students for FY 2022. For the base aid projection method, we are assuming that foundation enrollment will decrease by one student each year from FY 2023 to FY 2026 and that minimum aid will remain at \$30 per student. The projection results are shown below.

Norfolk County Projections	FY22P	FY23	FY24	FY25	FY26
Enrollment	284	283	282	281	280
Minimum Aid	\$ 30	\$ 30	\$ 30	\$ 30	\$ 30
Chapter 70 Aid Distribution	\$ 8,520	\$ 8,490	\$ 8,460	\$ 8,430	\$ 8,400
Base Aid	\$ 1,291,559	\$ 1,300,079	\$ 1,308,569	\$ 1,317,029	\$ 1,325,459
(1) Base Aid Projection Method	\$ 1,300,079	\$ 1,308,569	\$ 1,317,029	\$ 1,325,459	\$ 1,333,859
\$ Change		\$ 8,490	\$ 8,460	\$ 8,430	\$ 8,400
% Change		0.653%	0.647%	0.640%	0.634%

The second projection method is Chapter 70 aid as a percent of foundation budget, given that DESE has provided foundation budget projections. This method is based on a historical view of Chapter 70 aid compared to the foundation budget. The FY22 chapter 70 aid as a percent of foundation (24.67%) is lower than the last three-year historical average. Thus, we assume a 24.67% factor for this projection. The projection results follow.

Norfolk County Projections	FY22	FY23	FY24	FY25	FY26
Foundation Budget	\$ 5,265,257	\$ 5,425,444	\$ 5,651,312	\$ 5,917,249	\$ 6,163,058
Ch 70 as a Percent of Foundation	24.67%	24.67%	24.67%	24.67%	24.67%
Chapter 70 Aid	\$ 1,299,176	\$ 1,338,701	\$ 1,394,433	\$ 1,460,052	\$ 1,520,704
Annual \$ Increases		39,525	55,732	65,619	60,652
Annual % Increases		0.8%	1.0%	1.2%	1.0%

Chapter 70 Summary

Each of these methods produces a different result.

Projection Method	FY22	FY23	FY24	FY25	FY26
Base Aid Method	\$ 1,300,079	\$ 1,308,569	\$ 1,317,029	\$ 1,325,459	\$ 1,333,859
% of Foundation Method	\$ 1,300,079	\$ 1,338,701	\$ 1,394,433	\$ 1,460,052	\$ 1,520,704
Difference	\$ 0	\$ 30,132	\$ 77,404	\$ 134,593	\$ 186,845

The base aid projection method is the more conservative method, as shown in the comparative table. Variables that could affect the projections are the NSAHS enrollment increases or decreases and the composition of the students. The Student Opportunities Act will provide more foundation funding for targeted such as income, socio economic, and SPED students. DESE’s foundation budget projects includes the impact of the Student Opportunities Act.

School Business Types Activities

The NCAHS is accounted for substantially in the general fund. They receive several funding sources as follows:

- Farm Receipts
- Tuition-In
- Tuition-Out
- Sped Tuition
- School Nutrition
- Rentals
- Student Activity Fees
- Chapter 70
- Chapter 71
- Interest
- Grants Reimbursements
- Donation
- Enrichment Camp
- Adult Ed
- Miscellaneous
- E-Rate
- Student Services

- Parking Fees
- FEMA
- Ins Claim-Boiler
- Energy Rebate

A number of these receipts could be accounted for as special revenue funds, Special revenue funds are allowable for County governments. Special revenue funds are restricted for operating purposes. Several of these receipts are restricted for operating purposes. The general fund is defined as an unrestricted operating fund.

School Lunch - 7 CFR (Code of Federal Regulations) Part 210.14(a) Non-Profit Food Service specifies that all *revenues* must be deposited into the school cafeteria account and must be used solely for the operation or improvement of a food service program.

The following activities are not true operations of the general fund and could be reclassified as special revenue funds.

- Tuitions
- Donations
- Enrichment Camp
- Adult Education
- Parking Fees
- Insurance Claims
- Farm

We recommend the County determine if special revenue funds are applicable to County operations and if so, reclassify both the receipts and related expenditures of these activities into special revenue funds. This will allow the County to monitor these operations easier.

School Chart of Accounts

Each school district in the Commonwealth is required to submit an End of Year Report (EOYR) based on DESE's requirements of fund, function, location, program and state objects. The NCAHS' chart of accounts does not contain program or state object codes. Thus, the NCAHS developed a system of spreadsheets in order to populate the EOYR. It would be far more efficient if the chart of accounts were revised to meet this requirement.

4. Structural Deficit of Norfolk Agricultural High School

The Financial Times (London) defines a structural deficit as "A budget deficit that results from a fundamental imbalance in government receipts and expenditures, as opposed to one based on one-off or short-term."

NCAHS has had extreme difficulty balancing its annual budget due to having a structural deficit condition. The revenues that they have access to are constrained by various statutes and funding

mechanisms, while costs continue to rise in excess of the revenues primarily due to employee contracts, health benefit costs, and other contractual obligations.

NCAHS Revenues		NCAHS Expenditures	
Source	Percent	Description	Percent
Out of District Tuitions	50%	Teacher Salaries	36%
In District Tuitions	4%	Other Salaries	24%
Chapter 70 Aid	9%	Benefits	16%
County Commitment	28%	Debt Service	6%
Miscellaneous Revenue.09	9%	Contracted Services	10%
Total	100%	Other	8%
		Total	100%

On the expenditure side, costs rise every year due to inescapable contractual obligations, teacher salaries are set by collectively bargained contracts, and other employees have personal service contracts. Benefit costs are set by statute and health benefit contracts. Debt service is a fixed cost. NCAHS is incurring additional debt without corresponding revenues to finance these obligations. Other contracts, such as transportation, are sometimes governed by statute and have contractual cost. Expenditures have increased by 19% over the past five years.

On the revenue side, while expenditures have gone up 19%, Chapter 70 aid has only gone up 11%. The County commitment is limited to a 2.5% increase per year. Essentially this leaves tuitions as the only source to balance the budget. The Board of Trustees has the ability to set out of district tuitions at per pupil cost, but even that is the previous years' cost not the current cost. In some years the Board has chosen to set the tuition rate at less than full cost. This leaves in district tuitions, which are constrained by statute. While approximately 50% of the students are from in district communities, only 7% of the tuition revenues comes from county municipalities. The current interpretation of the statute prevents NCAHS from increasing revenues in step with cost increases. Unfortunately, the gap is widening. Over the past six years the gap between tuition revenues and NCAHS appropriations has grown by 5%.

In the next section we will address the calculation of the two tuition rates and make recommendations on changing that calculation. We hope those changes may allow for eliminating the structural deficit.

4. NCAHS Tuitions

We have been asked to analyze the formulas that NCAHS uses to set in--district and out of district tuitions. These rates are defined in law by Commonwealth of Massachusetts, Chapter 6, Section 82 of the acts of 1991. See Appendix 13.5.

A. Out of District Tuitions

The out of district tuition rate is the rate charged to students who are not residents of Norfolk County.

Findings

Chapter 6 states “Provided further, that the Board of Trustees of the several Agricultural Schools may charge tuition in excess of the state approved rate for out of district students in proportion to the appropriation approved in excess of the mandatory appropriations contained in this section.” In compliance with the statute the NCAHS Board of Trustees has set a FY22 tuition rate of \$24,100. It is listed on the DESE website as NCAHS’s” FY22 Non-Resident Vocational Tuition Rate”. See Appendix 13.6. It is not designated as the “state approved rate” as referred to in Chapter 6. The “rate summary” tab describes how DESE calculates their “eligible” rate. See Appendix 13.7. We believe that the eligible rate is the “state approved rate” referred to in Chapter 6. NCAHS’s eligible rate would be \$18,679, the maximum rate as described in the ** note. Also confirmed in the note is that NCAHS is allowed, by statute, to charge more than the eligible rate.

Recommendation

We recommend that the NCAHS Board of Trustees continue to set the out of district tuition rate, as described in Chapter 6, using sound accounting practices.

B. In-District Tuitions

The in-district tuition rate is the rate charged to students who are residents of Norfolk County.

Findings:

Chapter 6 states “The aforementioned Board of Trustees is further hereby authorized to charge tuition for in-district students to the sending municipality for an amount which shall be no greater than the net difference between the total net and indirect costs per student and the state approved rate.”

NCAHS is using the Board of Trustees approved rate as the state approved rate. We do not believe this is a correct decision. We believe the state approved rate is the “eligible rate”, \$18,679 for FY 2022.

NCAHS is correctly using the appropriate End of Year financial report to determine the “total net and indirect costs per student”.

Recommendation

We recommend using the state eligible rate as the approved state rate in the in-district tuition calculation. This would increase tuition receipts by in excess of \$1.1 million.

5. Food Services

We have analyzed the NCAHS food services program to evaluate the costs of providing food services in-house vs. outsourcing service delivery to the Walpole Public Schools. Initially it is important to determine whether the operation can be self-sufficient financially.

A. Self-sufficiency

We have reviewed financial statements for FY 2018 and FY 2019.

Findings

In FY 2018, the food service program showed a deficit of \$35,768 before accounting for benefits. For FY 2019, the program showed a loss of \$17,841 before including benefits. We estimated benefit costs and added them into our final accounting. We did not consider figures for FY 2020 and FY 2021 due to the adverse financial impact of the COVID protocols.

	FY18	FY19
Total Revenue	\$ 215,886	\$ 213,992
Food Expense	\$ 72,233	\$ 72,820
Labor Expense	\$ 171,321	\$ 153,084
Benefits	\$ -	
Equipment	\$ -	
Other expenses	\$ 8,100	\$ 5,929
School Funds Expenditures	\$ 251,654	\$ 231,833
School Funds Profit (Loss)	\$ (35,768)	\$ (17,841)
Estimated Health Benefit From County	\$ (21,807)	\$ (21,807)
Medicaid and Retirement	\$ (7,966)	\$ (7,118)
Total Net Profit (Loss)	\$ (65,541)	\$ (46,766)

Figures provided by the district indicate that health benefits for Food Service employees in FY 2018 and 2019 were approximately \$29,000 each year.

Recommendation

We recommend that NCAHS take whatever steps are necessary to make the program self-sufficient. We do not believe that the program can become self-sufficient under the present operations model. We have made recommendations for possible changes below.

B. Benefit Savings and Staffing Levels

Government managers have become acutely aware that employee benefits are a major contributor to costs and cost increases. In many cities and towns, management has tried to

control these costs in part by ensuring that part-time employees are employed for less than 20 hours per week wherever possible. Under Massachusetts law, persons employed for 20 hours or more per week are entitled to full benefits.

Findings

In FY 2018 and FY 2019 there were three employees, a full-time director, a full-time food service worker, and a part time worker. The two full-time received benefits, the part-time worker worked less than 20 hours and did not receive benefits. It should be noted that the school eliminated the part-time position for FY 2020 and FY 2021.

Position	FY19 Hours / week	FY21 Hours / week
Food Service Director	40	40
Kitchen Staff	35	35
Kitchen Staff	19	0

Recommendation

It does not seem reasonable to expect that either of the full-time workers could be reduced to less than 20 hours. The school could consider expanding the director’s role as cook / manager and having only 2 or 3 part-time, non-benefited server /cashiers and eliminating the full-time food service worker position. This may not yield significant savings and may also be an unworkable model. Therefore, no recommendation for changes is necessary, but there is also no opportunity for savings. The elimination of the part-time position for FY 2018 and FY 2019 was a commendable decision.

C. Meals Per Labor Hour (MPLH)

One of the key areas to analyze when reviewing a school lunch program is the staffing levels for the school. There are two key statistics to look at: the ratio of students to food service workers (labor hours) and the ratio of meals sold to food service workers (labor hours). We look at labor hours per student for the purpose of comparing staffing levels between schools and meals per labor hour (MPLH) to make comparisons between schools and to compare NCAHS’s production standards with recommended levels. The standard for MPLH is from a low of 10 meals per labor hour to a high of 17. It should be noted the private food service companies aim for a 20 MPLH rate.

Findings

NCAHS did not have data available for this comparison.

Recommendation

NCAHS should determine this statistic. Knowing these statistics will be key to improving the program’s bottom line.

D. Participation Rate

The participation rate is a standard that is important in two ways. First, the participation rate is a measure of the degree to which the students find the food appealing. If a high percentage of students buy the food, it is an indication that the students like the food. Secondly, the participation rate is a measure of the likelihood that a food service operation will be a financial success. If students are not buying the meals, it is almost impossible to keep per meal costs at a reasonable level.

Findings

It was reported that participation rates are around the national standards of 55%. Sodexo School Services considers the norm for participation to be between 55% and 65%. Districts higher than national standard usually have a high level of free and reduced lunch qualifiers. Since NCAHS has a low level of free and reduced students, their participation rate is good.

Recommendation

NCAHS should have statistics documenting participation rates rather than having estimates. The high school should do its best to market the meals to the students in order to achieve higher participation rates. The district should also strive to identify any free and reduced rate students who have not applied for the benefit. However, they seem to be doing well at this time.

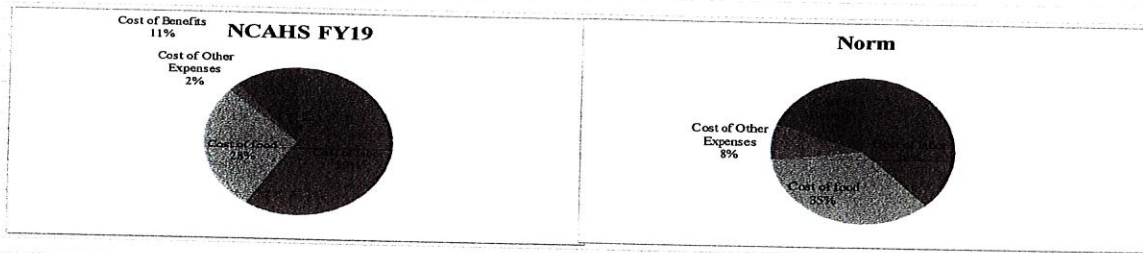
E. Food and Labor Costs

It is also typical to analyze the various aspects of the total cost, and to look at the amount of revenue generated per student. We have therefore looked at the cost of food, labor, benefits, and other expenses relative to established norms.

Findings

The cost of labor as a percentage of total cost was 61% in FY 2018 and 59% in FY 2019. The industry standard for labor cost is 38%.

Description	FY19	FY18	Norm
Cost of labor	59%	61%	38%
Cost of food	28%	26%	35%
Cost of Other Expenses	2%	3%	8%
Cost of Benefits	11%	10%	19%
	100%	100%	100%



Recommendation

The labor cost percentage is approximately 50% higher than the industry standard. NCAHS must reduce its personnel costs significantly in order to be sustainable.

F. Lunch Prices

This section discusses lunch prices and the NCAHS ability to mitigate the deficit. Lunch prices are a major component of the financial operation of any school food service operation. It is a major determinant of the ability to be self-sustaining, and as well as having a major role in the participation rate.

Findings

NCAHS has the highest price levels. Of the nine districts compared to NCAHS only Minuteman and Essex North Shore charge as much (\$3.50) for a secondary school lunch. All of the other districts charge less. All nine charge less than NCAHS’s breakfast price of \$2.25.

	Breakfast	Reduced Breakfast	Lunch	Reduced Lunch
Norfolk County Agricultural High School	\$ 2.25	\$ 0.30	\$ 3.50	\$ 0.40
Bristol County Agricultural High School	no price	no price	no price	no price
Essex North Shore Agricultural and Technical	\$ 1.75	\$ 0.30	\$ 3.50	\$ 0.40
Northampton Smith Vocational and Agricultural	\$ 1.50	\$ 0.30	\$ 3.00	\$ 0.40
Blackstone	\$ 1.25	\$ 0.30	\$ 3.15	\$ 0.40
Blue Hills	no price	no price	no price	no price
Minuteman	\$ 2.00	\$ 0.30	\$ 3.50	\$ 0.40
South Shore	\$ 1.75	\$ 0.30	\$ 2.75	\$ 0.40
Southeastern	no price	no price	no price	no price
Tri-Valley	\$ 1.25	\$ 0.30	\$ 3.00	\$ 0.30

Recommendation

NCAHS should consider raisings their prices a small amount annually. However, lunch price increases can lead to lower participation and lower meals served, thus cutting into the revenue increase. It is important that any price increases be done gradually.

G. Alternative Service Delivery

The main emphasis of this study is to present the in-house costs of the Food Service operation in comparison to outsourcing opportunities. School systems typically outsource their food service to private vendors when they are unhappy with the quality of the program, or it is losing money.

In this case the high school also has a public-school outsourcing option, the Walpole Public Schools. In interviews Walpole believes that they can provide food service to NCAHS as they do to Walpole Public Schools at no net cost to NCAHS.

A private company, also an option, has much more experience in marketing and public relations than an in-house service. They also have some advantages in buying power. Their staffing is typically very efficient, and the employees will receive less wages and/or benefits than NCAHS offers their employees.

Findings

NCAHS does not seem to be unhappy with the quality of its food service operation, but benefits constitute a net cost for the program and labor costs are excessive, leading to substantial annual losses.

A gradual increase in lunch prices could eventually increase annual sales revenue but could not offset the deficits.

We do not see a path to a fully self-sustaining program without outsourcing.

NCAHS may want to investigate outsourcing the program if they can obtain a contract that produces no net cost and possibly yields an operating surplus that provides sufficient funds for capital improvements. They should realize that by doing so they could lose local control of the program and might negatively impact the benefits and/or wages received by the employees.

While Walpole Public Schools has not made a formal proposal, in interviews they indicated they could serve NCAHS as they do Walpole High School. They would have to eliminate the current NCAHS food service director position and provide staff (per pupil) similar to what they have at Walpole High. At this time, they believe that meal sales along with state and federal subsidies would cover cost and there would be no cost to NCAHS.

NCAHS could probably not attract a private vendor for such a small population. However, Chartwell's School Dining Services provides food services to the Norwood Public Schools. Chartwell's may be interested in providing services similar to Walpole's plan.

Districts who switch from "self-op" to outside contractors expect their bottom line to eventually, if not immediately, be a surplus that can be used for capital improvements in the kitchen. They often have labor problems, which NCAHS does not. This budget balancing by

private firms is often accomplished as above (price increases and benefit cuts) along with staff reductions, better purchasing power, and better marketing that leads to better participation rates.

Recommendation

We have offered ways that NCAHS can improve their “self-op” budget, but even these measures will likely fail, and there would not be funds for needed capital improvements in the kitchen. If they are to eliminate the financial losses in the program they will probably need to outsource.

If NCAHS wishes to further investigate outsourcing, they should use this study as a basis for working with the Walpole Public Schools and / or Chartwells to see what these organizations would offer them. They should seek and review proposals from one or both.

6. Transportation Services

The analysis of the NCAHS transportation services is limited to examining the efficiency and appropriateness of the current regular education contract and bid specifications. We have analyzed the current contract and bid specification and looked at its appropriateness, making recommendations.

Contract and Bid Specification Review

One of the best ways to reduce costs is to have clear bid documents that allow bidders to know what their responsibilities are, and what they will get paid extra for. Unclear or unnecessary language in bid documents will lead bidders to increase their bid to cover the possible financial impact of this language. It can also lead to potential bidders not bidding, leading to lack of competition.

Findings

We have done a review of the NCAH contract and bid specifications. The high school attained a sample bid specification and contract from another school district and tailored it to they're needs. The bid documents were very good, but we found the following areas of concern,

- The bid sheet did not clearly indicate how the low bidder was to be determined. The bidders were asked to submit prices on day-to-day regular transportation as well as field trip and athletic transportation. It appeared that the low bid would be determined on the price of regular transportation and that field trip and athletic prices were not considered. This would allow a bidder to bid low on regular transportation and high on field trips without their low bid status being affected.
- The document enumerates in detail several state laws.
- Several contract provisions are stated multiple times in the document.

- School bus contracts are typically bid on a per bus basis. NCAHS bids on a per mile basis. Given NCAHS's need to provide service over the entire county this may be appropriate, but they should review this methodology.

Recommendations

We recommend that the bid specifications be reviewed before each rebid with emphasis on making all language clear, eliminating unnecessary and/or confusing language and ensuring compliance with M.G.L. Chapter 30B.

We recommend that the method for determining the low bidder be clearly stated as required by M.G.L. Ch. 30B with an illustration of the calculation involved.

The School Committee should determine whether the lettering of busses is necessary. It is an added cost and an advantage for the incumbent.

We recommend that the district review language in the contract that reiterates existing laws, regulations and RMV requirements of school busses. Contractors are aware of those laws and the only language needed is a statement that all state and local laws must be complied with.

Summary

We have analyzed many aspects of NCAHS's non-academic operations both here and in other sections of our reports. Based on this analysis we have made many recommendations to assist the high school to improve its practices and hopefully reduce the structural deficit.

In our analysis using RADAR and Edwin data we have recommended that the business office keep careful tabs on their DESE financial and EPIMS reporting so that comparisons with other schools are accurate. We have also provided data analysis to inform them of staffing and expenditure comparisons with other districts that can assist them in making strategic decisions going forward.

The section on chapter 70 funding helps the administrative staff understand how the funding impacts them now so that they can do appropriate long term financial planning.

In our discussion on the structural deficit and tuition setting we have enumerated the reasons why this deficit exists and pointed out the shortcomings of the current tuition calculations in addressing this problem. It is hoped that our recommended changes to the tuition calculation will be approved by DESE and the resulting revenue increase will solve the deficit problem.

We have concluded that the current food services program model cannot become self-sufficient. We have recommended seeking an equitable partnership with an outside agency such as the Walpole Public Schools or Chartwell's Dining and the Norwood Public Schools. We have also recommended improvements in data recording.

Our analysis of the transportation bid specifications and contract led to several recommendations for improvements in the documents. Hopefully, this will lead to successful contract bids and operations in the future.

Elsewhere in our Report we have made recommendations on the IT department in section 10, Data Processing, on the Facilities Departments in section 11, Facilities / Maintenance, and in the various best practices suggestions throughout the Report.

Function: All Administration Functions

	School Committee Expenditures By Object Codes										Other Fund Expenditures By Fund Group					Total In-District Operating Expenditures \$	% of In-District Operating Expenditures
	Professional Salaries (01)	Clerical Salaries (02)	Other Salaries (03)	Contracted Services (04)	Supplies and Materials (05)	Other Expenses (06)	Municipality \$	Federal Grants \$	State Grants \$	Revolving and Special Funds \$	Total Function Expenditures \$	Per Student Expenditures \$					
Blackstone Valley Regional Vocational Technical (08050000)	406,599	514,515	166,485	46,262	25,834	105,337	0	0	0	16,869	1,281,901	1,027.08	24,931,775	5.14%			
Blue Hills Regional Vocational Technical (08060000)	291,347	374,547	0	138,145	21,382	107,245	0	0	2,888	30,953	966,507	1,066.20	21,016,283	4.60%			
Bristol County Agricultural (09100000)	310,426	190,804	0	31,669	25,449	31,574	28,694	25,000	0	0	643,815	1,429.75	9,900,425	6.50%			
Essex North Shore Agricultural and Technical School District (08170000)	510,206	148,825	181,406	146,527	167,040	15,690	0	0	0	0	1,169,694	837.05	27,300,445	4.28%			
Norfolk County Agricultural (09150000)	451,874	200,668	0	92,680	37,141	35,167	65,488	10,000	0	0	893,018	1,614.28	13,402,719	6.66%			
Northampton-Smith Vocational Agricultural (04060000)	218,190	228,862	19,836	59,278	3,513	52,517	95,930	0	0	5,751	683,877	1,419.42	11,017,534	6.21%			
South Shore Regional Vocational Technical (08730000)	378,146	254,591	0	48,463	124,611	8,476	0	0	0	0	814,287	1,293.34	13,320,587	6.11%			
Southeastern Regional Vocational Technical (08720000)	441,324	363,308	0	99,448	23,780	52,277	0	0	0	0	980,137	638.82	31,179,607	3.14%			
Tri-County Regional Vocational Technical (08780000)	359,025	250,135	13,611	82,163	3,835	90,079	0	4,500	0	26,954	830,302	783.90	21,045,382	3.95%			

- Includes districts for the selected year which meet all the selected parameters.
 - Expenditures information reflects the most recent EOYR information for the selected year. Teachers include all teaching classifications - teachers, co teachers, virtual teachers, and teachers-support content instruction.
 - Staffing reports cumulative FTEs for individuals who were active in October in the selected year. Teachers include all teaching classifications - teachers, co teachers, virtual teachers, and teachers-support content instruction.
 - "Per Student Expenditures", "Total In-District Operating Expenditures", and "% of In-District Operating Expenditures" are only displayed for in-district functions.
 - "District Operating Expenditures" is defined as the total spending from Schedule 1 from all funds and functions, excluding functions in the 6000, 7000, 8000, 9000 series, indirect cost transfers (6990), short term interest BANS (5450), and all out of district transportation.
 - The "Functional Area Total" within "Total In-District Functions" excludes out of district transportation expenditures from Schedule 7. The in-district transportation expenditures are grouped within the "No Objects Defined" objects code.
 - Student enrollment and demographic information is based on the October collection for in-district students. Economically Disadvantaged indicates students participating in state-administered assistance programs; EL (English Learner) indicates students who do not speak English or whose native language is Spanish, and who are not currently able to perform ordinary classroom work; and SMD (student with disabilities) indicates students receiving special education services.
 - MCAS results are the officially reported results for the selected year.
 - Information for enrollments of fewer than 5, performance results fewer than 10, and growth results fewer than 20 are suppressed. Suppressed values are displayed as dashes (-)

NCAHS Administration Comparison

Appendix 13.2

Staff	NCAHS	Bristol	Essex	Smith	Blackstone	Blue Hills	Minuteman	Southshore	Southeastern	Tri-County
Superintendent Director	1	1	1	1	1	1	1	1	1	1
Assistant Superintendent for Curriculum	0		1	0			1		1	
Business Manager	1	1	1	1	1	1	1	1	1	1
HR Director			1	clerical			1			
Community Relations		1		0						
Other					2.5			1.2	1	3
Principal	1	1	1	1	1	1	1	1	1	1
Assistant Principal	2	1	3	1	1	1	1	1	1	1
Dean of Student Life	1			0		1		1	1	
Director of Student Services or SPED	1	1	1	1	1			1	1	1
Director of Co-op and Adult			1							
Director of CTE			2	1	2	1	2	1	2	1
Director of Guidance			1	*						1
Director of Technology	1	1	1	1	1	1	1	1	1	1
Supervisor of Admissions			1	*			1			
Athletic Director	stipend	stipend	stipend	1					1	
Curriculum Director				1	1	1			1	1
Other	0.3				2		6.2		1	0.2
Total Administration Staff	8.3	7.0	15.0	9.0	13.5	7.0	16.2	8.2	13.0	12.2

Function: All Instructional Leadership Functions

	School Committee Expenditures By Object Codes						Other Fund Expenditures By Fund Group				Total In-District Operating Expenditures \$	% of In-District Operating Expenditures	
	Professional Salaries (01) \$	Clerical Salaries (02) \$	Other Salaries (03) \$	Contracted Services (04) \$	Supplies and Materials (05) \$	Other Expenses (06) \$	Federal Grants \$	State Grants \$	Revolving and Special Funds \$	Total Function Expenditures \$			Per-Student Expenditures \$
Blackstone Valley Regional Vocational Technical (086050000)	1,252,098	319,830	127,405	20,639	42,496	10,907	182,348	2,413	144,133	2,102,268	1,684.38	24,931,775	8.43%
Blue Hills Regional Vocational Technical (080800000)	662,404	360,177	0	6,335	32,120	14,767	51,881	0	52,428	1,180,113	1,301.83	21,016,283	5.62%
Bristol County Agricultural (091000000)	271,319	106,862	0	21,809	0	24,692	4,363	0	0	429,065	952.84	9,900,425	4.33%
Essex North Shore Agricultural and Technical School District (081700000)	1,423,744	388,412	0	63,771	78,035	3,209	5,201	0	0	1,962,372	1,404.30	27,300,445	7.19%
Norfolk County Agricultural (091500000)	586,286	127,704	0	3,572	13,584	15,657	96,120	0	0	844,922	1,527.34	13,402,719	6.30%
Northampton-Smith Vocational Agricultural (040600000)	541,620	119,478	226,948	11,788	5,186	85,376	0	597	0	990,993	2,056.86	11,017,534	8.99%
South Shore Regional Vocational Technical (087300000)	602,923	103,831	0	0	1,152	63,257	13,933	0	0	785,096	1,246.98	13,320,587	5.89%
Southeastern Regional Vocational Technical (087200000)	1,860,283	374,214	309,921	236,395	30,639	386,172	504,852	0	91,269	3,793,745	2,472.62	31,179,607	12.17%
Trit-County Regional Vocational Technical (087800000)	792,856	427,380	0	11,744	4,305	11,262	2,876	0	317,277	1,567,700	1,480.08	21,045,382	7.45%

- Includes districts for the selected year which meet all the selected parameters.
 - Expenditures information reflects the most recent EOYR information for the selected year.
 - Staffing reports cumulative FTEs for individuals who were active in October of the selected year. Teachers include all teaching classifications - teachers, co teachers, virtual teachers, and teachers-support content instruction.
 - Per-Student Expenditures, "Total In-District Operating Expenditures" and "% of In-District Operating Expenditures" are only displayed for in-district expenditure functions.
 - "In-District Operating Expenditures" is defined as the total spending from Schedule 1 from all funds and functions, excluding functions in the 6000, 7000, 8000, 9000 series, indirect cost transfers (9990), short term interest BANs (6450), and all out of district transportation costs.
 - The "Functional Area Total" within "Total In-District Functions" excludes out of district transportation expenditures from Schedule 7. The In-district transportation expenditures are grouped within the "No Objects Defined" objects code.
 - Student enrollment and demographics are based on the October collection for in-district students. Economically Disadvantaged indicates students participating in state-administered assistance programs; EL (English Learner) indicates students who do not speak English or whose native language is not English, and who are not currently able to perform ordinary classroom work; and SWD (student with disabilities) indicates students receiving special education services.
 - MCAS results are the officially reported results for the selected year.
 - Information for enrollments of fewer than 6, performance results fewer than 10, and growth results fewer than 20 are suppressed. Suppressed values are displayed as dashes (-).

RADAR Instructional Data

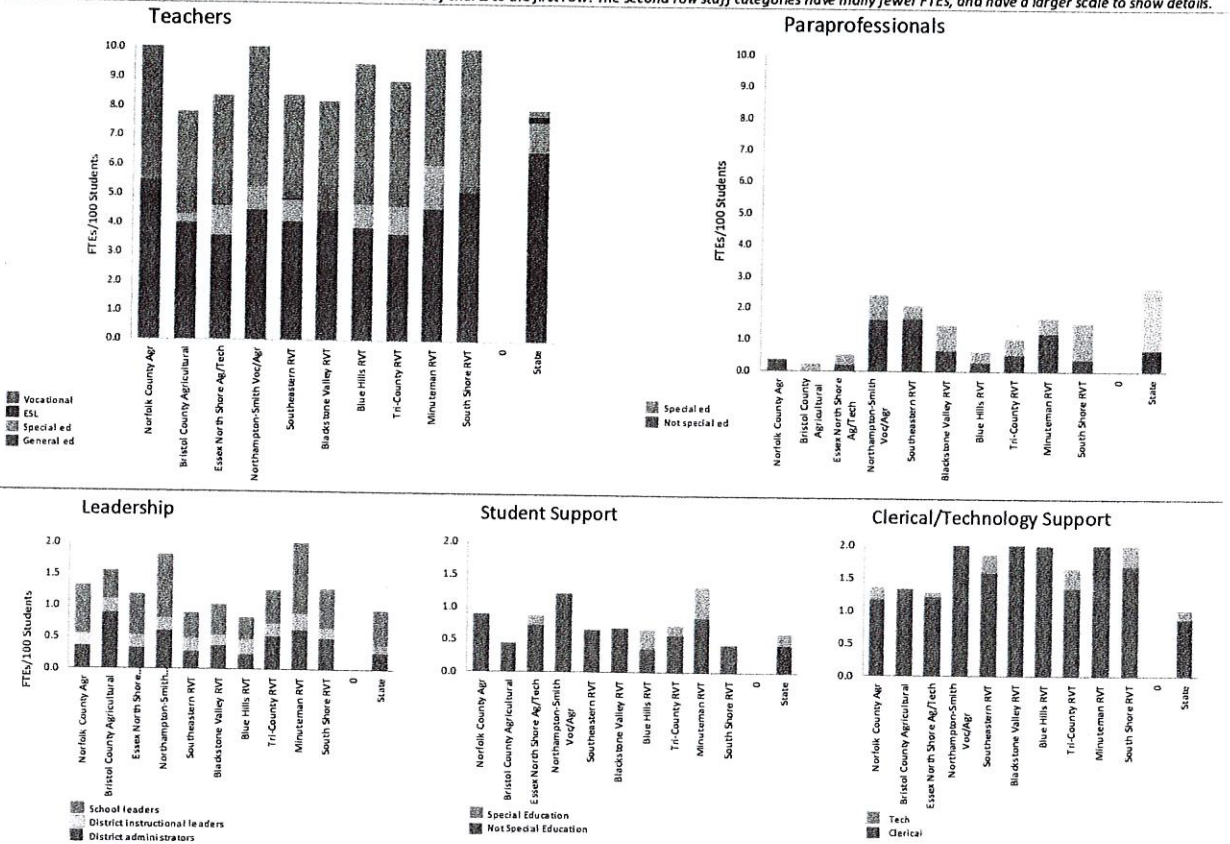
Staff FTE's per 100 Students: The next section (seventh tab, **StaffFTEper100Students**) analyzes staffing levels 10 schools.

It should be noted that per pupil cost figures come from the annual End of Year Financial Report, while staffing data comes from the Education Personnel Information Management System (EPIMS). These two systems are not perfectly aligned, which may lead to inconsistent comparisons. DESE has developed a crosswalk to help better align the two.

- **Teachers:** NCAHS has the second highest number of FTE teachers per 100 students of the agricultural schools and is fourth highest when including the RVTs. This level of relative staffing is generally consistent with the per pupil cost comparisons. It should be noted that the bar chart indicates that NCAHS has more FTE general education teachers per 100 students than all of the comparative schools.
- **Paraprofessionals:** NCAHS has less paraprofessionals per 100 students than Smith and Essex, but slightly more than Bristol. NCAHS has less than all of the RVTs. This is generally consistent with the financial data.
- **Student Support:** (Guidance Counselor, School Adjustment Counselor, School Social Worker, Psychologist) NCAHS is tied for the second highest staff per 100 students among the agricultural schools and second only to Minuteman among the RVTs. It should be noted that these are fractional differences. The difference between NCAHS and the districts with the fewest staff per 100 students (Bristol and South Shore) is .5 FTE. The staffing seems to mirror the per pupil costs in most instances.

How can you use this report? Staff is the largest investment in any district. Looking at staff per 100 students allows users to compare relative staffing levels across districts. Do some districts invest more in some staffing categories than others? How do our staffing patterns align with our district priorities?

Note: Do not compare the heights of the bars in the second row of charts to the first row. The second row staff categories have many fewer FTEs, and have a larger scale to show details.



Why FTEs per 100 students? ESE's Profiles reports typically use student to staff ratios, which are intuitively easy to understand. However, a higher number in the ratio means proportionately less staff (e.g. 18 students per teacher means fewer teachers than 12 students per teacher.) In RADAR, we use FTEs per hundred students because a higher bar means proportionately more staff, similar to spending charts.

Positions included in staff categories

Teachers	Teacher, Co-teacher, Virtual Course Teacher, Virtual Course Co-teacher, Teacher-Support Content
Paraprofessionals	Instructional paraprofessionals: Non-SPED (General Education, Title I, ESL, Vocational); and Special Education
District Administrators	Superintendent, Ass/Assoc/Vice Superintendent, School Business Official, Other District Administrator, Supervisor/Director of Technology, School Nurse Leader
District Instructional Leaders	Supervisor/Directors of Curriculum, English as a Second Language, ELA, English, Languages, Social Studies, Math, Reading, Art, Library/Media, Professional Development, Guidance, Pupil Personnel, Assessment, Special Education
School Leaders	Principal, Ass/Vice Principal, School Special Education Administrator, Other School Administrator
Student Support	Guidance Counselor, School Adjustment Counselor, School Social Worker, Psychologist
Clerical/Technology Support	Administrative Aides, Administrative Clerks/Secretaries, Special Education Administrative Aides, Special Education Clerks/Secretaries, Other Administrative Support; (separate) Information Services and Technical Support

FTEs and FTEs/100 Students

	Norfolk County Agr	Bristol County Agricultural	Essex North Shore Ag/Tech	Northampton- Smith Voc/Agr	Southeastern RVT	Blackstone Valley RVT	Blue Hills RVT	Tri-County RVT	Minuteman RVT	South Shore RVT	State
FTEs											
Teachers	56	35	125	56	122	100	81	86	72	64	75,098
Paraprofessionals*	2	1	8	12	30	18	5	10	10	10	25,317
Leadership (Adm/Instr/Schl)	7	7	18	9	13	13	7	12	17	8	8,998
Student Support	5	2	13	6	10	8	6	7	8	3	5,713
Clerical	7	6	18	27	23	25	17	13	13	11	8,257
Tech Support	1	0	1	2	4	4	2	3	2	2	0 1,390
FTEs/100 Students											
Students	551	451	1,492	496	1,458	1,224	856	969	598	638	948,828
Teachers	10.2	7.8	8.4	11.3	8.4	8.2	9.5	8.9	12.0	10.0	7.9
Paraprofessionals*	0.3	0.2	0.5	2.4	2.1	1.5	0.6	1.0	1.7	1.5	2.7
Leadership (Adm/Instr/Schl)	1.3	1.6	1.2	1.8	0.9	1.0	0.8	1.3	2.8	1.3	0.9
Student Support	0.9	0.4	0.9	1.2	0.7	0.7	0.7	0.7	1.3	0.4	0.6
Clerical	1.2	1.3	1.2	5.4	1.6	2.0	2.0	1.3	2.1	1.7	0.9
Tech Support	0.2	0.0	0.1	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.1

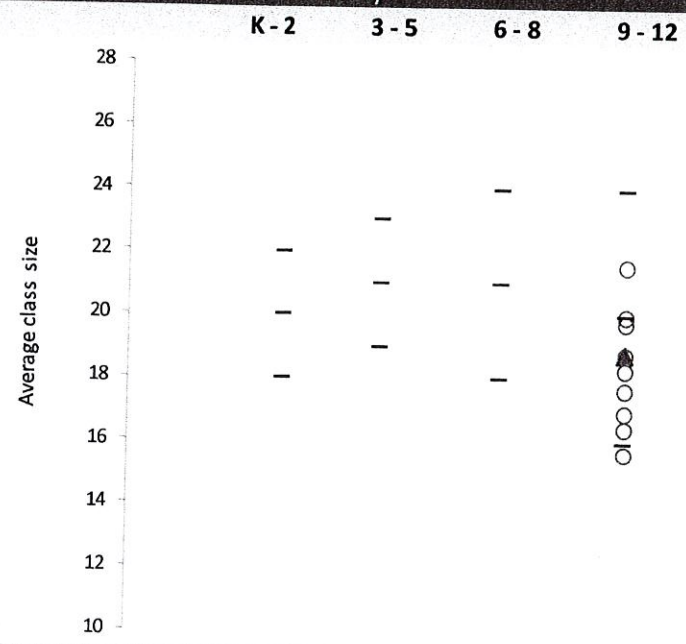
* Non-instructional paraprofessionals not included

District Class Size: The next section, (eighth tab, **DistrictClassSize**) analyzes the size of classes by grade level groupings and subject.

- **Average Class Size by Grade Span:** All the schools are only grades 9 – 12. Among the four agricultural schools NCAHS has the second smallest average class size after Smith. That class size is larger than or equal to all of the RVTs except Blackstone.
- **Average Class Size by Subject:** They do not analyze class size for vocational classes.
 - **ELA:** Among the four agricultural schools NCAHS has the second smallest average class size after Smith. That class size is larger than all the RVTs except Blackstone and Blue Hills.
 - **Math:** Among the four agricultural schools NCAHS has the second smallest average class size after Smith. That class size is larger than all the RVTs except Blackstone and Blue Hills.
 - **Science:** Among the four agricultural schools NCAHS has the second smallest average class size after Smith. That class size is larger than all the RVTs except Blackstone and Tri-County.
 - **History & Social Studies:** Among the four agricultural schools NCAHS has the second smallest average class size after Smith. Among the six RVT's they have the third smallest average class size after Southeastern and Minuteman.

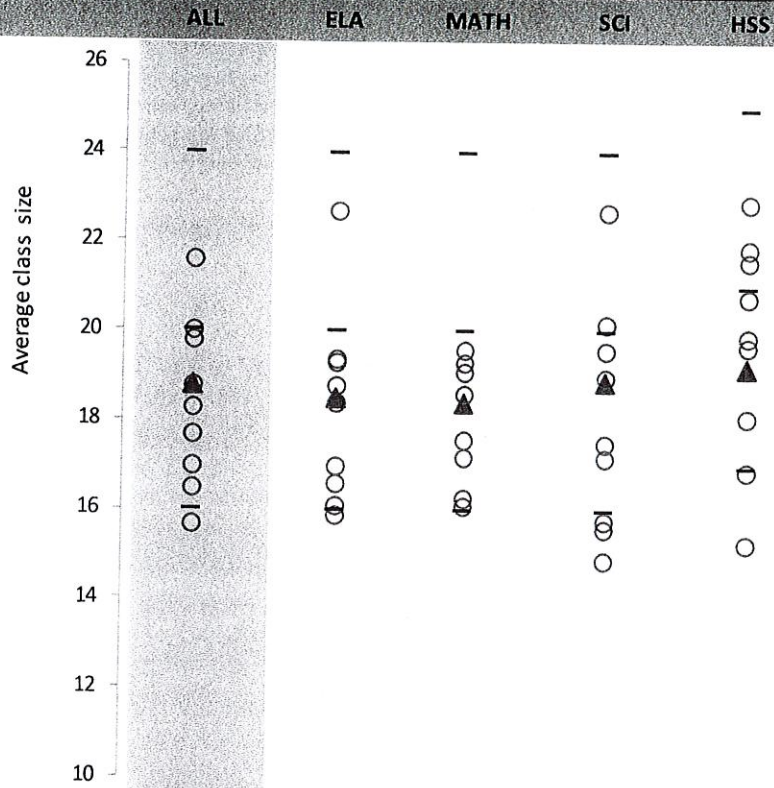
Average class size by grade span (includes ELA/math/science/social studies)

This chart averages class sizes of classes in ELA; mathematics; science, technology and engineering; history and social sciences; and primary grade classrooms (all subjects). The data excludes PK classes; classes with 75% or more students with disabilities; and classes with less than 6 or more than 30 students.



Districts	Enrolled students	FTE tchrs of incl classes	% of all tchr FTEs		K - 2	3 - 5	6 - 8	9 - 12
Norfolk County Agr	551	25.9	46%	▲				18.8
Bristol County Agricultura	451	16.6	47%	○				21.6
Essex North Shore Ag/Tec	1,492	49.8	40%	○				19.8
Northampton-Smith Voc/I	496	13.0	23%	○				16.5
Southeastern RVT	1,458	57.9	47%	○				15.7
Blackstone Valley RVT	1,224	31.3	31%	○				20.0
Blue Hills RVT	856	28.9	36%	○				18.8
Tri-County RVT	969	35.2	41%	○				18.3
Minuteman RVT	598	14.4	20%	○				17.0
South Shore RVT	638	22.2	35%	○				17.7
0				○				
State average class size percentiles								
75th				-	22.0	23.0	24.0	24.0
50th				-	20.0	21.0	21.0	20.0
25th				-	18.0	19.0	18.0	16.0

Average class size - grades 9 to 12 classes by subject



Norfolk County Agr	▲	18.8	18.5	18.4	18.9	19.2
Bristol County Agricultural	○	21.6	22.7	18.6	22.7	22.9
Essex North Shore Ag/Tech	○	19.8	19.4	19.1	20.2	20.8
Northampton-Smith Voc/Agr	○	16.5	16.1	17.2	15.8	16.9
Southeastern RVT	○	15.7	15.9	16.1	14.9	15.3
Blackstone Valley RVT	○	20.0	19.3	19.6	19.6	21.9
Blue Hills RVT	○	18.8	18.8	19.3	17.5	19.9
Tri-County RVT	○	18.3	16.6	16.3	19.0	21.6
Minuteman RVT	○	17.0	17.0	17.6	15.6	18.1
South Shore RVT	○	17.7	18.4	16.1	17.2	19.7
0	○					
State average class size percentiles						
75th	—	24.0	24.0	24.0	24.0	25.0
50th	—	20.0	20.0	20.0	20.0	21.0
25th	—	16.0	16.0	16.0	16.0	17.0

Chapter 6, Section 82 of the acts of 1991

SECTION 82. Effective July first, nineteen hundred and ninety-one, notwithstanding any general or special law to the contrary, for the purposes of sections sixteen C and sixteen D of chapter seventy-one of the General Laws, the Norfolk County Agricultural School, Bristol County Agricultural School and the Essex County Agricultural and Technical Institute shall be considered to be Regional Schools. Provided further, that notwithstanding any general or special law to the contrary, Norfolk County Agricultural School, Bristol County Agricultural School, and the Essex Agricultural and Technical Institute shall be allowed to expend at the level of appropriation both direct and indirect for fiscal year nineteen hundred and ninety-one for said schools plus whatever additional revenue shall be generated as a result of this act and any other additional revenue. Notwithstanding any general or special law to the contrary, the several counties within the aforementioned schools shall as a first obligation of said counties expend monies at the same level as fiscal year nineteen hundred and ninety-one for direct and indirect costs of said schools and shall not be obligated to expend more than the fiscal year nineteen hundred and ninety-one levels. Provided further, that the Board of Trustees of the several Agricultural Schools may charge tuition in excess of the state approved rate for out of district students in proportion to the appropriation approved in excess of the mandatory appropriations contained in this section. The aforementioned Board of Trustees are further hereby authorized to charge tuition to in-district students an amount which shall be no greater than the net difference between the total direct and indirect costs per student, and the state approved rate. Any appropriation not spent or obligated in a fiscal year shall be deemed to be 54 appropriated in the succeeding fiscal year. For the purposes of this section, indirect costs shall include but not be limited to: health insurance for employees, liability insurance, pension costs, interest and reduction of debt, unemployment and worker's compensation costs. Provided further, that the obligation of Bristol County for the purposes of this section shall not exceed one million dollars.

Appendix 13.6

Massachusetts Department of Elementary and Secondary Education Office of District and School Finance

FY22 Non-Resident Vocational Tuition Rates

LEA	District	FY21	FY22	Change FY21-22	% Change
0049	Cambridge	\$9,930	\$11,176	\$1,245.70	12.5%
0153	Leominster	\$10,386	\$10,234	-\$151.70	-1.5%
0176	Medford	\$10,983	\$12,314	\$1,331.81	12.1%
0236	Pittsfield	\$18,400			
0274	Somerville	\$11,625	\$13,088	\$1,463.13	12.6%
0281	Springfield	\$12,352	\$12,235	-\$117.34	-0.9%
0325	Westfield	\$18,400	\$18,267	-\$132.92	-0.7%
0406	Northampton-Smith Vocational Agricultural	\$18,400	\$18,679	\$279.00	1.5%
0618	Berkshire Hills	\$18,400	\$18,679	\$279.00	1.5%
0760	Silver Lake	\$12,295	\$12,934	\$638.77	5.2%
0770	Tantasqua	\$11,569	\$11,759	\$190.26	1.6%
0801	Assabet Valley Regional Vocational Technical	\$16,335	\$17,070	\$735.10	4.5%
0805	Blackstone Valley Regional Vocational Technical	\$16,922	\$17,708	\$786.44	4.6%
0806	Blue Hills Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%
0810	Bristol-Plymouth Regional Vocational Technical	\$13,729	\$14,851	\$1,122.31	8.2%
0815	Cape Cod Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%
0817	Essex North Shore Vocational Technical	\$16,650	\$18,620	\$1,969.31	11.8%
0817	Essex North Shore Agricultural Technical*	\$15,910	\$17,539	\$1,629.33	10.2%
0818	Franklin County Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%
0821	Greater Fall River Regional Vocational Technical	\$16,449	\$17,146	\$697.79	4.2%
0823	Greater Lawrence Regional Vocational Technical	\$17,791	\$18,679	\$888.00	5.0%
0825	Greater New Bedford Regional Vocational Technical	\$17,634	\$18,679	\$1,045.32	5.9%
0828	Greater Lowell Regional Vocational Technical	\$17,147	\$17,570	\$422.54	2.5%
0829	South Middlesex Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%
0830	Minuteman Regional Vocational Technical**	\$18,400	\$18,679	\$279.00	1.5%
0832	Montachusett Regional Vocational Technical	\$16,509	\$17,265	\$755.22	4.6%
0851	Northern Berkshire Regional Vocational Technical	\$18,088	\$18,679	\$591.43	3.3%
0852	Nashoba Valley Regional Vocational Technical	\$18,048	\$18,143	\$94.04	0.5%
0853	Northeast Metropolitan Regional Vocational Technical	\$18,400	\$18,152	-\$247.62	-1.3%
0855	Old Colony Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%
0860	Pathfinder Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%

0871	Shawsheen Valley Regional Vocational Technical	\$18,400	\$18,679	\$279.00	1.5%
0872	Southeastern Regional Vocational Technical	\$13,684	\$15,420	\$1,735.57	12.7%
0873	South Shore Regional Vocational Technical	\$17,283	\$16,998	-\$284.65	-1.6%
0876	Southern Worcester County Regional Vocational Technical	\$16,153	\$16,129	-\$24.26	-0.2%
0878	Tri County Regional Vocational Technical	\$16,884	\$17,776	\$892.00	5.3%
0879	Upper Cape Cod Regional Vocational Technical	\$17,254	\$18,679	\$1,424.52	8.3%
0885	Whittier Regional Vocational Technical	\$17,601	\$17,909	\$307.36	1.7%
0910	Bristol County Agricultural	\$20,782	\$21,188	\$405.56	2.0%
0915	Norfolk County Agricultural	\$23,634	\$24,100	\$466.00	2.0%

March 23, 2021

* ESNAT is authorized to charge an incremental capital fee to its agricultural non-resident tuition rate in accordance with Chapter 463 of the Acts of 2004. The Department calculates this rate each year using updated information provided by the district. The rate for FY22 is \$1,515 per student.

**Minuteman is authorized to charge a capital fee in addition to their non-resident tuition rate in accordance with 603 CMR 4.03 (6)(b)(4). The Department calculates these rates each year using updated information provided by the district. The FY22 capital fee for Type A communities is \$7,467.24 and the capital fee for Type B communities is \$5,600.43

**Massachusetts Department of Elementary and Secondary Education
Office of District and School Finance**

FY22 Non-Resident Vocational Tuition Rate Summary

Norfolk County Agricultural

Expenditures

Instructional Services - Vocational	\$0
Vocational Share of Pupil Services	\$0
Vocational Share of Administration and Fixed Charges	\$0
Total Expenditures	\$0

FTE Membership 523.3

Average Cost	\$20,318
Inflation-Adjusted Average Cost*	\$20,605
Eligible Rate**	\$24,100

* Inflation rate used in FY22 Chapter 70 calculations was 1.41%

** The lesser of the inflation-adjusted average cost or \$18,679, which is 125% of the FY22 foundation budget vocational rate of \$14,942. Norfolk and Bristol County Agricultural Schools have statutory authority to establish non-resident rates in excess of this amount in accordance with Chapter 6, Section 82 of the Acts of 1991.

March 23, 2021

Tuition Calculation

	FY22 Tuition	Recommended Rate	Estimated Enrollment	Estimated Revenue	Adjusted Revenue
Out of District	\$ 24,100	\$ 24,476	310	\$7,471,000	\$ 7,587,560
In District	\$ 2,200	\$ 5,797	290	\$ 638,000	\$ 1,681,130
Total			600	\$8,109,000	\$9,268,690
Inreased Revenue					\$ 1,159,690
Recommended Rates					
A. Out of District -Per Pupil Cost		\$ 24,476			
B. 1.25% of Foundation		\$ 18,679			
In District A-B		\$ 5,797			