DOVER SCHOOL DISTRICT

DOVER SCHOOL BOARD AGENDA

Meeting Type:	Budget Workshop Session #1
MeetingLocation:	McConnell Center, Room 306
Meeting Date:	**Tuesday, January 18, 2022**
Meeting Time:	**6:00 pm**

A. ROLL CALL

B. PLEDGE OF ALLEGIANCE

C. CITIZEN'S FORUM (Limited to Agenda Items)

D. FISCAL YEAR 2023 BUDGET DISCUSSIONS

E. MATTERS OF INTEREST

F. ADJOURNMENT

Citizens, residents of the City of Dover, property owners in the City of Dover, and/or designated representatives of recognized civic organizations or businesses located in the City of Dover and/or residents of sending school districts, are invited to all public meetings and shall be given an opportunity to speak. Time shall be set aside for citizen statements, Citizen's Forum, at all public meetings, unless a vote to the contrary is taken by the School Board.

Citizens shall identify themselves by name and address for the record; address comments to the presiding officer and the Board as a body and not individual members.

Citizen's Forum will ensure citizens have the opportunity to speak to all other items on a meeting agenda and/or matters pertaining to the business of the School Board. At workshop meetings and special sessions, Citizens' Forum will be restricted to items on the meeting agenda. Statements shall be limited to five (5) minutes unless otherwise extended by the chairperson, with the approval of the School Board.

All citizens are permitted to place items on the agenda through written application to the Superintendent at least one week prior to the meeting date. Citizen items will require a formal motion and a second by seated members to bring the item to the floor for debate.

DOVER SCHOOL DISTRICT

EMPOWERING ALL LEARNERS!

FISCAL YEAR 2023 BUDGET MODELS
January 2022
January 14, 2022

INTRODUCTION

The administration will be bringing forward two models for the Dover School District Fiscal Year 2023 Budget. Model One represents a ***Tax Cap Budget***, and Model Two represents a ***Meeting Obligations Budget***.

The budget models provide limited resources to support continual growth and improvement of the District as well as the necessary resources to adequately support the Dover School District Strategic Plan. The ***Tax Cap Budget*** will reduce staffing that will also impact programs and services. The ***Meeting Obligations Budget*** will permit the District to maintain the current staffing levels with no additional programs or services provided.

During the January 18th Budget Workshop, the two models will be reviewed with the School Board, with additional details provided through the presentations and discussions.

The *Tax Cap Budget and the Meeting Obligations Budget* are the starting points for the development of the Fiscal Year 23 Budget that will be presented to the City Council. From the information presented, the Board will need to identify and develop a budget that will accomplish the Board's goals and priorities.

Also note, the Dover Teacher's Union Collective Bargaining Agreement expires August 31, 2022. It will need to be determined when to enter negotiations. This is a significant factor to consider in the development of the FY 23 budget as well as the impact on future budgets.

PURPOSE OF A SCHOOL DISTRICT BUDGET

A budget is an outline of educational programs and services with costs affixed to specific purposes to effectively direct administration in achieving the District's goals and objectives. In schools, the adoption of a budget implies that a set of decisions have been made by school board members and administrators which culminate in matching a school's resources with its' operational needs.

This link between instruction and financial planning is critical to effective budgeting. In addition, such a budgeting practice will enhance the evaluation of budgetary and educational performances since resource allocations are closely associated with instructional plans. In this way, the annual general fund budget is not only the financial plan, but also the educational plan expressed in dollars.

The purpose of budgeting is to provide the best possible educational opportunities for every student in the school district.

STRATEGIC PLAN GOALS

Education has become complex and demanding with the variety of roles educational institutions assume in supporting students' learning and other essential needs associated with the healthy development of a child. The strategic plan has four goals along with specific objectives associated with each goal. It is critical the budget aligns with and supports the strategic plan.

GOAL 1: The Dover School District will improve educational outcomes for students by effectively engaging with the broader community.

- **Objective 1.1:** We will enhance student voice by creating a student-driven environment that allows all students to have meaningful input and choice into their learning program.
- **Objective 1.2:** We will enhance support and wellness for all students through purposeful engagement in school and community-based activities
- **Objective 1.3:** For students to freely explore all post-graduation options, we will improve and expand our college and career network by strengthening existing partnerships and developing new partnerships with businesses, non-profit organizations, and educational institutions.
- **Objective 1.4:** We will provide opportunities for all families to engage with the Dover schools using sustainable strategies to foster consistent and authentic two-way communication.
- **Objective 1.5:** We will provide opportunities for diverse community stakeholders to engage with the Dover schools in shared problem solving and decision making.

GOAL 2: The Dover School District will develop and sustain a culture that is characterized by optimizing social, emotional, civic, physical, and rigorous academic learning.

- **Objective 2.1:** We will promote and support the overall health and well-being of all students and staff.
- **Objective 2.2:** We will maximize each student's engagement in learning.
- **Objective 2.3:** We will optimize individual achievement by ensuring every student receives academic instruction that is culturally responsive and matched to developmental needs.
- **Objective 2.4:** We will optimize student learning and achievement by developing and implementing a competency-based education model.
- **Objective 2.5:** We will facilitate the effective use of technology for all learning community members.
- **Objective 2.6:** We will establish and sustain effective integration of technology into all aspects of the curriculum, teaching, and learning.

- **Objective 2.7:** We will establish and sustain opportunities for all students to engage in a variety of healthy and productive extracurricular and co-curricular activities.

GOAL 3: The Dover School District is committed to continued investments in infrastructure to support student learning inclusive of facilities, technology, safety, and security.

- **Objective 3.1:** We will provide, manage, and maintain clean, safe, and adequate facilities to support student learning, effective instruction, and community engagement.

- **Objective 3.2:** We will provide robust technology infrastructure, support, and training to facilitate a technology rich, collaborative 21st century learning environment.

- **Objective 3.3:** We will commit to investing and supporting the safety and security for the well-being of all students and staff.

GOAL 4: The Dover School District will recruit, hire, develop and retain effective and caring educators and support them in their growth as a strong school community.

- **Objective 4.1:** We will plan for and manage staff hiring, placement, turnover, and succession.

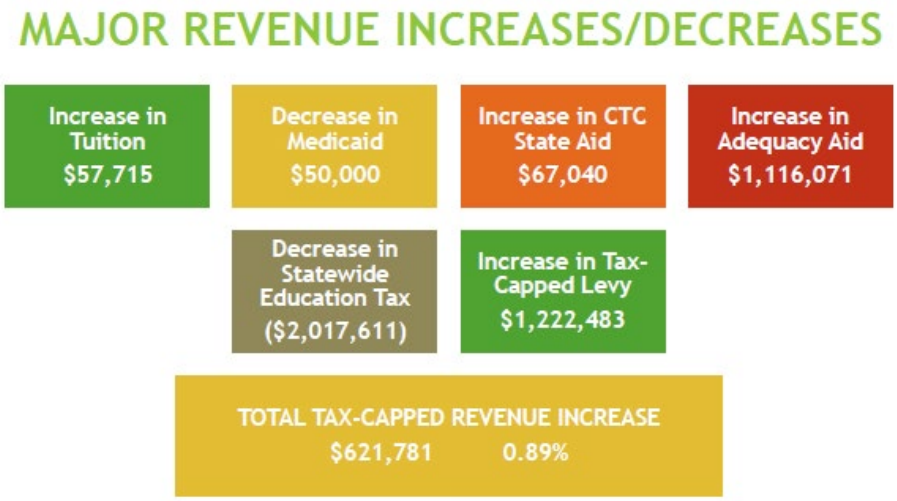
- **Objective 4.2:** We will cultivate continuous improvement of instructional and leadership capacities to increase student growth and achievement through individual and collective professional development.

BACKGROUND

All departments have submitted their budgets and staff change requests, and the review process has begun. Revenue projections for supporting this budget are already proving to be dire. On June 10th, Senate Bill 3 was signed by the governor providing NH residents with $100 million in tax relief. The impact to the Dover School District is a $2 million reduction in the State-Wide Education tax payment. With only $1.2 million in revenue allowed under the tax cap in local revenue, and $1.1 million allowed in additional Adequacy aid; the District is currently looking at a $621 thousand increase in funding for next year's budget. To put this in perspective, the tax cap increase does not even cover the increase in health insurance which is estimated at $671 thousand.

The City of Dover tax cap adds a level of complexity to the budgetary process that is important to understand. The Dover tax cap only applies to the City's local property taxes. It is not a cap on the budget itself. The City's local property taxes are only one of the 25 different revenue streams supporting the District's budget. In a situation where other revenue streams are falling - like the state-wide education tax – the increase allowed under the tax cap may deliver no increase to the actual budget. This year, the tax cap allows for an estimated 2.75% increase to what was raised to support this year's budget. Considering that our largest contracts are growing by 3 to 4 percent, and electric rates are increasing at 46%, and health insurance rates are growing by 10%, the cap is not even coming close to addressing the inflationary concerns that the District is seeing in this market.

One of the District's largest funding sources next to state and local property taxes is the State Adequacy Aid grant. This grant relies heavily on our Free & Reduced enrollment numbers. For the FY23 budget, the number of families submitting applications is significantly down. While the District would normally celebrate this as a sign of increased employment opportunities, and a booming economy, the District is more concerned that this is really due to free meals being provided for all students. Now that there is no requirement to fill out an application to get free or reduced priced breakfasts and lunches, applications have dropped from 1,044 to 890. This 15% drop, in an economic climate where we would normally have a 10% increase, is costing the District hundreds of thousands of dollars in state funding.



BUDGET MODELS

Two FY23 models are being presented to start the Board's deliberations to determine the budget that will be developed and approved by the Board to be presented to the City Council for consideration and approval.

MODEL ONE – Tax Cap Budget

PURPOSE - The purpose of the model is to demonstrate the impact the tax cap will have on programs and services for Fiscal Year 2023, a $3,337,073 reduction to the department level budget request for a total budget of $70,307,141.

ASSUMPTIONS

1. Seventy percent of the budget is human resources that encompasses salaries and benefits. The total amount over the tax cap is $3,337,073, 70% of this amount in salary and benefits that need to be reduced is $2,335,951. The national average for percentage of staffing in school budgets is 80% (https://nces.ed.gov).

2. Thirty percent of the budget is inclusive of purchased services, supplies, furniture, equipment, fees and debt service; 30% of this amount that needs to be reduced is $1,001,122.

3. The model does not fully support the District's Strategic Plan. The plan does support the District's CIP program. It is further noted that the District has a history of adding and eliminating positions due to fiscal constraints. The lack of consistent funding creates uncertainty in sustaining critical roles in the District that supports the strategic plan.

4. Does not include any new faculty and staff positions.

5. It is understood that the adoption of a true tax cap budget will have a significant impact on district-based and school-based programs and services.

The tax cap model will require the following reduction in positions:

POSITION	FTE TOTAL	EXPENDITURE REDUCTION
SAU Administrator	1.0 FTE	$188,831
School Based Administrators	3.0 FTE	$478,073
Elementary Teachers	9.0 FTE	$738,984
Middle School Teachers	5.0 FTE	$527,846
DPA	2.0 FTE	$63,882
DEOP	1.0 FTE	$72,165
TOTAL	**21.0 FTE**	**$2,280,919**

With the reduction of 14 FTEs at the elementary and middle school levels, the following are the estimated student to general education teacher ratios based on the estimated enrollment:

SCHOOL	FTE TOTAL	STUDENT:TEACHER RATIO
Elementary Schools	9 FTE	1251/61 = 21
Dover Middle School	5 FTE	1026/42 = 24

MODEL TWO – Meeting Obligations Budget

PURPOSE - To meet the budget obligations and to maintain the current level of programs and services:

ASSUMPTIONS

1. The 2021-2022 programs and services will be maintained which supports the current level of staffing.

2. The model does not support fully support the District's Strategic Plan. The plan should support the District's CIP program and lowers student to teacher ratios. It is further noted that the District has a history of adding and eliminating positions due to fiscal constraints. The lack of consistent funding creates uncertainty in sustaining critical roles in the District that support the strategic plan.

3. Two instructional coaches will be supported in the general fund. The instructional coaches are vital to the ongoing development and implementation of competency-based learning, embedded

professional development, and learning initiatives. The aim is to continue to move placing the instructional coaches in the general fund rather than the positions being grant supported.

RATIONALE FOR ADDITIONAL FUNDS

The preliminary tax cap on the local education property tax provided by the City Finance Director allows for a 2.75% increase. The purpose of this cap is to stabilize local property taxes and prevent them from escalating beyond a three-year average of inflation in the northeast region of the United States. If this cap were applied to the net total revenue received from both Adequacy Aid and the Statewide Education Tax, then the District would receive an additional $490,630 in funding versus a $901,540 loss.

Keeping with the purpose and spirit of the tax cap, the District believes that it would be responsible for taxpayers to override the cap and limit their total education tax increase to the percentage allowed under the local tax cap rules. This would provide the District with $1,392,170 in additional revenue, and significantly limit the damage incurred by the FY23 estimated loss of revenue.

MAINTAINING STAFFING LEVELS

Without the reduction of 21 FTEs at the elementary and middle school levels, the following are the estimated student to general education teacher ratios based on the estimated enrollment:

SCHOOL	FTE TOTAL	STUDENT:TEACHER RATIO
Elementary Schools	77.0 FTE	1251/70 = 18
Dover Middle School	47.0 FTE	1026/47 = 22

NEW POSITIONS

During the budget development process, principals were requested to provide proposals for additional staffing positions. The following is a summary list of the requested positions:

SCHOOL	POSITION	FTE	COST
Dover High School	SY Admin Asst II – Library Assistant	1.0	$21,889
Dover High School	Social Studies Teacher from .67 FTE to 1.0 FTE	0.33	$51,339
Dover High School	2 Block part-time Art Teacher	0.33	$32,500
CTE	Increase Building Construction from .67 FTE to 1.0 FTE	0.33	$52,386
CTE	Increase Sports Medicine from .67 FTE to 1.0 FTE	0.33	$37,153
CTE	Health Science Clinical Instructor Hours $38/hour		$48,496
CTE	Cyber Patriot Advisory Stipend to Category III 5.2%		$2,509
CTE	FFA Assistant Advisor Category 1 Stipend 1.6%		$772
Dover Middle School	Behavior Specialist	1.0	$91,634
Dover Middle School	Leadership Team Member Stipend	0	$1,319
Dover Middle School	Library Assistant	1.0	$29,114
Dover Middle School	Fifth Grade Teacher	1.0	$91,693
Dover Middle School	4 Noon Supervisors	1.0	$15,470
Dover Middle School	JP Clerical School Year to Full Year	0	$8,665
Dover Middle School	SS Clerical School Year to Full Year	0	$37,089

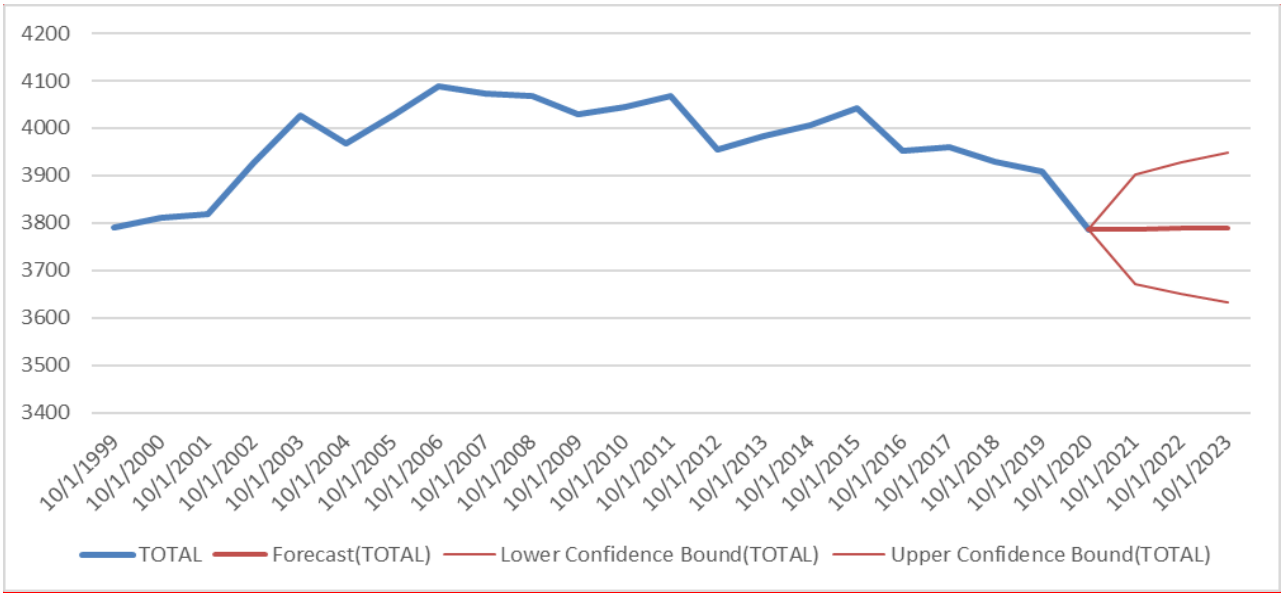
Dover Middle School	KN Clerical School Year to Full Year	0	$40,524
Dover Middle School	KW add 1.5 hours	0	$35,019
Garrison School	Literacy Specialist	1.0	$44,695
Garrison School	Counselor	1.0	$87,165
Elementary Schools	15 Primary Instructional Paraeducators	15.0	$731,069
Elementary Schools	Stipend Team Leaders (24)	0	$38,294
Special Education	Elementary Administrative Assistant	1.0	$61,923
Special Education	Float Nurse 1	1.0	$96,360
Special Education	Float Nurse 2	1.0	$96,360
Special Education	Special Education Teacher	4.0	$366,773
Special Education	Bellamy Academy Special Education Teacher	1.0	$96,361
SAU	Replace Account Payable with Accountant	0.33	$21,348
SAU	Full Time PR & Benefits Administrator	.25	$43,188
SAU	High School Instructional Coach	1.0	$120,836
SAU	Instructional Coaches 100% grant funded to 100% general budget funded	5.0	$604,181
SAU	IT Support Staff	2.0	$176,023
TOTAL		**39.90**	**$3,182,156**

RECOMMENDED ADDITIONAL POSITIONS

After reviewing the additional staffing positions and rationale, the SAU Cabinet recommends the following positions be given consideration for moving forward. The positions were selected based on safety, strategic plan, and logistics.

SCHOOL	POSITION	FTE	COST
Dover High School	SY Admin Asst II – Library Assistant	1.0	$21,889
Dover High School	Social Studies Teacher from .67 FTE to 1.0 FTE	0.33	$51,340
CTE	Increase Building Construction from .67 FTE to 1.0 FTE	0.33	$52,386
CTE	Increase Sports Medicine from .67 FTE to 1.0 FTE	0.33	$37,153
CTE	Health Science Clinical Instructor Hours $38/hour		$48,496
CTE	Cyber Patriot Advisory Stipend to Category III 5.2%		$2,509
CTE	FFA Assistant Advisor Category 1 Stipend 1.6%		$772
Dover Middle School	Leadership Team Member Stipend	0	$1,319
Dover Middle School	4 Noon Supervisors	1.0	$15,471
Special Education	Elementary Administrative Assistant	1.0	$61,923
Special Education	Float Nurse 1	1.0	$96,3601
Special Education	Float Nurse 2	1.0	$96,3601
Special Education	Special Education Teachers	4.0	$366,774
Special Education	Bellamy Academy Paraeducator	1.0	$96,361
SAU	Replace Accounts Payable with Accountant	0.33	$21,348
SAU	Full Time Payroll & Benefits Administrator	0.25	$43,188
SAU	High School Instructional Coach	1.0	$120,836
SAU	IT Support Staff	2.0	$176,023
TOTAL		**14.57**	**$1,310,510**

DISTRICT ENROLLMENT PROJECTIONS



HISTORICAL DISTRICT ENROLLMENT

Note: The October 1 data was used for these charts. The Four-Year Average has been rounded to the nearest whole number.

Historical Elementary Schools Enrollment – October 1 Data

KINDERGARTEN	2018	2019	2020	2021	Four-Year Average
Garrison	72	88	55	68	71
Horne Street	85	82	65	81	78
Woodman Park	77	97	63	86	81
FIRST GRADE	**2018**	**2019**	**2020**	**2021**	**Average**
Garrison	97	71	88	66	81
Horne Street	80	75	77	67	75
Woodman Park	96	83	93	79	88
SECOND GRADE	**2018**	**2019**	**2020**	**2021**	**Average**
Garrison	67	95	74	86	81
Horne Street	114	78	70	80	86
Woodman Park	91	96	83	82	88
THIRD GRADE	**2018**	**2019**	**2020**	**2021**	**Average**
Garrison	96	66	88	79	82
Horne Street	100	117	77	73	92
Woodman Park	87	91	89	74	85
FOURTH GRADE	**2018**	**2019**	**2020**	**2021**	**Average**
Garrison	89	96	68	80	83
Horne Street	100	102	107	77	97
Woodman Park	89	90	80	87	87

Historical Dover Middle School Enrollment – October 1 Data

GRADE	2018	2019	2020	2021	Four Year Average
Fifth	301	262	288	260	278
Sixth	267	287	256	278	272
Seventh	302	258	285	252	275
Eighth	305	303	256	283	287

Historical Dover High School Enrollment – October 1 Data

GRADE	2018	2019	2020	2021	Four Year Average
Ninth	409	406	396	343	389
Tenth	332	407	401	402	386
Eleventh	307	328	383	383	350
Twelfth	367	331	344	420	366

Historical CTE Sending School Enrollment

GRADE	2018	2019	2020	2021	Four Year Average
Ninth	0	0	0	1	
Tenth	61	36	16	18	33
Eleventh	17	112	66	70	66
Twelfth	44	3	57	58	41

Historical Barrington Tuition Enrollment

GRADE	2018	2019	2020	2021	Four Year Average
Ninth	42	53	50	42	47
Tenth	42	44	59	56	50
Eleventh	26	42	38	58	41
Twelfth	60	29	44	47	45

Historical Nottingham Tuition Enrollment

GRADE	2018	2019	2020	2021	Four Year Average
Ninth	42	27	30	23	31
Tenth	16	43	23	28	28
Eleventh	13	13	38	18	21
Twelfth	14	18	20	35	22

Projected Elementary - Moving Classes Forward - 21-22 to 22-23

SCHOOL	Kinder*	First**	Second**	Third**	Fourth**	Total**
Garrison	71	68/81	68/81	86/82	80/83	373/398
Horne Street	75	83/75	64/86	80/92	73/97	375/423
Woodman Park* **	81	89/88	79/88	81/85	72/86	402/429

(*) Based on historical 4-year average

(**) Move forward/4-year average (***) Does not include pre-school

Projected Dover Middle School - Moving Classes Forward - 21-22 to 22-23

Fifth**	Sixth**	Seventh**	Eighth**	Total**
242/278	254/272	278/275	253/287	1027/1111

(**) Move forward/4-year average

Projected Dover High School - Moving Classes Forward - 21-22 to 22-23

Ninth**	Tenth**	Eleventh**	Twelfth**	Total**
309*/389	342/386	404/350	380/366	1435/1490

(**) Move forward/4-year average (*) Includes 4-year average for Barrington & Nottingham

2021-2022 SCHOOL STAFFING LEVELS

Garrison School

POSITION	FTE
Principal	1.0
Dean	1.0
Dean of Student Services (shared)	.33
Guidance Counselor	1.0
Behavioral Specialist	1.0
School Nurse	1.0
General Education Teachers	22.0
Special Education Teachers	3.0
School Psychologist (shared)	.33
Occupational Therapist (shared)	.66
Speech Pathologist	1.0
Librarian	1.0
Art Teacher	1.0
Music Teacher	1.0
Physical Education Teacher	1.0
STEM Teacher	1.0
Reading Specialist	1.0
Intervention Support	4.0
ESOL	1.0
Administrative Assistant	1.0
Paraeducator/Clerk	1.0
Special Education Paraeducators	13.0
General Paraeducators	0.0
Lunch/Recess Supervisors (some work 2-3 shifts/week)	10

Horne Street School

POSITION	FTE
Principal	1.0
Dean	1.0
Dean of Student Services	0.33
Guidance Counselor	2.0
Behavioral Specialist	1.0
School Nurse	1.0
General Education Teachers	24.0

Special Education Teachers	3.0
School Psychologist (share with GES)	0.66
Speech/Language Therapist	1.2
Occupational Therapist	1.2
ESOL Support – Teacher	1.0
ESOL Support - Paraeducator	1.0
Librarian	1.0
Art Teacher	1.0
Music Teacher	1.0
Physical Education Teacher	1.0
STEM Teacher	1.0
Intervention Support	
• Reading Specialist	1.0
• Literacy Interventionists 2 @ 4 paid hours each	1.2
• Literacy Paraeducators 2 @ 6 paid hours each	1.8
Administrative Assistant	1.0
Paraeducator/Clerk	1.0

Woodman Park School

POSITION	FTE
Principal	1.0
Dean	1.0
Dean of Student Services	.34
Guidance Counselor	2.0
Behavioral Specialist	1.0
School Nurse	1.0
General Education Teachers	24.0
Special Education Teachers	5.0
• Speech Language Pathologist	1.0
• Occupational Therapist/Physical Therapist	1.0
Pre-School Teachers	3.0
• Speech Language Pathologist	1.0
• Occupational Therapist/Physical Therapist	1.0
Pre-School Paraeducators	5.0
• Speech Language Assistant	1.0
Librarian	1.0
Art Teacher	1.0
Music Teacher	1.0
Physical Education Teacher	1.0
STEM Teacher	1.0
ESOL	1.0
• Title 1 Tutor (Paula's position)	1.0
Reading Specialist	1.0
Administrative Assistant	1.0
Paraeducator/Clerk	1.0
Special Education Paraeducators	26.0
General Paraeducators	1.0
Title 1 Tutors	8.0
Lunch/Recess Supervisors	4.0

Dover Middle School

POSITION	FTE
Principal	1.0
Dean of Teaching and Learning	1.0
Dean of Students	1.0
Dean of Student Services	1.0
Guidance Counselor	2.0
School Nurse	1.0
General Education Teachers	47.0
Special Education Teachers	13.0
Librarian	1.0
Art Teacher	2.0
Music Teacher	3.0
Physical Education Teacher	4.0
Computer Teacher	1.0
World Language Teacher/Civics	1.0
FACE	1.0
Industrial Arts	1.0
Speech	1
Title One Tutors	2.0 (Part-Time)
Literacy Interventionists	2.0 (Part-Time)
Administrative Assistants	1.0
Paraeducator/Clerk	1.0
Special Education Paraeducators	36.0
General Paraeducators	0
Lunch/Recess Supervisors	0

Dover High School

POSITION	FTE
Principal	1.0
CTC Director	1.0
Bellamy Academy Director	1.0
Dean of Teaching and Learning	1.0
Dean of Students	2.0
Dean of Student Services	1.0
Athletic Director	1.0
Guidance Counselor	6.0
School Nurse	1.0
Art Department	5.0
English Department	13.0
Math Department	13.0
Music Department	2.0
Physical Education/Wellness Department	4.33
Social Studies Department	10.67
World Language Department	8.0
Administrative Assistants	3.0 Year Round 4.0 School Year 1 27.5 hrs./wk. School Year
ESOL	1.0

Science Department (14.67 in reality- one unfilled that was added back)	13.67
Kiosk	2 School Year (1 30 hrs., 1 27 ½ hrs./wk.)
Parking Aide	1.0 School Year (30 hrs./wk.)
Transition Teacher – Student Services	1.0
School Psychologist – Student Services	1.0
Speech Pathologist – Student Services	1.0
Special Education Teachers	14.0
Paraeducators – Student Services	21.0

SAU 11

POSITION	FTE
Superintendent	1.0
Assistant Superintendent of Students Services	1.0
Assistant Director of Student Services	1.0
Family Services Facilitator	1.0
Private/Charter Schools	1.0
Assistant Superintendent of Teaching and Learning	1.0
Instructional Coaches	5.0
Homeless Liaison	1.0
Assistant to the Superintendent	1.0
Teaching and Learning Administrative Assistant	1.0
Student Services Administrative Assistant	1.0
Business Administrator	1.0
Facilities Coordinator	1.0
Business Service Assistant	1.0
Accounts Payable	1.0

DOVER SCHOOL DISTRICT

EMPOWERING ALL LEARNERS!

REFERENCE APPENDIX FOR FY23 BUDGET PREPARATION

The appendix contains additional research information that can provide evidence-based information to guide the Board's decision process in establishing priorities for the Fiscal Year 23 Budget.

Contents

SCHOOL FINANCE A POLICY PERSPECTIVE – Allan R. Odden and Lawrence O. Picus

Dr. Allan Odden is a professor emeritus of educational leadership and policy analysis at the University of Wisconsin-Madison and co-director of the Consortium for Policy Research in Education (CPRE). He previously served as professor of education of policy and administration at the University of Southern California (1984-1993), and director of Policy Analysis for California Education (PACE), an education policy consortium of USC, Stanford and the University of California, Berkeley.

He is an international expert on the management of human capital in education, teacher compensation, education finance, school-based financing, resource allocation and use, resource reallocation, educational policy, school-based management, and educational policy implementation. He is also a prolific author, publishing over 250 journal articles, book chapters, and research reports, in addition to 35 books and monographs.

Lawrence O. Picus is vice dean for faculty affairs and professor of education finance and policy at the USC Rossier School of Education. His current research interests focus on adequacy and equity in school finance, as well as efficiency and productivity in the provision of educational programs for PreK-12 school children. Picus is past-president of the Association for Education Finance and Policy and is the president of EdSource where he has been a member of the board of directors for 14 years.

Picus' other books include: *In Search of More Productive Schools: A Guide to Resource Allocation in Education*, published by the ERIC Clearinghouse on Educational Management; and *Developing Community Empowered Schools*), coauthored with Mary Ann Burke. Picus is the coauthor of the Association of School Business Officials book, *Principles of School Business Administration.* He has published numerous articles in professional journals as well. Picus has consulted extensively on school finance issues in more than 20 states. In recent years he completed equity studies in Louisiana, Kansas, Massachusetts, and Montana and has conducted adequacy studies in Arkansas, Arizona, Kentucky, Maine, Wyoming, Wisconsin, North Dakota, Ohio, Oregon, Vermont, and Washington.

ODDEN AND PICUS FUNDING PROTOTYPICAL ELEMENTARY, MIDDLE AND HIGH SCHOOLS

The funding models were developed in 2014 as a recommendation for adequate resources for a prototypical elementary, middle, and high schools. **The prototypical models were used to determine funding levels to be provided by states to local school districts.** Dr. Odden and Dr. Picus have worked with various states on funding models.

The prototypical models provide guidance on what may be assumed to be adequate funding for schools. Note that the prototypical high school does not include Career Technical Education (CTE).

The school prototype models provide the Board an opportunity to view the Dover School District staffing from the perspective of adequate. It is recognized that the Board for the Dover School District has attempted over the years to go beyond the concept of adequate.

The authors note the following from their perspective on students with special needs:

Many mild and moderate disabilities, particularly those associated with students learning to read, are correctable through strategic early intervention. In many instances, this approach requires school-level staff to change practice and cease functioning in "silos" that serve children in "pull-out" programs

identified by funding sources for staff members providing the service. Instead, all staff would team closely with the regular classroom teacher to identify deficits and work together to correct them as quickly as possible.

Allocating a fixed census level of staffing (about 3.0 FTE teachers and 15 FTE aids) for an elementary school of about 450 students) can likely meet the needs of children with mild and moderate disabilities if a …, collaborative early-intervention model such as the one outlined above could be implemented.

For children with more severe disabilities, clustering them in specific schools to achieve economics of scale is generally the most effective strategy and provides the greatest opportunity to find ways to mainstream them (to the extent feasible) with regular education students.

Prototypical Elementary School – 450 Students – Model includes grades Kindergarten to Fifth Grade

Elementary Projected Enrollments

- Elementary School: Roll Forward Enrollment/Four-Year Average Enrollment
- Garrison School: 373/398
- Horne Street School: 375/423
- Woodman Park School: 402/429

Personnel Resources	Model - 450 Students
Core Teachers Class Size Class Ratio - Gr. K-3: 15 Class Ratio - Gr. 4-5: 25	24
Specialist Teachers - 20% of the Core – teach 5 periods per day	5.2
Instructional Coaches – One for every 200 students	2.25
Tier 2 Tutors - 1:100 for FRPL students, with a minimum of 1 for each school	2.16
Tier 2: Teachers for ELL students - One additional teacher for every 100 ELL students	0.46
Special Education Students with mild disabilities – Recommend 1:15 general caseload Students with severe disabilities – Recommend 1:6 general caseload	Assuming 20 percent IDEA eligibility rate this would be 6-8 Special Education Teachers
Pupil support staff: Guidance Counselor	One for every 100 students with poverty backgrounds, with a minimum of 1 per school. The ASCA school counselor recommendation is 1:250 students.
School Nurse	1/750 students 0.6 for general population 1:225 for populations requiring daily professional school nursing services or interventions and 1:125 for those populations with complex health needs. Some 1:1 for individuals needing daily and continuous professional nursing services.
Noninstructional aides	2.0
Librarian	1.0
Principal	1 principal plus assistant principals in larger schools
School site secretary	2.0 secretary

Prototypical Middle School Model - 450 Students - Model includes grades 6 through 8

Dover Middle School Project Enrollment

- 1027/1111 – Roll Forward Enrollment/Four-Year Average

Personnel Resources	Model - 450 Students
Core Teachers Class Ratio - Gr. 6-8: 25 Class Ratio- Gr. 5-8: 25	18.0
Specialist Teachers - 20% of the Core – teach 5 period per day	3.6
Instructional Coaches - One for every 200 students	2.25
Tier 2 Tutors - One for every 100 poverty students, with a minimum of 1 for each school	2.25
Tier 2: Teachers for ELL students - One additional teacher for every 100 ELL students	0.45
Special Education Students with mild disabilities Students with severe disabilities	Assuming 20 percent IDEA eligibility rate this would be 6-8 Special Education Teachers with para support as required by IEP.
Pupil support staff – School Counselors One for every 100 students with poverty backgrounds, plus 1 guidance staff per 250 students	One for every 100 students with poverty backgrounds, with a minimum of 1 per school. The ASCA school counselor recommendation is 1:250 students
School Nurse	1/750 students – 0.6 1/750 students 0.6 for general population1:225 for populations requiring daily professional school nursing services or interventions and 1:125 for those populations with complex health needs. Some 1:1 for individuals needing daily and continuous professional nursing services
Noninstructional Aides	2.0
Librarian	1.0
Principal	1 principal plus, assistant principals in larger schools
School site secretary	2.0

Prototypical High School Model – 600 Students – Model includes grades 9 through 12

Dover High School Projected Enrollment

- 1435/1490 – Roll Forward Enrollment/ Four-Year Average

Personnel Resources	Model - 600 Students
Core Teachers Class Ratio - Gr. 9-12: 25	24
Specialist Teachers - 33% of the core teacher figures, assuming a 90-minute block schedule; teachers teach 3 blocks daily	8.0
Instructional Facilitators/Coaches	3.0
Tier 2 Tutors - One for every 100 poverty students, with a minimum of 1 for each school	3.0
Tier 2: Teachers for ELL students - One additional teacher for every 100 ELL students	0.60

Special Education Students with mild disabilities Students with severe disabilities	Assuming 20 percent IDEA eligibility rate this would be 8-10 special education teachers with paras as required by IEP.
Pupil support staff – School Counselors One for every 100 students with poverty backgrounds, plus I guidance staff per 250 students	One for every 100 students with poverty backgrounds, with a minimum of 1 per school. The ASCA school counselor recommendation is 1:250 students.
School Nurse	1/750 students 0.6 for general population1:225 for populations requiring daily professional school nursing services or interventions and 1:125 for those populations with complex health needs. Some 1:1 for individuals needing daily and continuous professional nursing services.
Noninstructional aides	3.0
Librarian	1.0
Principal	1.0
Assistant Principal	1.0
School site secretary	3.0

NEW HAMPSHIRE STAFFING REQUIREMENTS

- Certified principal
- The local school board shall require that each school with an enrollment of 500 or more students provides the services of associate principal or 2 or more persons with administrative certification under ED 506 who together act as a full-time equivalent to carry out administrative duties assigned by the superintendent in accordance with local school board policy.
- School Health Services: School nurse for each school
- Certified library media specialist
- Certified guidance counselor
  - ✓ Elementary school shall not exceed the equivalent of one full-time certified counselor per 500 students enrolled
  - ✓ Counseling load in each middle school and each high school shall not exceed the equivalent of one full-time certified school counselor per 300 students enrolled
  - ✓ High schools with more than 4 school counselors shall provide a high school level certified director of school counselling to coordinate the implementation of the school counseling program plan and policy
- Elementary school has the services of a reading specialist
- Educators in art, music, health, and physical education
- Teachers
  - ✓ Kindergarten – grade 2: 25 students or fewer per educator, provided that each schools strive to achieve the class size of 20 students or fewer per educator
  - ✓ Grades 3-5: 30 students or fewer per educator, provided that each school shall strive to achieve the class size of 25 students or fewer per educator
  - ✓ Middle school and senior high school: 30 students or fewer per educator

References associated with staffing for school psychologist, school counselors, and school nurses.

1. **School Counselors:** Based upon ASCA's recommended staffing ratios (1:250), the Dover School District has two buildings that exceed this criterion, which are Garrison Elementary School (1:441) and Dover Middle School (1:302).

2. **School Psychologists:** NASP's comprehensive practice model recommends a staffing ratio of 1 school psychologist for every 500-700 students. The Dover School District's ratio is 2x greater than the maximum recommended ratio (1:1433). This severely restricts the district's school psychology team to primarily fulfill IDEA special education eligibility/evaluation duties.

10 Domains of Practice

The 10 domains of practice delineate the areas of graduate training and services that can reasonably be expected from school psychologists. Adequate staffing ratios are critical to school psychologists' capacity to provide the comprehensive range of services.

Practices That Permeate All Aspects of Service Delivery

Domain 1: Data-Based Decision Making - School psychologists have knowledge of and utilize assessment methods and a problem-solving framework to identify strengths and needs; develop effective interventions, services, and programs; and measure progress and outcomes within a multitiered system of supports.

Domain 2: Consultation and Collaboration - School psychologists understand and apply varied models and strategies of consultation and collaboration applicable to individuals, families, groups, and systems, as well as methods to promote effective communication and implementation of services.

Direct and Indirect Services for Children, Families, and Schools

Student-Level Services

Domain 3: Academic Interventions and Instructional Supports - School psychologists understand the biological, cultural, and social influences on academic skills; human learning, cognitive, and developmental processes; and evidence-based curricula and instructional strategies and evaluation.

Domain 4: Mental and Behavioral Health Services and Interventions - School psychologists understand the biological, cultural, developmental, and social influences on mental and behavioral health, behavioral and emotional impacts on learning, and apply their knowledge in the selection and use of evidence-based strategies to promote social–emotional functioning and mental health.

Systems-Level Services

Domain 5: School-Wide Practices to Promote Learning - School psychologists understand and utilize systems structures, organization, and theory; general and special education programming; implementation science; and evidence-based, school-wide practices that promote learning, positive behavior, and mental health.

Domain 6: Services to Promote Safe and Supportive Schools - School psychologists understand and utilize principles and research related to social–emotional well-being, resilience and risk factors in learning, mental and behavioral health, services to support multitiered prevention and health promotion, and evidence-based strategies for creating safe and supportive schools, including effective crisis prevention, preparedness, mitigation, response, and recovery.

Domain 7: Family, School, and Community Collaboration - School psychologists understand and utilize principles and research related to family systems, strengths, needs, and cultures; evidence-based strategies to support positive family influences on children's learning and mental health; and strategies to develop collaboration between families, schools,
and communities.

Foundations of School Psychological Service Delivery

Domain 8: Equitable Practices for Diverse Student Populations - School psychologists have and apply knowledge of individual differences, abilities, disabilities, and other diverse characteristics and the impact they have on development and learning. They also understand principles and research related to diversity in children, families, schools, and communities, including factors related to child development, religion, culture and cultural identity, race, ethnicity, sexual orientation, gender identity and expression, socioeconomic status, and other variables. School psychologists recognize that equitable practices, respect for diversity, and advocacy for social justice are foundational to effective service delivery.

Domain 9: Research and Evidence-Based Practice - School psychologists, as scientist practitioners, have and apply knowledge of research design, statistics, measurement, and varied data collection and analysis techniques sufficient for understanding research, interpreting data, recommending interventions, and evaluating programs in applied settings.

Domain 10: Legal, Ethical, and Professional Practice - School psychologists have and apply knowledge of the history and foundations of school psychology; multiple service models and methods; ethical, legal, and professional standards; and other factors related to professional identity and effective practice as school psychologists.

RESEARCH EFFECT SIZE CHART

John Hattie *of the University of Melbourne, Australia, has long researched performance indicators and evaluation in education. His research, Visible Learning, is the culmination of more than 25 years of examining and synthesizing more than* ***1,700 meta-analyses*** *comprising more than* ***100,000 studies*** *involving* ***300 million students*** *around the world.*

In a 2008 meta-study, John Hattie popularized the concept of ***visible learning****. ... According to Hattie's findings, visible learning occurs when teachers see learning through the eyes of students and help them become their own teachers.*

What is effect size? Effect size is ***a quantitative measure of the magnitude of the experimental effect****. The larger the effect size the stronger the relationship between two variables. You can look at the effect size when comparing any two groups to see how substantially different they are.*

Dr. John Hattie states that an effect size of d=0.2 may be judged to have a small effect, d=0.4 a medium effect and d=0.6 a large effect on outcomes. He defines d=0.4 to be the hinge point, an effect size at which an initiative can be said to be having a 'greater than average influence' on achievement.

*According to visiblelearning.org, Hattie **ranked 252 influences** that are related to learning outcomes from very positive effects to very negative effects. As practitioners, we must identify what works best within instruction, in order to implement the most effective strategies with high levels of fidelity.*

The following are samples from Hattie's ranking of visible learning:

VISIBLE LEARNING PRACTICE	EFFECT SIZE
Response to Intervention	1.07
Intervention for the Disable	0.77
Creative Programs	0.65
Pre-School for At-Risk Students	0.56
Phonics Instruction	0.52 to 0.60
Teacher-Student Relationships	0.72
Small Group Learning	0.47 – 0.49
Professional Development	0.45 to 0.62
Early Intervention	0.44 to 0.47
School Size	0.43
After School Programs	0.40
Music Based Programs	0.37
Drama/Arts Programs	0.35 to 0.37
Decreasing Disruptive Behavior	0.34
School Counseling Effects	0.20
Multi-grade/age classes	0.04

Link to John Hattie's Visible Learning can be found here.

Effect Size as identified in the work presented by Odden and Picus:

Recommended Strategy	Effect Size
Full Day Kindergarten (academic achievement; meta-analysis from 2010)	0.77/ 0.25
Class size of 15 in Grades K-3 ▪ Overall ▪ Low Income and Minority Students	 0.25 0.50
Multi-age Classrooms ▪ Multi-grade Classrooms ▪ Multi-age Classrooms	 -0.1 to 0.0 0.0 to 0.50
Professional Development with Classroom Instructional Coaches	1.25 to 2.70
Tutoring with Tier 2 Intervention Teachers, 1-1 and small group (5 or less)	0.4 to 2.5
English Language Learners Direct Intervention Support	0.45
Structure Academic Focused Summer School	0.45
Embedded Technology	0.30 to 0.38
Gifted and Talented ▪ Accelerated Instruction or Grade Skipping ▪ Enrichment Programs	 0.5 to 1.0 0.4 to 0.7

It is important to note that strategies must be implemented in accordance with research-based assumptions for potential effects to be realized. (i.e. if expansion to full day kindergarten is only focused on lunch, recess and rest – little effect will be realized.

ILLINOIS EVIDENCE BASED FUNDING FOR STUDENT SUCCESS – Allan R. Odden and Lawrence O. Picus

Research evidence is summarized primarily from the most recent published evidence based (EB) reports and recommendations for Vermont and Kentucky by Evidence Based authors Allan Odden and Lawrence O. Picus, and also includes identified and relevant Illinois research and best practice recommendations offered by the Illinois School Adequacy Task Force at National-Louis University in Chicago, 2008-2010 and updates by a collaborative 2016 study group of school leaders from Vision 20/20 (IASB, IASBO, LASA, IPA, SCSDD, LARSS) and other stake holder groups.

Odden and Picus reports are available and published at http://picusodden.com/state-studies for Arizona, Arkansas, Kentucky, Maine, North Dakota, Ohio, Texas Vermont, Washington, Wisconsin, and Wyoming.

Recommendation - Class Size:

- 15 to 1 for grades K-3
- 25 to1 for grades 4-12

Core content teachers are defined as the grade-level classroom teachers in elementary schools and the core content area teachers in middle and high schools. Core content areas subjects include mathematics, science, language arts, social studies, and world language, the latter in middle and high schools.

The Tennessee STAR study, a randomized controlled trial experiment, found that students in kindergarten to grade 3 in the small classes achieved at a significantly higher level than those in regular class sizes, and that the impact was even larger for low income and minority students (Finn, 2002; Finn and Achilles, 1999; Grissmer, 1999: Krueger,

2002; Word, et al., 1990). The same research also showed that a regular class of 24-25 with a teacher and an instructional aide *did not* produce a discernible positive impact on student achievement, a finding that undercuts proposals and widespread practices that place instructional aides in elementary classrooms (Gerber, Finn, Achilles, & Boyd-Zaharias, 2001).

The positive impacts of the small classes in the Tennessee study persisted into middle and high school years, and even the years beyond high school (Finn, Gerger, Achilles & J.B. Zaharias, 2001; Konstantopulos & Chung, 2009; Krueger, 2002; Mishel & Rothstein, 2002; Nye, Hedges & Konstantopulos, 2001a, 2001b). The longer students were in small classes (i.e., in grades, K, 1, 2, 3) the greater the impact on grade 4-8 achievement. This study concluded that the full treatment – small classes in all of the first four grades – had the greatest short – and long-term impacts (Konstantopoulos and Chung, 2009). Longitudinal research on class size reduction also found that the lasting benefits of small classes can include a reduction in the achievement gap in reading and mathematics in later grades (Krueger & Whitmore, 2001).

Evidence on the most effective class sizes in grades 4-12 is harder to find. Most of the research on class size reduction has been conducted at the elementary level. The national average class size in middle and high schools is about 25. Nearly all comprehensive school reform models are developed on the basis of a class size of 25, which is the result of general practice and professional judgement (Odden, 1997a; Stringfield, Ross & Smith, 1996).

Finally, in these times when funds for schools are scarce, it is legitimate to raise the issue of the cost of small classes versus the benefits. Whitehurst and Cringos (2011) argue that though the Tennessee STAR study supports the efficacy of small classes, recent research has produced more ambiguous conclusions related to class size. They also note that this more recent research includes class size reductions in grades above K-3 and most of it relies on "natural experiments" rather than randomized controlled trials. Moreover, they conclude, while the costs of small classes are high, the benefits, particularly the long-term benefits, outweigh the costs and conclude that small class sizes "pay their way."

Recommendation - Instructional Coaches:

- 1 instructional coach position for every 200 students

Coaches, or instructional facilitators, coordinate the instructional program but most importantly provide the critical ongoing instructional coaching and mentoring that the professional development literature shows is necessary for teachers to change and improve their instructional practice (Cornett & Knight, 2008; Crow, 2011; Garet, Porter, Desimone, Birman, & Yoon, 2001; Joyce & Calhoun, 1996; Joyce & Showers, 2002). This means that they spend the bulk of their time with teachers, modeling lessons, giving feedback to teachers, working with teacher collaborative teams, and generally helping to improve the instructional program.

Early research found strong effect sizes for coaches as part of professional development (Joyce & Calhoun, 1996; Joyce & Showers, 2002). A 2010 evaluation of a Florida program that provided reading coaches for middle schools found positive impacts on student performance in reading (Lockwood, McCombs & Marsh, 2010). A related study found that coaches provided as part of a data-based decision-making initiative also improved both teachers' instructional practice and student achievement (March, McCombs & Martorell, 2010). More importantly, a recent randomized control trial of coaching (Pianta, Allen & King, 2011) found significant, positive impacts in the form of student achievement gains across four subject areas – mathematics, science, history, and language arts.

Most comprehensive school designs (see Odden, 1997; Stringfield, Ross & Smith, 1996), and EB studies conducted in other states – Arizona, Arkansas, Kentucky, North Dakota, Wyoming, Washington and Wisconsin – call for school-based instructional facilitators or instructional coaches (sometimes called mentors, site coaches, curriculum specialists, or lead teachers). These individuals coordinate the instructional program but most importantly provide the critical ongoing instructional coaching and mentoring that the professional development literature shows is necessary for teachers to improve their instructional practice (Garet, Porter, Desimone, Birman, & Yoon, 2001; Joyce & Calhoun, 1996; Joyce & Showers, 2002). This means that they spend the bulk of their time in classrooms, modeling lessons, giving feedback to teachers, and helping improve the instructional program. Instructional coaches also work

with collaborative teams helping them analyze student data and its implications for instruction and interventions.

Although instructional coaching positions are identified as FTE positions, schools could divide the responsibilities across several individual teachers. For example, the 3.0 positions in a 600-student high school could be structured with six half-time teachers and instructional coaches. In this example, each teacher/coach would work 50 percent time as a coach – perhaps in one curriculum area such as reading, math, science, social studies, or technology – and 50 percent time as a classroom teacher or tutor.

Recommendation - Teacher Intervention Positions:

- 1.0 teacher interventionist position in each prototypical school

Tier 2 and 3 Interventionists are licensed teachers who, during the regular school day, provide 1 – 1 or small group (no larger than 5) tutoring to students struggling to meet proficiency in core subjects.

The most powerful and effective approach for helping students struggling to meet state standards is individual one-to-one or small group (1-3 or 1-5 maximum) tutoring provided by licensed teachers (Shanahan, 1998; Wasik & Slavin, 1993). In earlier reports, the EB model allocated tutors to schools on the basis of the number of at-risk students. Since that time, it has recognized that all schools, even with no at-risk students, have some struggling students and need some minimum Tier 2 resources. Thus, the EB model has been modified so that each prototypical school receives at least one interventionist regardless of the number of at-risk students.

The impact of tutoring programs depends on how they are staffed and organized, their relation to the core program, and tutoring intensity. Researchers (Cohen, Kulik, & Kulik, 1982; Farkas, 1998, Shanahan, 1998; Wasik & Slavin, 1993) and experts on tutoring practices (Gordon, 2009) have found greater effects when the tutoring includes the following:

- Professional teachers as tutors
- Tutoring initially provided to students on a one-to-one basis
- Tutors trained in specific tutoring strategies
- Tutoring tightly aligned to the regular curriculum and to the specific learning challenges, with appropriate content-specific scaffolding and modeling
- Sufficient time for tutoring, and
- Highly structured programming, both substantively and organizationally.

Torgeson (2004) goes on to state that meta-analyses consistently show the positive effects of reducing reading group size (Elbaum, Vaughn, Hughes & Moody, 1999) and identifies experiments with both one-to-three and one-to-five teacher-student groupings. Though one-to-one tutoring works with 20 minutes of tutoring per student, a one-to-three or one-to-five grouping requires a longer instructional time for the small group – up to 45 minutes. The two latter groupings, with 45 minutes of instruction, reduced the rate of reading failure to a miniscule percentage.

For example, if the recommended numbers of tutors are used for such small groups, one FTE reading position could teach 30 students a day in the one-to-three setting with 30 minutes of instruction per group, and 30+ students a day in the one-to-five setting with 45 minutes of instruction per group. Four FTE tutoring positions could then provide this type of intensive instruction for up to 120 students daily. In short, though the EB model emphasizes 1-1 tutoring, and some students need 1-1 tutoring, other small group practices (which characterize the bulk of Tier 2 interventions) can also work, with the length of instruction for the small group increasing as the size of the group increases.

Though Torgeson (2004) states that similar interventions can work with middle and high school students, the effect is often smaller, as it is much more difficult to undo the lasting damage of not learning to read once students enter middle and high schools with severe reading deficiencies. However, a new randomized control study (Cook et al., 2014), discussed below, found similarly positive impacts of a tutoring program for adolescents in high poverty schools If it was combined with counseling as well. This is made possible by the EB model as it includes such additional non-academic pupil support resources (see Element 23 discussion).

The above rationale for tutors is strengthened by two recent *randomized controlled trials* of the effectiveness of tutoring for struggling students, which support our logic for providing a minimum level of tutor support in all schools as well as additional tutors for schools with more need. At the elementary level, using a randomized controlled trial, May et al., (2013) assessed the impact of tutors in a Reading Recovery program. In the third year of a five-year evaluation, they found that Reading Recovery tutoring had an effect size of 0.68 on overall reading scores relative to the population of students eligible for such services in the specific study, and a 0.47 effective size relative to the national population of first grade struggling readers. The effects were similarly large for reading words and reading comprehensive sub-scales.

For students in high schools, Cook, et al. (2014) reported on a *randomized controlled trial* of a two-pronged intervention that provided disadvantaged youth with tutoring *and* counseling. They found that intensive individualized academic extra help – tutoring – combined with non-academic support seeking to teach grade 9 and 10 youth social-cognitive skills based on the principles of cognitive behavioral therapy (CTB), led to improved math and reading performance. The study sample consisted mainly of students from low income and minority backgrounds, which generally pose the toughest challenges. The effect size for math was 0.65 and for reading was 0.48; the combined program also appeared to increase high school graduation by 14 percentage points (a 40 percent hike). The authors concluded that this intervention seemed to yield larger gains in adolescent outcomes per dollar spent than many other intervention strategies.

These studies are highlighted for several reasons. First, they represent new, randomized controlled trials, the “gold standard” of research supporting the efficacy of tutoring. Second, they show that tutoring can work not only for elementary but also for high school students, whereas most of the tutoring research addresses only elementary-aged students. Third, they show that tutoring can work even in the most challenging educational environments. And fourth, they bolster the EB argument below that extra help resources in schools triggered by poverty/at risk status should also include some non-academic, counseling resources, as the treatment in the second study was tutoring combined with counseling.

Recommendation - Aides:

- 1 aide for every 225 elementary students
- 1 aide for every 225 middle school students
- 1 aide for every 200 high school students

Elementary, middle, and high schools need staff for responsibilities that include lunch duty, before and after school playground supervision, sometimes bus duty and other responsibilities that do not require a licensed teacher. Covering these duties generally requires an allocation of supervisory aides at about the rate of 2.0 FTE aide positions for a school of 450 students.

Research does not support the use of instructional aides for improving student performance. The Tennessee STAR study (described in element 2 above), also produced evidence that instructional aides in a regular-sized classroom do not add instructional value, i.e., do not positively impact student achievement (Gerber, Finn, Achilles & Boyd-Zaharias, 2001).

At the same time, districts may want to consider a possible use of instructional aides that is supported by research. Two studies have shown how instructional aides could be used to tutor students. Farkas (1998) has shown that if aides are selected according to clear and rigorous literacy criteria, are trained in a specific reading tutoring program, provide individual tutoring to reading attainment. Some districts have used Farkas-type tutors for students still struggling in reading in the upper elementary grades. Another study by Miller (2003) showed that such aides could also have an impact on reading achievement if used to provide individual tutoring to struggling students in the first grade.

We note that neither of these studies supports the typical use of instructional aides as general teacher helpers. Evidence shows that instructional aides can have an impact, but only if they are selected according to educational criteria, trained in a specific tutoring program, deployed to provide tutoring to struggling students, and closely supervised.

Recommendation – Principals and Assistant Principals:

- 1 principal per prototypical school
- 1 assistant principal per prototypical school

Research has made it abundantly clear school leadership is second only to teaching among school-related influences on student success (Leithwood, Louis, Anderson, & Wahlstrom, 2004; Marzano, Waters, & McNulty, 2003; Supovitz & Poglinco, 2001). According to a 2015 Wallace Foundation report authored by Paul Manna, principals:

- Have the greatest impact on schools with the greatest needs,
- Strongly shape the conditions for high-quality teaching and learning, and
- Are the prime factor in determining whether teachers stay in high-needs schools.

Essentially, effective schools are led by principals who are effective leaders (Goldring, Porter, Murphy, Elliott, & Cravens, 2009).

Obviously, every school unit needs a principal. In addition to what was already referenced, there is abundant evidence detailing the impact of high-quality instructional leadership in schools. Suffice to say that all comprehensive school designs, and all prototypical school designs from all professional judgment studies around the country, include a principal for every school unit. Furthermore, recent educational reforms including new teacher evaluation systems, new learning standards, and new student management requirements have caused many school systems in Illinois to also provide assistant principals to schools with 450 or fewer students at all levels. This implies that one principal and an assistant principal would be required for each prototypical school unit. This was confirmed as an emerging an appropriate recommendation by the National Louis Finance Adequacy Task Force. Murphy (2016) provides a good overview of the key roles principals and assistant principals play in organizing schools to boost student learning.

CHANGING LANDSCAPE OF PUBLIC SCHOOLS – Jamie Vollmer

Jamie Vollmer is an award-winning champion of public education, and the author of the highly acclaimed book *Schools Cannot Do It Alone*. He has spent the last twenty years working with school districts, education associations, foundations, and chambers of commerce across the nation to halt the erosion of public trust and build support for America's public schools. His primary goal is to help educators and their allies remove the obstacles to progress and create schools that unfold the full potential of every child. He is the proud recipient of the 2010 Learning and Liberty award, presented by the National School Public Relations Association in recognition of his "outstanding efforts to strengthen school/community partnerships." Vollmer is not a professional educator. He became involved with school reform after careers in law and manufacturing. He worked in the firm of former United States Congressman William Cramer until 1985 when he relocated to Iowa to become the director of franchise operations for the Great Midwestern Ice Cream Company. The company was proclaimed by People magazine to make the "Best Ice Cream in America!" He ultimately became the company's president. In 1988, he was invited to serve on the nationally recognized Iowa Business and Education Roundtable. After two years as a volunteer, he changed careers and became the Roundtable's Executive Director. He remained in that post for three years after which he formed the education advocacy firm, Jamie Vollmer, Inc. Once a harsh critic, Vollmer has become an articulate friend of America's public schools. His presentations combine statistics, logic, and humor to energize and encourage educators, business leaders, and community groups to work together to build successful schools. In addition to his book *Schools Cannot Do It Alone* and numerous articles, Mr. Vollmer has written and produced the videos Why Our Schools Need to Change, Teachers are Heroes, and Building Support for America's Schools. He has served on the boards of the National PTA and the North Central Regional Educational Laboratory.

Link to Jamie Vollmer's Chart can be found here.