

Grant Thornton 

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Grant Thornton 

# Adequacy Funding Study

## Executive Summary

*Prepared for*

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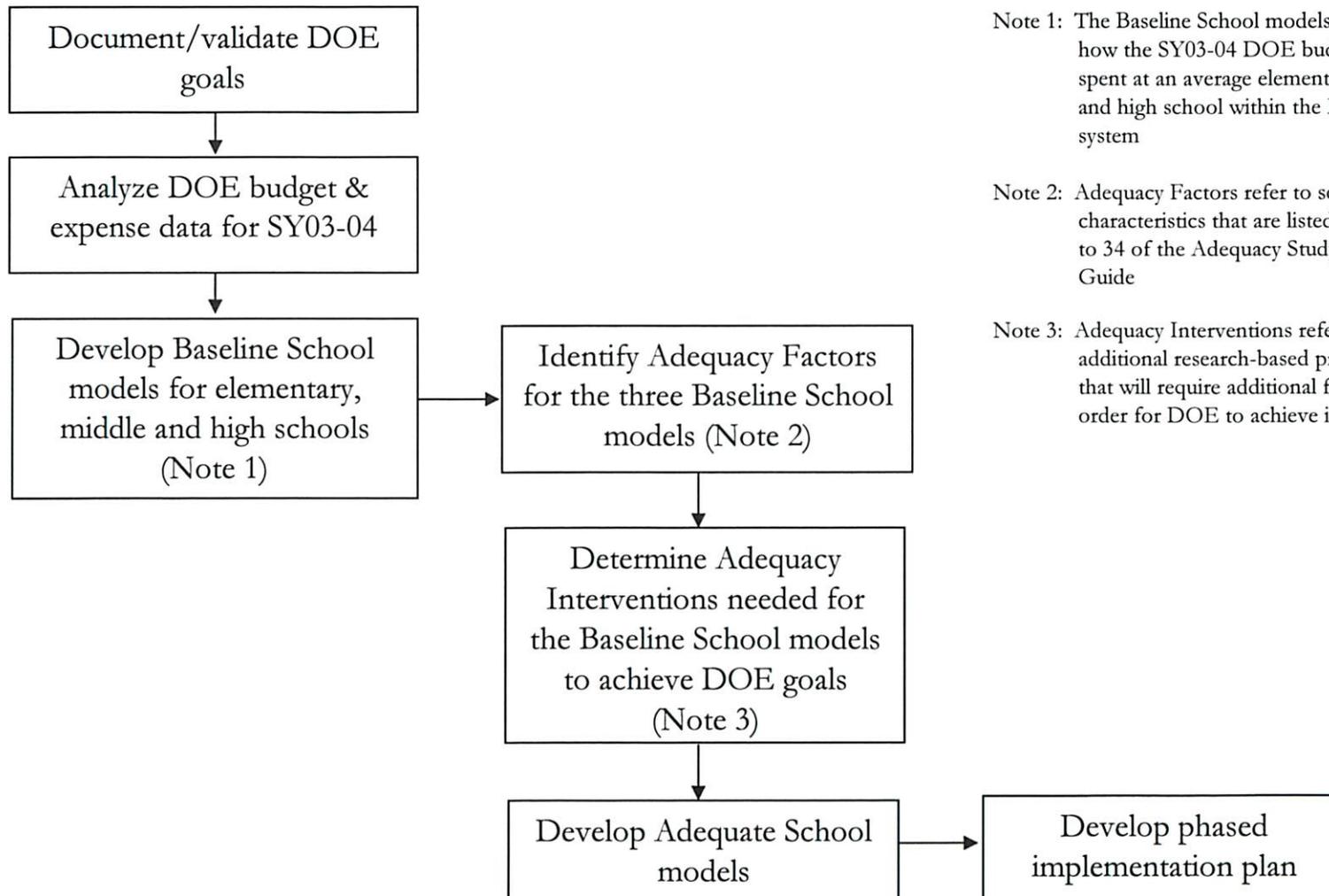
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# Objective

Develop an adequacy funding model that can be used as a tool for determining the level of funding required to support the vision and goals of the State of Hawaii Department of Education (DOE) and Board of Education (BOE)

# Methodology



Note 1: The Baseline School models estimate how the SY03-04 DOE budget was spent at an average elementary, middle and high school within the K-12 school system

Note 2: Adequacy Factors refer to school characteristics that are listed on pages 29 to 34 of the Adequacy Study Reference Guide

Note 3: Adequacy Interventions refer to additional research-based practices that will require additional funding in order for DOE to achieve its goals

# Findings

- DOE's funding needs to increase by \$278 million
- Included in the above amount is \$25 million that pertains to combined and charter schools\*

## Comparison between Adequate and Baseline Funding Levels

	Number of Students	Baseline	Adequate	Budget Difference	% Difference
Elementary Schools	88,482	\$ 783,659,538	\$ 942,540,036	\$ 158,880,498	20.3%
Middle Schools	30,752	\$ 246,921,728	\$ 282,088,419	\$ 35,166,691	14.2%
High Schools	47,259	\$ 400,869,372	\$ 459,698,418	\$ 58,829,046	14.7%
<b>Regular School Cost</b>	<b>166,493</b>	<b>\$ 1,431,450,637</b>	<b>\$ 1,684,326,873</b>	<b>\$ 252,876,235</b>	<b>17.7%</b>
Combined and Charter Schools*	15,841	\$ 139,466,275	\$ 164,129,427	\$ 24,663,152	17.7%
Debt Service		\$ 98,933,822	\$ 98,933,822	\$ -	0.0%
<b>Total School Cost</b>	<b>182,334</b>	<b>\$ 1,669,850,734</b>	<b>\$ 1,947,390,122</b>	<b>\$ 277,539,388</b>	<b>16.6%</b>

*\*Due to data limitations and time constraints, the Combined and Charter Schools category has not been analyzed in detail (please refer to page 39 of the reference guide for a suggested approach). However, to maintain parity with regular schools, it is recommended that the funding for the Combined and Charter Schools be increased at the same overall rate as regular schools*

# Phased Implementation Schedule of Incremental Costs

- Given the challenges associated with increasing the DOE budget by \$278 million in one year, a phased implementation is recommended

Costs by School Type (\$ million)						
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Elementary Schools	33	39	33	31	23	159
Middle Schools	10	12	13			35
High Schools	15	17	17	10		59
Combined and Charter Schools	5	5	5	5	5	25
<b>Total</b>	<b>64</b>	<b>73</b>	<b>67</b>	<b>46</b>	<b>28</b>	<b>278</b>

# Recommended Use Of Funds Elementary Schools

Year	Intervention Program Categories*	Program Cost (\$ million)
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom communication)	15.7
	Summer school with academic focus for students in the bottom 40% each year (grade K-5)	10.2
	Mentor teachers who are new to the profession	1.5
Year 2	Targeted reading and math programs using research-validated methods in grades 1-3	28.6
	Teacher leadership development program (teaming, instructional improvement)	5.0
Year 3	Increase tutoring in reading and math in grades 4-5	18.4
	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	10.2
Year 4	Computer-assisted instructional labs and workstations	14.0
	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standard	13.1
Year 5	Additional support for high-needs special education students to meet NCLB standards	13.7
	Intensive language acquisition program for ESLL students by reducing student-teacher ratio	5.1
Pro-Rata	Program support cost to implement interventions	20.4
Centralized	Intervention costs at the DOE central administration	3.0
	Total	158.9

\* Please refer to pages 9 to 28 of the reference guide for additional information on the interventions

# Recommended Use Of Funds

## Middle Schools

Year	Intervention Program Categories	Program Cost (\$ million)
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom communication)	5.5
	Mentors teachers who are new to the profession	0.5
	Campus security increased to improve students' sense of safety and well-being	2.2
Year 2	Create "default core" curriculum into which all students are enrolled unless they opt out	8.2
	Closely articulate middle school and high school mathematics curriculum, so that all students progress at an appropriate rate and that all are placed properly when they enter high school	1.0
	Teacher leadership development program (teaming, instructional improvement)	0.8
Year 3	Reading program focused on informational texts (e.g., textbooks), charts, graphs, diagrams, data arrays, and reading across the curriculum	3.1
	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	3.1
	Improve counseling services at the middle level to help diagnose students with out-of-classroom problems that are preventing them from meeting standards	4.1
	Small learning communities	1.2
Pro-Rata	Program support cost to implement interventions	4.5
Centralized	Intervention costs at the DOE central administration	1.0
	Total	35.2

# Recommended Use Of Funds High Schools

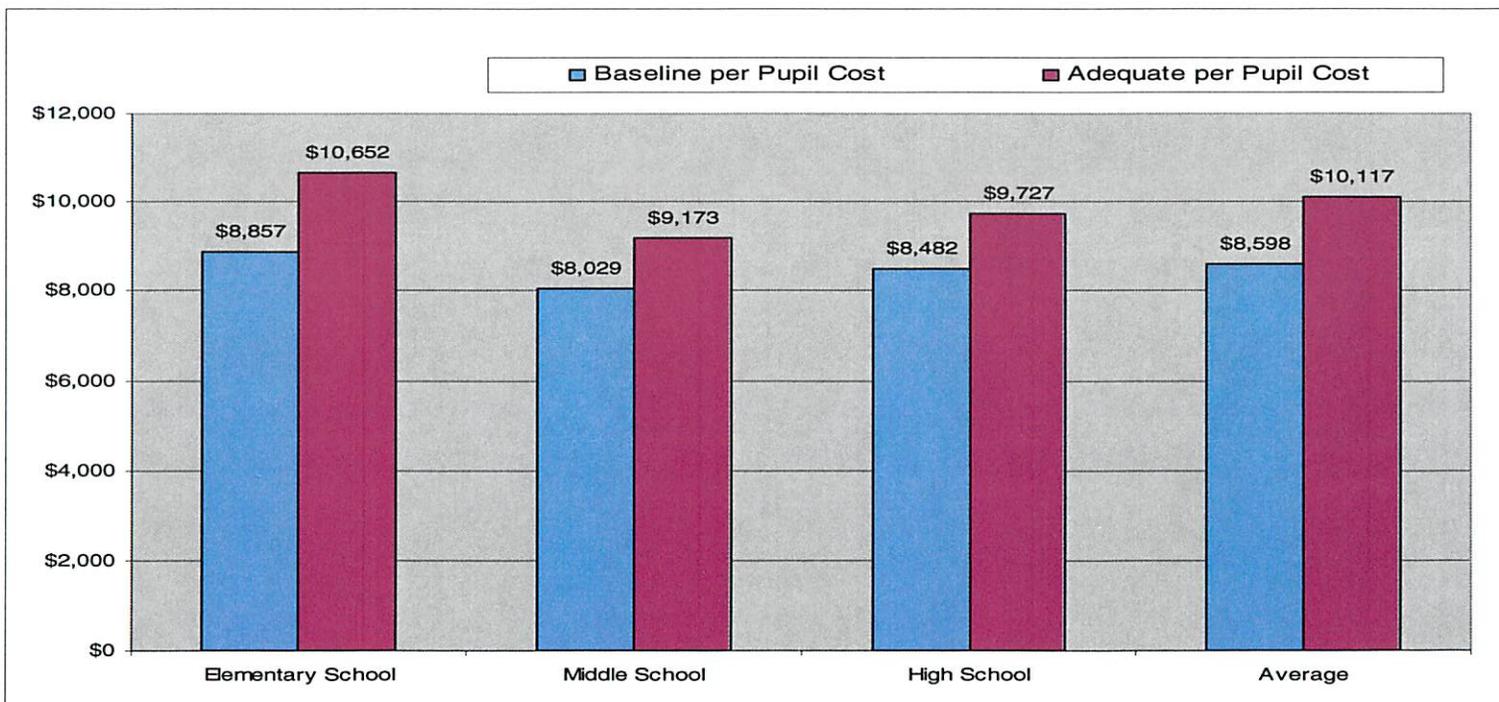
Year	Intervention Program Categories	Program Cost (\$ million)
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom communication)	8.4
	Campus security increased to improve students' sense of safety and well-being	3.0
	Mentors teachers who are new to the profession	0.8
Year 2	Small learning communities, including career academies	13.2
	Teacher leadership development program (teaming, instructional improvement)	1.1
Year 3	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	5.5
	Community-based internships and student-run businesses	2.8
	Reading program focused on informational texts (e.g., textbooks), charts, graphs, diagrams, data arrays, and reading across the curriculum	6.5
Year 4	Increased student writing, including multiple 5-page research papers	2.4
	Increase Advanced Placement enrollment and pass-rate on AP examinations	4.3
	Postsecondary options and dual enrollment program	1.8
Pro-Rata	Program support cost to implement interventions	7.5
Centralized	Intervention costs at the DOE central administration	1.6
	Total	58.9

# Recommended Use Of Funds Combined and Charter Schools

- Combined schools are unique in composition because there is significant variability in the characteristics of the student population at each school
- Additional analysis is required to determine which interventions are appropriate for each combined school. As examples:
  - The "advanced placement" and "post-secondary enrollment option" interventions are specific to combined schools that span up to the high school level
  - The "small learning communities" intervention may not be appropriate for small combined schools that span middle and high school levels, and have student population less than 700
- Charter schools, by law, have autonomy on the use of their funds. Hence, DOE cannot mandate specific interventions at these schools

# Increased Funding Per Student

- At the Adequate Funding level, DOE's average cost per student would increase from \$8,598\* to \$10,117 - a 17.7% increase over SY03-04



\* Excludes education-related expenditures incurred by other State agencies

# Next Steps

- Develop a communication plan to share study findings with various stakeholders
- Create a commission that will be responsible for updating the adequacy models

# Next Steps

## Communicating with various stakeholders

Communication Type Stakeholders	Pamphlet*	Executive Summary (this presentation)	Models (Excel models)	Reference Guide (Word document)
DOE Administration	✓	✓	✓	✓
CASs and Principals	✓	✓	✓	✓
Educators and Public	✓			
Governor's office		✓	✓	✓
Legislators		✓		
Legislative Staff		✓	✓	✓

\* Three-fold flyer that includes the following information: (1) Purpose of the study (2) Results (3) Key interventions (4) Web address for the Executive Summary (5) Contact person who can address questions/queries

# Next Steps

## Create a commission

- Non-partisan commission consisting of leading citizens from non-educational sectors and respected former educators
  - Create sub-committees focusing on different aspects of the adequacy funding implementation
  - Update the model annually
    - Update figures, interventions
  - Oversee development of alternative model schools
    - Redesigned/restructured high school
    - Combined school
    - High-poverty school
  - Define performance goals for different levels of funding
  - Communicate with various stakeholders

## Introduction and Approach - Baseline School Models

The adequacy process is designed to determine how education can best be organized and conducted in order to achieve stated goals.

- The first step is to identify the goals the system is seeking to achieve. This was done by examining existing legislation and policy at the state and federal levels that define the purposes and goals of education in the state (please see Appendix)
- Next, the “Baseline School” Models are developed. These show what schools look like when the state education budget is distributed out into a model elementary, middle, and high school. These schools contain all the elements of an actual school— teachers, support staff, administrators, supplies, computers— in short, everything it takes to operate a school. In addition, costs that spread across the entire system, such as facilities and transportation; some special education programs; maintenance; and centralized curriculum, professional development and centralized administration are allocated across all the three models on a per pupil basis.
- The Baseline Schools reflect averages of all schools at each level in terms of the number of students they enroll, the socioeconomic status of their students, the percentage of special education and English language learner students, the average experience of the teaching staff, and other factors relevant to the school’s organization and functioning. These assumptions about the Baseline Schools are important because they help determine the changes that will be necessary to enable more students to achieve state goals.
- As a result of this process, the three model schools demonstrate the capabilities of the current schools to provide educational programs. The fiscal information to construct the Baseline Schools was obtained from DOE school year 2003-2004 expenses by object code and other expenditure-related sources.
- The Baseline Schools demonstrate an overall ratio of students to core instructional staff of 22.5:1 at the elementary level, 21.8:1 at the middle school level, and 21.7:1 at the high school level. The ratio of students to all certificated staff, which includes regular and special education teachers, librarians, and counseling staff, is 15.5:1 at the elementary level, 17.2:1 at the middle school level, and 15.8:1 at the high school level.
- The total costs of the Baseline Schools are \$784 million for the Elementary School Baseline, \$247 million for the Middle School Baseline, and \$401 million for the High School Baseline.
- The total estimated costs associated with the Baseline School Models were within 0.02% of the actual SY03-04 DOE budget (please see Table I)

The following pages show the detailed Baseline Funding Models at the elementary, middle and high school levels.

Table I: Comparison of Baseline School Model Estimates to Actual SY03-04 Budget

<i>School Type</i>	<i>Number of Students</i>	<i>Projected Budget</i>	<i>Difference (% of Budget)</i>
Baseline Elementary School	88,482	\$ 783,659,538	
Baseline Middle School	30,752	\$ 246,921,728	
Baseline High School	47,259	\$ 400,869,372	
<b>Regular School Cost</b>	<b>166,493</b>	<b>\$ 1,431,450,637</b>	
Combined & Charter Schools Budget (SY03-04)	15,841	\$ 139,466,275	
Debt Service		\$ 98,933,822	
<b>Total School Cost</b>	<b>182,334</b>	<b>\$ 1,669,850,734</b>	
<i>DOE Budget (SY2003-2004)</i>		\$ 1,670,198,340	
<i>Difference</i>		\$ (347,606)	<b>-0.02%</b>

# Model 1: Baseline Elementary School - 527 Students

Program Element	Component	FTE	Component cost (SY2003-04)	Per Pupil Cost	Explanation/Assumptions	Comments
<b>Student enrollment</b>		527			Average of regular elementary schools	From enrollment data received from DOE
<b>Teacher salary</b>			\$46,321		Average salary 2003-04	From salary by levels file
<b>Principal salary</b>			\$70,534		Average salary 2003-04	From salary by levels file
<b>Vice principal salary</b>			\$55,178		Average salary 2003-04	From salary by levels file
<b>Fringe benefits rate</b>		32%			Employer payroll taxes, employer contribution, and health benefits	Benefits rate per DOE
<b>&lt; Model Inputs</b>						
<b>Instructional staff</b>	Core instructional staff	23.4	1,430,456	\$ 2,714	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Student services coordinator, Counselor, Librarian, High risk counselor, Article VI teacher, Literacy teacher	4.6	282,482	\$ 536	Schools choose staff to best meet their specific needs. Average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Special education staffing	5.9	358,829	\$ 681	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Substitute teachers for general instruction		66,666	\$ 127	Includes salary plus benefits	Salary per student from DOE expense file data plus payroll costs estimated at 10%
<b>Additional instructional time for students to achieve standards</b>	Tutors		33,043	\$ 63	Includes salary plus benefits	From DOE expense files
	Classified		6,247	\$ 12	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits estimated at 32%
	Other activities		5,270	\$ 10	School-level expenses	From DOE expense files
<b>Instructional support staff</b>	Principal's secretary	1.0	33,188	\$ 63	210 days per year @ \$15 per hour plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. Assumes \$15 per hour from Classified salary schedules. Check assumptions on number of days and hourly rate
	Educational assistants	6.0	196,923	\$ 373	185 days per year @ \$14 per hour. Positions such as educational assistants and special education assistants	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified support staff	6.6	217,867	\$ 413	185 days per year @ \$14 per hour. Positions such as educational assistants, special education assistants, school business manager, account clerk, clerk typist, library assistant	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
<b>Administrative accountability</b>	Principal	1.0	89,534	\$ 170	Includes average salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Vice Principal	0.7	47,890	\$ 91	Includes average salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Teacher leadership		326,208	\$ 619	Grade level and department head stipends	Stipends plus benefits
	Supplies and materials		11,616	\$ 22	Newsletters, report cards, student records	From DOE expense files
<b>Computer hardware/software</b>	Hardware including student and administrative		27,588	\$ 52	School-level expenses	From DOE expense files
	Software		3,872	\$ 7	Software for new computers plus upgrades	From DOE expense files
	Network upkeep/upgrades		5,324	\$ 10	Upgrade and maintenance of network hardware and software	From DOE expense files
<b>Supplies, books, materials</b>	Texts, consumables, classroom sets		24,684	\$ 47	School-level expenses	From DOE expense files
	Classroom materials & equipment		99,220	\$ 188	School-level expenses	From DOE expense files- Classroom supplies, equipment and misc. expenses
	Copying		19,499	\$ 37	School-level expenses	From DOE expense files- allocated misc expense
	Media center materials		38,236	\$ 73	Library books, reference materials, subscriptions, audio visual	From DOE expense files
<b>Extra-curricular activities</b>	Non-athletic extracurricular expenditures		7,805	\$ 15	After-school activities	Estimate based on current practice
<b>Building support costs: costs distributed to each building</b>	Food services		223,448	\$ 424	Central costs plus per-student school-level expense	From DOE expense files and school-level expense files
	Student transportation		97,495	\$ 185	Central Costs	From DOE expense files
	Technology services		51,646	\$ 98	Computer networks, telephones, voice mail	From DOE expense files
	Operation, plant maintenance, and other support services		252,433	\$ 479	Custodian, maintenance staff, utilities, security system, warehouse, courier	From DOE expense files
	Central contracted services		288,834	\$ 548	Fees for professional services	From DOE expense files
	Centralized Special Education		138,074	\$ 262	Self-contained schools, other students who are not served at the building level	From DOE expense files
	Centralized curriculum development, professional development, assessment		170,748	\$ 324	Centralized curriculum development, assessment, and other instructional improvement services	From DOE expense files
<b>DOE administrative support</b>	Executive administration (Board of Education, Superintendent)		51,066	\$ 97	Central Costs	From DOE expense files
	Business & fiscal services		30,039	\$ 57	Central Costs	From DOE expense files
	Personnel services		27,931	\$ 53	Central Costs	From DOE expense files
	Public information		3,689	\$ 7	Central Costs	From DOE expense files
<b>Baseline Elementary School Cost</b>			<b>\$4,667,848</b>	<b>\$8,857</b>		

Program Element	Component	FTE	Component cost (SY2003-04)	Per Pupil Cost	Explanation/Assumptions	Comments
Other System-level Expenses	Debt service		285,634	\$ 542	Principal and interest on bonded debt is not included in "per pupil" costs above, but included in Total School Cost row in "Cost vs. Budget" tab in the Baseline School Models	From DOE expense files

## Model II: Baseline Middle School - 879 Students

Program Element	Component	FTE	Component cost (SY2003-04)	Per Pupil Cost	Explanation/Assumptions	Comments
<b>Student enrollment</b>	879				Average of regular middle schools	From enrollment data received from DOE
<b>Teacher salary</b>	\$44,393				Average salary 2003-04	From Salary by Levels file
<b>Principal salary</b>	\$76,605				Average salary 2003-04	From Salary by Levels file
<b>Vice Principal salary</b>	\$58,550				Average salary 2003-04	From Salary by Levels file
<b>Fringe benefits rate</b>	32%				Employer payroll taxes, employer contribution, and health benefits	Benefits rate per DOE
<b>&lt; Model Inputs</b>						
<b>Instructional staff</b>	Core instructional staff	40.4	2,359,276	\$ 2,684	Includes average salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Media/Librarian	1.3	78,720	\$ 90	Includes average salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Special education and alternative education staffing	8.0	465,372	\$ 529	Includes average salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Substitute teachers for general instruction		118,929	\$ 135	Includes salaries and fringe benefits	Salary per student from Expense file data plus payroll costs estimated at 10%
	Counseling	1.4	82,193	\$ 94	Includes average salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
<b>Additional instructional time for students to achieve standards</b>	Tutors		30,099	\$ 34	Includes salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified		6,946	\$ 8	Includes salaries and fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
<b>Instructional improvement</b>			9,669	\$ 11	Consultants	From DOE expense file data - allocation to instructional improvement assumed
<b>Instructional support staff</b>	Principal's secretary	1.0	33,264	\$ 38	210 days @ \$ 15 per hour plus fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. Assumes \$15 per hour from Classified salary schedules
	Educational assistants	17.5	275,519	\$ 313	185 days per year @ \$14 per hour. Positions such as educational assistants and special education assistants	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified support staff	22.6	355,396	\$ 404	185 days per year @ \$14 per hour. Positions such as school business manager, account clerk, clerk typist, library assistant	Salary per student from Expense file data plus fringe benefits of 32%. Assumes \$14 per hour from Classified salary schedules
<b>Administrative accountability</b>	Principal	1.0	104,188	\$ 119	Salary and benefits average for middle school principals plus fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Vice principals	1.8	127,341	\$ 145	Salary and benefits average for middle school vice principals plus fringe benefits	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Teacher leadership		382,022	\$ 435	Grade level and department head stipends	Stipends plus benefits
	Supplies and materials		46,482	\$ 53	Newsletters, report cards, student records	From DOE expense files
<b>Computer hardware/software</b>	Hardware including student and administrative		48,006	\$ 55	School-level expenses	From DOE expense files
	Software		8,382	\$ 10	Software for new computers plus upgrades	From DOE expense files
	Network upkeep /upgrades		14,478	\$ 16	Upgrade and maintenance of network hardware and software	From DOE expense files
<b>Supplies, books, materials</b>	Texts, consumables, classroom sets		31,242	\$ 36	School-level expenses	From DOE expense files
	Classroom materials, all equipment, supplies		108,204	\$ 123	School-level expenses	From DOE expense files - Classroom supplies, equipment and misc. expenses
	Copying		32,523	\$ 37	School-level expenses	From DOE expense files - allocated misc. expenses
	Media center materials		28,194	\$ 32	Library books, reference materials, subscriptions, audio visual	From DOE expense files
<b>Extra-curricular activities</b>	Non-athletic extracurricular expenditures		17,053	\$ 19	Club sports, after-school activities	Estimate
<b>Building support costs: costs distributed to each building</b>	Food services		435,984	\$ 496	Central costs plus per-student school-level expense	From DOE expense files
	Student transportation		143,277	\$ 163	Central costs plus per-student school-based expense	From DOE expense files
	Technology services		86,142	\$ 98	Computer networks, telephones, voice mail	From DOE expense files
	Operation, plant maintenance, and other support services		443,895	\$ 505	Custodian, maintenance staff, utilities, security system, warehouse, courier	From DOE expense files

Program Element	Component	FTE	Component cost (SY2003-04)	Per Pupil Cost	Explanation/Assumptions	Comments
	Central contracted services		481,755	\$ 548	Fees for professional services	From DOE expense files
	Centralized special education		230,298	\$ 262	Self-contained schools, other students who are not served at the building level	From DOE expense files
	Centralized curriculum development, professional development, assessment		284,796	\$ 324	Centralized curriculum development, assessment, and other instructional improvement services	From DOE expense files
<b>DOE administrative support</b>	Executive administration (Board of Education, Superintendent)		85,263	\$ 97	Central costs	From DOE expense files
	Business & fiscal services		50,103	\$ 57	Central costs	From DOE expense files
	Personnel services		46,587	\$ 53	Central costs	From DOE expense files
	Public information		6,153	\$ 7	Central costs	From DOE expense files
<b>Baseline Middle School Cost</b>			<b>\$7,057,751</b>	<b>\$8,029</b>		
<b>Other System-level Expenses</b>	Debt service		476,418	\$ 542	Principal and interest on bonded debt is not included in "per pupil" costs above, but included in Total School Cost row in "Cost vs. Budget" tab in the Baseline School Models	From DOE expense files

## Model III: Baseline High School - 1,477 Students

Program Element	Component	FTE	Component cost (SY2003-04)	Per Pupil Cost	Explanation/Assumptions	Comments
<b>Student enrollment</b>	1,477				Average of regular high schools	From enrollment data received from DOE
<b>Teacher salary</b>	\$43,440				Average salary 2003-04	From salary by levels file
<b>Principal salary</b>	\$86,537				Average salary 2003-04	From salary by levels file
<b>Vice principal salary</b>	\$61,216				Average salary 2003-04	From salary by levels file
<b>Fringe benefits rate</b>	32%				Employer payroll taxes, employer contribution, and health benefits	Benefits rate per DOE
<b>&lt; Model Inputs</b>						
<b>Instructional staff</b>	English, math, science, social sciences, second languages, the arts, electives	68.0	3,890,418	\$ 2,634	Includes average salaries and fringe benefits at 32%	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Media/Librarian	2.0	116,713	\$ 79	Includes average salaries and fringe benefits at 32%	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Special education and alternative education staffing	15.6	890,906	\$ 603	Includes average salaries and fringe benefits at 32%	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Substitute teachers for general instruction		167,344	\$ 113	Includes salaries and fringe benefits at 10%	Salary per student from Expense file data plus payroll costs estimated at 10%
	Counseling	6.2	354,028	\$ 240	Includes salaries and fringe benefits at 32%	Salary per student from Expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Co-curricular/activities director	1.4	81,699	\$ 55	Includes salaries and fringe benefits at 32%	Salary per student from Expense file data plus fringe benefits of 32%
<b>Additional instructional time for students to achieve standards</b>	Tutors		24,371	\$ 17	Includes salaries and fringe benefits at 10%	Salary per student from Expense file data plus payroll costs estimated at 10%
	Summer school instructional staff (Licensed and Classified)		64,192	\$ 43	Includes salaries and fringe benefits at 32%	Salary per student from Expense file data plus fringe benefits of 32%
<b>Instructional improvement</b>			32,494	\$ 22	Consultants	From DOE expense file data - allocation to instructional improvement assumed
<b>Instructional support staff</b>	Principal's secretary	1.0	41,184	\$ 28	260 days @ \$ 15 per hour plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%
	Educational assistants	13.7	373,480	\$ 253	185 days per year @ \$14 per hour. Positions such as educational assistants and special education assistants	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified Support staff	28.4	881,180	\$ 597	210 days per year @ \$14 per hour. Positions such as school business manager, account clerk, clerk typist, library assistant	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
<b>Administrative accountability</b>	Principal	1.0	106,986	\$ 72	Salary and benefits average for high school principals	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Vice principals	2.8	229,535	\$ 155	Salary and benefits average for high school vice principals	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Teacher leadership		661,371	\$ 448	Grade level and department head stipends	Stipends plus benefits at 32%
	Supplies and materials		176,960	\$ 120	Newsletters, report cards, student records	From DOE expense files
<b>Computer hardware/software</b>	Hardware including student and administrative		54,352	\$ 37	School-level expenses	From DOE expense files
	Software		10,112	\$ 7	Software for new computers plus upgrades	From DOE expense files
	Network upkeep/upgrades		64,464	\$ 44	Upgrade and maintenance of network hardware and software	From OOE expense files
<b>Supplies, books, materials</b>	Texts, consumables, classroom sets		63,200	\$ 43	School-level expenses	From DOE expense files
	Classroom materials, all equipment, supplies		139,040	\$ 94	School-level expenses	From DOE expense files - Classroom supplies, equipment and misc. expenses
	Copying		54,649	\$ 37	School-level expenses	From DOE expense files - allocated misc. expenses
	Media center materials		46,768	\$ 32	Library books, reference materials, subscriptions, audio visual	From DOE expense files
<b>Extra-curricular activities</b>	Coaching		94,800	\$ 64	Athletic directors and coordinators	From DOE expense files
	Non-athletic extra-curricular		35,448	\$ 24	Club sports, after-school activities	Estimate based on current practice
<b>Building support costs: costs distributed to each building</b>	Food services		533,197	\$ 361	Central costs plus per-student school-level expense	From DOE expense files
	Student transportation		270,291	\$ 183	Central costs plus per-student school-level expense	From DOE expense files

Program Element	Component	FTE	Component cost (SY2003-04)	Per Pupil Cost	Explanation/Assumptions	Comments
	Technology services		144,746	\$ 98	Computer networks, telephones, voice mail	From DOE expense files
	Operation, plant maintenance, and other support services		933,464	\$ 632	Custodian, maintenance staff, utilities, security system, warehouse, courier	From DOE expense files
	Central contracted services		809,503	\$ 548	Fees for professional services	From DOE expense files
	Centralized special education		386,974	\$ 262	Self-contained schools, other students who are not served at the building level	From DOE expense files
	Centralized curriculum development, professional development, assessment		478,548	\$ 324	Centralized curriculum development, assessment, and other instructional improvement services	From DOE expense files
<b>DOE administrative support</b>	Executive administration (Board of Education, Superintendent)		143,269	\$ 97	Central costs	From DOE expense files
	Business & fiscal services		84,189	\$ 57	Central costs	From DOE expense files
	Personnel services		78,281	\$ 53	Central costs	From DOE expense files
	Public information		10,339	\$ 7	Central costs	From DOE expense files
<b>Baseline High School Cost</b>			<b>\$12,528,493</b>	<b>\$8,482</b>		
<b>Other System-level Expenses</b>	Debt service		800,534	\$ 542	Principal and interest on bonded debt is not included in "per pupil" costs above, but included in Total School Cost row in "Cost vs. Budget" tab in the Baseline School Models	From DOE expense files

## Introduction and Approach – Adequate School Models

The Adequacy Schools are created to calculate the changes that are needed in the Baseline Schools in order to achieve key state and federal education goals. Table II summarizes the funding increases between Baseline and Adequate Schools.

- The Adequate Schools incorporate a series of key “Adequacy Interventions.” These interventions were selected because research and practice indicate that they are the most cost-effective ways of achieving DOE goals. While some interventions are substantially different from the elementary to the secondary level, others are consistent across the various Adequate Schools (please see Tables III, IV, V and VI).
- The Adequate Schools demonstrate an overall ratio of students to core instructional staff of 22.5:1 at the elementary school level, 19.4:1 at the middle school level, and 20.0:1 at the high school level. The ratio of students to all certified staff, which includes regular and special education teachers, librarians, counseling staff, and instructional improvement coaches, is 13.7:1 at the elementary school level, 14.8:1 at the middle school level, and 14.3:1 at the high school level.
- The Adequacy Interventions are focused more intensively on the Adequate Elementary School than the Adequate Middle School and Adequate High School. This is because research points to the importance of a quality elementary educational experience for all students.
  - The Adequate Elementary School (please see Model IV) increases the amount of money spent per student on tutoring opportunities from \$63 per pupil in the Baseline Elementary School to \$271 per pupil. An additional \$115 per student is allotted to summer school specifically designed to help the lowest achievers.
  - Spending on technology increases from \$69 to \$227 per student to provide for the inclusion of an Instructional Learning Lab.
  - School-based funds for instructional improvement increase from \$0 under the Baseline Elementary School to \$347 per student.
  - School-based professional development in a number of specified areas increases from \$0 to \$434 per student.
  - Teacher leadership expenditures are increased from \$619 to \$676 per student to accommodate a mentor teacher program.
  - Extra support for English for Second Language Learners (ESLL) increases non-core instructional staff from \$536 per student to \$594.
  - Special education staffing increases from \$681 per pupil to \$797 to provide additional support to students who need extra help to meet state standards.
  - The additional cost statewide for the Adequacy Elementary School is approximately \$159 million, which represents an increase of just over 20% from current spending levels.
- The Adequate Middle Schools (please see Model V) increase core instructional staff from \$2,684 per student to \$3,017. These funds provide additional instructors in reading and math.

- The amount spent on counseling increases from \$94 to \$227 per student to help keep students successfully engaged. As with the Adequate Elementary School, the Adequate Middle School increases funds spent on school-based instructional improvement, in this case from \$11 to \$111, and on school-based professional development from \$0 to \$303. Activities funded include improved reading, a behavior management program, and better articulation with the high school.
- A mentor teacher program increases teacher leadership costs (included in “Professional training and development”) from \$435 to \$462.
- Funds are provided to create small learning communities, in the amount of \$38 per student (included in “Professional training and development”).
- Classified support staff costs increase from \$404 per student to \$474 to enhance student safety.
- The additional cost for the Adequate Middle School is approximately \$35 million, which represents an increase of just over 14% above current spending on middle schools.
- The Adequate High School (please see Model VI) has many of the same Adequacy Interventions as the Adequate Middle School, and a few unique ones.
  - Core instructional staff increases from \$2,634 per pupil to \$2,866 to accommodate a stronger emphasis on reading, including skills to read academic materials in all subject areas.
  - Counseling is also increased from \$240 per pupil to \$278, once again, to provide additional support to high-needs students and keep them engaged academically.
  - A number of additional programs help students meet state goals. Writing is emphasized through a common writing requirement, and \$50 per student is provided to support this activity (included in “Professional training and development”).
  - Community-based internships help keep students in school and are funded at \$60 per student (included under “Instructional support staff” in “Classified support staff”). More students are encouraged to go on to college through an increase in Postsecondary Options and Advanced Placement programs, which receive \$130 per student to achieve these goals.
  - The high school also funds a mentor teacher program at \$16 per student, increases campus security at \$63 per student, implements a positive behavior program to reduce classroom problems at a cost of \$178 per student, and provide funding for small learning communities in the amount of \$279 per student.
  - The additional cost for the Adequacy High School is approximately \$59 million, which represents an increase of just under 15% above current spending on high schools.
- Some Adequacy Interventions cut across all three Adequate Schools and are best considered as system-level interventions.

- These include an increased emphasis on parent-community networking through school-based centers (\$8 per pupil), a comprehensive assessment data management system to help teachers make better decisions about the instructional needs of students (\$10 per pupil), funds to improve teacher quality by identifying high-priority academic areas and offering incentives to prospective teachers in these areas (\$10 per pupil), developing an Instructional Support System to provide support to instructional processes necessary for ensuring student learning (\$2), and professional development for building-level administrators to become leadership coaches (\$4). These system level adequacy interventions total \$34 per pupil.
- In addition, an amount of funding equal to 15% of the costs of the Adequacy interventions in each Adequate School is allotted for additional administrative costs, reflecting the realities of implementing and managing the additional programs contained in the Adequacy Interventions.

### **Additional Funding Needed For the Adequate School Models**

By comparing the costs of the Baseline Schools to the Adequacy Schools, it is possible to determine the funding necessary to achieve state education goals.

- The additional funding amount is determined by calculating the per pupil amounts for each of the three Adequate Schools, multiplying the per pupil amounts by the number of students statewide at the grade levels included in the Adequate Schools (minus students in Combined Schools), then totaling the costs.
- Students in Combined Schools are factored in by multiplying their numbers at each grade level by the per pupil amount from the corresponding Adequate School, then adjusting that amount based on the current difference in per pupil funding between Baseline Schools and Combined Schools.
- The total adjusted amount for students in Combined Schools is then added to the total generated from the Adequate Schools to determine the total amount needed for adequate funding to achieve state education goals.
- Based on this analysis, the State of Hawaii's K-12 budget needs to increase by approximately \$278 million (16.6%) in order to accomplish the vision and goals set forth by the DOE and BOE.
- In total, these Adequacy Interventions increase the capacity of the schools to offer an adequate education to more students – an education which results in more students achieving state goals. These interventions tend to offer the greatest potential to increase the ability of schools to offer quality instructional programs for all students.

The following pages show the detailed Adequacy Funding Models at the elementary, middle and high school levels.

Table II: Comparison between Adequate and Baseline Funding Levels\*

	Number of Students	Baseline	Adequate	Budget Difference	%	Difference
Elementary Schools	88,482	\$ 783,659,538	\$ 942,540,036	\$ 158,880,498	20.3%	
Middle Schools	30,752	\$ 246,921,728	\$ 282,088,419	\$ 35,166,691	14.2%	
High Schools	47,259	\$ 400,869,372	\$ 459,698,418	\$ 58,829,046	14.7%	
<b>Regular School Cost</b>	<b>166,493</b>	<b>\$ 1,431,450,637</b>	<b>\$ 1,684,326,873</b>	<b>\$ 252,876,235</b>	<b>17.7%</b>	
Combined and Charter Schools*	15,841	\$ 139,466,275	\$ 164,129,427	\$ 24,663,152	17.7%	
Debt Service		\$ 98,933,822	\$ 98,933,822	\$ -	0.0%	
<b>Total School Cost</b>	<b>182,334</b>	<b>\$ 1,669,850,734</b>	<b>\$ 1,947,390,122</b>	<b>\$ 277,539,388</b>	<b>16.6%</b>	

\* Analysis is based on SY03-04 budget and actual expense data

## Model IV: Adequate Elementary School Model - 527 Students

Program Element	Component	FTE	Component cost (SY2003-04)	Per-Pupil Cost	Explanation/Assumptions	Comments
Student enrollment		527			Average of regular elementary schools	From enrollment data received from DOE
Teacher salary			\$46,321		Average salary 2003-04	From salary by levels file
Principal salary			\$70,534		Average salary 2003-04	From salary by levels file
Vice principal salary			\$55,178		Average salary 2003-04	From salary by levels file
Fringe benefits rate		32%			Employer payroll taxes, employer contribution, and health benefits	Benefits rate per DOE
<b>&lt; Model Inputs</b>						
Instructional staff	Core instructional staff	23.4	1,430,456	\$ 2,714	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Student services coordinator, Counselor, Librarian, High risk counselor, Article VI teacher, Literacy teacher, additional ESLL staff *	5.1	312,984	\$ 594	Add 5 ESLL staff Schools choose staff to best meet their specific needs. Average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Special education staffing	6.9	419,833	\$ 797	Includes additional special education teacher	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Substitute teachers for general instruction		66,666	\$ 127	Includes salary plus benefits	Salary per student from DOE expense file data plus payroll costs estimated at 10%
Additional instructional time for students to achieve standards	Tutors		142,870	\$ 271	Adds one tutor per 5 students, bottom 40% of students, 4 hrs/week, 30 weeks/year, training for tutors (5 days) Includes salary plus benefits	Salary per student from DOE expense file data plus fringe benefits estimated at 10%
	Classified		26,713	\$ 51	Includes additional classified for special education	Salary per student from DOE expense file data plus fringe benefits estimated at 10%
	Summer school, other activities		65,970	\$ 125	Summer school with academic focus for students in the bottom 40% each year K-5	Estimate cost based on best practices (proven research base)
Instructional Improvement	School improvement coach Whole school reform reading and math teachers	3	183,014	\$ 347	Instructional coordinator (shared among a number of professional development activities) Train and supervise tutors	Estimated cost based on best practices
Instructional support staff	Principal's secretary	1.0	33,188	\$ 63	210 days per year @ \$15 per hour plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. Assumes \$15 per hour from Classified salary schedules
	Educational assistants	6.0	196,487	\$ 373	185 days per year @ \$14 per hour. Positions such as educational assistants and special education assistants	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified support staff	6.6	217,867	\$ 413	185 days per year @ \$14 per hour. Positions such as educational assistants, special ed assistants, school business manager, account clerk, clerk typist, library assistant	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
Administrative accountability	Principal	1.0	89,534	\$ 170	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Vice Principal	0.7	47,890	\$ 91	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Teacher leadership		356,208	\$ 676	Grade level and department head stipends Teacher leadership development program	Stipends plus benefits
	Supplies and materials		11,616	\$ 22	Newsletters, report cards, student records	From DOE expense files
Computer hardware/software	Hardware including student and administrative		27,588	\$ 52	School-level expenses	From DOE expense files
	Software		3,872	\$ 7	Software for new computers plus upgrades	From DOE expense files
	Computer-assisted instruction lab		83,021	\$ 158	Lease costs for instructional learning system Computer lab paraprofessional	Estimated cost based on best practices (proven research base)
	Network upkeep/upgrades		5,324	\$ 10	Upgrade and maintenance of network hardware and software	From DOE expense files
Supplies, books, materials	Texts, consumables, classroom sets		24,684	\$ 47	School-level expenses	From DOE expense files
	Classroom materials & equipment		99,220	\$ 188	School-level expenses	From DOE expense files - classroom supplies, equipment and misc. expenses
	Copying		19,499	\$ 37	School-level expenses	From DOE expense files - allocated misc expense
	Media center materials		38,236	\$ 73	Library books, reference materials, subscriptions, audio visual	From DOE expense files
Extra-curricular activities		7,805	\$ 15	After-school programs	Estimated cost based on best practices	
Professional training & development	Release time, materials, travel		228,700	\$ 434	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standard. Mentor teachers for teachers new to the profession Positive Behavioral Support training and implementation	Assumes centralized staff development
Building support costs: costs distributed to each building	Food services		223,448	\$ 424	Central costs plus per-student school-level expense	From DOE expense files
	Student transportation		97,495	\$ 185	Central Costs	From DOE expense files
	Technology services		51,646	\$ 98	Computer networks, telephones, voice mail	From DOE expense files

Program Element	Component	FTE	Component cost (SY2003-04)	Per-Pupil Cost	Explanation/Assumptions	Comments
	Operation, plant maintenance, and other support services		252,433	\$ 479	Custodian, maintenance staff, utilities, security system, warehouse, courier	From DOE expense files and school-level detail files
	Central contracted services		288,834	\$ 548	Fees for professional services	From DOE expense files
	Centralized special education		138,074	\$ 262	Self-contained schools, other students who are not served at the building level	From DOE expense files
	Centralized curriculum development, professional development, assessment		170,748	\$ 324	Centralized curriculum development, assessment, and other instructional improvement services	From DOE expense files
<b>DOE administrative support</b>	Executive administration (Board of Education, Superintendent)		51,066	\$ 97	Central costs	From DOE expense files
	Business & fiscal services		30,039	\$ 57	Central costs	From DOE expense files
	Personnel services		27,931	\$ 53	Central costs	From DOE expense files
	Public information		3,689	\$ 7	Central costs	From DOE expense files
	<i>Program support cost to implement interventions</i>		121,085	\$ 230	<i>Administrative support</i>	<i>Estimated cost based on best practices</i>
<b>Adequate Elementary School-level Cost</b>			\$ 5,595,732	\$ 10,618		
<b>DOE System-level Intervention Cost</b>			\$ 18,049	\$ 34		
<b>Total Adequate Elementary School Cost</b>			\$ 5,613,781	\$ 10,652	Includes all elements and components above, and system-level interventions below	
<b>DOE System-level Interventions apportioned to Adequate Elementary Schools</b>	<i>Parent Community Networking Center (PCNC) expansion and focus on academic support</i>		688,474	\$ 8	<i>Parent involvement - per DOE recommendation</i>	
	<i>Assessment data management system</i>		873,494	\$ 10	<i>Centralized support, Training in the use of data by teachers - per DOE recommendation</i>	
	<i>Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas</i>		910,126	\$ 10	<i>Incentives to recruit out-of-state teachers, in-state teachers, support services personnel, and tuition support for teacher licensure requirements (1/4 of estimated need) - per DOE recommendation</i>	
	<i>Development of an instructional support system to support the instructional processes and functions necessary for ensuring student learning</i>		181,978	\$ 2	<i>Per DOE recommendation</i>	
	<i>Professional development for building-level administrators to become leadership coaches</i>		378,330	\$ 4	<i>Per DOE recommendation</i>	
<b>Total System-level Intervention Cost</b>			3,030,401	\$ 34		
<b>Other System-level Expenses</b>	Debt service		285,634	\$ 542	Principal and interest on bonded debt is not included in "per pupil" costs above, but included in the Total School Cost row in "Cost vs. Budget" tab in Adequate School Models	From DOE expense files

\* Interventions and related costs have been italicized and highlighted in blue

## Model V: Adequate Middle School Model - 879 Students

Program Element	Component	FTE	Component cost (SY2003-04)	Per-Pupil Cost	Explanation/Assumptions	Comments
<b>Student enrollment</b>	879				Average of regular middle schools	From enrollment data received from DOE
<b>Teacher salary</b>	\$44,393				Average salary 2003-04	From salary by levels file
<b>Principal salary</b>	\$76,605				Average salary 2003-04	From salary by levels file
<b>Vice Principal salary</b>	\$58,550				Average salary 2003-04	From salary by levels file
<b>Fringe benefits rate</b>	32%				Employer payroll taxes, employer contribution, and health benefits	Benefits rate per DOE
<b>&lt; Model Inputs</b>						
<b>Instructional staff</b>	<i>Core instructional staff *</i>	45.4	2,651,604	\$ 3,017	<i>Reading teacher 4 additional core academic staff</i>	<i>Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary</i>
	Media/Librarian	1.3	78,720	\$ 90	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Special education and alternative education staffing	8.0	465,372	\$ 529	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Substitute teachers for general instruction		118,929	\$ 135	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus payroll costs estimated at 10%
	<i>Counseling</i>	<i>3.4</i>	<i>199,124</i>	<i>\$ 227</i>	<i>2 additional counselors to bring pupil:counselor ratio to 250:1</i>	<i>Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary</i>
<b>Additional instructional time for students to achieve standards</b>	Tutors		30,099	\$ 34	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified		6,946	\$ 8	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
<b>Instructional improvement</b>	<i>Instructional improvement coordinator conducts professional development</i>		97,367	\$ 111	<i>Consultants Instructional improvement coaches</i>	<i>From DOE expense file data - allocation to Instructional improvement assumed</i>
<b>Instructional support staff</b>	Principal's secretary	1.0	33,264	\$ 38	210 days @ \$ 15 per hour plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. Assumes \$15 per hour from Classified salary schedules
	Educational assistants	17.5	275,519	\$ 313	185 days per year @ \$14 per hour. Positions such as educational assistants and special education assistants	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	<i>Classified support staff</i>	<i>26.5</i>	<i>416,795</i>	<i>\$ 474</i>	<i>185 days per year @ \$14 per hour. Positions such as school business manager, account clerk, clerk typist, library assistant, campus security staff</i>	<i>Salary per student from DOE expense file data plus fringe benefits of 32%. Assumes \$14 per hour from Classified salary schedules</i>
<b>Administrative accountability</b>	Principal	1.0	104,188	\$ 119	Salary and benefits average for middle school principals plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Vice principals	1.8	127,341	\$ 145	Salary and benefits average for middle school vice principals plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	<i>Teacher leadership</i>		<i>405,722</i>	<i>\$ 462</i>	<i>Grade level and department head stipends Teacher leadership development</i>	<i>Stipends plus benefits</i>
	Supplies and materials		46,482	\$ 53	Newsletters, report cards, student records	From DOE expense files
<b>Computer hardware/software</b>	Hardware including student and administrative		48,006	\$ 55	School-level expenses	From DOE expense files
	Software		8,382	\$ 10	Software for new computers plus upgrades	From DOE expense files
	Network upkeep/upgrades		14,478	\$ 16	Upgrade and maintenance of network hardware and software	From DOE expense files
<b>Supplies, books, materials</b>	Texts, consumables, classroom sets		31,242	\$ 36	School-level expenses	From DOE expense files
	Classroom materials, all equipment, supplies		108,204	\$ 123	School-level expenses	From DOE expense files - classroom supplies, equipment and misc. expenses
	Copying		32,523	\$ 37	School-level expenses	From DOE expense files - allocated misc. expenses
	Media center materials		28,194	\$ 32	Library books, reference materials, subscriptions, audio visual	From DOE expense files
<b>Extra-curricular activities</b>	Non-athletic extracurricular expenditures		17,053	\$ 19	Club sports, after school activities	Estimated cost based on best practices
<b>Professional training and development</b>	<i>Mentor teachers, reading teachers, professional development, Positive behavioral support program</i>		265,962	\$ 303	<i>Reading program, professional development Mentor teachers Positive behavioral support program Curriculum articulation</i>	<i>Assumes centralized staff development</i>
<b>Building support costs: costs distributed to each building</b>	Food services		435,984	\$ 496	Central costs plus per-student school-level expense	From DOE expense files
	Student transportation		143,277	\$ 163	Central costs plus per-student school-level expense	From DOE expense files
	Technology services		86,142	\$ 98	Computer networks, telephones, voice mail	From DOE expense files
	Operation, plant maintenance, and other support services		443,895	\$ 505	Custodian, maintenance staff, utilities, security system, warehouse, courier	From DOE expense files
	Central contracted services		481,755	\$ 548	Fees for professional services	From DOE expense files

Program Element	Component	FTE	Component cost (SY2003-04)	Per-Pupil Cost	Explanation/Assumptions	Comments
	Centralized special education		230,298	\$ 262	Self-contained schools, other students who are not served at the building level	From DOE expense files
	Centralized curriculum development, professional development, assessment		284,796	\$ 324	Centralized curriculum development, assessment, and other instructional improvement services	From DOE expense files
<b>DOE administrative support</b>	Executive administration (Board of Education, Superintendent)		85,263	\$ 97	Central costs	From DOE expense files
	Business & Fiscal Services		50,103	\$ 57	Central costs	From DOE expense files
	Personnel Services		46,587	\$ 53	Central costs	From DOE expense files
	Public Information		6,153	\$ 7	Central costs	From DOE expense files
	<i>Program support cost to implement interventions</i>		127,203	\$ 145	<i>Administrative Support</i>	<i>Estimated cost based on best practices</i>
<b>Adequate Middle School-level Cost</b>			<b>\$ 8,032,972</b>	<b>\$ 9,139</b>		
<b>DOE System-level Intervention Cost</b>			<b>\$ 30,105</b>	<b>\$ 34</b>		
<b>Total Adequate Middle School Cost</b>			<b>\$ 8,063,076</b>	<b>\$ 9,173</b>	<b>Includes all elements and components above, and system-level interventions below</b>	
<b>DOE System-level Interventions apportioned to Adequate Middle Schools</b>	<i>Parent Community Networking Center (PCNC) expansion and focus on academic support</i>		239,280	\$ 8	<i>Parent involvement - per DOE recommendation</i>	
	<i>Assessment data management system</i>		303,584	\$ 10	<i>Centralized support, and Training in the use of data by Teachers - per DOE recommendation</i>	
	<i>Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas</i>		316,315	\$ 10	<i>Incentives to recruit out-of-state teachers, in-state teachers, support services personnel, and tuition support for teacher licensure requirements (1/4 of estimated need)</i>	
	<i>Development of an instructional support system to support the instructional processes and functions necessary for ensuring student learning</i>		63,247	\$ 2	<i>Per DOE recommendation</i>	
	<i>Professional development for building-level administrators to become leadership coaches</i>		130,794	\$ 4	<i>Per DOE recommendation</i>	
<b>Total System-level Intervention Cost</b>			<b>1,053,219</b>	<b>\$ 34</b>		
<b>Other System-level Expenses</b>	Debt service		476,418	\$ 542	Principal and interest on bonded debt is not included in "per pupil" costs above, but included in the Total School Cost row in "Cost vs. Budget" tab in Adequate School Models	From DOE expense files

\* Interventions and related costs have been italicized and highlighted in blue

## Model VI: Adequate High School Model - 1,477 Students

Program Element	Component	FTE	Component cost (SY2003-04)	Per-Pupil Cost	Explanation/Assumptions	Comments
Student enrollment	1,477	<b>&lt; Model Inputs</b>			Average of regular high schools	From enrollment data received from DOE
Teacher salary	\$43,440				Average salary 2003-04	From salary by levels file
Principal salary	\$86,537				Average salary 2003-04	From salary by levels file
Vice principal salary	\$61,216				Average salary 2003-04	From salary by levels file
Fringe benefits rate	32%				Employer payroll taxes, employer contribution, and health benefits	Benefits rate per DOE
Instructional staff	English, math, science, social sciences, second languages, the arts, electives, school-to-career transitions *		74.0	4,233,681	\$ 2,866	Add 3 reading teachers, 1 school-to-career teacher, 2 advanced placement (AP) teachers
	Media/Librarian	2.0	116,713	\$ 79	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Special education and alternative education staffing	15.6	890,906	\$ 603	Includes average salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Substitute teachers for general instruction		167,344	\$ 113	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus payroll costs estimated at 10%
	Counseling	7.2	411,239	\$ 278	Includes counselor for postsecondary options program	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Co-curricular/activities director	1.4	81,699	\$ 55	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%
Additional instructional time for students to achieve standards	Tutors		24,371	\$ 17	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus payroll costs estimated at 10%
	Summer school instructional staff (Licensed and Classified)		64,192	\$ 43	Includes salaries and fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%
Instructional improvement	Instructional improvement coordinators to conduct professional development		204,125	\$ 138	Consultants	From DOE expense file data - allocation to instructional improvement assumed
Instructional support staff	Principal's secretary	1.0	41,184	\$ 28	260 days @ \$ 15 per hour plus fringe benefits	Salary per student from DOE expense file data plus fringe benefits of 32%
	Educational Assistants	13.7	373,480	\$ 253	185 days per year @ \$ 14 per hour. Positions such as educational assistants and special ed assistants	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Classified support staff	32.4	1,005,083	\$ 680	210 days per year @ \$ 14 per hour. Positions such as school business manager, account clerk, clerk typist, library assistant school-to-career facilitator, 3 campus security monitors	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
Administrative accountability	Principal	1.0	106,986	\$ 72	Salary and benefits average for high school principals	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Vice principals	2.8	229,535	\$ 155	Salary and benefits average for high school vice principals	Salary per student from DOE expense file data plus fringe benefits of 32%. FTE calculated by dividing total expense by average salary
	Teacher leadership		696,921	\$ 472	Grade level and department head stipends Teacher leadership development	Stipends plus benefits at 32%
	Supplies and materials		176,960	\$ 120	Newsletters, report cards, student records	From DOE expense files
Computer hardware/software	Hardware including student and administrative		54,352	\$ 37	School-level expenses	From DOE expense files
	Software		10,112	\$ 7	Software for new computers plus upgrades	From DOE expense files
	Network upkeep/upgrades		64,464	\$ 44	Upgrade and maintenance of network hardware and software	From DOE expense files
Supplies, books, materials	Texts, consumables, classroom sets		63,200	\$ 43	School-level expenses	From DOE expense files
	Classroom materials, all equipment, supplies		139,040	\$ 94	School-level expenses	From DOE expense files - classroom supplies, equipment and misc. expenses
	Copying		54,649	\$ 37	School-level expenses	From DOE expense files - allocated misc. expenses
	Media center materials		46,768	\$ 32	Library books, reference materials, subscriptions, audio visual	From DOE expense files
Extra-curricular activities	Coaching		94,800	\$ 64		From DOE expense files
	Non-athletic extra-curricular		35,448	\$ 24		Estimated cost based on best practices
Professional training and development	Training to teach reading, score research paper, advanced placement, mentor teachers, release time, positive behavioral support system small learning communities		823,239	\$ 557	Training to teach reading Training to teach and score research paper Training to teach advanced placement (AP) classes Mentor teacher training, release time Positive behavioral support system Small learning communities	Assumes centralized staff development
Building support costs: costs distributed to each building	Food services		533,197	\$ 361	Central costs plus per-student school-level expense	From DOE expense files
	Student transportation		270,291	\$ 183	Central costs plus per-student school-level expense	From DOE expense files

Program Element	Component	FTE	Component cost (SY2003-04)	Per-Pupil Cost	Explanation/Assumptions	Comments
	Technology services		144,746	\$ 98	Computer networks, telephones, voice mail	From DOE expense files
	Operation, plant maintenance, and other support services		933,464	\$ 632	Custodian, maintenance staff, utilities, security system, warehouse, courier	From DOE expense files
	Central contracted services		809,503	\$ 548	Fees for professional services	From DOE expense files
	Centralized special education		386,974	\$ 262	Self-contained schools, other students who are not served at the building level	From DOE expense files
	Centralized curriculum development, professional development, assessment		478,548	\$ 324	Centralized curriculum development, assessment, and other instructional improvement services	From DOE expense files
<b>District administrative support</b>	Executive administration (Board of Education, Superintendent)		143,269	\$ 97	Central costs	From DOE expense files
	Business & fiscal services		84,189	\$ 57	Central costs	From DOE expense files
	Personnel services		78,281	\$ 53	Central costs	From DOE expense files
	Public information		10,339	\$ 7	Central costs	From DOE expense files
	<i>Program support cost to implement interventions</i>		233,220	\$ 158	<i>Administrative Support</i>	<i>Estimated cost based on best practices</i>
<b>Adequate High School-level Cost</b>			\$ 14,316,510	\$ 9,693		
<b>DOE System-level Intervention Cost</b>			\$ 50,585	\$ 34		
<b>Total Adequate High School Cost</b>			\$ 14,367,095	\$ 9,727	<b>Includes all elements and components above, and system-level interventions below</b>	
<b>DOE System-Level Interventions apportioned to Adequate High Schools</b>	<i>Parent Community Networking Center (PCNC) expansion and focus on academic support</i>		367,720	\$ 8	<i>Parent involvement - per DOE recommendation</i>	
	<i>Assessment data management system</i>		466,541	\$ 10	<i>Centralized support, and Training in the use of data by teachers</i>	
	<i>Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas</i>		486,106	\$ 10	<i>Incentives to recruit out-of-state teachers, in-state teachers, support services personnel, and tuition support for teacher licensure requirements (1/4 of estimated need)</i>	
	<i>Development of an instructional support system to support the instructional processes and functions necessary for ensuring student learning</i>		97,196	\$ 2	<i>Per DOE recommendation</i>	
	<i>Professional development for building-level administrators to become leadership coaches</i>		201,001	\$ 4	<i>Per DOE recommendation</i>	
<b>Total System-Level Intervention Cost</b>			1,618,564	\$ 34		
<b>Other System-level Expenses</b>	Debt service		800,534	\$ 542	Principal and interest on bonded debt is not included in "per pupil" costs above, but included in the Total School Cost in "Cost vs. Budget" tab in Adequate School Models	From DOE expense files

\* Interventions and related costs have been italicized and highlighted in blue

Table III: Elementary School Interventions

Intervention Number	Adequacy Goals	Elementary Intervention	Elementary Elements, Components	Cost	Cost per pupil	Forecast Effect	Research Base (Proven, Promising Practice, Sound Theory)
1	6, 14	Targeted reading and math programs using research-validated methods in grades 1-3	Two on-site expert teacher to work with other teachers implementing program Based on costs of whole-school programs, 10 days training for all teachers	\$170,010	\$323	Increase in percent of students meeting state standards	Proven
2	6, 14	Increase tutoring in reading and math in grades 4-5	One tutor per 5 students, bottom 40% of students, 4 hrs/week, 30 weeks/year Training for tutors (5 days)	\$109,827	\$208	Increase in percent of students meeting state standards	Proven
3	6, 12, 14	Summer school with academic focus for students in the bottom 40% each year (grades K-5)	6 weeks, half day, 17.5/1 class size	\$60,700	\$115	Increase in percent of students meeting state standards	Proven
4	11, 12	Intensive language acquisition programs for ESLL student by reducing student-teacher ratio	Additional .5 ESLL teaching staff	\$30,502	\$58	Increase in percent of students meeting state standards	Promising Practice
5	3, 14	Instructional improvement coordinator to organize and conduct professional development on a range of issues and to coach teachers	Instructional coordinator (shared among a number of professional development activities) Train and supervise tutors	\$61,005	\$116	Increase teacher satisfaction Increase teaming Increase students meeting state standard	Proven
6	3, 6, 14	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standards	Evidence-based professional development program- 10 days @ 200/day) plus consultants	\$78,000	\$148	Increase percent of students meeting state standards	Promising Practice
7	3, 14	Mentor teachers who are new to the profession	Assumes 3 new teachers/year 6 release days \$2000 stipend Workshops for beginning teachers	\$8,700	\$17	Increase teacher retention Increase teacher satisfaction Increase teacher teaming	Proven
8	3, 14	Teacher leadership development program (teaming, instructional improvement)	Substitute teachers Stipends for 6 teachers	\$30,000	\$57	Increase teacher retention Increase teacher satisfaction Increase teacher teaming	Promising Practice
9	5, 6	Computer-assisted instructional labs and workstations	Lease costs Computer hardware, software Professional development Computer lab paraprofessional	\$83,021	\$158	Increase percent of students meeting state standards	Proven
10	6, 12	Additional support for high-needs special education students to meet No Child Left Behind (NCLB) standards	Teacher Paraprofessionals Extra time for learning Teacher planning and teaming	\$81,471	\$155	Decrease number of schools failing to make Adequate Yearly Progress (AYP) Increase percent of students meeting state standards	Promising Practice Sound Theory
11	9	Positive Behavioral Supports (PBS) System (improve discipline, classroom management)	Professional development Consultants	\$94,000	\$178	Increase student well being and safety Increase time on task Increase percent of students meeting state standards	Proven
12		Program support cost to implement interventions	Program support and coordination at the building and central level for adequacy interventions	\$121,085	\$230		
			<b>Total elementary school intervention cost (does not include System-level intervention costs)</b>		<b>\$1,762</b>		
			<b>Percent increase above baseline elementary school</b>		<b>19.9%</b>		

Table IV: Middle School Interventions

Intervention Number	Adequacy Goals	Middle School Intervention	Middle School Elements, Components	Cost	Cost per pupil	Forecast Effect	Research Base (Proven, Promising Practice, Sound Theory)
1	6, 8	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	Professional development Materials, supplies Reading teacher	\$89,666	\$102	Increase percent of students meeting state standards	Promising Practice
2	2, 4, 5, 14	Create core academic curriculum into which all students are enrolled unless they opt out	Additional instructional staff in core academic areas	\$233,862	\$266	Increase proportion of students capable of taking college prep courses upon entry to hig+OLE_LINK3h	Promising Practice
3	9, 12	Improve counseling services at the middle level to help improve student achievement	Counselors	\$116,931	\$133	Increase attendance Decrease discipline problems	Promising Practice, Sound Theory
4	3, 14	Mentor teachers who are new to the profession	Assumes 5 new teachers/year 6 release days \$2000 stipend Workshops for beginning teachers	\$14,500	\$16	Increase teacher retention Increase teacher satisfaction Increase teacher teaming	Proven
5	9	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	Professional development Materials, supplies	\$156,462	\$178	Increase student time on task Reduce discipline problems Allow principal to focus on instructional improvement	Proven
6	7, 8, 10	Closely articulate middle school and high school mathematics curriculum so that all students progress at an appropriate rate and that all are placed properly when they enter high school	Professional development Teacher stipends	\$30,000	\$34	Decrease failure rate in 9 <sup>th</sup> grade math classes	Promising Practice
7	3, 14	Instructional improvement coordinator to organize and conduct professional development on a range of issues and to coach teachers	1.5 FTE. Function as teacher-coaches to support Adequacy interventions Work directly with teachers in their classrooms to improve instruction	\$87,698	\$100	Increase teacher teaming Improve teacher quality	Proven
8	3, 14	Teacher leadership development program (teaming, instructional improvement)	Professional development Substitute teachers Stipends	\$23,700	\$27	Increase teacher retention Increase teacher satisfaction Increase teacher teaming	Promising Practice
9	9	Campus security increased to improve students' sense of safety and well-being	3.0 FTE paraprofessionals to serve as campus monitors, 185 days	\$61,399	\$70	Improve student perceptions of safety/well being	Promising Practice, Sound Theory
10	1, 2, 4, 5, 9	Small learning communities	Professional development Supplies, materials Teacher leadership (coordination, common planning)	\$33,800	\$38	Improve student perceptions of safety/well being Improve attendance Decrease behavioral problems	Promising Practice
11		Program support cost to implement interventions	Program support and coordination at the building and central level for adequacy interventions	\$127,203	\$145		
			<b>Total middle school intervention cost (does not include System-level intervention costs)</b>		<b>\$1,109</b>		
			<b>Percent increase above baseline middle school</b>		<b>13.8%</b>		

Table V: High School Interventions

Intervention Number	Adequacy Goals	High School Intervention	High School Elements, Components	Cost	Cost per pupil	Forecast Effect	Research Base (Proven, Promising Practice, Sound Theory)
1	6, 8	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	Professional development Materials, supplies 3 reading teachers	\$202,831	\$137	Increase college readiness Improve reading ability in non-English classes	Promising Practice, Sound Theory
2	10, 8	Increased student writing, including multiple 5-page research papers	Stipend for scorers	\$73,850	\$50	Increase college readiness Improve retention in first year of college	Promising Practice, Sound Theory
3	3, 4, 7	Community-based internships and career clusters (student-run businesses, etc.)	1.0 FTE instructional support 1.0 FTE support staff	\$88,186	\$60	Improve attendance Reduce dropout rate Increase successful transition to the workplace	Proven
4	3, 10	Postsecondary options and dual enrollment programs	1.0 FTE counseling and coordination staff	\$57,210	\$39	Increase college readiness Improve retention in first year of college	Proven
5	2, 10	Increase Advanced Placement enrollment (AP) and pass-rate on AP examinations	Professional development (advanced placement training, scoring) Instructional staff (2 additional AP teachers) Tutoring, extra time for instruction	\$134,421	\$91	Increase college readiness Improve retention in first year of college	Proven
6	3, 14	Mentor teachers who are new to the profession	Assumes 8 new teachers/year 6 release days \$2000 stipend Workshops for beginning teachers	\$23,200	\$16	Increase teacher retention Increase teacher satisfaction Increase teacher teaming	Proven
7	3, 14	Instructional improvement coordinator to organize and conduct professional development on a range of issues and to coach teachers	Function as teacher-coaches to support adequacy interventions Work directly with teachers in their classrooms to improve instruction	\$171,631	\$116	Increase teacher satisfaction Increase teaming Increase students meeting state standard	Proven
8	3, 14	Teacher leadership development program (teaming, instructional improvement)	Professional development for 9 teachers Substitute teachers stipends	\$35,550	\$24	Increase perceptions of teaming Increase teacher retention	Promising Practice, Sound Theory
9	9	Campus security increased to improve students' sense of safety and well-being	3.0 FTE paraprofessionals, 210 days	\$92,928	\$63	Improve student perceptions of safety and well-being	Promising Practice, Sound Theory
10	9	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	Professional development Consultants	\$262,906	\$178	Increase student well being and safety Increase time on task Increase percent of students meeting state standards	Proven
11	2, 9	Small learning communities, including career academies	Professional development Supplies, materials Teacher leadership (coordination, common planning)	\$412,083	\$279	Improve student perceptions of safety and well-being	Promising Practice, Sound Theory
12		Program support cost to implement interventions	Program support and coordination at the building and central level for adequacy interventions	\$233,220	\$158		
			<b>Total high school intervention cost (does not include System-level intervention costs)</b>		<b>\$1,211</b>		
			<b>Percent increase above baseline high school</b>		<b>14.3%</b>		

Table VI: DOE System-level Interventions

Intervention Number	Adequacy Goals	System-level Intervention	System-level Elements, Components	Cost	Cost per pupil	Forecast Effect	Research Base (Proven, Promising Practice, Sound Theory)
1	2, 3, 13	Parent Community Networking Center expansion and focus on academic support	Per DOE recommendation	\$1,418,731	\$8	Increase parental involvement, Increase student achievement	Promising Practice, Sound Theory
2	14	Assessment data management system	Centralized support Training in the use of data by teachers	\$1,800,000	\$10	Increase student achievement particularly for low-achieving, high-mobility students	Promising Practice
3	3, 6, 8	Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas	Incentives to recruit out-of-state teachers, in-state teachers, support services personnel, and tuition support for teacher licensure requirements (1/4 of estimated need)	\$1,875,488	\$10	Increase teacher retention rate	Promising Practice, Sound Theory
4	10, 6	Develop an Instructional Support System to support the instructional processes and functions necessary for ensuring student learning	Per DOE recommendation	\$375,000	\$2	Increase percent of students meeting state standards	Promising Practice, Sound Theory
5	3, 14	Professional development for building-level administrators to become leadership coaches	Per DOE recommendation	\$775,500	\$4	Increase teacher effectiveness and efficacy	Proven
<b>Total System-level intervention cost</b>				<b>\$6,244,719</b>	<b>\$34</b>		

## Elementary School Interventions - Phased Implementation

Year	Intervention Program Categories	Program Cost (per pupil)	Total by Year (per pupil)
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	\$178	\$310
	Summer school with academic focus for students in the bottom 40% each year (grades K-5)	\$115	
	Mentor teachers who are new to the profession	\$17	
Year 2	Targeted reading and math programs using research-validated methods in grades 1-3	\$323	\$380
	Teacher leadership development program (teaming)	\$57	
Year 3	Increase tutoring in reading and math in grades 4-5	\$208	\$324
	Instructional improvement coordinator to organize and conduct professional development on a range of issues and to coach teachers	\$116	
Year 4	Computer-assisted instructional labs and workstations	\$158	\$306
	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standards	\$148	
Year 5	Additional support for high-needs special education students to meet NCLB standards	\$155	\$212
	Intensive language acquisition programs for ESLL student by reducing student-teacher ratio	\$58	
Pro-Rata	Program support cost to implement interventions	\$230	\$230
<b>Total</b>		<b>\$1,762</b>	<b>\$ 1,762</b>

## Middle School Interventions - Phased Implementation

Year	Intervention Program Categories	Program Cost (per pupil)	Total by Year (per pupil)
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	\$178	\$264
	Mentor teachers who are new to the profession	\$16	
	Campus security increased to improve students' sense of safety and well-being	\$70	
Year 2	Create "default core" curriculum into which all students are enrolled unless they opt out	\$266	\$327
	Closely articulate middle school and high school mathematics curriculum, so that all students progress at an appropriate rate and that all are placed properly when they enter high school	\$34	
	Teacher leadership development program (teaming, instructional improvement)	\$27	
Year 3	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	\$102	\$373
	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	\$100	
	Improve counseling services at the middle level to help diagnose students with out-of-classroom problems that are preventing them making adequate progress toward meeting standards	\$133	
	Small learning communities	\$38	
Pro-Rata	Program support cost to implement interventions	\$145	\$145
	<b>Total</b>	<b>\$1,109</b>	<b>\$ 1,109</b>

## High School Interventions - Phased Implementation

Year	Intervention Program Categories	Program Cost (per pupil)	Total by Year (per pupil)
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	\$178	\$257
	Campus security increased to improve students' sense of safety and well-being	\$63	
	Mentor teachers who are new to the profession	\$16	
Year 2	Small learning communities, including career academies	\$279	\$303
	Teacher leadership development program (teaming, instructional improvement)	\$24	
Year 3	Instructional improvement coordinator to organize and conduct professional development on a range of issues and to coach teachers	\$116	\$313
	Community-based internships and career clusters (student-run businesses, etc.)	\$60	
	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	\$137	
Year 4	Increased student writing, including multiple 5-page research papers	\$50	\$180
	Increase Advanced Placement enrollment and pass-rate on AP examinations	\$91	
	Postsecondary options and dual enrollment programs	\$39	
Pro-Rata	Program support costs to implement interventions	\$158	\$158
<b>Total</b>		<b>\$1,210</b>	<b>\$ 1,210</b>

## DOE System-level Interventions - Phased Implementation

Year	Intervention Program Categories	Program Cost (per pupil)	Total by Year (per pupil)
Year 1	Assessment data management system	\$10	\$20
	Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas	\$10	
Year 2	Parent Community Networking Center expansion and focus on academic support	\$8	\$14
	Develop an Instructional Support System to support the instructional processes and functions necessary for ensuring student learning	\$2	
	Professional development for building-level administrators to become leadership coaches	\$4	
<b>Total</b>		<b>\$34</b>	<b>\$ 34</b>

**State of Hawaii**



**Department of Education**

**Adequacy Funding Study**

**Reference Guide**

March 14, 2005

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## I. INTRODUCTION

### *Purpose of the Reference Guide*

This Reference Guide provides contextual information and details necessary to understand the Adequate Schools.

### *Conceptual Framework for the Adequacy Process*

The adequacy process is designed to determine how education can be best organized and conducted in order to achieve DOE's stated goals (please refer to Figure 1 for study methodology). By establishing goals and identifying best practices, it is possible to determine the likely costs and changes necessary for schools to achieve those goals. From this process, policy makers and practitioners alike can determine what it takes to improve schools, and to judge the progress schools are making once the necessary changes are made and put into practice.

### *Process for Developing Baseline and Adequate School Models*

Adequacy is determined by constructing three current or "baseline" school models, one each for elementary, middle, and high schools.

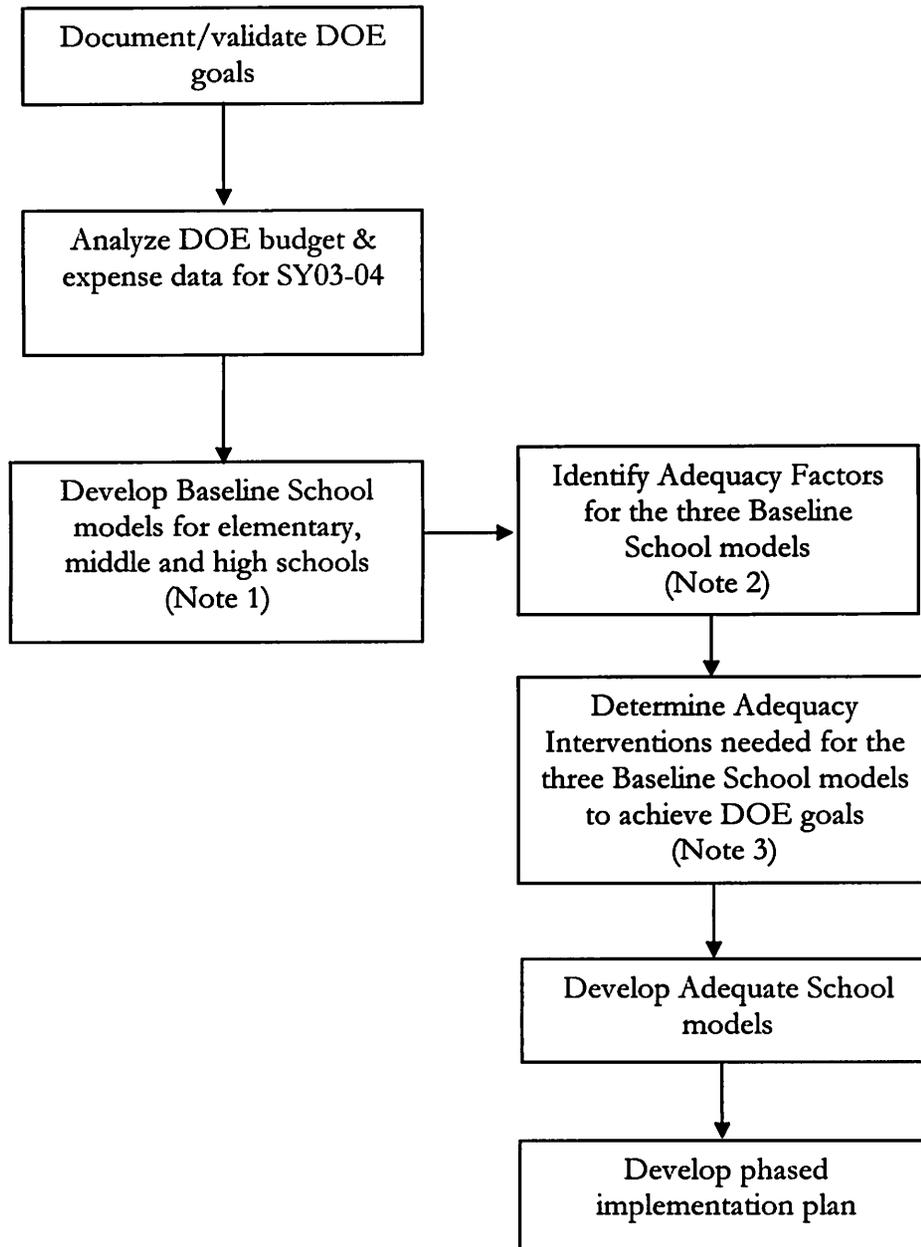
**Step 1:** Baseline School models that accurately reflect current educational practices and expenditures are constructed. These schools reflect certain assumptions about their enrollment, number of teachers, salaries, etc., that are derived from actual data. When the per-pupil cost is multiplied against the total number of students in the Baseline School models, the resulting figure equals current educational expenditures.

**Step 2:** The next step is to develop the "adequate" school models. These three models are identical to the Baseline School models, except that they have "interventions" designed to improve their effectiveness in educating students to meet the goals previously identified for the school system as a whole. Each of these interventions is selected based on its demonstrated ability to improve student learning in areas identified as important goals.

The costs of the adequacy interventions are calculated, and the resulting per-pupil cost is multiplied again by the number of students in the state at that level (elementary, middle, or high school, depending on the model), then totaled to yield a budget figure. The difference between the total budget required for the Baseline School models and the Adequate School models lets the state know how much more it should be prepared to invest in its schools to achieve its goals.

**Step 3:** A timetable is developed for phasing in the interventions over several years. This plan helps spread implementation costs and also gives schools time to implement new practices and programs over several years instead of all at once.

**Figure 1: Adequacy Funding Study Methodology**



Note 1: The Baseline School models estimate how the SY03-04 DOE budget was spent at an average elementary, middle and high school with the K-12 school system

Note 2: Adequacy Factors refer to school characteristics that are listed on pages 29 to 34 of the reference guide

Note 3: Adequacy Interventions refer to additional research-based practices that will require additional funding in order for DOE to achieve its goals

## ***Definition of Adequate Schools***

Adequate Schools are created when a series of cost-effective changes, or interventions, are added to the Baseline Schools in order to enhance the achievement of DOE and related federal goals. These interventions are labeled “Adequacy Interventions” and the resulting model schools are identified as “Adequate Schools.”

## ***Purpose of Adequate Schools***

Adequate Schools can be used to:

- Determine the most cost-effective means for achieving state and federal education goals
- Estimate the effects on goal achievement of specific educational interventions identified as having demonstrated positive effects on aspects of student learning and school functioning
- Define necessary changes in the Adequacy Characteristics in order to support the goal achievements projected in Adequate Schools
- Forecast student achievement in the Adequate Schools versus the Baseline Schools

## ***Criteria for Selecting Adequacy Interventions***

Adequacy Interventions are the specific changes that would most likely enable the Adequate Schools to achieve the system’s stated goals. These interventions are selected based on the following criteria:

- Demonstrated research base supporting their effectiveness
- Sound theoretical foundation supporting effectiveness where emerging research findings suggest effectiveness in areas where research is still exploratory in nature, and sound theoretical justification underlying the practices
- Cost-effectiveness as judged by the potential to achieve stated education goals in relation to the costs required to do so

## ***Research Supporting Adequacy Interventions***

The research supporting the Adequacy Interventions is drawn from a range of empirical sources and reports of effective programs. The two key documents underlying and framing the specific interventions are two reports by ECONorthwest and the Center for Educational Policy Research (CEPR) for the Chalkboard Project in 2004 and a document produced by the Educational Testing Service (ETS).

The first ECONorthwest/CEPR report, *Improving quality: Evidence on resource-based policies and student achievement*,<sup>i</sup> is composed of seven chapters that summarize research and promising practices in the following areas:

- **Class Size** reviews the evidence on class-size reduction strategies and considers findings for different grade levels and for students of different ethnic, racial, and socio-economic backgrounds
- **Staff Quality** reviews policies aimed at improving teacher, principal, and administrator

quality through recruitment, licensure, retention, and related professional development policies

- **Facilities and Equipment** considers effective facilities, optimal school size, and small learning communities
- **Instructional Practices** covers curriculum alignment, diagnostic testing, student grouping, homework, duration of instruction (e.g., tutoring, summer school, extended school days, contact hours), and discipline policies
- **Special Education** considers the rapidly growing area of special education and addresses student identification and placement policies, mainstreaming, and other strategies
- **Readiness to Learn** considers the capacity of early childhood education programs, pre-kindergarten, and kindergarten to fully prepare children to learn
- **Student and Parental Involvement** discusses the practices and policies that schools have implemented to improve student attendance and stimulate parental involvement

The second report, *Strengthening accountability: Evidence on regulatory and market-based strategies to improve student achievement*,<sup>ii</sup> also provides information that is used to identify Adequacy Interventions. However, this report also identifies School Adequacy Factors that need to be in place for Adequacy Interventions to achieve their intended results.

These sources are supported by additional primary source studies, meta-analyses, and syntheses of the literature in areas for which the reports do not provide specific information or citations.

The ETS document, *Parsing the achievement gap: Baselines for tracking progress*, summarizes the correlations between achievement and specific strategies/interventions that may help close the achievement gap and provides evidence of the effects on learning of the most effective interventions.<sup>iii</sup>

### ***Calculating the Costs of Adequacy Interventions***

The costs of Adequacy Interventions can be calculated in two ways: 1) implementation costs, and 2) recurring costs. The Adequate Schools as presented include both implementation and recurring costs and do not make a distinction between the two.

Implementation costs consist primarily of training and other one-time expenses required to operationalize a particular Adequacy Intervention into practice. Recurring costs measure the on-going expense of an intervention once it is fully implemented. An assumption is made that some portion of the implementation costs will be shifted to continuing professional development and training after the initial interventions are successfully implemented. However, it would be possible to reduce the assumed costs of the adequacy model to some extent after all interventions are fully implemented through a multi-year phased implementation method, if it is assumed that professional development costs specific to implementation are then permanently removed.

Specific costs are calculated based on the following sources, in descending order of preference:

- Published costs for models or comparable interventions

- Calculated costs from schools or organizations where the intervention has been implemented
- Estimated costs based on best practices

In several areas, cost estimates are based on figures taken from DOE appropriations request.

Adequate Schools are created for elementary, middle, and high school, and are assumed to operate under the same assumptions as the Baseline School models.

Adequate School models describe the full costs of implementing a series of programmatic changes that would result in improved student achievement. The full cost includes one-time professional development costs that would be expected to decrease after the programs are well established. These training costs will decrease at a varying rate over a period between one to three years.

### *Defining an Adequate Education for the State of Hawaii*

As a first step in the adequacy calculation, we gathered policy statements from various sources in order to determine the current definition of an adequate education in the State of Hawaii. These sources include DOE's strategic plan and accountability framework as well as policy documents provided by the Board of Education, Act 51 and the Hawaii Revised Statutes.

We integrated information from the above sources and aligned various policy statements with DOE's four strategic goals<sup>1</sup>. For purposes of model development the above fourteen policy statements are characterized as "adequacy goals". The purpose of integrating and listing these goals in one place is; (1) to outline the results that various stakeholders in the state education system are seeking to achieve from its schools; (2) to help schools make better decisions about how to align, organize and conduct instruction effectively; and (3) to create a reference point for the Adequate Interventions that are proposed to help achieve these goals.

1. Offers students an equal educational opportunity to enroll in programs regardless of race, color, religion, sex, sexual orientation, disabilities, or national origin
2. Transmits the most important elements of the diverse cultures that make up the State, while simultaneously advancing the endowment of those cultures for the benefit of subsequent generations of students and society at large
3. Builds upon a partnership among highly-qualified professional educators, parents, and community members who work together for student success
4. Enables all students to participate fully in a democratic society, and engage productively in a market economy
5. Equips all students to function effectively in today's pluralistic society

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<sup>1</sup> It is important to note that this document integrates policy statements contained in various documents; it is not an effort to define new goals or direction for the DOE

6. Systematically develops student mastery of fundamental academic skills, including literacy and numeracy, so that all students reach high levels of performance, the purpose of which is to close the gap in achievement between different racial and economic groups
7. Exposes students to a broad body of knowledge and comprehensive set of skills that support lifelong learning, effective decision-making, self-awareness, and higher order thinking
8. Offers a comprehensive curriculum to all students built around a core that includes English language arts, sciences, mathematics, social studies, fine arts, health and fitness, world languages, and home and work skills
9. Ensures student safety and well being within environments that have adequate facilities, equipment, books, and other learning resources
10. Allows students to move continuously and seamlessly from entry into pre-school to a successful transition to high school
11. Serves as the primary means for students who arrive from other nations to make a successful transition to the American educational system and culture
12. Addresses the special needs of students who face educational challenges
13. Engages parents and the community as full partners in the student's learning process
14. Promotes continuous improvements in student learning through research-based practices, site-based decision-making, and public accountability

As mentioned earlier, for the purposes of model development the above fourteen policy statements are characterized as “adequacy goals”.

## II. ADEQUACY INTERVENTIONS

The following interventions are included in the Adequate Schools by level:

**Table VII: Adequacy Interventions for Elementary School**

INTERVENTION NUMBER	ADEQUACY INTERVENTIONS	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
1	Targeted reading and math programs using research-validated methods in grades 1-3	6, 14	2 additional specialist teachers 10 days training for teachers	Proven
2	Increase tutoring in reading and math in grades 4-5	6, 14	One tutor/5 students, bottom 40% of students, 4 hrs/week, 30 weeks/year Training for tutors (5 days)	Proven
3	Summer school with academic focus for students in the bottom 40% each year (grades K-5)	6, 12, 14	6 weeks, half day, 17.5/1 class size	Proven
4	Intensive language acquisition programs for ESLL students by reducing student-teacher ratio	11, 12	Additional .5 FTE ESL teacher	Promising Practice
5	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	3, 14	Instructional coordinator (shared among a number of professional development activities) Train and supervise tutors	Proven

INTERVENTION NUMBER	ADEQUACY INTERVENTIONS	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
6	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standards	3, 6, 14	Evidence-based professional development program- 10 days at \$200/day plus consultants	Promising Practice
7	Mentor teachers who are new to the profession	3, 14	Assumes 3 new teachers/year 6 release days \$1500 stipend Workshops for beginning teachers	Proven
8	Teacher leadership development program (teaming, instructional improvement)	3, 14	Professional development, stipends for 6 teachers Substitute teachers	Promising Practice
9	Computer-assisted instructional labs and workstations	5, 6	Lease costs Computer hardware, software Professional development Computer lab paraprofessional	Proven
10	Additional support for high-need special education students to meet NCLB standards	6, 12	Teacher Paraprofessionals Extra time for learning Teacher planning and teaming	Promising Practice Sound Theory
11	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	9	Professional development Consultants	Proven

INTERVENTION NUMBER	ADEQUACY INTERVENTIONS	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
12	Program support cost to implement interventions		Program support and coordination at the building and central level for adequacy interventions	

**Table VIII: Adequacy Interventions for Middle School**

INTERVENTION NUMBER	ADEQUACY INTERVENTIONS	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
1	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	6, 8	Professional development Materials, supplies Reading teacher	Promising Practice
2	Create a core academic curriculum into which all students are enrolled unless they opt out	2, 4, 5, 14	4 additional instructional staff in core academic areas	Promising Practice
3	Improve counseling services at the middle level to help diagnose students with out-of-classroom problems, that are preventing them from meeting standards	9, 12	2 counselors to reduce pupil:counselor ratio to 250:1	Promising Practice, Sound Theory
4	Mentor teachers who are new to the profession	3, 14	Assumes 3 new teachers/year 6 release days \$1500 stipend Workshops for beginning teachers	Proven
5	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	9	Professional development Consultants	Proven

INTERVENTION NUMBER	ADEQUACY INTERVENTIONS	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
6	Closely articulate middle school and high school mathematics curriculum so that all students progress at an appropriate rate and that all are placed properly when they enter high school	7, 8, 10	Professional development Teacher stipends	Promising Practice
7	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	3, 14	1.5 FTE. Function as teacher-coaches to support Adequacy interventions Work directly with teachers in their classrooms to improve instruction	Proven
8	Teacher leadership development program (teaming, instructional improvement)	3, 14	Professional development Substitute teachers Stipends	Promising Practice
9	Campus security increased to improve students' sense of safety and well-being	9	3 paraprofessionals to serve as campus monitors	Promising Practice, Sound Theory
10	Small learning communities	1, 2, 4, 5, 9	Professional development Supplies, materials Teacher leadership (coordination, common planning)	Promising Practice

INTERVENTION NUMBER	ADEQUACY INTERVENTIONS	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
11	Program support cost to implement interventions		Program support and coordination at the building and central level for adequacy interventions	Research Base (Proven, Promising Practice, Sound Theory)

**Table IX: Adequacy Interventions for High School**

INTERVENTION NUMBER	ADEQUACY INTERVENTION	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
1	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	6, 8	Professional development Materials, supplies 3 reading teachers	Promising Practice, Sound Theory
2	Increase student writing, including multiple 5-page research papers	8, 10	Stipend for scorers	Promising Practice, Sound Theory
3	Community-based internships and career clusters (student-run businesses, etc.)	3, 4, 7	1.0 FTE instructional staff Support staff	Proven
4	Postsecondary options and dual enrollment programs	3, 10	1.0 FTE counseling and coordination staff	Proven
5	Increase Advanced Placement enrollment and pass-rate on AP examinations	2, 10	Professional development (AP training, scoring) Instructional staff (2 additional AP teachers) Tutoring, extra time for instruction	Proven
6	Mentor teachers who are new to the profession	3, 14	Assumes 8 new teachers/year 6 release days \$1500 stipend Workshops for beginning teachers	Proven

INTERVENTION NUMBER	ADEQUACY INTERVENTION	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
7	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	3, 14	3 FTE. Function as teacher-coaches to support Adequacy interventions Work directly with teachers in their classrooms to improve instruction	Proven
8	Teacher leadership development program (teaming, instructional improvement)	3, 14	Professional development for 9 teachers Substitute teachers stipends	Promising Practice, Sound Theory
9	Campus security increased to improve students' sense of safety and well-being	9	3.0 FTE paraprofessionals	Promising Practice, Sound Theory
10	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	9	Professional development Consultants	Proven
11	Small learning communities, including career academies	2, 9	Professional development Supplies, materials Teacher leadership (coordination, common planning)	Promising Practice, Sound Theory
12	Program support cost to implement interventions		Program support and coordination at the building and central level for adequacy interventions	Research Base (Proven, Promising Practice, Sound Theory)

**Table X: Adequacy Interventions for System-level (DOE Central)**

INTERVENTION NUMBER	ADEQUACY INTERVENTION	ADEQUACY GOALS	ELEMENTS AND COMPONENTS	RESEARCH BASE
1	Parent Community Networking Center expansion and focus on academic support	2, 3, 13	Increase parental involvement, increase student achievement	Promising Practice, Sound Theory
2	Assessment data management system	14	Increase student achievement particularly for low-achieving, high-mobility students	Promising Practice
3	Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas	3, 6, 8	Increase teacher retention rate	Promising Practice, Sound Theory
4	Develop an Instructional Support System to support the instructional processes and functions necessary for ensuring student learning	10, 6	Increase percentage of students meeting state standards	Promising Practice, Sound Theory
5	Professional development for building-level administrators to become leadership coaches	3, 14	Increase teacher effectiveness and efficacy	Proven

### III. RATIONALE FOR ADEQUACY INTERVENTIONS AND THEIR POTENTIAL EFFECTS ON STUDENT LEARNING

Table XI: Rationale for Elementary School Interventions

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
1	Targeted reading and math programs using research-validated methods in grades 1-3	Developing reading skills in the early grades is one of the most well-established methods for improving student academic achievement and retention in school. A targeted program using evidence-based methods as a part of a whole-school reform program has been proven to be highly effective in improving reading and math in the lower grades.	Effect size <sup>vi</sup> = .25 (= 1.15 when combined with curricular change and family support <sup>v</sup> )
2	Increase tutoring in reading and math in grades 4-5	Focused tutoring with trained tutors is an effective follow-up strategy to high-quality, evidence-based instructional programs in grades K-3	Effect size <sup>vi</sup> = .06 -.13 reading (.50 w/one-on-one tutoring <sup>vii</sup> ) .09 - .17 math
3	Summer school with academic focus for students in the bottom 40% each year (grades K-5)	Summer school has been shown to help close the achievement gap, or at least prevent it from increasing, as students progress from grades K-5	Effect size <sup>viii</sup> = .06 -.13 reading .09 - .17 math
4	Intensive language acquisition programs for ESL students by reducing student-teacher ratio	Shortening the time it takes ESL students to master English enables them to meet state standards sooner and reduces the costs of special services for them	Positive effects on language acquisition <sup>ix</sup>

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
5	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	This individual works with teachers to provide professional development in higher-order thinking skills, diversity, and train them to utilize evidence-based instructional methods and to adapt their methods to meet the needs of a wider range of learners	Effect size <sup>x</sup> = .33
6	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standards	Lack of content knowledge is often a reason elementary teachers do not teach or aren't comfortable teaching certain topics or concepts. Ensuring content knowledge is a key prerequisite to ensuring the content is taught properly	Positive effects on student learning <sup>xi</sup>
7	Mentor teachers who are new to the profession	Current teacher turnover is high due to retirement and other factors. New teachers need to be effective in their classrooms immediately and need to be retained at a higher rate than they are currently	Positive effects on teacher retention <sup>xii</sup>
8	Teacher leadership development program (teaming, instructional improvement)	Teacher leaders fulfill a variety of roles and are necessary if decision-making is decentralized to the building level. Teachers who think and act as leaders tend to conduct more research, use data to make decisions, and think in terms of the whole school, and not just their classrooms	Positive effects on school reform and change <sup>xiii</sup>

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
9	Computer-assisted instructional labs and workstations	Instructional Learning Systems or other comprehensive learning programs can have a positive effect on learning for a range of students and can complement effective classroom instruction	Effect size <sup>xiv</sup> = .11
10	Additional support for high-need special education students to meet NCLB standards	Special education students comprise a significant portion of the student population. It will be the most challenging for these students to reach NCLB requirements. Additional support for these students is critical in responding to federal mandates, as well as meeting state education goals	Positive effects on special education students meeting standard <sup>xv</sup>
11	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	School-wide discipline is a key component in creating environments where student learning occurs. PBS systems enable teachers to focus on learning and administrators to focus on instructional improvement, instead of discipline	Positive effects on student behavior and participation in class <sup>xvi</sup>
12	Program support cost to implement interventions	These interventions require additional administrative support at the building and central levels in order to be implemented, managed, and evaluated. Administrative support is critical to program success	

**Table XII: Rationale for Middle School Interventions**

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
1	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	Reading instruction in secondary schools does not occur formally focus on literature. However, to be successful in high school and postsecondary education, students need to be able to read a variety of written materials	Positive effect on student achievement <sup>xvii</sup>
2	Create a “default core” academic curriculum into which all students are enrolled unless they opt out	Studies of student transcripts indicate that those who take a defined core curriculum do better in postsecondary education compared to those who choose their own classes	Positive effect on student achievement <sup>xviii</sup>
3	Improve counseling services at the middle level to help diagnose students with out-of-classroom problems, that are preventing them from meeting standards	Schools that increase achievement significantly have strategies in place to identify and address the needs of all children, particularly those with personal issues that inhibit achievement. Improved counseling services function to help solve the problems that prevent students from achieving success	Positive effect on student achievement <sup>xix</sup>
4	Mentor teachers who are new to the profession	Current teacher turnover is high due to retirement and other factors. New teachers need to be effective in their classrooms immediately and need to be retained at a higher rate than they are currently	Positive effects on teacher retention <sup>xx</sup>
5	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	Schoolwide discipline is a key component in creating environments where student learning occurs. PBS systems enable teachers to focus	Positive effects on student behavior and participation in class <sup>xxi</sup>

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
		on learning and administrators to focus on instructional improvement, instead of discipline	
6	Closely articulate middle school and high school mathematics curriculum, so that all students progress at an appropriate rate and that all are placed properly when they enter high school	When curriculum is closely articulated, it is easier to place students appropriately, to sequence skill development, and to avoid redundancy and gaps. An articulated math curriculum allows more students to reach higher levels of math achievement by the end of high school	Positive effect on student achievement <sup>xxii</sup>
7	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	These individuals works with teachers to provide professional development in higher-order thinking skills, diversity, and train them to utilize evidence-based instructional methods and to adapt their methods to meet the needs of a wider range of learners	Effect size <sup>xxiii</sup> = .33
8	Teacher leadership development program (teaming, instructional improvement)	Teacher leadership is an integral element in instructional improvement and can be considered as a key component in a comprehensive, program of professional development	Positive effect on teacher pedagogy <sup>xxiv</sup>
9	Campus security increased to improve students' sense of safety and well-being	Research evidence suggests that students learn more in schools where they feel safe and secure. Additionally, polls suggest that student safety is one of the top priorities of parents. Addressing this variable successfully supports more interventions directed at improving achievement	Positive effect on student learning <sup>xxv</sup>

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
10	Small learning communities	An emerging body of evidence is pointing in the direction of smaller learning communities, particularly at the secondary school level, as a means to keep students engaged in school and achieving at higher levels	Positive effect on student learning <sup>xxvi</sup>
11	Program support costs to implement interventions	These interventions require additional administrative support at the building and central levels in order to be implemented, managed, and evaluated. Administrative support is critical to program success	

**Table XIII: Rationale for High School Interventions**

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
1	Reading program focused on informational texts (e.g., textbooks), chart, graphs, diagrams, data arrays, and reading across the curriculum	Reading instruction in secondary schools does not formally focus on literature. However, to be successful in high school and postsecondary education, students need to read a variety of written materials	Positive effect on student achievement <sup>xxvii</sup>
2	Increased student writing, including multiple 5-page research papers	The ability to write well, particularly brief research papers, is a key skill in postsecondary education. Studies indicate students will write many such papers in college	Positive effect on student success in college <sup>xxviii</sup>
3	Community-based internships and career clusters (student-run businesses, etc.)	High schools that utilize career learning programs organized into clusters, along with community-based internships, result in lower dropout rates and higher student participation	Positive effect on high school participation <sup>xxix</sup>
4	Postsecondary options and dual enrollment programs	When students begin to perform college work while in high school, their transition into college is smoother and their success in postsecondary education is increased. These programs also help decrease the costs of college for many students and include technical education, as well as academic postsecondary options	Positive effect on high school completion and college success
5	Increase Advanced Placement (AP) enrollment and pass-rate on AP examinations	If the curriculum can be better aligned between middle and high school and additional learning supports provided in reading and math, more students can be expected	Positive effect on student success in college <sup>xxx</sup>

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
		to be ready for AP instruction. When all students are required to take the AP test for that course, students are better prepared for college, even if they do not pass the test	
6	Mentor teachers who are new to the profession	Current teacher turnover is high due to retirement and other factors. New teachers need to be effective in their classrooms immediately and need to be retained at a higher rate than they are currently	Positive effects on teacher retention <sup>xxxii</sup>
7	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	These individuals works with teachers to provide professional development in higher-order thinking skills, diversity, and train them to utilize evidence-based instructional methods and to adapt their methods to meet the needs of a wider range of learners	Effect size <sup>xxxiii</sup> = .33
8	Teacher leadership development program (teaming, instructional improvement)	Teacher leadership is an integral element in instructional improvement and can be considered as a key component in a comprehensive, program of professional development	Positive effect on teacher pedagogy <sup>xxxiii</sup>
9	Campus security increased to improve students' sense of safety and well-being	Research evidence suggests that students learn more in schools where they feel safe and secure. Additionally, polls suggest that student safety is one of the top priorities of parents. Addressing this variable supports more interventions directed at improving achievement	Positive effect on student learning <sup>xxxiv</sup>

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
10	Positive Behavioral Support (PBS) System (improvement discipline, classroom management)	School-wide discipline is a key component in creating environments for student learning. PBS systems enable teachers to focus on learning and administrators to focus on instructional improvement, instead of discipline	Positive effects on student behavior and participation in class <sup>xxxv</sup>
11	Small learning communities	An emerging body of evidence is pointing in the direction of smaller learning communities, particularly at the secondary school level, as a means to keep students engaged in school and achieving at higher levels	Positive effect on student learning <sup>xxxvi</sup>
12	Program support cost to implement interventions	These interventions require additional administrative support at the building and central levels in order to be implemented, managed, and evaluated. Administrative support is critical to program success	

Table XIV: Rational for System-Level (DOE Central) Interventions

INTERVENTION NUMBER	INTERVENTION TYPE	RATIONALE	EFFECT
1	Parent Community Networking Center expansion and focus on academic support	Educators have long believed that parental involvement was critical to student success. Recent empirical studies and meta-analyses have confirmed a relationship between parental involvement and improved student achievement	Positive effect on student achievement <sup>xxxvii</sup>
2	Assessment data management system	More information is being generated about student performance and skills as a result of increased testing requirements. However, without a system to manage the resulting data, teachers will not be able to take advantage of this information to improve instruction and enhance student learning	Positive effect on student achievement <sup>xxxviii</sup>
3	Identify areas of teacher shortages in high-priority academic areas and offer incentives to prospective teachers to become certified in these areas	Effective teachers have been demonstrated repeatedly to be one of the single most important variables in determining student achievement. Recruiting highly qualified teachers into areas of shortage will help ensure teacher quality and student achievement	Positive effect on student achievement <sup>xxxix</sup>
4	Develop an Instructional Support System to support the instructional processes and functions necessary for ensuring student learning	The system, as a whole, has to be directed toward student achievement. The individual efforts of teachers and students must be supported by a larger system that enables problems to be solved and new methods to be implemented successfully	Positive effects on student achievement <sup>xl</sup>

5	Professional development for building-level administrators to become leadership coaches	Principals are one of the single most important variables for performance across schools. If principals can actively support teachers' classroom efforts and develop teacher leadership, student achievement will increase within the school	Effect size <sup>xi</sup> = .25
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#### IV. ADEQUACY FACTORS BY SCHOOL LEVEL

The following chart details the current level of the School Adequacy Factors and how they are expected to change when the Adequate School is implemented. The changes are assumed to occur in part due to the Adequacy Interventions, but also as a result of additional system efficiencies put into place to enable the Adequate Schools to make full use of the additional resources provided. These changes in the Adequacy Factors can serve as indicators of how well the Adequate Schools are functioning and as a form of evaluation for the success of the Adequacy Interventions.

The table presents the Adequacy Factors for the elementary, middle, and high school Adequate Schools, the Adequacy goals they address, their level in the Baseline Schools, and how that level would be expected to change with the implementation of the Adequate Schools.

**Table XV: Adequacy Factors for Elementary School**

ADEQUACY FACTORS	ADEQUACY GOAL	CURRENT LEVEL	ADEQUACY LEVEL
<i>Teacher perceptions of focused and sustained action</i> Source: School Quality Survey, Spring 2003	1	80% positive	90% positive
<i>Teacher attitudes toward standard-based education</i> Source: School Quality Survey, Spring 2003	2	88% positive	95% positive
<i>Teacher perceptions of student safety and well being</i> Source: School Quality Survey, Spring 2003	4	86% positive	95% positive
<i>Parent perceptions of student safety and well being</i> Source: School Quality Survey, Spring 2003	4	75% positive	95% positive
<i>Student perceptions of student safety and well being</i> Source: School Quality Survey, Spring 2003	4	65% positive	95% positive
<i>Teacher perceptions of involvement</i> Source: School Quality Survey, Spring 2003	5	84% positive	90% positive
<i>Parent perceptions of involvement</i> Source: School Quality Survey, Spring 2003	5	66% positive	90% positive
<i>Teacher perceptions of coordinated team work</i> Source: School Quality Survey, Spring 2003	6	78% positive	90% positive
<i>Teacher perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9	75% positive	90% positive
<i>Alignment of school and staff to state and school education goals</i> Source: HI DOE	1, 8	Medium	High
<i>Curriculum alignment within buildings and across levels</i> Source: HI DOE	1, 8	Medium	High

<b>ADEQUACY FACTORS</b>	<b>ADEQUACY GOAL</b>	<b>CURRENT LEVEL</b>	<b>ADEQUACY LEVEL</b>
<i>Adequacy of professional development program, participation in professional development</i> Source: HI DOE	9	Medium	High
<i>Parent perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9, 10	83% positive	90% positive
<i>Student perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9, 10	84% positive	95% positive
<i>Use of data systems by teachers to make instructional decisions about student learning needs</i> Source: HI DOE	11	Low	High
<i>Teacher perceptions of responsiveness of the system</i> Source: School Quality Survey, Spring 2003	7, 12	82% positive	90% positive
<i>Teacher satisfaction</i> Source: School Quality Survey, Spring 2003	1, 2, 3, 4, 5, 6	63% positive	85% positive
<i>Parent satisfaction</i> Source: School Quality Survey, Spring 2003	2, 3, 4, 10	70% positive	90% positive
<i>Student satisfaction</i> Source: School Quality Survey, Spring 2003	2, 3, 4, 10	73% positive	95% positive

Table XVI: Adequacy Factors for Middle School

ADEQUACY FACTORS	ADEQUACY GOAL	CURRENT LEVEL	ADEQUACY LEVEL
<i>Teacher perceptions of focused and sustained action</i> Source: School Quality Survey, Spring 2003	1	68% positive	85% positive
<i>Teacher attitudes toward standard-based education</i> Source: School Quality Survey, Spring 2003	2	84% positive	95% positive
<i>Teacher perceptions of student safety and well-being</i> Source: School Quality Survey, Spring 2003	4	75% positive	95% positive
<i>Parent perceptions of student safety and well-being</i> Source: School Quality Survey, Spring 2003	4	55% positive	90% positive
<i>Student perceptions of student safety and well being</i> Source: School Quality Survey, Spring 2003	4	42% positive	90% positive
<i>Teacher perceptions of involvement</i> Source: School Quality Survey, Spring 2003	5	72% positive	90% positive
<i>Parent perceptions of involvement</i> Source: School Quality Survey, Spring 2003	5	52% positive	80% positive
<i>Teacher perceptions of coordinated team work</i> Source: School Quality Survey, Spring 2003	6	69% positive	90% positive
<i>Teacher perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9	62% positive	85% positive
<i>Alignment of school and staff to state and school education goals</i> Source: HI DOE	1, 8	Medium	High
<i>Curriculum alignment within buildings and across levels</i> Source: HI DOE	1, 8	Medium	High
<i>Adequacy of professional development program, participation in professional development</i> Source: HI DOE	9	Medium	High
<i>Parent perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9, 10	65% positive	85% positive

ADEQUACY FACTORS	ADEQUACY GOAL	CURRENT LEVEL	ADEQUACY LEVEL
<i>Student perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9, 10	54% positive	85% positive
<i>Use of data systems by teachers to make instructional decisions about student learning needs</i> Source: HI DOE	11	Low	High
<i>Teacher perceptions of responsiveness of the system</i> Source: School Quality Survey, Spring 2003	7, 12	72% positive	90% positive
<i>Teacher satisfaction</i> Source: School Quality Survey, Spring 2003	1, 2, 3, 4, 5, 6	55% positive	80% positive
<i>Parent satisfaction</i> Source: School Quality Survey, Spring 2003	2, 3, 4, 10	56% positive	85% positive
<i>Student satisfaction</i> Source: School Quality Survey, Spring 2003	2, 3, 4, 10	46% positive	80% positive

**Table XVII: Adequacy Factors for High School**

<b>ADEQUACY FACTORS</b>	<b>ADEQUACY GOAL</b>	<b>CURRENT LEVEL</b>	<b>ADEQUACY LEVEL</b>
<i>Teacher perceptions of focused and sustained action</i> Source: School Quality Survey, Spring 2003	1	62% positive	80% positive
<i>Teacher attitudes toward standard-based education</i> Source: School Quality Survey, Spring 2003	2	80% positive	90% positive
<i>Teacher perceptions of student safety and well-being</i> Source: School Quality Survey, Spring 2003	4	67% positive	90% positive
<i>Parent perceptions of student safety and well-being</i> Source: School Quality Survey, Spring 2003	4	49% positive	85% positive
<i>Student perceptions of student safety and well-being</i> Source: School Quality Survey, Spring 2003	4	42% positive	85% positive
<i>Teacher perceptions of involvement</i> Source: School Quality Survey, Spring 2003	5	68% positive	85% positive
<i>Parent perceptions of involvement</i> Source: School Quality Survey, Spring 2003	5	47% positive	75% positive
<i>Teacher perceptions of coordinated team work</i> Source: School Quality Survey, Spring 2003	6	66% positive	85% positive
<i>Teacher perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9	61% positive	85% positive
<i>Alignment of school and staff to state and school education goals</i> Source: HI DOE	1, 8	Medium	High
<i>Curriculum alignment within buildings and across levels</i> Source: HI DOE	1, 8	Medium	High
<i>Adequacy of professional development program, participation in professional development</i> Source: HI DOE	9	Medium	High
<i>Parent perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9, 10	49% positive	75% positive

ADEQUACY FACTORS	ADEQUACY GOAL	CURRENT LEVEL	ADEQUACY LEVEL
<i>Student perceptions of professionalism and capacity of system</i> Source: School Quality Survey, Spring 2003	7, 9, 10	40% positive	80% positive
<i>Use of data systems by teachers to make instructional decisions about student learning needs</i> Source: HI DOE	11	Low	High
<i>Teacher perceptions of responsiveness of the system</i> Source: School Quality Survey, Spring 2003	7, 12	66% positive	85% positive
<i>Teacher satisfaction</i> Source: School Quality Survey, Spring 2003	1, 2, 3, 4, 5, 6	52% positive	80% positive
<i>Parent satisfaction</i> Source: School Quality Survey, Spring 2003	2, 3, 4, 10	53% positive	80% positive
<i>Student satisfaction</i> Source: School Quality Survey, Spring 2003	2, 3, 4, 10	38% positive	75% positive

## V. PHASED IMPLEMENTATION PLAN

Although the Adequate School models are designed in an integrated fashion so that the Adequacy Interventions support one another and create an effect that is likely to lead to greater learning collectively than individually, it is nevertheless possible to construct a scenario for implementing the Adequacy School models in phases. The advantages of doing so are that the costs are spread over a greater span of time and the schools themselves can incorporate the changes required by the various interventions sequentially instead of simultaneously, which can be advantageous.

**Table XVIII: Elementary School Interventions – Phased Implementation**

YEAR	ADEQUACY INTERVENTION	PER PUPIL	TOTAL PER PUPIL PER YEAR
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	\$178	\$310
	Summer school with academic focus for bottom 40% each year (grades K-5)	\$115	
	Mentor teachers who are new to the profession	\$17	
Year 2	Targeted reading and math programs using research-validated methods in grades 1-3	\$323	\$380
	Teacher leadership development program (teaming, instructional improvement)	\$57	
Year 3	Increase tutoring in reading and math in grades 4-5	\$208	\$324
	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	\$116	
Year 4	Computer-assisted instructional labs and workstations	\$158	\$306
	Additional training for teachers to gain specific knowledge and skills that improve their ability to teach reading and math to students not meeting standards	\$148	
Year 5	Additional support for high-needs special education students to meet NCLB standards	\$155	\$212
	Intensive language acquisition programs for ESLL students by reducing student-teacher ratio	\$58	
Pro-Rata	Program support cost to implement interventions	\$230	\$230
	Total	\$1,762	\$1,762

**Table XIX: Middle School Interventions – Phased Implementation**

<b>YEAR</b>	<b>ADEQUACY INTERVENTION</b>	<b>PER PUPIL</b>	<b>TOTAL PER PUPIL PER YEAR</b>
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	\$178	\$264
	Mentor teachers who are new to the profession	\$17	
	Campus security increased to improve students' sense of safety and well-being	\$70	
Year 2	Create "default core" curriculum into which all students are enrolled unless they opt out	\$266	\$327
	Closely articulate middle school and high school mathematics curriculum, so that all students progress at an appropriate rate and that all are placed properly when they enter high school	\$34	
	Teacher leadership development program (teaming, instructional development)	\$27	
Year 3	Reading program focused on informational texts (e.g., textbooks), charts, graphs, diagrams, data arrays, and reading across the curriculum	\$102	\$373
	Instructional improvement coordinators to organize and conduct professional development on a range of issues and to coach teachers	\$100	
	Improve counseling services at the middle level to help diagnose students with out-of-classroom problems that are preventing them making adequate progress toward meeting standards	\$133	
	Small learning communities	\$38	
Pro-Rata	Program support cost to implement interventions	\$145	\$145
	Total	\$1,109	\$1,109

**Table XX: High School Interventions – Phased Implementation**

<b>YEAR</b>	<b>ADEQUACY INTERVENTION</b>	<b>PER PUPIL</b>	<b>TOTAL PER PUPIL PER YEAR</b>
Year 1	Positive Behavioral Support (PBS) System (improve discipline, classroom management)	\$178	\$257
	Campus security increased to improve students' sense of safety and well-being	\$63	
	Mentor teachers who are new to the profession	\$17	
Year 2	Small learning communities, including career academies	\$279	\$303
	Teacher leadership development program (teaming, instructional improvement)	\$24	
Year 3	Instructional improvement coordinator to organize and conduct professional development on a range of issues and to coach teachers	\$116	\$313
	Community-based internships and career clusters (student-run businesses, etc.)	\$60	
	Reading program focused on informational texts (e.g., textbooks), charts, graphs, diagrams, data arrays, and reading across the curriculum	\$137	
Year 4	Increased student writing, including multiple 5-page research papers	\$50	\$180
	Increased Advanced Placement enrollment and pass-rate on AP examinations	\$91	
	Postsecondary options and dual enrollment programs	\$39	
Pro-Rata	Program support cost to implement interventions	\$158	\$158
	Total	\$1,210	\$1,210

**Table XXI: System-level (DOE Central) Interventions – Phased Implementation**

YEAR	ADEQUACY INTERVENTION	PER PUPIL	TOTAL PER PUPIL PER YEAR
Year 1	Assessment of data management system	\$10	\$20
	Identify areas of teacher shortages in high-priority academic areas	\$10	
Year 2	Parent Community Networking Center expansion	\$8	\$14
	Instructional Support System	\$2	
	Professional development for building-level administrators	\$4	
	Total	\$34	\$34

## VI. SPECIAL CASE OF COMBINED AND CHARTER SCHOOLS

Hawaii's Combined Schools and Charter Schools do not lend themselves well to the modeling approach that was used to develop the Baseline and Adequate School models. These schools not only do not conform consistently to a set of specified organizational structures, but they also vary greatly in size. As a result, it is not feasible to construct a "baseline" Combined or Charter School.

In School-Year 2003-2004 Combined Schools had the following configurations:

- Six K-12 schools with student enrollment ranging from 24 to 298 students
- Eight K-8 schools with student enrollment ranging from 110 to 520 students
- Seven 7-12 schools with student enrollment ranging from 77 to 1,653
- One Grade 3 school with student enrollment of 3

The costs of these schools are not directly incorporated into the Baseline Schools. The per-pupil expenditures for Combined and Charter Schools students are multiplied by the number of students in these schools. This figure, when added to the amount of the Baseline Schools, yields the current State education budget.

In the Adequacy Model, Combined and Charter Schools can be accounted for in the following fashion:

- The students in the Combined and Charter Schools are apportioned appropriately across all grade levels and aggregated into groupings that mirror the three Adequate School models (K-5, 6-8, 9-12)
- The current cost-per-pupil in the Combined and Charter Schools is calculated and the percentage difference between this amount and the per-pupil amount for students in the Baseline Schools is computed
- The cost-per-pupil for each of the Adequacy Schools is established
- The number of students from the Combined and Charter Schools at each of the three Adequacy School levels is multiplied by the current cost-per-pupil and adjusted to take into account for any per-pupil cost differences identified in Step 2. This results in a 10.3% adjustment for Combined/Charter students in the elementary grades, no adjustment at the middle grades, and a 5.6% adjustment for Combined/Charter high school students
- The amounts generated in Step 4 are totaled and added to the total from the three Adequacy Schools. This yields the Adequate Schools total budget

## VII. HOW TO USE THE MODELS

This model can be used primarily as a means to demonstrate better cause and effects among educational practices, their costs, and improved student learning. The model demonstrates how current educational practices can be augmented in ways that lead to better achievement of goals the state has established for education.

### *Limitations of the Model as Presented*

The model is based upon the data that were available at the time of its creation. The better the data (level of detail) the stronger the relationship that can be modeled between inputs (dollars) and outputs (student learning).

Additional data need to be gathered, particularly in areas that define how efficiently the schools are functioning currently. In some cases, assumptions have been used because data were not available. The efficiency of operation directly affects the amount of money needed to achieve stated goals. With better data, it is possible to forecast with greater accuracy the dollar amounts necessary for an adequate education.

The cost estimates for each of the Adequacy Interventions were derived from actual costs of the intervention as implemented through best-practice models in schools. These costs have a contextual component to them, meaning that the precise costs of implementing each Adequacy Intervention in Hawaii schools may vary slightly from the stated costs, based on the specific context into which the intervention is implemented. If the implementation strategy differs from the one assumed for the interventions, the costs may differ from those stated.

### *Updating the Model - Why and How*

The model needs to be updated regularly. Each year, new data need to be entered, and the adequacy interventions need to be reviewed. As researchers learn more about effective educational practices, new interventions may be devised.

A commission charged with overseeing the regular updating of the model is a useful structure to help ensure the model is not forgotten or not used. The commission should be composed of prominent citizens with an interest in education. Their participation also lends credibility to the Adequate School models and their recommended interventions. The commission should be assisted by staff members who arrange regular studies that gather the additional data needed to keep the model current.

### *The Model's Potential Effects on Educational Practices*

The model does not require schools to adopt specific educational practices. Instead, it demonstrates that certain goals can be obtained if certain programs are implemented and schools operate efficiently and effectively with the resources provided. Schools, therefore, can review the model to help them compare their current structure (Baseline School models) and practices to those of the Adequate School models. Schools can also use the models as a tool to



measure their own budgeting practices. The models become reference points, idealized models which schools can be expected to strive toward. The models provide a measure of how schools could look and function at various levels of resourcing. This helps influence schools to improve their practices and adopt the most effective programs possible.

### ***Additional Data Sources that may be considered in the Future***

The model will benefit from additional, detailed data being collected in future years. Most importantly, there will be better information for the Adequacy Factors. These help determine how effectively schools are functioning, which is critical to understanding how well they are achieving their goals.

It is also important to collect information on student learning outcomes in relation to the stated education goals the model seeks to address. Some data exist currently from state tests, but more information will become available as federal testing requirements are implemented over the next few years. The state has an opportunity to use data on student academic performance to make closer connections between the way schools are organized and funded and the results that are achieved.



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# DEFINING AN ADEQUATE EDUCATION FOR THE STATE OF HAWAII

## *Introduction*

The purpose of this document is to integrate information from various sources in order to identify the key characteristics of an adequate education in the State of Hawaii. These sources include DOE's strategic plan and accountability framework as well as policy documents provided by the Board of Education, Act 51 and the Hawaii Revised Statutes.

We integrate information from the above sources to document the goals<sup>1</sup> of an adequate education in the State of Hawaii. The purpose of integrating and listing these goals in one place is (1) to outline the results that various stakeholders in the state education system are seeking to achieve from its schools, and (2) to help schools make better decisions about how to align, organize and conduct instruction effectively.

## *One-Six-Three: The foundation for an adequate education*

DOE's "one-six-three combination" serves as the foundation for developing a framework of an adequate education in the State of Hawaii. Specifically,

- DOE pursues one vision – the vision of the public school graduate
- DOE strives for six General Learner Outcomes (GLO) – evidence that our students have become effective communicators, critical thinkers, producers of quality work, ethical users of technology, team players, and life-long learners
- DOE holds fast to three student priorities – academic achievement, safety and well-being, and civic responsibility

## *The Vision of the Hawaii High School Graduate*

All Hawaii public school graduates will:

- Realize their individual goals and aspirations
- Possess the attitude, knowledge and skills necessary to compete and positively contribute in the global society
- Exercise the rights and responsibilities of citizenship, and
- Pursue post-secondary education and/or careers without the need for remediation

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<sup>1</sup> It is important to note that this document integrates policy statements contained in various documents; it is not an effort to define new goals or direction for the DOE

## Goals

DOE has set four key goals to accomplish the above vision. Policy statements from various DOE sources that support these goals are listed below.

- **Provide a standards-based education for every child**
  - Systematically develops student mastery of fundamental academic skills, including literacy and numeracy, so that all students reach high levels of performance, the purpose of which is to close the gap in achievement between different racial and economic groups (policy goal #6; please see pages 7-8 of the reference guide)
  - Exposes students to a broad body of knowledge and comprehensive set of skills that support lifelong learning, effective decision-making, self-awareness, and higher order thinking (policy goal #7; please see pages 7-8 of the reference guide)
  
- **Sustain comprehensive support for all students**
  - Offers students an equal educational opportunity to enroll in programs regardless of race, color, religion, sex, sexual orientation, disabilities, or national origin (policy goal #1; please see pages 7-8 of the reference guide)
  - Built upon a partnership among highly-qualified professional educators, parents, and community members who work together for student success (policy goal #3; please see pages 7-8 of the reference guide)
  - Enables all students to participate fully in a democratic society and productively in a market economy (policy goal #4; please see pages 7-8 of the reference guide)
  - Equips all students to function effectively in today's pluralistic society (policy goal #5; please see pages 7-8 of the reference guide)
  - Offers a comprehensive curriculum to all students built around a core that includes English language arts, sciences, mathematics, social studies, fine arts, health and fitness, world languages, and home and work skills (policy goal #8; please see pages 7-8 of the reference guide)
  - Allows students to move continuously and seamlessly from entry into preschool to a successful transition to high school (policy goal #10; please see pages 7-8 of the reference guide)
  - Serves as the primary means for students who arrive from other nations to make a successful transition to the American educational system and culture (policy goal #11; please see pages 7-8 of the reference guide)
  - Addresses the special needs of students who face educational challenges (policy goal #12; please see pages 7-8 of the reference guide)

- **Deliver coordinated, systemic support for staff and schools**
  - Ensures student safety and well being within environments that have adequate facilities, equipment, books, and other learning resources (policy goal #9; please see pages 7-8 of the reference guide)
  - Engages parents and the community as full partners in the student's learning process (policy goal #13; please see pages 7-8 of the reference guide)
  
- **Achieve and sustain continuous improvement of student performance, professional, school, and system quality**
  - Transmits the most important elements of the diverse cultures that make up the State while simultaneously advancing the endowment of those cultures for the benefit of subsequent generations of students and society at large (policy goal #2; please see pages 7-8 of the reference guide)
  - Promotes continuous improvements in student learning through research-based practices, site-based decision-making, and public accountability (policy goal #14; please see pages 7-8 of the reference guide)

## Exhibit

### Supporting Policy Statements

The following policy statements contain language that supports different aspects of the goals discussed in (IV) above. In most cases, the goal components can be traced directly back to these policy statements.

Goal Component	Source
<p><b>PHILOSOPHY OF EDUCATION - HAWAII'S PUBLIC SCHOOLS' POLICY</b></p> <p><i>The Premise:</i> A democratic society is dependent upon the free, full growth of individuals who will participate in the creation and development of the institutions in that society. The institution of government is founded on a secular base, which allows and encourages the development of a pluralistic society that contains many cultures within that society.</p> <p><i>Education and the Need for Education:</i> Individuals need to develop their personal potentials to participate fully in a democratic, multi-cultural society. Education is the process which allows individuals to become citizens who have positive attitudes toward learning and inquiry, who communicate effectively, and who are guided in making choices based on critically determined and commonly shared values. The preservation, promotion, and improvement of a democratic, multi-cultural society requires the formal schooling of its children, youth and adults.</p> <p><i>Scope:</i> The State of Hawaii shall provide a public school system with a scope of curricular and instructional programs from pre-school to high school for children, youth and adults. Such programs shall be simultaneously intellectual, aesthetic, and practical, with instructional practices which insure that learners acquire the knowledge relevant to living in the present as well as the arts and skills required for living in the future. All programs shall derive from a curriculum which must include English language arts, sciences, mathematics, social studies, fine arts, health and fitness, world languages, and home and work skills, and all other support services necessary for implementation.</p> <p><i>Equal Educational Opportunity:</i> Students shall have an equal educational opportunity to enroll in programs regardless of race, color, religion, sex, sexual orientation, disabilities, or national origin</p>	<p>BOE Policy on Philosophy of Education</p>
<ul style="list-style-type: none"> <li>• ...education must do no less than advance the endowment of human culture itself, so that each succeeding generation finds itself further along the road towards peace, social justice, and environmental sustainability in a society guided by creativity, compassion, and curiosity</li> </ul>	<p>Act 51, Section 1</p>
<ul style="list-style-type: none"> <li>• The legislature has supported and will continue to support</li> </ul>	<p>Act 51, Section 1</p>

<p>efforts by the department of education to improve Hawaii's schools as a means of enhancing the academic achievement, safety and well-being, and civic commitment of students, to meet the evolving needs of today's communities</p>	
<p><b><i>All public school graduates will:</i></b></p> <ul style="list-style-type: none"> <li>• Realize their goals and aspirations</li> <li>• Have attitudes, knowledge and skills to compete and positively contribute in a global society</li> <li>• Exercise rights and responsibilities of citizenship</li> <li>• Pursue higher education or careers without need for remediation</li> </ul>	<p>DOE Strategic Plan</p>
<p><b><i>There are six General Learner Outcomes (GLO):</i></b></p> <ul style="list-style-type: none"> <li>• Ability to be responsible for one's own learning</li> <li>• Ability to be involved in complex thinking and problem solving</li> <li>• Ability to recognize quality performance and produce quality products</li> <li>• Ability to communicate effectively</li> <li>• Ability to use a variety of technologies effectively and ethically</li> <li>• Ability to work well with others</li> </ul>	<p>DOE Strategic Plan</p>
<p><b><i>Components of the curriculum:</i></b></p> <ul style="list-style-type: none"> <li>• Language arts</li> <li>• Educational technology</li> <li>• Mathematics</li> <li>• Fine arts</li> <li>• Science</li> <li>• Health</li> <li>• Social studies</li> <li>• Physical education</li> <li>• Career and life skills</li> <li>• World languages</li> </ul>	<p>DOE Strategic Plan</p>
<ul style="list-style-type: none"> <li>• <b>Achievement/literacy</b>—ensures each student reads, writes, speaks, computes, and thinks critically with proficiency as specified in the Hawaii Content and Performance Standards and assessed in the Hawaii State Assessment</li> <li>• <b>Civic responsibility</b>—guides each child's growth into an informed and concerned citizen who practices ethical behavior, seeks to understand and obey laws, and actively contributes to the well being of others, society, and the environment</li> </ul>	<p>DOE Strategic Plan</p>

<ul style="list-style-type: none"> <li>• <b>Safety and well being</b>—a two-fold priority: (1) promotes a working partnership between school and home to nurture every child’s physical, emotional, and social well being, and (2) provides a secure, supportive learning environment with adequate facilities, equipment, books, and other learning resources</li> </ul>	
<ul style="list-style-type: none"> <li>• By 2014, all students will reach high standards – at a minimum attaining proficiency in reading/language arts and mathematics</li> <li>• All limited-English-proficient students will become proficient in English and reach high academic standards</li> <li>• By 2006, all students will be taught by highly qualified teachers</li> <li>• All students will be educated in safe, drug-free, and conducive-to-learning classrooms and schools</li> <li>• All students will complete high school</li> </ul>	DOE Strategic Plan
<ul style="list-style-type: none"> <li>• <b>Empowerment</b>—principals and school communities have greater authority, decision-making ability, and more control over funds</li> <li>• <b>Streamlining</b>—schools will receive resources more quickly and easily as the result of reduction of red tape, and internal control of facilities, repair and maintenance, and hiring of civil service personnel</li> <li>• <b>Accountability</b>—school report cards and performance contracts will provide greater accountability for student achievement</li> </ul>	DOE Strategic Plan