

Accountability Framework

**Hawaii Department of Education
Planning & Evaluation Office**

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Legal Requirement: Section 302A-1003(a), HRS, regarding a
Comprehensive Accountability System

Acknowledgments

Development of the *Accountability Framework* has been in progress since September 2002 and the framework has evolved during the course of many drafts and re-drafts, with widespread input and critique collected at key times. Thus, many persons have “touched” the development of the current framework in some way and to some extent. Ultimately, staff of the Planning & Evaluation Office, Hawaii Department of Education, are responsible for the current document. Nonetheless, we would like to take this opportunity to provide special acknowledgments.

Special thanks are due to members of the Accountability Workgroup, Measures Workgroup, and Data Workgroup who gave unselfishly of their time and expertise in the initial development of the framework. The persons comprising these groups are acknowledged in Appendix A. The work and advice of these people were instrumental in formulating the purpose of the framework (Section I, B), guiding concepts and assumptions (Section II), and key measures and data sources (Section III, B). Further, discussions within these workgroups repeatedly pointed to the need for a strong, proactive process in order to ensure that accountability is used constructively for improvement. The emphasis on the continuous improvement process linked to accountability (Section III, D) was proposed and supported in those discussions.

Also deserving of special thanks are three expert, external reviewers who critiqued a prior (July 15, 2003) draft of the current framework: Drs. W. James Popham, professor emeritus of the University of California, Los Angeles (UCLA); Eva L. Baker, Co-Director of the Center for Research on Evaluation, Standards, and Student Testing (CRESST) at UCLA; and Arlen Guillickson, Director of The Evaluation Center, Western Michigan University. While each of the reviewers provided encouraging comments (e.g., “The Accountability Framework is well written, concise, and represents a sensitive, intelligent approach to the complexity of accountability system implementation. It provides succinct explanations of key dilemmas and trade-offs as needed in the text.”), they also pointed to issues needing further attention and revision. As possible, those weaknesses have been addressed and we believe the current document is better for the criticism provided.

Executive Summary

Accountability for Hawaii's public education has been the subject of recent Federal and State laws, as well as an internal initiative.

- Act 238, Session Laws of Hawaii 2000 (state)
- No Child Left Behind Act of 2001 (federal)
- *Strategic Implementation Plan 2003* (Hawaii State Department of Education)

These laws and initiative share a common goal to ensure that students reach challenging standards by learning in effective schools. Aside from this end result, however, these accountability imperatives take different approaches, embody different requirements, and propose different parameters.

The State's Act 238, for example, recommends student achievement of the standards, safety and well-being of students, and civic responsibility among students as the central foci for accountability. The federal No Child Left Behind Act (NCLB), on the other hand, mandates school accountability and prescribes operational details applied to all public schools. The third factor is the Department's Strategic Implementation Plan (SIP) which specifies 91 strategic actions in the service of implementing standards for all levels—schools, complex areas, offices, and all major stakeholders—students, teachers, administrators, staff, specialists, superintendents, parents, and community members.

To coordinate these laws and the strategic plan into an holistic product, this Accountability Framework utilizes a series of integrative strategies and activities, primarily:

- embedding department-wide strategic goals and key performance measures (see Sections III, A & B),
- including the accountability expectations of Act 238 and NCLB and ensuring their congruence with various state program planning, budgeting, and evaluation requirements (see Section III, C), and
- promoting an accountability construct or model essential to continuous improvement (see Section III, D).

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I. Background and Purpose

A. Background

(1) Act 238, Session Laws of Hawaii 2000

During the past decade, policymakers and others have increasingly focused attention on improving accountability within public education. Within just the last few years, that attention has culminated in legislation. Act 238 (Session Laws of Hawaii, 2000) mandates that the Department of Education implement an educational accountability system for Hawaii's public schools that would measure and report on student attainment of statewide content and performance standards and hold everyone accountable for that performance.

Key features of the Act are:

- the provision that the Department develop a collaborative process with stakeholders, including representatives of affected bargaining units, parents, administration, and students, to determine the design of the system;
- the requirement that teachers and administrators engage in continuous growth and improvement;
- the requirement that the system invoke a full and balanced set of appropriate consequences for observed performance; and,
- the limitation of negotiations under chapter 89, Hawaii Revised Statutes, to the impact on personnel arising from the Superintendent's implementation of the educational accountability system.

The collaborative stakeholder design process authorized by Act 238 resulted in the formation of the "Act 238 Collaborative," which issued its final report in January 2002. The Collaborative developed a series of organizing concepts and recommendations to aid further system design work and implementation planning. Chief among these were the ideas of defining, organizing, and aligning accountability in terms of standards (goals), measures, and consequences. It was recommended that the "standards" of student achievement, safety and well-being, and civic responsibility serve as the three central foci for accountability.

The Collaborative's report also helped to emphasize the distinction between accountability (which includes standards, measures, and consequences) and accounting (simply reporting out to others).

(2) No Child Left Behind

The federal No Child Left Behind Act of 2001 (NCLB) was signed into law by President Bush on January 8, 2002. In sharp contrast to Act 238, NCLB mandates a school accountability system replete with its own required standards, measures, and consequences. NCLB requires a single, unified statewide accountability system: “Each State plan shall demonstrate that the State has developed and is implementing a single, statewide State accountability system that will be effective in ensuring that all local educational agencies, public elementary schools, and public secondary schools make adequate yearly progress” (No Child Left Behind Act of 2001, §1111(b)(2)(A)).

It is important to note that nearly all of the NCLB requirements, other than the specified school accountability consequences such as corrective action and restructuring, must apply to *all* public schools, not only those receiving Title I funds under NCLB. For most practical purposes, then, NCLB has prescribed many key design features and much of the operational detail for the State’s school accountability system. Hawaii’s current plan is premised on developing a single accountability system for all the State’s public schools. Our NCLB-required “Accountability Workbook” is available in print form and on the web (<http://arch.k12.hi.us>).

This framework accommodates, coordinates, and integrates three distinct accountability initiatives that originated under different authorities and different times.

- Act 238 passed by the Hawaii State Legislature in 2000 emphasized student achievement, safety and well being, and civic responsibility.
- NCLB is a federal mandate focused on achieving test-based targets for school accountability.
- DOE Strategic Implementation Plan contains 91 strategic actions to enable the public school system to achieve standards-based education for all students.

(3) Strategic Implementation Plan

The Department’s *Strategic Implementation Plan* (January 2003) is the roadmap to standards-based education in Hawaii’s classrooms. Ninety-one strategic actions provide the activities and substance to attain the Strategic Plan’s four goals.

1. Provide a standards-based education for every child
2. Sustain comprehensive support for all students
3. Deliver coordinated, systemic support for staff and schools
4. Achieve and sustain continuous improvement of student performance, and professional, school, and system quality

While Goal 4 appears to have the most direct tie to the accountability system, the *Strategic Implementation Plan* actually has three to four outcome measures for each goal. Nearly all of the total 13 outcome measures are part of the accountability framework. Additionally, the Plan has strategic actions that include follow up on the recommendations of the 2002 Hawaii State Performance Standards Review Commission and NCLB's requirements regarding teacher quality, student assessment, and school accountability. The *Strategic Implementation Plan* is available in print and on the web (<http://doe.k12.hi.us/standards>).

B. Purpose

Overall, the purpose of the educational accountability system is to assure effective schools and learning so that all students reach our challenging standards. The purpose of this framework is to implement a system of accountability that conforms to the requirements both of Act 238, Session Laws of Hawaii 2000, and of the federal “No Child Left Behind Act” of 2001, Public Law 107-110, which reauthorized the Elementary and Secondary Education Act (ESEA).

The framework also includes the Board of Education’s accountability expectations and integrates the accountability framework with selected strategies from the Department of Education’s *Strategic Implementation Plan*. The framework further incorporates expectations for students’ development of civic responsibility and the provision of high quality educational services in settings that are safe and conducive to students’ well-being. The system proposed in this framework is intended to make the schools and Department accountable for the achievement of students in ways that ensure that all children meet the State’s proficiency standards in reading and mathematics of the revised Hawaii Content and Performance Standards (HCPS II) and for the attainment of the vision for a Hawaii high school graduate.

The Hawaii Content and Performance Standards II is currently undergoing a second major refinement that will identify “essential” standards necessary for all students to graduate, and “speciality or exploratory” standards at the secondary level that broaden students’ knowledge and interests, enhance their abilities, or support future career choices.

As stated above, the purpose of the accountability system is to assure effective schools and learning so that all students reach our challenging standards. How? Clearly, more and better measures of effectiveness while necessary, are alone insufficient. A context for using the measures – to transform accounting into accountability and improvement – is needed. Thus, participants in the current design process were asked to envision an accountability system that was based on performance indicators and oriented toward continuous, quality improvement. These requirements present a multi-level challenge. For instance, information is needed to guide policy, programming, and practice, but the characteristics of the information needed for those uses differ, particularly in terms of specificity, immediacy, and comparability.

The scope of the current framework is focused toward accountability in policy and programming directed toward improving school effectiveness and student learning. Consequently, the measures proposed are summative, lagging indicators. If the

proposed approach is accepted and endorsed, it is suggested that following two years of implementation, provided that functioning of the accountability system at that point is judged successful, the framework be extended to the development and implementation of formative, leading indicators for school and classroom use. In the interim, leadership and administrators would gain additional experience with data-based quality improvement methods, a statewide accountability system focused on strategic improvement goals would be implemented, and the education system would develop sufficient infrastructure to support quality improvement focused on school and classroom practice.

In summary, the Accountability Framework that follows has been designed to accomplish the stated purposes through a series of integrative strategies and activities, primarily:

- embedding department-wide strategic goals and key performance measures (see Sections III, A & B) in major plans such as the system's *Strategic Implementation Plan*, schools' *Standards Implementation Design (SID) Action Plans*, and the plans for the Department's various direct and support services programs;
- including the accountability expectations of Act 238 and NCLB and ensuring their congruence with the state's program planning and budgeting system, as well as to program planning, budgeting, and evaluation at the school and programmatic levels (see Section III, C); and,
- promoting a constructive orientation to accountability as an essential part of the continuous improvement process (see Section III, D).

II. Guiding Concepts and Assumptions

The task of identifying the key accountability elements of the laws and the plan, followed by amalgamating them into a useful, sensible, manageable framework, was enabled through several sources such as Education Commission of the States' "What Is an Accountability Model?" (2002), Education Commission of the States' "Next Generation' Accountability Models: Principles from Interviews" (2002), and National Center for Research on Evaluation, Standards, and Student Testing's "Standards for Educational Accountability Systems" (2002). (See Appendix B for the list of sources.)

The following is the result of research review and selection of the most helpful and pertinent guiding concepts and assumptions.

A. Purposes of Accountability

Accountability is important to everyone in Hawaii since everyone has some responsibility for the stewardship and success of public education. Accountability is *accepting responsibility and being answerable* for one's actions – doing what you said you would, given that you have sufficient authority and resources to do so. An effective accountability system clearly links authority and adequate resources to responsibility; defines clear lines of responsibility and mutual obligation; requires continuous inspection of how well our central system and our schools are supporting student attainment of the statewide standards; and, in addition to ensuring compliance with requirements, should support and motivate improved performance.

B. Primary Focus on Students and Learning

School systems and schools are complex organizations. It is easy to become distracted by the many challenges involved in providing and improving public education. Common sense, though, indicates that those things that do not directly affect the quality of instruction, support services for students, or the social, cultural, and physical environment in which teaching and learning takes place, are of secondary importance. Thus, the Department's accountability system has as its primary focus student outcomes, particularly students' academic achievement, safety and well-being, and civic responsibility.

C. Focus on Status and Progress

An accountability system that judges current status relative to only a fixed future target is incomplete. Progress or growth over time is important, too. Current status may be high or low, for example, and progress may be high or low independent of

current status. While tracking both current status and progress over time is somewhat more difficult and expensive, it is essential that the accountability system do so in order that it provides information that accurately represents student, staff, and school performance. Moreover, focusing on status *and* improvement need not be done for all measures, but can be applied selectively for those measures considered most important.

D. Progress Monitoring & Decision-Making: Information Supports

Evaluative and data-driven decision-making activities are dependent on relatively large amounts of timely, accessible, relevant, high quality information. In addition to the information needed, an appropriate information support infrastructure (expertise, software, hardware) must exist to enable assembling, analyzing, and reporting the information.

E. Constructive Orientation: Continuous Improvement

Accountability is viewed here as an essential part of the continuous improvement cycle. Simply put, in order to be sustainable and of real value over time, the accountability system must be constructive, not punitive, in its intent and actual use. This is not to say, though, that the accountability system should not contain a full range of consequences: rewards and recognition, assistance, and sanctions.

F. Capacity to Improve

Stronger accountability demands must be accompanied by the capacity to respond effectively to the demands. Test scores, for example, while an indicator and motivator for improvement, cannot cause improvement. Due diligence must be exercised to ensure that sufficient capacity exists to enable changes that can positively impact student learning, e.g., that adequate supplies of standards-based curriculum materials are available, that appropriate instructional strategies and sound classroom assessment practices are known and can be skillfully delivered. In short, we need to ensure that struggling schools, staff, or students can get the help they may need to succeed.

III. Framework Overview

Certain core expectations are embedded in this framework for Hawaii's system of accountability.

1. Support offices of the Department will:
 - lead the design of the accountability system;
 - exercise due diligence to justify, request, and apply the resources to implement the system;
 - provide support and assistance to all offices and schools to implement the system;
 - advocate constructive improvements using the accountability information produced; and,
 - evaluate the system's functioning and work toward its continuous improvement.

2. Schools' staffs are partners in these efforts, as are students, parents, education-funding authorities, higher education, businesses, the military, and the general public.

Accountability for accomplishing the vision of the Hawaii high school graduate and the Department's strategic improvement goals will center on schools. However, the Department's administration and support offices are accountable for providing schools with the leadership, programmatic, personnel, and other supports needed to succeed. Similarly, the State and community are responsible for providing the system with the policy, legal, financial, and moral commitment to enable the children to succeed

A. Department-wide Strategic Improvement Goals and Measures

Vision of the Hawaii High School Graduate

All Hawaii public school graduates will:

- realize their individual goals and aspirations,
- possess the attitudes, knowledge and skills necessary to contribute positively and compete in a global society,
- exercise the rights and responsibilities of citizenship, and
- pursue post-secondary education and/or careers without the need for remediation.

Goal 1: Provide a standards-based education for every child

- Key Measures:
- Increasing % of students attaining proficiency in reading on the HCPS II State Assessment
 - Increasing % of students attaining proficiency in math on the HCPS II State Assessment
 - Increasing % of students not requiring remedial courses in the UH system

Goal 2: Sustain comprehensive support for all students

- Key Measures:
- Maintain 100% of schools and complexes passing internal student services review
 - Increasing % of schools making Adequate Yearly Progress (AYP)*
 - Increasing % of English as Second Language Learner (ESLL) students attaining English proficiency (listening, speaking, reading, writing) within 3 years of entry
 - Increasing % of students and parents satisfied with their school
 - Increasing % of students completing high school

Goal 3: Deliver coordinated, systemic support for staff and schools

- Key Measures:
- Increasing % of school staff satisfied with support and administrative services
 - Increasing # of schools meeting criteria for recognition

Goal 4: Achieve and sustain continuous improvement of student performance, professional, school, and system quality

Key Measures: - Increasing % of schools making Adequate Yearly Progress (AYP)*

*Adequate yearly progress codifies measurable annual objectives for continuous and substantial improvement for all students in publicly-funded schools to meet the State's student academic achievement standards. See Appendix C for an "AYP Matrix" of 37 cells that represent NCLB-required targets, each of which must be met in order for a school to "make AYP."

B. Goals, Key Measures, Additional Measures, and Data Sources

The complete set of measures currently proposed is given below. Corresponding to each strategic goal and its several key measures, an adjunct set of “additional measures” also is proposed. The purpose of the additional measures is to provide important supplementary detail, to tell a fuller “story” and in so doing inform better decision-making. The measures were selected for their relevance and importance for measuring progress toward each goal, utility for communicating results, and quality and practicality of appropriate data.

Given the Hawaii Department of Education’s unique configuration as a unitary public education system for the entire state with responsibilities for both state and local (district) education agency functions and operations, the Department’s responsibilities are inclusive. Consequently, information technology applications and data collected by the Department comprise what in other jurisdictions would be found at the state agency and, separately, at local districts. We have opportunities not present elsewhere, such as the ability to integrate student-level information from all public schools in the state.

Important to note is that the specific, substantive strategies and activities to attain the strategic improvement goals are not explicitly identified in this framework. Those are documented elsewhere, i.e., in the *Strategic Implementation Plan*. We wish to maintain a clear focus on the accountability framework in the current framework.

Goals and Measures	
Goal 1: Provide a standards-based education for every child	
Key Measures	Data: Availability, Source
<i>Increasing % of students attaining proficiency in reading on the HCPS II State Assessment</i>	Available annually; Planning and Evaluation Office
<i>Increasing % of students attaining proficiency in math on the HCPS II State Assessment</i>	Available annually; Planning and Evaluation Office
<i>Increasing % of students not requiring remedial courses in the UH system</i>	To be developed
Additional Measures	Data: Availability, Source
Increasing % of students completing Algebra by the end of 9 th grade	To be developed
Increasing % of students in grades 4 and 8, in reading and math, scoring in the Proficient and Advanced levels on the National Assessment of Educational Progress	Available biennially (odd years); United States Department of Education/National Center of Education Statistics
Increasing % of middle/intermediate and high schools receiving a 6-year term of accreditation	Available annually; Office of Curriculum, Instruction and Student Support
Increasing % of elementary schools participating in school accreditation	Available annually; Office of Curriculum, Instruction and Student Support
Increasing % of students qualifying for scholarship and award competitions	To be developed
Increasing % of students meeting UH Manoa/Hilo entrance requirements	To be developed
Increasing % of high school students prepared to pursue their post-high school goals as (1) self-reported; (2) reported by colleges and universities; (3) reported by employers	To be developed

Goal 2: Sustain comprehensive support for all students	
Key Measures	Data: Availability, Source
<i>Maintain 100% of schools and complexes passing internal student services review</i>	Available annually; Office of the Superintendent
<i>Increasing % of schools making Adequate Yearly Progress (AYP)</i>	Available annually; Planning and Evaluation Office
<i>Increasing % of English as Second Language Learner (ESLL) students attaining English proficiency (listening, speaking, reading, writing) within 3 years of entry</i>	Available annually; Office of Curriculum, Instruction and Student Support
<i>Increasing % of students and parents satisfied with their school</i>	Available biennially (odd years); Planning and Evaluation Office
<i>Increasing % of students completing high school</i>	Available annually; Office of Information and Technology Services
Additional Measures	Data: Availability, Source
Increasing % of licensed teachers	Hawaii Teachers Standards Board; availability beyond the current year
Increasing % of classes taught by teachers with licensure in the appropriate field/subject matter areas	To be developed
Increasing % of paraprofessional staff who are highly qualified	To be developed
Increasing % of students participating in co-curricular activities	To be developed
Decreasing % of elementary and middle/intermediate school students retained (repeating) in grade	Available annually; Office of Information and Technology Services
Decreasing incidence of student misconduct	Available annually; Office of Information and Technology Services
Increasing % of parents who report that they understand what is required of their children	To be developed
Increasing % of students reporting a sense of safety and well-being in school	Available biennially (odd years); Planning and Evaluation Office
Decreasing % of students requiring intensive support services (i.e., CSSS Levels 4 & 5 services)	To be developed

Goal 3: Deliver coordinated, systemic support for staff and schools	
Key Measures	Data: Availability, Source
<i>Increasing % of school staff satisfied with support and administrative services</i>	To be developed
<i>Increasing # of schools meeting criteria for recognition</i>	To be developed
Additional Measures	Data: Availability, Source
Increasing % of fully certified school administrators	To be developed
Decreasing number and severity of workers' compensation claims	Available annually; Office of Business Services
Increasing % of schools meeting school inspection standards	Available annually; Office of Business Services
Increasing % of schools meeting fire inspection standards	Available annually; Office of Business Services
Increasing % of schools meeting all school safety plan requirements	Available annually; Office of Business Services
Increasing % of employee daily attendance	In process; Office of Business Services

Goal 4: Achieve and sustain continuous improvement of student performance, professional, school, and system quality.	
Key Measures	Data: Availability, Source
<i>Increasing % of schools making Adequate Yearly Progress (AYP)</i>	Available annually; Planning and Evaluation Office

C. Implementation Strategies Supporting the Goals

(1) Strategic Implementation Plan

The *Strategic Implementation Plan* is the Department's overall guide to providing a systemic environment that nurtures successful implementation of standards-based education for all students. "This plan is built on what we value, what we have, and what we must do" (p. 4). This quotation refers to the seven "building blocks" of the Strategic Plan:

1. Vision of the Public High School Graduate
2. Six General Learner Outcomes
3. Hawaii Content and Performance Standards
4. Student-oriented Priorities (Literacy, Civic Responsibility, Safety and Well Being)
5. Six Images of Success (improvement targets for the DOE based on community input in the *Comprehensive Needs Assessment*)
6. *Strategic Plan for Standards-based Reform* (strategic actions not-yet-met in the predecessor of the *Strategic Implementation Plan*)
7. No Child Left Behind Act

These building blocks or foundational elements shaped the shared vision outlined in the four goals – standards-based education for every child; comprehensive support for all students; coordinated, systemic support for staff and schools; and, continuous improvement in performance and quality.

How do we move from foundation to attain the goals and vision? The bridge between the foundation and the goals consists of 91 strategic actions. Every action has a deadline and an identified "who" (one or more responsible party). Quarterly progress reports are posted on the Department's website, and an annual report at the end of the school year will document the progress on the measures for each goal.

(2) Standards Implementation Design

This system is a statewide, whole-school process to direct and support standards-based learning. It is a generic, comprehensive assessment-planning-implementation model that allows schools to address and accommodate their programs and improvement initiatives. The Standards Implementation Design System enables schools to examine the effectiveness of their instructional and organizational resources to help students, plan for improvements based on an analysis of their performance, maintain effective services and practices, and document and evaluate results.

The Standards Implementation Design System has a protocol of seven specific tasks. Schools are required to:

1. Develop a data-driven, school profile;
2. Develop vision, mission, and belief statements;
3. Develop school-wide learner outcomes, based primarily on student data;
4. Analyze instructional and organizational effectiveness;
5. Prioritize improvement areas and develop a *Standards Implementation Design Action Plan*;
6. Implement the *Standards Implementation Design Action Plan*; and,
7. Evaluate the results and plan for continuous improvement.

The last step, Task 7, requires schools to evaluate their action plan and file progress reports semi-annually. They must examine the extent to which the desired outcomes were achieved, evaluate the implementation of the action plan, describe the extent to which student achievement targets and goals were met, and describe the adjustments and modifications to the action plan for the next year. Schools must submit their semi-annual progress reports to the State Superintendent through their Complex Area Superintendents.

The Standards Implementation Design is the Department's main framework for organizing, directing, supporting, and supervising the implementation of the student standards at the school level. Schools' progress reports on their action plans, like the progress reports of the Strategic Implementation Plan, have become part of monitoring and evaluating the Department's progress by the Board of Education.

(3) “No Child Left Behind” Accountability Workbook

The *No Child Left Behind Act of 2001* (NCLB) is the reauthorization of the landmark 1965 Elementary and Secondary Education Act. The previous reauthorization of this law was known as the Improving America's Schools Act of 1994 (IASA). When President Bush signed NCLB into law on January 8, 2002, all 50 states, the District of Columbia, and Puerto Rico were presented with an unprecedented challenge: to implement immediately a highly prescribed school accountability model with the goal of all students achieving grade-level proficiency in reading and mathematics within 12 years.

In brief, the primary content of the NCLB Accountability Workbook includes assurances and specific details about the:

- inclusion of all schools, all students, and all required student subgroups in the state assessment and in the determination of Adequate Yearly Progress

(AYP);

- production and dissemination of annual state assessment results to schools and parents;
- production and dissemination of annual school “report cards” to parents and the public;
- determination of AYP (e.g., definitions of the measures, “starting point” or baseline values, intermediate goals, annual measurable objectives for proficiency in reading and mathematics, for graduation rate and retention rate, and for state assessment participation rates).

As an example, the following tables provide Hawaii’s starting points, intermediate goals, and annual measurable objectives. Hawaii’s definition of AYP (as required) results in all students meeting or exceeding the proficient level of academic achievement in reading and mathematics no later than 2013-14.

Reading, Percent of Students Proficient (Grades 3, 5, 8, 10)

Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Baseline	30												
Inter. Goal	(30)			44			58			72		86	100
Annual Objective	(30)	30	30	44	44	44	58	58	58	72	72	86	100

Mathematics, Percent of Students Proficient (Grades 3, 5, 8, 10)

Year	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
Baseline	10												
Inter. Goal	(10)			28			46			64		82	100
Annual Objective	(10)	10	10	28	28	28	46	46	46	64	64	82	100

NCLB became effective upon signature by the President, and breaking with past practice, no transition period was provided. In the months following the enactment of NCLB, the United States Department of Education (USDOE) issued a series of documents, including letters from Secretary Paige to Chief State School Officers, intended to clarify what was expected of states in terms of standards, assessments, and accountability, and specify how states were to demonstrate compliance with these requirements. States were faced with developing their accountability systems while USDOE was developing regulations and making interpretative policy determinations. The final accountability regulations were not published until two months prior to the

deadline of January 31, 2003 for submitting accountability workbooks. In December of 2002, a few weeks after publication of the final regulations on accountability, USDOE released a Consolidated Application Accountability Workbook that extended each of ten “principles of accountability” into more specific “Critical Elements” with examples of situations that would and would not meet the underlying NCLB requirements. USDOE directed states to respond to each of the Critical Elements and submit their completed workbooks by January 31, 2003.

In the following months, USDOE conducted, in each state, a Peer Review of the proposed accountability systems and began to release approval determinations. The Peer Review of Hawaii’s preliminary NCLB Accountability Workbook was conducted on March 21, 2003. By May 1, 2003, USDOE required states to finalize their accountability systems, resolve issues identified through the Peer Reviews and, more specifically, address the issues noted by USDOE in the negotiation process that followed the Peer Reviews. In actuality, USDOE was still negotiating various aspects of accountability plans with approximately 75% of the states, as of May 1, 2003. Hawaii’s “final” NCLB Accountability Workbook was submitted prior to the deadline. Subsequent negotiations on several issues resulted in a series of revisions that culminated in formal approval of Hawaii as the 24th State with an approved plan on May 28, 2003. The approved Accountability Workbook is available in print and on the web (<http://arch.k12.hi.us>).

(4) Program Review; Fiscal Accountability; PPB

Program Review

Recognizing the need for instituting a quality assurance process for programs funded, the department initiated a program review process in Fall 1999 with two underlying goals: to improve student achievement of the Hawaii Content and Performance Standards, and to improve the targeting of resources.

The initial steps consisted of designing the program review process and collecting information for the review from program managers. This was followed by a “desk audit” of all general-funded programs (numbering about 260 programs altogether) in January - February 2001, using the following criteria:

1. Essential to standards-based learning
2. Provides direct services to students and school support
3. Required to satisfy basic critical needs
4. Required to comply with legal mandates

5. Performance/effectiveness

In March 2001, a Review Panel, composed of representatives from the state and district offices and school principals, reviewed the findings of the “desk audit” and developed a consensus recommendation on each program based on how well it supported student achievement of the standards and its effectiveness in doing so.

From January to September 2002, follow-up program reviews were conducted on various curricular programs. In 2003, the Board of Education decided to conduct a more in-depth review or program audit of all general fund programs, invited certified public accounting firms to submit proposals for consideration.

The objectives of the program audits are:

- to assess the quality, efficiency, and effectiveness of program operations;
- to improve program operations by enhancing the congruence of the department’s programmatic activity and resource use with the central goal of improving student achievement of the Hawaii Content and Performance Standards (HCPS II); and,
- to report findings and recommendations which shall include the redirection of resources.

Included in the audit are all school-level programs that involve classroom instruction, classroom support, and school administration, and programs at the complex area and state levels that provide both direct and administrative services. The audit is scheduled to be completed by the end of 2004.

To avoid significant disruptions to program operations and potentially overlapping, duplicative review and audit activities, the program review activities for 2003-2004 were suspended, pending completion of the program audits. Since the next round of program reviews called for giving greater weight to program performance, the expectation is that the program audit will facilitate and augment the program review process by answering the question of how effectively programs are working. Findings from the program audits can then be analyzed along with other information collected in subsequent program reviews to help improve the quality of program’s services.

Fiscal Accountability

To integrate educational accountability with fiscal accountability, the department hired the services of a consultant firm, Grant Thornton LLP, to conduct a high-level assessment of fiscal accountability in the department and to identify a process by which the department could link fiscal expenditures with educational outcomes.

Following the recommendations of Grant Thornton's *Fiscal Accountability Study at the State of Hawaii Department of Education*, the department, having secured the Board of Education's approval in March 2003, is working on developing and implementing a performance-based budgeting system, which will capture or measure the relationship between fiscal spending and educational outcomes. The goal is to improve student achievement while concurrently improving resource allocation decision making.

Core educational outcomes and key performance indicators for the performance-based budgeting system will emerge from the goals, measures, objectives, and strategies identified in the *Strategic Implementation Plan and Accountability Framework*. Thus, our fiscal accountability system will be connected with our strategic planning and educational accountability efforts. The resulting financial management structure will better enable the department to improve student achievement by focusing resources on the school, classroom, and student support services and account for the expenditure of funds.

Planning, Programming, and Budgeting

Overarching the department's planning and budgeting processes is the state's planning, programming, and budgeting (PPB) system. The PPB system, created in 1970, was based on the premise that efficiencies and improvements in government operations could be achieved through a common approach for (1) developing long-range planning objectives; (2) establishing measures of effectiveness; (3) analyzing the costs and benefits of alternative programs that would meet these objectives, (4) conducting program evaluations of ongoing programs; and (5) translating programs into budget and legislative proposals and long-term projections. The objective of the PPB system is "to improve the quality of resource allocation decision-making." The department's *Strategic Plan*, *Strategic Implementation Plan*, *Accountability Framework*, and Program Review process are all elements of the PPB system.

To support the PPB system in a meaningful and useful way, the department has had to modify and refine parts of the state's 30-year-old PPB system to

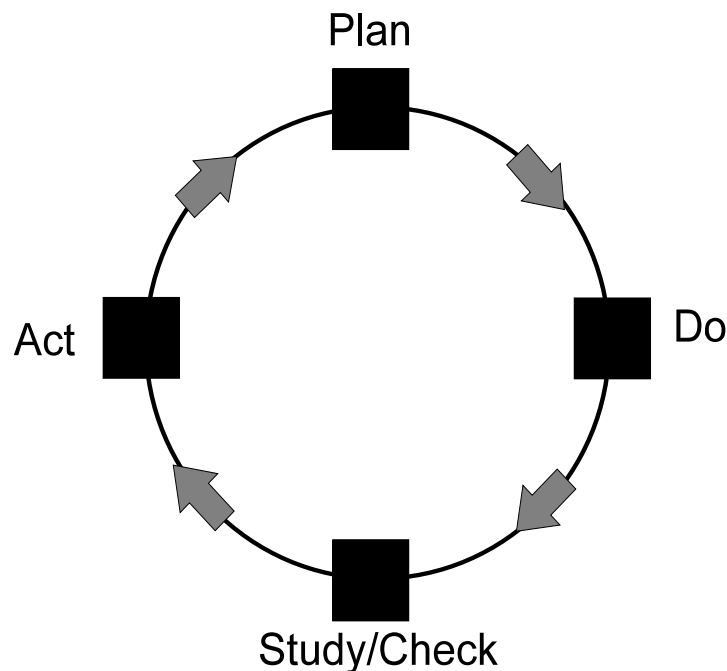
accommodate existing budgetary limitations, as well as state and federal requirements. The refinements have better enabled the department to achieve its mission and to comply with state and federal laws regarding the establishment of a standards-based education and accountability system. The challenges related to complying with the state's PPB system are discussed in the section on *Special Issues*.

D. Continuous Improvement Process and Accountability

(1) Overview: Plan-Do-Study/Check-Act

The Plan-Do-Study/Check-Act (PDSA) cycle, also referred to as the “Deming cycle,” is a process model for continuous improvement and learning. Making improvements in services means changing something. For busy people doing demanding work, changing how work is done may seem overwhelming, even threatening. The PDSA cycle is a method to break down change into manageable parts and test each part to make sure that it leads to improvement and that effort is not wasted. It can be used to test ideas for improvement quickly and easily using possibilities generated from experience, research, theory, reviews, or ideas that have been shown to work elsewhere.





Plan-Do-Study/Check-Act (Deming) Cycle



The PDSA cycle has been used in business for decades as an effective tool for accelerating improvement. The method is well established and validated: it works. By breaking improvements down into small “chunks” (PDSA cycles), what starts out as an idea for change can be tested on a small-scale, then implemented or adopted more widely, and then developed into a real, sustainable improvement. Accountability, in terms of evaluation of effectiveness, is built into the ongoing improvement process itself. Strengths of the continuous improvement approach include the ability to test changes quickly on a small scale with minimal expenditure of resources; it allows for early and effective

adjustments to improvement strategies and action plans; and it improves acceptance by implementing staff, who are often involved directly in the design of the improvement idea or in providing feedback during implementation.

The use of the PDSA cycle as an improvement process tool requires an empirical frame of mind. Essentially, it involves trying out the improvement idea, testing the idea, then improving on it. Testing the idea requires that relevant data be collected to “evidence” and analyze the improvement expected. In presentations of the PDSA cycle, the testing of the “improvement idea” is often referred to as pilot testing an improvement or as testing the viability of an action plan. That is technically accurate. But, such language should not invoke the connotation that the PDSA approach to improvement requires its users have research expertise. To the contrary, it is a “common sense” approach to developing improvements that work.

Continuous Performance/Process Improvement	
Plan 	Plan: Plan the Improvement
	<ul style="list-style-type: none"> • What are we trying to accomplish? What changes can we make that will result in an improvement? • What is the improvement idea to be tested? Describe who, what, where, when, why, and how the improvement will be tested. • How will we know it really is an improvement? What would we expect to see as a result of the change? What data will we collect to measure its effectiveness?
Do 	Do: Implement the Improvement Idea
	<ul style="list-style-type: none"> • Put the plan into practice. • Record data. • Record any unexpected effects and problems. (“Evidence” progress and problems.)
Check/Study 	Check/Study: Review the Improvement Try-out
	<ul style="list-style-type: none"> • Complete analysis of the data. Summarize what was learned. Review and reflect on the information gained from the try-out. • Did the process improve as expected? Did the process improve from a customer’s point of view? • What should be done differently? How could the team improve on the implementation process?
Act/Adjust 	Act/Adjust: Take Next Steps
	<ul style="list-style-type: none"> • Use what was learned to improve the improvement idea.. Should we amend the improvement idea and retest that? Expand its implementation? Drop it?
Repeat the PDSA improvement cycle	

(2) Setting Targets or Benchmarks

For the agreed upon key and additional measures, a yet to-be-completed next step is setting target or benchmark values for each measure. In essence, the delineation of the goal to be attained, its measure, the data to be used to operationalize the measure, and the desired annual target values define measurable objectives. That collective information, then, enables progress toward the goal to be tracked, reported, and acted upon.

For some measures, appropriate data sources are lacking (see the “Goals and Measures” tables in Section III, B). For those measures, a data development agenda will need to be created and pursued.

For each measure, initial information is needed to ascertain the baseline performance level. For measures based on extant data, previous years’ data is usually available from which a baseline can be determined. For measures requiring the development of new data, a minimum of one year’s but preferably at least two year’s data will be necessary to establish baselines.

Finally, a target setting process needs to be designed and implemented. Such a process – likely similar in design to the “cut score” setting procedure used to develop recommended performance levels on state assessments – would be based on expert professional judgment, disciplined and grounded by relevant information. The relevant information would comprise Hawaii’s baseline performance information and, where available, comparable information about the performance of “world class” or exemplary school systems and schools. Such a process can be designed so that it is replicable and produces credible and defensible target values (qualities essential to “believable” measurable objectives that people will take seriously).

Upon completing target setting, the established targets could be summarized, as an example, in the following manner:

Goal						
Measure						
Baseline Values		Target Values				
2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09

(3) Uses and Consequences for Results

Previously in regard to the guiding accountability concept of “constructive orientation” (Section II, E), we stated that: “Accountability is viewed here as an essential part of the continuous improvement cycle. Simply put, in order to be sustainable and of real value over time, the accountability system must be constructive, not punitive, in its intent and actual use. This is not to say, though, that the accountability system should not contain a full range of consequences: rewards and recognition, assistance, and sanctions.” Furthermore, as indicated a few pages above (Section III, D, (1)), management by results and accountability is built into the continuous improvement process. Thus, to the extent that continuous improvement can be adapted and embedded into the fabric of the Department’s operations and programs – “the way we do ‘business’ around here” – constructive use of results and consequences for results are assured.

But, that vision is not today’s reality. Transition to that “new” way of working will take leadership, sustained focus, supports such as staff training, and sufficient time for it to become thoroughly embedded in the system’s organizational culture. Even then, needs for specially designed monitoring activities, reviews, audits, and evaluations will still arise. Today, for instance, due to the demands of NCLB and its rigid, fully conjunctive (all conditions must be met simultaneously) model of school accountability, there is great interest, and some urgency, in developing a model for school accountability that, while compliant with NCLB’s core requirements, could be applied to Hawaii’s public schools more flexibly and defensibly.

With such qualities as fair, flexible, defensible, and rigorous, the proposed model has three indicators presented in the form of questions.

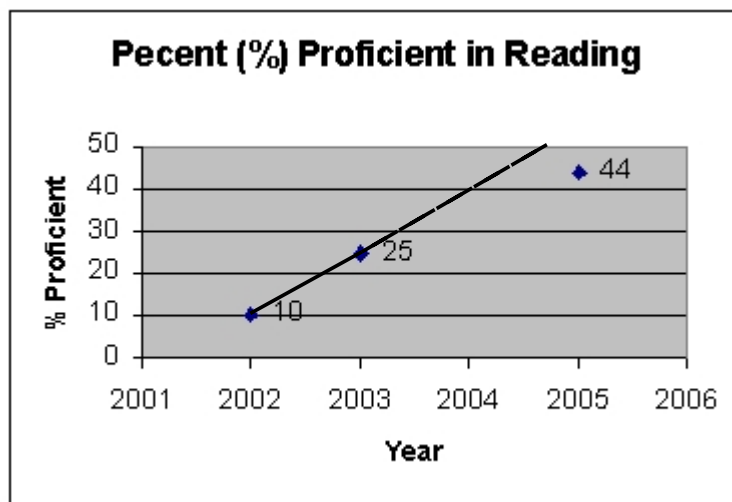
- Indicator 1: What percent of the NCLB-required AYP targets were met?
- Indicator 2: By how much, on average, were AYP targets not met?
- Indicator 3: Are the school current achievement growth trajectories on target for the next set of intermediate goals?

Indicator 1 measures *how frequently* on a 0 to 100% scale, AYP targets were met. Higher values of Indicator 1 are better than lower values. Indicator 1 is derived from dividing the number of AYP targets met by the number of AYP targets applicable. The number of AYP targets applicable to a given school may be less than the full 37 cells in the AYP matrix due to provisions for the protection of student confidentiality and for statistical reliability which allow cells without sufficient student counts to be excluded.

Indicator 2 measures **how much** on average, on a 0 to 100% scale, AYP targets were missed (not met). Lower values of Indicator 2 are better. Indicator 2 is derived from dividing the sum of the amounts by which AYP targets were not met by the number of such targets not met.

Indicator 3 is based on a **projection** of whether a school's current rate of **achievement growth** is sufficient to meet the next set of NCLB-required intermediate goals. For reading and mathematics separately a "growth trajectory" or line of best fit (linear least squares regression) is derived for the current and two preceding years' percent of students proficient. If that projection intersects or falls above the next intermediate goal, the school is making "Acceptable Growth." Simply put, Indicator 3 is a projection of a school's probable increase of student proficiency based on prior years' results. If a school's growth projection hits or falls above the NCLB-determined intermediate goal, it's classified as making "Acceptable Growth."

The following example illustrates the situation were a school had 10% and 25% of its students proficient in 2002 and 2003, respectively. The NCLB target for reading proficiency for 2002 through 2004 (based on the current intermediate goal) is 30%. Thus, while the school would not have met the current NCLB target, the school's projected rate of growth is such that it should exceed the next intermediate goal (44%) which goes into effect into effect with the 2005 test administration.



The proposed Hawaii School Accountability Model with its three indicators recognizes academic progress, not only status relative to fixed annual targets. It also recognizes and evaluates results in a compensatory way so that high levels of performance on one criterion can offset, at least partially, less successful performance on another. The model also ameliorates the “all or nothing” assignment of success or failure (i.e., Met AYP or Did Not Meet AYP) prescribed by NCLB. The outline for just such a model follows.

Hawaii School Accountability Model				
Hawaii School Performance Categories	NCLB School Status Categories (based on AYP)	Indicator 1: What percent of the NCLB-required AYP targets were met?	Indicator 2: By how much, on average, were AYP targets missed?	Indicator 3: Are the school's current achievement growth trajectories on target to meet the next set of intermediate goals?
Academically Exemplary	No Status	100%	Not applicable, all targets met	“Acceptable Growth” in both reading and math
Academically Recognized	No Status	100%	Not applicable, all targets met	“Acceptable Growth” in reading or math
	Needs Improvement	90 - 99%	3% or less	“Acceptable Growth” in reading or math
Academically Acceptable	No Status	100%	Not applicable, all targets met	“Acceptable Growth” in neither reading nor math
	Needs Improvement	80 - 89%	3% or less	“Acceptable Growth” in reading or math
	Corrective Action	80 - 89%	3% or less	“Acceptable Growth” in reading or math
Academically Unacceptable	Needs Improvement	Any combination of values for Indicators 1-3 other than those values or ranges of values shown above for the “Recognized” or “Acceptable” categories		
	Corrective Action	Any combination of values for Indicators 1-3 other than those values or ranges of values shown above for the “Acceptable” category		
	Planning for Restructuring	Any school with the NCLB status of “Planning for Restructuring” will be assigned to the “Academically Unacceptable” category.		

It should be noted that, by design, the proposed model does not account or adjust for variation in schools’ environments (e.g., by using variation in student

background characteristics) when making accountability judgments. Two reasons were at the root of that design decision. First, accountability models that make adjustments for student background characteristics do so by setting differential outcome expectations for students by subgroup membership and that is not compatible with the goal of all students attaining the same high and challenging standards of academic performance. Second, while methods of relating and adjusting student outcomes to student background characteristics can provide valuable insights in exploring and understanding the performance of student subgroups, the methods are misapplied when used for determining **accountability** for student achievement.

E. Special Issues

(1) Recognizing Successful Schools

Hawaii's school recognition program identifies and honors the state's most exemplary schools and celebrates the successes occurring in public schools every day. It acknowledges the important role that individual teachers and schools play in helping all students attain the Hawaii Content and Performance Standards and realize the Vision of the Hawaii High School Graduate.

Academic achievement is recognized by way of two programs: *Hawaii's Distinguished Schools Program* and the national *No Child Left Behind - Blue Ribbon Schools Program*. *Hawaii's Distinguished Schools Program* recognizes all public schools in the state that have attained a superior level of performance or have made noteworthy gains in closing achievement gaps.

Public elementary and secondary schools in the state that meet the stringent recognition criteria of the national *No Child Left Behind - Blue Ribbon Schools Program* will be honored as schools that have made the most dramatic gains in student achievement or whose students achieve at the very highest levels. High-achieving schools may be further recognized as Hawaii's nominees to the national *No Child Left Behind - Blue Ribbon Schools Program*.

(2) Improving Fiscal Accountability

In the *Fiscal Accountability Study at the Department of Education: Final Report*, dated February 18, 2003, Grant Thornton LLP, under contract to perform a high-level review, recommended that the Department put into place a performance-based budgeting system that would result in accountability for financial transactions. Such a system would be designed to promote the achievement of student standards based on the requirements of the No Child Left Behind legislation of the George W. Bush administration and supported by an appropriate data infrastructure.

The Department is committed to converting its present budgeting system to one that is based on performance. To effectuate this change, certain actions must be taken and a host of activities must be performed that range from low to high in terms of level of effort. They include but are not limited to:

- Re-engineering technology or selecting new technology to support information needs at various organizational levels (high level);
- Holding principals accountable for fiscal performance goals (high level);

- Attendant to reorganizing the Budget Branch, considering the use of a weighted per-pupil allocation formula to disburse funds to schools in a more timely manner (medium level);
- Reorganizing and consolidating the Preparation and Execution Sections of the Budget Branch to create a more seamless, efficient budgeting process (medium level);
- Ensuring that the new human resources/payroll system addresses issues related to the backlog of vacation and sick leave day accounting (low level); and
- Selecting the optimal Capital Improvement and Repair and Maintenance resource allocation scenario, keeping in mind its implications on fiscal efficiency and service delivery (low level).

A number of Grant Thornton's recommended actions probably are beyond the capacity and expertise of existing staff and likely will require additional resources (e.g., contract moneys for developmental services that are beyond the staff's present capability, funds for staff development, and the like). Currently, the Board of Education has tasked the Budget Branch with determining which of the recommendations can be undertaken in the short term and which require a longer time line. Those that are within staff's ability and require little or no additional funding will be taken on first while other recommendations will have to be implemented incrementally.

One of the improvements being worked on currently combines information from the budget system – allocated amounts – and the Financial Management System (FMS) – allotted amounts detailed in expenditure plans – to show “unallotted” and FMS balances, as well as carryover and lapsing balances. Presenting budgeted versus actual (year-to-date) amounts in one report would be the first step in tracking how schools spend their funds.

(3) PPB

The state's planning, programming, and budgeting system (PPB) has remained in its original form since its adoption in 1970 and sorely needs enhancement to meet current needs. The federal government's planning, programming, and budgeting system introduced government-wide in 1965, served as the state's model when it developed its own budgeting system. However, unlike the state's PPB budgeting system, the federal government's budgeting process has continued to innovate and improve.

Since the state's PPB system was created in 1970 there have been a number of federal initiatives aiming to achieve a more effective method of determining value for revenue and resources used by better aligning spending decisions with expected performance. In the federal government, PPB was replaced by management-by-objectives in 1973, followed by zero-based budgeting in 1977, and performance-based budgeting in 1993. The federal government is now studying a methodology, called accrual-based budgeting, which more clearly links the total cost of resources used to the performance achieved. Thus, while the federal government's approach to budgeting has continued to evolve by merging lessons learned, best practices, and new approaches, the state's PPB system has remained unchanged for 33 years.

As pointed out by the Texas Education Agency *Financial Accountability System Resource Guide*, the utility of the PPB system has been impaired by a number of limitations:

1. Governor and legislative priorities are constantly changing, thwarting the long-term focus of PPB.
2. The PPB system is anathema to the line-item focus of the Legislature; as a result, it has never really been fully implemented as intended here in Hawaii.
3. PPB, like performance budgeting, assumes adequate program and cost data and high levels of analytical ability among administrators.
4. The development of long-term cost/benefit projections and program alternatives is difficult, expensive, and requires sufficient resources and an information system which provides current, relevant, useful, and meaningful analytical data to program managers.
5. Program budgets may be difficult to administer since many programs and their related expenditures straddle organizational units. As a result, PPB may exaggerate problems with controlling expenditures and with clearly identifying responsibilities for accounting and accountability.

The state auditor is recommending that the state's planning, programming, and budgeting (PPB) system be updated to include best practices in performance budgeting. Performance-based budgeting links performance information with the budget and is based on the premise that a systematic presentation of performance information alongside budget amounts will improve budget decision-making. This would improve the management of programs, better inform department and legislative decision making, and promote a focus on results, service quality, and public satisfaction.

While performance-based budgeting would result undoubtedly in a more effective means of budgeting, state agencies, including the Department of Education, would still be faced with overcoming a number of key challenges before the benefits of performance-based budgeting can be realized fully. A listing of those challenges would include a lack of credible and useful performance information; difficulties in achieving a consensus on goals, measures, and action strategies; limitations of current information and accounting systems; and the lack of support and leadership of middle and senior decision and policy makers.

IV. Support Requirements and Evaluation

Act 238, NCLB, and the Department's *Strategic Implementation Plan* share a common goal to ensure that students reach challenging standards by learning in effective schools. Each of these initiatives contains accountability provisions intended to shape and guide accountability for learning in effective schools. The Accountability Framework provides a series of integrative strategies and actions to coordinate and bring coherence to those diverse directions.

A substantial amount and range of work would be required to follow-through on what has been described above. Some of the more important and difficult activities would include:

- Setting targets or benchmarks for key measures;
- Coordinating and/or conducting data collection and analysis for key measures;
- Developing reports and reporting to various constituencies;
- Collecting user feedback to improve both the integrative strategies implemented and the accountability information provided;
- Assisting in professional development for Department staff in the concepts and application of the continuous improvement process;
- Coordinating the implementation of accountability requirements and strategies;
- Monitoring the implementation of and, where applicable, compliance with accountability requirements and strategies; and,
- Evaluating and planning improvements to accountability requirements (e.g., rewards and sanctions) and refining integrative strategies.

New resources would be necessary to accomplish the above. There already is a deficiency in the Department in the number of staff with expertise to do such work. Available staff with the requisite knowledge and skills are over-burdened and the needed expertise does not exist elsewhere in the Department. It is estimated that three full-time professional staff and a secretary would comprise minimal but sufficient staffing.

Appendix A: Participants in Accountability Framework Development*

<p>Superintendent Patricia Hamamoto^{1,2}</p>	<p>Office of Human Resources Fay Ikei^{1,2} Bert Itoga^{1,2} Amy Shimamoto^{1,2} Wendell Staszko^{1,2}</p>
<p>Deputy Superintendent Clayton Fujie^{1,2}</p>	
<p>Complex Area Superintendents Raelene Chock^{1,2} Francine Fernandez^{1,2} Peter Uehara^{1,2} Karen Moriyama^{1,2} Stanley Tamashiro¹ Gary Griffiths¹ Betty Mow¹ Lea Albert¹ Louise Wolcott^{1,2} Alvin Rho¹ Judith Saranchock¹ Valerie Takata¹ Allen Ashitomi^{1,2} Donna Whitford^{1,2} Daniel Hamada¹</p>	<p>Office of Information Technology Services Mark DaSilva³ Thomas Saka³ Allan Stone^{1,2}</p>
	<p>Budget Office Edwin Koyama^{1,2}</p>
	<p>Planning & Evaluation Office Tom Gans^{1,2,3} Michael Heim^{1,2,3} Yvonne Hashizume^{1,2}</p>
	<p>Teachers Kathy Bowers¹ Dale Kimura¹ Lynette Tom^{1,2} Jan Turner^{1,2}</p>
<p>Assistant Superintendents Claudia Chun^{1,2} Kathy Kawaguchi^{1,2} Rodney Moriyama^{1,2,3} Alfred Suga^{1,2}</p>	<p>Principals Milton Shishido^{1,2} Vernon Young^{1,2}</p>
<p>Office of Business Services Raynor Minami^{1,2}</p>	<p>HSTA Karen Ginoza^{1,2} Arlene Lee^{1,2}</p>
<p>Office of Curriculum, Instruction and School Support Harriet Ajimine^{1,2} Anthony Calabrese^{1,2} Judy McCoy^{1,2} Amy Ng^{1,2} Elaine Takenaka^{1,2} Glenn Tatsuno^{1,2}</p>	<p>HGEA Lei Desha^{1,2}</p>

* An Accountability Workgroup (1), Measures Workgroup (2), and Data Workgroup (3) were the primary groups through which the foundational elements and initial segments of the Accountability Framework was collaboratively developed, reviewed, and revised. Many participants were members of more than one workgroup.

Appendix B: Informational Resources

What the State of Hawaii Must Be Held Accountable for in Public Education, A Report and Recommendations from The Act 238 Collaborative. Honolulu, HI: Submitted to the Hawaii State Superintendent of Education on behalf of The Act 238 Collaborative by The Accord Group, LLC. January 2, 2002.

Armstrong, J. "What Is An Accountability Model?" (Briefing Paper, National Forum on Accountability.) Denver, CO: Education Commission of the States. May 2002.

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Baker, E. L., Linn, R. L., Herman, J. L., and Koretz, D. "Standards for Educational Accountability Systems." (Policy Brief 5.) Los Angeles, CA: UCLA; National Center for Research on Evaluation, Standards, and Student Testing (CRESST). Winter 2002.

Brooks, S. R. *How States Can Hold Schools Accountable. The Strong Schools Model of Standards-Based Reform.* Seattle, WA: University of Washington; Center on Reinventing Public Education. June 2000.

Gemberling, K. W., Smith, C. W., and Villani, J. S. Chapter 5, "Accountability," in *The Key Work of School Boards Guidebook.* Alexandria, VA: National School Boards Association. 2000.

Appendix C: Annual Yearly Progress (AYP) Matrix

AYP Matrix					
	Reading		Mathematics		Met Other Academic Indicator? Graduation Rate Retention Rate
	Met Annual Proficiency Objective?	Met Testing Participation Rate?	Met Annual Proficiency Objective?	Met Testing Participation Rate?	
All Students					
Economically Disadvantaged					* The "other academic indicator" required of high schools or a multi-level school with high school is graduation rate. For all other schools, the "other academic indicator" is grade-level retention rate.
Asian/Pacific Islander					
Black					
Hispanic					
Native American					
White					
Student with Disabilities					
ESLL Students					