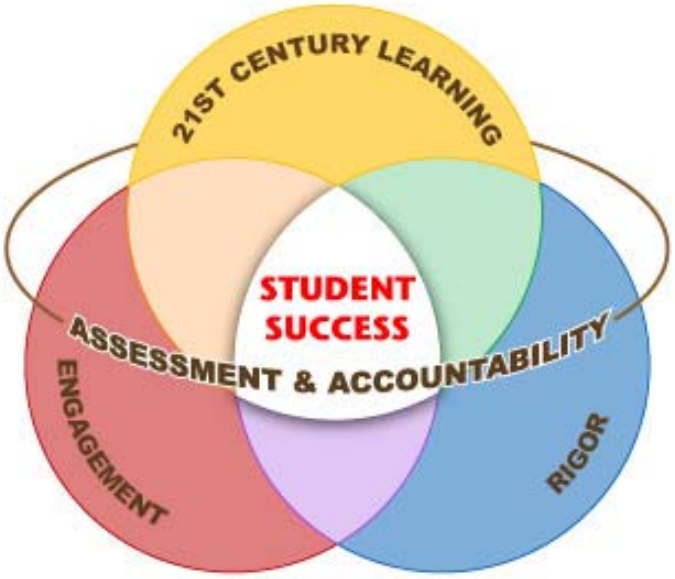
The Connecticut Plan:
Academic and Personal Success for Every Middle and High School Student



SECTION ONE: Organizing Concepts

Reform of Connecticut's high schools was first identified as a major policy objective in 2001 when Associate Commissioner Sternberg wrote a concept paper describing how high schools might reorganize their practices to engage a new generation of adolescents. The effect of this paper, coupled with additional research and concerns over No Child Left Behind, resulted in the Department sponsoring a statewide conference on high school reform in 2005. This conference launched the work of The Connecticut High School Advisory Committee which developed a "Framework for Connecticut's High Schools: A Working Guide for High School Redesign." Shortly thereafter, the State Board of Education made high school reform Priority 3 of its 2006 five-year comprehensive plan, "A Superior Education for 21st Century Learners."

Among the steps taken to address Priority 3, the Department prepared a brochure detailing the concepts and expectations for all students to achieve academic and personal success in Connecticut. The brochure, whose symbol is highlighted above, explains how and why Connecticut's high schools must change and what policy makers must do to help prepare graduates for college and work in a "new economy." This brochure was further revised in 2008 to include middle schools as part of its call for *secondary* school reform.

The interlocking spheres above are the visual representation of what has finally settled into a comprehensive plan for reforming Connecticut's public schools in Grades 6-12. What follows are the details of this plan including the implications it holds for Connecticut teachers and students as well as the costs to the state and local districts to implement it over the next eight years. It is this plan - organized by the concepts of *Engagement, 21st Century Learning, and Rigor* - that the Ad Hoc Committee for Secondary School Redesign recommends to the State Board of Education.

Let us begin with an explanation of each concept and what each contributes to the overall design of the reforms we envision. (For a full discussion of the Ad Hoc Committee's deliberations see Appendix F where we offer a summary of the Committee's work since July 2007.)

Concept 1: Engagement

> **Engagement connects students to learning by providing a stimulating, caring learning environment…. Just as essential for engagement is a personalized, safe, and respectful environment that is responsive to students' social, physical, emotional, and academic needs…. Engagement provides a foundation not only for students' academic achievement, but also for the development of healthy lifestyles, character, positive attitudes, social responsibility and citizenship.**
>
> **(CSDE Brochure: *Connecticut Secondary School Redesign*)**

Throughout all discussions of academic achievement related to secondary school reform, it has been clear that simply raising standards for all students would not by itself improve student performance. Students must be engaged in the process and not lose faith in the goal of achieving success. Although trying to define what is meant by engagement can be elusive, engagement in this context is best described as content and school activities that get and keep students involved. For all students to be engaged, teachers must provide relevant and meaningful learning opportunities that create and hold students' interest, and schools must create and support environments that help students feel genuinely valued for who they are as individuals. Stated differently, engagement is about relationships, respect, and caring - arguably among the most important parts of high quality teaching.

The Ad Hoc Committee considers the following six components to directly relate to student engagement, and to be foundational for Secondary School Reform:

1. Provide an Individual Success Plan for Every Student
2. Require a Capstone Experience for Every Student
3. Implement Best Intervention Practices
4. Increase Significance of Middle Schools in Secondary School Reform
5. Place Greater Attention on an Expanded Educational Range - Grades 6-14
6. Expand External Partnerships

Each of these engagement components is described in the following pages.

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Engagement Component 1: ***Provide an Individualized Success Plan for Every Student***

Student success plans (SSPs) are tools that integrate the best features of individual education plans (IEPs) and "advisor-advisee" programs that have been initiated in thousands of middle and high schools nationwide. The New England Schools and Colleges (NEASC) now requires advisor-advisee programs for all high schools seeking accreditation.

As conceived here, each student's success plan begins in Grade 6 and continues to develop with the student as he or she works to meet high school graduation requirements and possibly beyond. Models for SSPs exist in a variety of states, districts, and schools, where teachers have assumed roles as mentors in well-structured advisory programs that support student progress in meeting rigorous expectations. SSPs support mentors/advisors in the process of assisting students in exploring careers, setting goals for academic and personal growth, creating and compiling samples of best work from the middle and high school years, and providing opportunities for students to reflect on what they are doing well and on areas that need improvement. Commercial online SSP programs can simplify and promote the effective use of SSPs and allow for enhanced sharing and updating of plans and communicating effectively with parents.

The SSP Advisor, along with a trained advisor/mentor, serves an important role in supporting all students and their parents. By carefully monitoring progress and providing early identification of students who present one or more of the risk factors for not succeeding in or completing high school, SSP Advisors can proactively help students avert trouble and guiding them over any of the rough patches that may surface between Grades 6-12.

The Committee believes that a fully operational SSP system in every Connecticut middle and high school is critical to keeping all students engaged and motivated toward achieving the expectations for high school.

Engagement Component 2: ***Require a Capstone Experience for Every Student***

The end-product of each student's school experience is a "capstone" project culminating in a product that integrates many, if not all of the essential skills acquired over a student's seven-year history in secondary school. Each student will complete a capstone project as one of the requirements for graduation from high school.

Students have several choices for completing the capstone experience—from developing a portfolio of best work, to completing a set of experiments organized around one or scientific problems, doing community service, or working as an intern in a local business. The options are varied, but firmly anchored to both the SSP and the Grade 8 portfolio or project. (See the chart that follows at the end of this section). All capstone requirements will include research, written, and presentation components, and, as suggested above, the SSP and the advisor/mentor will play critical roles in helping each student adjust as necessary and complete the Capstone Experience successfully.

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Engagement Component 3: ***Implement Best Intervention Practices***

Studies of the most successful schools, including magnet and charter schools, show that a combination of strong leadership, a well-developed curriculum delivered by well-trained teachers knowledgeable of the various ways in which students learn, complemented with frequent and meaningful classroom-based assessments of student performance, can result in improved performance on the CMT and the CAPT tests. The Committee believes that these same elements are essential in keeping all students engaged and motivated to meet the middle and high school expectations described in this plan.

Schools, and in particular, principals that carefully monitor and discuss student performance are able to identify in a more timely fashion those at risk, and prescribe thoughtful interventions based on the individual needs of students. For example, these interventions might include students getting extra time with a classroom teacher, meeting with tutors during or after school, or receiving targeted computer-based instruction. Summer school and weekend programs designed to support the individual student could be an additional option. Above all, it is important that at-risk students be identified early; that the individual needs of each are matched with an appropriate, personal intervention; and that every student be closely monitored by the SSP advisor. Finally, it is imperative that exit criteria be established for determining when the student no longer needs the intervention.

The instructional framework just described underlies our plan for most Connecticut students. The Committee is committed to high expectations for all but recognizes that special education students and English language learners (ELL) in particular may need added support and/or modifications in order to satisfactorily complete their secondary school experiences. English language learners, for example, may need to anticipate an extra year of study, or carefully build a student success plan emphasizes intensive of exposure to reading, speaking, listening and writing the English language. It is a well documented that to acquire true proficiency in English, English language learners will need at least seven years of appropriate coursework if they begin school with no previous exposure to English. Students in this circumstance may find the combination of high school and community college instruction, to be a viable way of earning a quality high school diploma, while getting started on a post-secondary degree.

Students with a mild or moderate learning disability, who receive the additional support of an Individual Education Plan (IEP), are expected to meet the graduation requirements as stated in this plan. The Planning and Placement Team (PPT) must work closely with the mentor/advisor of the Student Success Plan for each special education student to ensure that every student meets the middle and high school expectations described. There may be some modifications in the curriculum or in the assessment environment for this student, but the basic expectations are the same as for non-special education students.

If a student has been identified as having serious learning or other disabilities that significantly impact the student's ability to meet standard graduation expectations, as indicated in the IEP, then he or she may receive specific accommodations that modify the

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curriculum, instructional delivery, and assessments required for graduation. For example, the goal score on the Modified CAPT Assessment is the requirement parallel to the student's making goal on the standard CAPT. The Committee supports the current policy that the percentage of students requiring such accommodations should not exceed one percent of a school's student population. More specific recommendations regarding accommodations for these students are listed in the section on Assessment and Accountability later in this document.

Engagement Component 4: ***Increase Significance of Middle Schools in Secondary School Reform***

The Committee expresses its deep appreciation to the Middle School Work Group, comprised of administrator and teacher representation that worked over a two-month period to carefully outline what must happen at the middle school level to help all students achieve success in Connecticut's high schools. The middle school is critical to establishing the environment to keep students engaged in their individual journeys of learning success. The Student Success Plan explained earlier will begin in Grade 6 in an advisory setting with trained mentor teachers. Early identification of student weaknesses in either content or in skill areas will generate the appropriate support interventions to ensure that all students stay on track toward meeting the high school graduation requirements. If students begin to exhibit attendance problems or are prone to behavior issues, appropriate interventions can occur in a timely fashion. This Secondary School Reform Plan includes very specific curriculum requirements for middle schools, including the development of model curricula that will apply consistently to all middle schools in Connecticut and ensure very close alignment to high school expectations, particularly in language arts, mathematics, and science. More students will be encouraged to take Algebra 1 before entering high school, in Grade 8, which will meet the high school graduation requirement and will incorporate the high school Algebra final exam provided by the State (more on final exam assessments later in this document).

Before completing 8th grade, every middle school student will produce an electronic reflective portfolio of best work or a demonstration project that will allow a culminating assessment of what each student learned in the middle school years. The Student Success Plan will provide a resource for this effort, and the advisory sessions will offer a place for project development.

Throughout this report, reference is made to teacher preparation and on-going professional development. The Committee is aware of the current research that indicates a lack of interest in teaching middle school students (NASBE Study Group). Connecticut has a significant shortage of teachers who enter the profession prepared to teach early adolescents. Connecticut must prepare more teachers for work with students during the middle school years and provide substantial professional development for those teachers who choose to work with these dynamic students.

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Engagement Component 5: ***Place Greater Emphasis on an Expanded Educational Range - Grades 6-14***

The Committee understands that secondary school reform involves much more than just the high school years. As was just described, the middle school years of Grades 6-8 have a critical role to play in preparing students for high school requirements, but there also must be flexibility in both high school and post secondary settings for students to either accelerate their learning or take more time. Collaborative partnerships between middle schools and high schools, and high schools and post-secondary institutions can provide expanded opportunities for students to learn at appropriate levels and in environments that are motivating, allowing for increased engagement.

The Committee recognizes that the amount of time students need to accomplish requirements described in this plan could be six-nine years, based on the individual needs of each student.

Engagement Component 6: ***Expand External Partnerships***

Engaging all students will require strong partnerships with parents, the business community and higher education. Parents, in particular, are the first and most important partners in keeping students connected to and interested in school. Parent-teacher organizations, family support centers, and community support programs that strive to help mothers and fathers raise responsible, independent students are all a part of the network of external partners that must help guide students through high school and into college or the work place. Connecting secondary schools to this network, through community outreach, effective home-to-school communications, and open and honest dialogue is one of the essential leadership tasks for administrators and teachers.

The business community is also vitally important for providing career exploration opportunities, shadowing programs, and internship experiences for high school students. All of these activities can do much to help Connecticut retain many of its "best and brightest" students who, in significant numbers, are leaving the state after high school and undergraduate school and finding employment elsewhere. If businesses want to harness and cultivate native talent, then they must step up to the tasks of working closely with our middle school and high school administrators to build and sustain the network we envision.

Finally, community colleges and state universities must provide strategies to support the smooth transition from high school to college modeled on the Bridge Program or the ACE Mentor Program, and to provide avenues for qualified students to accelerate their learning experiences prior to completing high school. For example, students could pursue options including college-credit online courses, dual enrollments at partner institutions of higher learning, internships, research experiences, or onsite college-level courses. The state, colleges, and school districts must now work collaboratively to provide scholarships and tuition reduction incentives for students who exceed the basic expectations for graduation, with particular emphasis on exemplary students from low-income families. These incentives may provide some students with increased motivation to become (and stay) engaged in schoolwork, with the opportunity to attend college now a more realistic possibility.

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Summary of Engagement Concept

Providing structures and strategies that will keep students engaged and motivated to meet the high school graduation requirements will be costly, but are essential and will be funds well spent. The cost to society for students who drop out of school has the potential to be much higher than the cost to ensure success for all students. If academic rigor and the acquisition of 21st century skills are critical to the success of Connecticut's students, then funds must be available for Student Success Plans, training of mentor/advisors, and the support systems for interventions for both the start-up of this secondary school reform plan and its long-term implementation. Establishing key partnerships with the business community and institutions of higher education can help distribute responsibility for aiding all students in becoming and remaining engaged.

Concept 2: Acquisition of 21st Century Skills

> **The old "basics" of reading, writing, and mathematics are still essential, but they are no longer sufficient. Today's students must learn to locate, analyze, interpret and communicate information in a variety of media and formats, and solve problems creatively and logically. Living and competing successfully in a global society and economy will require an understanding of our interconnectedness, collaboration and leadership skills, habits of personal and social responsibility, and adaptability to change.**
>
> **(CSDE Brochure: *Connecticut Secondary School Redesign*)**

In a recent *New York Times* editorial, David Brooks spoke of this challenge as not one of living in a global world, but rather the opportunity to live in a "cognitive age." "In order to thrive, people are compelled to become better at absorbing, processing, and combining information." This 21st century reality demands that the educational system provide students with the opportunities to prepare for the "cognitive age" from the earliest years through the secondary experience and into the college or post-secondary educational experience. This challenge requires that schools think differently about instruction and the types of assessments we need to measure student growth in these critical skill areas.

Howard Gardner in his new book, *Five Minds for the Future,* reinforces Brooks' challenge to the educational community. He defines the disciplined mind of the critical thinker, the synthesizing mind of the problem solver, the creative mind of the innovator, the respectful mind of the collaborator, and the ethical mind of the leader. Those who will live in the 21st century will need to practice all of these modes of thinking on a daily basis. School must be the training ground for students to acquire and internalize these "minds" for success.

These 21st century skills are paradoxically old ideas reanimated by the new technologies of the present. The ability to think critically and creatively has been a mainstay of every

curriculum written since the 1980s. Careful reasoning and clear thinking are ancient but cherished habits of competent adults. But even though many of the 21st century skills are not "new" to schools, our colleges, universities, and the business community are communicating in no uncertain terms that these skills are truly "essential" to the success of all students as they pursue careers and provide for their families in the 21st century.

In addition to these essential skills, facility with technology tools is a new "basic" for those who will learn and work in the 21st century. Our students must have the resources and skills to learn with and use technology effectively. This will mean better equipping some of our schools so that all students have appropriate access. Teachers must be encouraged and supported in using technology to enhance student classroom experiences. This will require significant professional development that helps teachers learn to use technologies specifically for their content areas and helps administrators understand how best to support a technology-rich learning environment.

The Ad Hoc Committee believes that the model curricula to support secondary school reform (described later in this document) must embed these skills into the units of study and daily lesson plans. These curricula should contain formative assessments that require students to practice these skills frequently and with increasing sophistication. Final exams should assess a student's ability to apply higher order thinking skills to new situations. The creation of an 8th grade portfolio or demonstration project, coupled with a culminating Capstone Experience in high school, will require students to use these various skills in successfully completing these performance demonstrations. Advisory groups can foster the habits of personal and social responsibility and document these efforts in the Student Success Plan.

State and national organizations are now working with business leaders to research the best practices for implementing these skills into the educational fabric of each student's education. Schools are forming partnerships with businesses and non-profit organizations to help prepare students for participating in a global economy. This collaborative partnership should positively impact students. Connecticut has its own 21st century partnership that has created statewide exhibitions for students to demonstrate these essential skills. The models for success exist in our own backyard. We simply need to expand them and ensure that each classroom is an incubator for these essential skills.

All of these efforts constitute a portion of the important work that the newly formed P-20 Council will begin this fall. (For a description of the structure and mission of the P-20 Council, see Appendix H.) This important Council will join representatives of the PK-12 educational community with partners in higher education and the business community to align educational expectations with the future opportunities that await students in their post P-20 world. The Council will have the major responsibility of identifying the necessary concepts and skills that pre-service teachers must learn in teacher preparation programs and for the ongoing professional growth that is needed for experienced teachers. More about teacher quality and preparation is included later in this document.

Summary of 21st Century Learning Concept

The Committee believes that we can keep students engaged in their educational experiences if we provide them with stimulating, interesting, and meaningful learning opportunities and environments. The emphasis on 21st century skills and preparing students for the future envisioned by Brooks and Gardner requires us to pay very serious

attention to these skills and the profound role technology has in teaching and learning them. In the next section, we will focus on the rigorous academic expectations this reform plan will require of all students. Integral to that rigor is the challenge to ensure that all students are prepared with 21st Century skills for careers and opportunities that may not yet even be envisioned.

Concept 3: Rigor

> **Rigor inspires students to stretch beyond their individual comfort zones to embrace and master meaningful challenges and begin to define their own interests, potential and direction. Rigorous learning is characterized by higher-order thinking, deep understanding of important ideas, critical self-reflection, and the integration and application of knowledge and skills with an eye toward the larger world. Rigor…is about the depth and meaning of work. Rigor should pervade every course, at every level, in every content area.**
>
> **(CSDE Brochure: *Connecticut Secondary School Redesign*)**

The Ad Hoc Committee believes that the graduation requirements summarized at length in the next pages provide the central ideas for developing a rigorous learning experience for all students in Connecticut. Developing and revising this new set of requirements has been a lengthy process. Input from the Listening Tours and the Revisions and Middle School Work Groups has driven many of the modifications, additions, and subtractions to the original plan developed last fall. The Committee believes that many voices have had input and provided feedback in shaping this revised plan and that this final product represents a collaboration of thinking from constituents all over the state. Much of what is in the chart on the next few pages, "State of Connecticut Secondary School Requirements for Grades 6-14" should be self-explanatory, but some of the major features will be highlighted and described in the next section. The first page of the chart describes middle school expectations, the second describes high school course/credit requirements, and the third describes some of the programs and collaborative work that will be necessary between high schools and higher education institutions.

It is also important to note that the sections on Engagement and 21st Century Skills preceded this Rigor section for a reason: If we cannot keep all students engaged in this process and focused on meaningful and challenging 21st century learning, then all of the emphasis on rigor will exacerbate the current problem rather than solve it.

Rigorous Secondary School Requirements for Grades 6-12

In setting out to define a rigorous set of high school expectations for all students in Connecticut, the Ad Hoc Committee was faced with several dilemmas. First was the tension between required core curricula and the recognition that "one size does not fit all". The Committee spent a considerable amount of time talking about the traditional Carnegie unit of study and how the plan should allow for more flexibility in the time it

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takes for a student to demonstrate competency in a core area. Second, we debated the number of credits that a student should take in mathematics and whether world language should have a two-credit requirement for graduation. Third, recognizing that core requirements usually focus on mathematics, language arts, science, and social studies, there was considerable concern expressed by proponents of the fine arts that there needed to be a separate requirement for the arts. Also noted, finally, was the need to have a comprehensive health education requirement. Many of these concerns and many suggestions came to the Committee during the Listening Tour phase of the process. It was the Revisions Work Group of practitioners who reviewed these concerns and made recommendations for revisions that are now integrated into the high school requirements of the plan. (For more detail see Appendix F.)

State of Connecticut Secondary School Requirements for Grades 6-12

Middle School Requirements (Grades 6-8)

Programs and Curricula:

- Student Success Plans for every student, beginning in Grade 6
- "Early Warning" and Student Support Systems beginning in Grade 6
- Course Offerings in English, Social Studies, Mathematics, Science, Art, Music, Physical Education, Technology, Health, and Exploratory Electives that may among other courses, include World Language.
- Creation of model Language Arts curricula for Grades 6-8, linked to high school English/ Language Arts 1 and 2
- Creation of model curriculum in Algebra 1 (same as high school)
- Creation of model curriculum in Scientific Inquiry and Experimentation, Grades 6-8
- Creation of joint common professional development modules for teachers in Grades 6-10

Student Requirement:

- Completion of 8th Grade Portfolio or Demonstration Project

State Developed Final Examinations: Algebra 1 (for those students taking Algebra in MS)	Total: 1

High School Requirements (Grades 9-12)

- ***Cluster 1: Science, Technology, Engineering and Mathematics (STEM)*** *Total Credit Requirement: 8*

Mathematics:	Credits	Model Curricula
Algebra 1	1	x
Geometry	1	x
Algebra 2 or Statistics & Probability	1	x (2)
Calculus, Trigonometry, or other full-year course	1	--
Science: Three Lab Science Courses		
Biological/Life Science	1	x
Chemistry/Physical Science	1	--
Physical Science, Life Science, or Earth Science	1	--
Required STEM Electives:	1	

Science, Mathematics, Math/Science Tutorial, Technology, Engineering or other STEM courses

State Developed Final Examinations: Algebra 1, Geometry, and Biological/Life Science	Total: 3

- ***Cluster 2: Humanities*** *Total Credit Requirement: 8.5*

English:	Credits	Model Curricula
English Language Arts 1 (Genre Survey)	1	x
English Language Arts 2 (Genre Survey)	1	x
Literature and Composition: American, World, or British Literature	1	--
Full-year Elective	1	--
Social Sciences and Fine Arts		
International/World Studies	1	--
American History	1	x
Civics	0.5	--
Fine Arts: Art, Music, Theatre, Dance	1	--
Required Humanities Electives:	1	

English, English Language Arts Tutorial, World Languages, Social Science, Fine Arts or other Humanities courses

State Developed Final Examinations: English Language Arts 2, American History	Total: 2

- ***Cluster 3: Career & Life Skills*** *Credit Requirement: 3.5*

Career &Life Skills:	Credits	Model Curricula
Comprehensive Health Education	0.5	--
Physical Education	1	--
Required Life Skills Electives:	2	

Career and Technical Education, Public Speaking, World Languages, English as a Second Language, Personal Finance, Community Service, or other Career & Life Skills courses

State Developed Final Examinations: None	Total: 0

	Credits
Open Electives:	4
Capstone Experience:	1
TOTAL CREDITS	**25**

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Community College and Other Higher Education Institutions

Though not a graduation "requirement" for students, Connecticut community colleges and other higher education institutions will be expected to assist in developing and providing the following:

- Dual enrollment courses beginning in Grade 10
- Distance and online courses sponsored by Connecticut higher education institutions, among others such as the Connecticut Distance Learning Consortium
- Common statewide course requirements for admission into Connecticut's state college system
- In-state college admission and potential class placements based on CAPT and SAT and successful completion of the core curriculum.

SECTION TWO: Explanation of Secondary School Graduation Requirements

As indicated in the previous chart, each student will be required to earn 25 credits to graduate from high school. Three "clusters" of courses divide the course requirements slated for all students. Within each cluster there are a mandated number of credits, some for required courses and some as electives. Besides the required electives within each cluster, a student will take four additional electives and complete a Capstone Experience that earns 1 credit. Students may earn credit in middle school for Algebra 1, or in a few cases, for Geometry as well. High school students who struggle to meet the core requirements within the regular high school time frame will have opportunities to complete the requirements through partnerships with the community college system or approved computer-based or other tutorial/credit-recovery options.

The Department of Education will, in concert with external partners, develop model curricula and sample formative assessments for the required courses in the high school plan. These include Algebra 1*, Geometry*, Algebra II, Probability and Statistics, Biology*, English I* and II*, U.S. History* and Civics. The purpose of these model curricula is to ensure common standards and consistency in the content of core courses throughout the state. A local district may choose to use its own curriculum, but the state will, as noted below, provide the final exams that must be used for the core courses (designated by an asterisk).

Each of the three clusters is described in detail on the following pages.

Science, Technology, Engineering and Mathematics (STEM) Cluster

The STEM cluster is comprised of Science, Technology, Engineering, and Mathematics. A student must complete 8 credits within this cluster, including some required and some elective courses.

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Mathematics (4 credits)

Determining the requirement for mathematics was the most difficult challenge for the Committee. National curriculum initiatives (American Diploma Project) and several states have set a maximum requirement of Algebra II for all students. The Committee, with the support of the Revisions Work Group, has agreed to the following sequence of courses in mathematics with a modification to the originally proposed Algebra II requirement:

- Algebra 1: Most students will take Algebra in high school to complete this requirement, but a student can complete this course by the end of Grade 8 and receive a high school credit.
- Geometry: Most students will take and earn high school credit while in high school. In rare cases, a student may also complete Geometry by the end of Grade 8, which could earn an additional high school credit for those students.
- Algebra II or Probability and Statistics): A student must successfully complete either Algebra II or Probability and Statistics to meet the high school requirements.
- Other mathematics course (Pre-Calculus, Trigonometry, college-level course …)

All high school students must take four years of math regardless of how many mathematics credits they earn by the end of Grade 8. Accelerated students in mathematics may choose to take college-level courses to meet the four-credit requirement; other students might be challenged to reach Algebra 2 or Probability and Statistics as their 4th credit.

The Committee also supports an integrated mathematics curriculum for meeting these requirements.

Science (3 credits)

A student must earn three credits in laboratory-based science. All students must successfully complete Biology as presented in a state-developed model curriculum or other biological science course that meets state requirements. In addition, students must complete a credit in Chemistry or another physical science, and a third credit selected from local electives in the life, earth or physical sciences. Opportunities exist for the student to complete the third science credit in different ways, including district approved online courses that utilize “virtual” or remote laboratory components.

STEM Elective (1 credit)

Students must complete one elective credit in science, technology, engineering or mathematics to complete the credit requirements of this cluster. This can be an additional credit in mathematics or science, or an elective course or courses in engineering or technology. Ordinarily, these classes will be year- or half-year

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courses with no expectation that, in the instance of science, these will be lab courses in the full sense envisioned for the three science courses above.

Humanities Cluster (8.5 credits)

In the Humanities Cluster, a student must earn a total of 8.5 credits in English/Language Arts, the Social Sciences, and the Fine Arts.

English (4 credits)

The student will successfully complete English I and II, including a combination of language arts skills (reading, writing, listening, speaking, viewing and presenting,) and a literature survey of the various genres. The Department will provide model curricula, formative assessments, and state developed final exams for both courses. Each school district will provide an additional two credits of literature and composition-based courses from a series of locally-developed electives.

Social Sciences (2.5 credits)

Each student must successfully complete one credit in a locally-developed course under the umbrella of International/World Studies, one credit in U.S. History supported by a model curriculum and a state developed final exam, and half-credit in Civics supported by a model curriculum.

Fine Arts (1 credit)

Each student must successfully complete a credit in the Fine Arts taken from a series of locally developed electives, representing visual, arts, music, theatre and dance. There was much debate around this issue and significant input from the Fine Arts community of teachers. After much deliberation, the Committee agreed to this revision.

Humanities Elective (1 credit)

This gives a student an opportunity to fit in one credit of world language, or take another course in the social sciences or the fine arts. It also provides a place for a student to earn credit in an English/language arts tutorial course to support the completion of the English requirements.

Career and Life Skills Cluster (3.5 credits)

In the Career and Life Skills Cluster, students must earn 3.5 credits, with requirements for comprehensive health and physical education, and great flexibility in fulfilling cluster elective requirements through courses related to career interests and/or life skills for the 21st century.

Comprehensive Health Education and Physical Education (1. 5 credits)

The Committee listened to both the field and administrators as they agreed to an increase in this area, by adding a comprehensive health education requirement of .5 credits. Each district will provide locally developed curricula for students to meet the one credit of physical education and one-half credit of health requirements.

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Career and Life Skills Electives (2 credits)

A variety of options exist for fulfillment of the Career and Life Skills elective 2 credit requirement. Students may pursue an interest in technology by choosing locally developed technology education courses. This elective is another opportunity for a student to fit in world language credits. It also allows for flexibility in taking other elective courses or modules of study in life skill areas that local school districts may offer, such as personal finance, community service, career exploration, wellness, etc.

Open Electives (4 credits)

Although there are some opportunities to choose elective courses within the three clusters, the Committee felt strongly that a student should have some additional opportunities for choice within the 25-credit requirement. Students with a strong interest in the fine arts, technology education, or advanced learning through dual enrollments and online experiences can build electives into their Student Success Plans that will help keep them engaged in pursuing their rigorous curriculum programs.

Capstone Experience (1 credit)

Several districts across the state have implemented culminating experiences for students to demonstrate knowledge and skills they have acquired during their educational experiences by creating a project in an area of personal interest. The Committee warmed to this expectation for graduation very early in the process. Presentations were given by a variety of Connecticut high schools that have implemented a Capstone Experience, and much was learned from them.

The exact details of Capstone Experience requirements will be determined locally, however the following suggestions, guidelines and recommendations are provided:

- These experiences might include special projects, a reflective portfolio of best work, community service and internships.
- As part of the experience, the student will demonstrate research skills and communicate the findings in written and oral presentations reviewed by the public.
- This experience should demonstrate not only the rigor of what the student is able to do, but clearly engage the student in the 21st century skills that form a critical component of this secondary school reform plan.
- The Student Success Plan, with the aid of trained advisors/mentors, will provide the structure for a student to develop and complete the Capstone Experience.
- The structure of the Capstone Experience will be determined by the local district. For example, a course could be provided to all junior students that helps them understand requirements of the Capstone Experience, fosters students providing feedback to each other on projects, and allows for discussions around similar problems and solutions as the Capstone Experiences develop.

Most students will begin the process of developing the Capstone Experience in Grade 11 and complete it in Grade 12, but some students may have the opportunity for an earlier start and completion of this important graduation requirement.

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World Languages

There was considerable debate by the Committee and the Revisions Work Group over the issue of requiring world language credits for graduation. In order to meet a college entrance requirement, many students currently take at least two years of a world language in high school. The Ad Hoc Committee discussed the implications of adding this requirement for all students when significant disparity exists around the state in the delivery of world language instruction. Many districts offer middle school students world language instruction on a daily basis, while others offer little or no world language opportunities for students. In some districts, world language instruction even begins in early elementary school. These wide differences would make a high school requirement simple for some to complete, while causing genuine difficulties for others. The Committee also discussed Connecticut's serious statewide shortage of world language teachers and the fact that there are not enough teachers to reasonably expect districts to implement this requirement.

For these reasons, and others centering on what scholars know about children's acquisition of language, the Committee concluded, as a matter of policy and science, that Connecticut should move decisively to implement world language programs in the elementary grades first, rather than insist on a formal credit requirement in high school. For a majority of students a high school world language requirement may have little long-term value if it is not preceded by several years of quality world language instruction in elementary and middle school. We know, for example, that young children between the ages of 2-8 are developmentally more receptive to acquiring a second language than they are when they enter adolescence. Moreover, we know that many students will voluntarily elect to study language, many as early as 6th grade, when such courses can more reasonably be accommodated into the schedule than is possible in elementary schools.

But if the state and local districts seriously want K-12 language programs like those found, for example, in Scandinavia or other European countries, then having all students meet a second language requirement by the end of high school will only make sense if this requirement is preceded by at least five years of world language study before 9th grade. This has neither happened in Connecticut nor the rest of the country, and it is unlikely that it will happen in the foreseeable future, given the time, planning, teacher preparation and resources needed to bring about a change of this magnitude.

As the conclusion to our deliberations, the Committee **strongly recommends** that students and districts begin formal world language study as early as possible in grades K-5, that formal instruction begin no later than 6th grade, and that students with a strong interest in world language study build this into their Student Success Plans and make full use of the opportunities to study second languages in the elective courses outlined above.

Transition Models

Readers will note that the final section of the Plan has several bulleted items related to the connection to the student's transition to post secondary educational institutions. One example of an effective program to transition students from high school to college is the Bridge program, which currently involves the school districts of Danbury and Bethel in a partnership with Western Connecticut State University. Students take the college

placement exam in their junior year. Students who are identified as in danger of needing remedial work before fully matriculating into college receive intervention support strategies in their senior year. As a result of the program, fewer students entering WCSU are in need of remedial courses. The Bridge Program effort provides for high school and college teachers to have conversations about curriculum alignment, instructional strategies, and student work and performance data. This program and others like it, consistently applied throughout the state, should help to fulfill the long-term goals of the P-20 Council, and more importantly help each student achieve success beyond high school.

Summary of Graduation Requirements

While the foregoing centers primarily on the new standards expected of all students, our discussion has also attempted to show that there are, in fact, several paths to the same end. Students have genuine choices in meeting these requirements, and there are clear and careful balances between state directives and local district policies. The graduation requirements set forth above are in reality only minimal standards, but for the first time, these standards are consciously framed to capture a broad cross-section of adolescents whose development is being shaped by factors like the Internet, that are well beyond the influence of public schools. All who have a stake in the academic preparation of Connecticut students must ask themselves the question of whether or not Connecticut's future graduates will be ready for the intellectual and social challenges of the next decade without this new set of structures and expectations.

SECTION THREE: Assessment and Accountability

School accountability must encompass a wide variety of assessment tools and other data sources to determine academic standards; benchmarks for achievement; the quality and success of teaching and learning in every course; and the overall health of the physical and social school environment.

(CSDE Brochure: *Connecticut Secondary School Redesign*)

The Ad Hoc Committee knew from the beginning that the plan for assessing students to demonstrate that they had met rigorous high school expectations was a difficult and a complex task. In the December 2007 version of the plan, the thinking was to eliminate the current CAPT test in favor of state-developed, state-scored end-of-course exams for five specified courses in mathematics, English, science, and the social studies. In addition, the Committee was committed to the concept of performance-based labs for science, a research project for International/World History and a Capstone Experience for all students, employing a balance of state and locally developed performance tasks, scored locally but with state approved rubrics (assessment criteria). The Committee knew this was an expensive venture, but would provide a set of powerful, valid, and reliable assessment measures that would hold schools and teachers accountable for student learning. However, the prohibitive cost of implementing this assessment plan (see Cost

Analysis and Implementation Plan section that follows) had the potential of putting the entire reform plan at risk for full implementation for the Class of 2017.

The other costly, but necessary component of this assessment plan was the implementation of safety nets and alternatives for students who would struggle in passing the state developed and scored end-of-course exams. Various options were considered including modular assessments that could allow students to retake sections of an exam, and the possibility of testing opportunities at several points during the year. The Committee finally agreed that students should have the opportunity to gain and demonstrate competency without always having to repeat the entire course, retake an entire exam, or wait another year to retake the test.

The Committee has not abandoned the belief in end-of-course exams in the long term, but for the initial years of implementation of Secondary School Reform, the assessment strategy will not include state-delivered and scored end-of course exams. The revised assessment plan calls for the state to develop common final exams for Algebra 1, Geometry, English 2, Biology, and U.S. History. Local school districts will be required to use these final exams for the indicated courses. **Final exams will count a minimum of 20 percent of the final grade for the course and require a passing score of 70 or higher.**

The local districts will score the final exams and collect the data on the results, after undergoing training on how to score the finals collectively, by school or by department, or possibly among schools and among districts. Other provisions to ensure reliable administration and scoring of the finals will be part of an ongoing form of technical assistance training provided districts statewide, with assistance from the state's six regional education service centers (RESCs). The Department will collect these data and report annually how students are performing in the core areas and which courses, in general, are most heavily subscribed.

In addition, all students will continue to take the CAPT test by the end of their sophomore year. The CAPT test has proven to be a high quality, valid, and reliable assessment of the required knowledge and skills for graduation and will provide one avenue for students to demonstrate that they have met the high school requirements. It will also continue to meet the requirements of No Child Left Behind.

Scoring and Grading Final Examinations

Recognizing the multiple approaches planned to assess students' competency, different options for meeting graduation requirements are now possible if a student should fail to pass any of the five core courses requiring a state-developed final examination (Algebra 1, Geometry, English 2, U.S. History and Biology.) These options range from retaking the course and final examination to earn a passing mark; to using one or more of the options sketched below if the final examination proves to be a major stumbling block; to making use of the alternatives provided by the Department's "safety net" designed for struggling learners, poor test takers, and/or students with severe disabilities.

Let us review the options envisioned by the Committee, acknowledging that much more definitive guidance will need to be adopted to provide all of the details needed for implementing them. These options are meant to be illustrative of what is possible and not definitive, and readers are therefore encouraged to review them in this light. What the

Committee hopes to make clear through these examples, is the priority we place on building flexibility into the system we propose, while still maintaining high expectations for all students.

Option 1: Retaking an Alternative Version of the Final Examination

If a student scores below 70 on the final examination of one of the five required core courses, a student may retake the final within two weeks after the first administration. This final examination will be an alternate form of the same test administered weeks earlier. A passing score on this test, coupled with satisfactory performance throughout the year, will enable a student to pass. (See example below.)

Option 2: Using the 10th Grade CAPT Mathematics Examination as a Substitute for a Failing Score on either the Algebra 1 or Geometry Final Examination

- If a student should receive below 70 on his/her final examination for Algebra 1 or Geometry, he/she may use a CAPT score of goal or higher, to serve as substitute for the final exam score in either Algebra or Geometry, but not both. Under such circumstances, a score of 70 would be factored in as 20 percent of the final grade awarded, and if that final grade constitutes a passing grade for the course, the student will have then fulfilled one of his/her two Mathematics requirements.

Example: Algebra 1

Preliminary Results
Overall Course Average: 72 x .80 = 57.6
Final Examination Score: 53 x .20 = 10.6
Total Score: 68.2
Minimum Passing Score: 70
Result: Failure to meet minimum passing score for Algebra 1

Application of CAPT Mathematics Score
Overall Course Average: 72 x .80 = 57.6
CAPT Score Equivalency for Goal or Higher: 70 x .20 = 14
Total Score: 71.6
Minimum Passing Score: 70
Result: Success in meeting minimum passing score for Algebra 1

Option 3: Using the 10th Grade CAPT Reading and Writing Examinations as a Substitute for a Failing Score on the English 2 Final Examination.

- If a student should receive below 70 on his/her final examination for English 2, he/she may use a score of goal or higher--on both the Reading and Writing components of the CAPT-- to serve as substitute for the final exam score. Under such circumstances, a score of 70 would be factored in as 20 percent of the final grade given, and if the final grade constitutes a passing grade for the course, the student will have then fulfilled his/her English requirement.

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Option 4: Using State-Developed Online Examination in Biology as a Substitute for a Failing Score on the Biology Final Examination

- If a student should receive below 70 on his/her final examination for Biology, he/she may take a state-developed online examination in Biology to be scored on a pass/fail basis. If the student passes the on-line examination, a score of 70 would be factored in as 20 percent of the final grade awarded, and if the final grade constitutes a passing grade for the course, the student will have then fulfilled his/her requirement for Biology.

Option 5: Completing a Portfolio of Essays to Substitute for a Failing Score on the U.S. History Final Examination

- If a student should receive below 70 on his/her final examination for U.S. History he/she may submit a set of three essays, 3-5 pages in length typewritten, for formal evaluation by members of the district's history/social science department. Essay topics will be provided by the State Department of Education along with rubrics for determining a level of performance equal to a passing score of 70 or higher. Upon completion of the essays and subsequent evaluations, a score of 70 would be factored into 20 percent of the final grade awarded. If the final grade constitutes a passing grade for the course, the student will then have fulfilled his/her U.S. History requirement.

Option 6: Affixing Higher Weight to Final Examinations to Achieve a Passing Grade on One or More Required Courses

1. Final exams normally count 20 percent of the final grade, but in the event that a student does well on his/her first attempt on the final examination, local districts may, as a matter of policy, increase the weighting of the final exam to count up to 40 percent of the final grade if it means that, by increasing the value of the final, a student can meet the passing standard for the course.

2. The weighting of final examinations in this fashion could be applied to all required courses within the core curriculum. It is important to note, however, that this policy would be applicable only to first attempts at final examinations, not retakes (See Option 1 above).

Option 7: Alternatives for Struggling Learners

In addition to these options, struggling students may do one of the following to complete and pass any of the five required core courses:

a. Complete a pass-fail, six-week summer program or half-year remedial course specifically emphasizing support strategies that are identified in the student's Student Success Plan and focused on areas of student strength and weakness noted in the failed course and final examination. In addition to reviewing the course content and skills taught, the student would retake portions of the final exam where competency was not reached (assumes that final exams can be provided in modules), and once successful, use the increased score to pass the course. This option may only be used by

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students who have retaken a course and failed again, or who have made use of Option 1-6 without success.

b. Begin work at a community college towards an Associate's degree with a program of studies that will provide the student with the opportunity to demonstrate high school graduation competencies in the areas where the student has not yet scored 70 or above on one of the required final exams or failed a course. The Department of Education will, in conjunction with representatives of Connecticut's community college system develop a list of community college courses that, if passed, will qualify the student for meeting the course requirements for any of the five core courses that have been failed or not yet taken. This strategy may best be utilized by English language learners whose time in a public school in the United States may be less than seven years.

c. Students with very serious learning disabilities (no more than one percent of the school's population) and eligible for the Alternate Assessment (Skills Checklist) as indicated in the Individual Educational Plan (IEP), may demonstrate competency on any of the five core courses through success on Connecticut's Alternative Assessment. (There are three performance levels on the Alternate Assessment: Basic, Proficient, and Independent.) These students may also receive curriculum and assessment accommodations in the core courses, to assist them in meeting the competencies for the course.

Summary of Assessment and Accountability

Although the revised assessment and accountability system may not achieve all that was expected when an end-of-course examination system was first proposed, this revised plan nonetheless promotes many important elements of reform:

1. The model curricula and formative assessments developed by the state will bring consistency and rigor to the identified courses across the state.

2. The CAPT test is a proven quality assessment that will continue to function as our No Child Left Behind assessment instrument. It may permit accelerated learning opportunities for students who make goal on one or more of the CAPT tests as early as Grade 9.

3. Middle school students successfully passing Algebra I and/or Geometry and completing the corresponding final exams qualify for an accelerated high school math program.

4. The results on the common final exams for the five designated courses will provide useful data on student performance and hold schools and teachers accountable to the high expectations for all students as measured by the exams. The CSDE will use these data to provide a progress report on student achievement relative to graduation rates and the closing of the achievement gap.

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5. Teachers will have results on the locally scored final exams immediately and can use the data for timely revisions to the curricula, instruction, and formative assessments.

6. The CSDE will take concrete steps to enable district to score their final examinations with as much consistency and reliability as possible at the local level. To this end, statewide training workshops in the use of scoring rubrics and group techniques for reading and scoring direct written responses on final examinations will be a routine and common practice--one that will be regularly monitored and improved upon with each end-of-year examination cycle.

SECTION FOUR: Building Statewide Capacity

Technology and Secondary School Reform

Technology applications have an important role in framing this secondary school reform package for both students and teachers. The Committee focused on three areas of concentration for the use of technology.

1. Technology is an important learning tool for students in the classroom and in documenting the Student's Success Plan from Grades 6-12. The use of standard computer-based applications for practicing skills, gathering and analyzing information, producing a variety of products, conducting research on the Internet, and developing portfolios of best work are integral to the learning process for each student. By using these technology applications, students will develop the necessary critical and creative thinking, problem-solving, and communication skills so important for the 21st century. Students will experience these opportunities both in the core curriculum courses and in a variety of electives available to students as part of the technology education menu. Technology is integral to the development of the Grade 8 Portfolio or Demonstration Project and the Capstone Experience at the high school. The state will recommend career exploration and portfolio development software systems that will support the work of the Student Success Plans and advisory programs in the middle and high school.

2. Students will have an opportunity to take online courses to accelerate their learning, access computer-based tutorials to reinforce skills where students are at risk for not meeting graduation requirements, and retake state developed final exam components as needed.

3. Teachers will need to use technology for several purposes. They will access student performance data provided by the state's and district's data warehouses to make data driven decisions to improve teaching and learning. Teachers will use the newest interactive applications for sharing units of study, lesson plans, student work, and online conversations about student performance. The use of technology tools to advance learning must be an integral part of professional development programs at the pre-service, school, district, regional, and state levels.

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Teacher Training, Professional Development and Instruction

In addition to the use of technology for professional growth, this plan creates expectations for pre-service teacher training and professional development of experienced teachers.

1. State institutions of higher education will now work closely with colleagues from the public school system and the business community to ensure that teacher training programs are preparing the teachers in content areas and developmentally appropriate instructional best practices to meet the requirements of this proposal. In particular, higher education will find it necessary to produce larger numbers of certified mathematics, science, and world language teachers, and, at the same time, equip all new secondary teachers with the skills and competencies needed to be equally effective with early adolescent and adolescent students. Further, pre-service programs must stress throughout their coursework and practicum experiences the effective use of technology to advance learning.

2. Selected expert teachers will participate in the development of the designated model curriculums, formative assessments, sample lessons, and final exams for the designated courses.

3. The state will provide training programs for middle and high school mentor/advisors that will provide the instruction and guidance required by the Student Success Plan.

4. Districts and schools will find new ways to provide the time necessary for teachers to review and discuss the teaching and learning implications of student work, especially in such areas as the Capstone Experience, or even in the practices of grading final examinations cooperatively by departments. Recent efforts to provide these collegial collaborations have demonstrated how powerful these strategies can be in helping good teachers to become even better at practicing their craft.

5. The data on student performance that will generate from these efforts will provide rich information to support action research projects where experienced teachers can conduct ongoing assessments of what works and what does not in the classroom.

6. These changes in practice will provide ways of supporting teacher induction, mentoring, and evaluation processes at the local level through district- and state-sponsored forms of professional development.

7. Orchestrating all of these changes will be district and building administrators—superintendents, principals and curriculum specialists--who must lead these professional developments efforts forward. Building principals in particular, will be the primary agents of change.

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SECTION FIVE: Cost Analysis and Implementation Plan

In May 2008, the Department of Education took steps to complete a cost analysis of the reform model proposed to the State Board of Education in December 2007. Completed by Dr. Barbara Beaudin and a team of consultants and bureau chiefs working with the Department, the cost study attempted to project what it would cost the state to implement this plan over a span of eight years, and what its financial impact would be on local communities and districts in terms of the added costs associated with bringing this level of change to all middle and high schools throughout the state. This study also sought to cost out what incentives could be made to encourage more students to participate in the PSAT and SAT examination program, and to attend Connecticut's state institutions of higher learning if they demonstrated high levels of academic performance on the CAPT or another set of outcome measures.

The cost proposal was completed in late August 2008, in time to anticipate the downturn in Connecticut's economy, and in time to measure the effects of cost on implementing some or all components of the plan. This cost proposal is published in a separate study that looks at most, if not all of the components discussed above—from writing model curricula to implementing a comprehensive statewide exit examination system, to building sufficient support systems for students who continue to struggle academically.

As noted earlier, the proposal presented here works on new assumptions based on what we have learned about the cost of building a new statewide assessment system that aimed to replace the CAPT examinations sometime on or before 2014, when the CAPT itself would be updated, revised, and recalibrated for a new generation of test takers.

The price of replacing the CAPT between now and 2014, simply put, has proved to be prohibitive. Contained in Appendix A, is the estimate of what it would cost Connecticut if we were to implement a full-scale secondary school reform program with a new assessment system coming online by 2014 and sustained thereafter as we transitioned from one system to another. Compared to cost estimates offered in Appendix B, where the CAPT is continued in its present form, the savings between the two plans are significant. When traded off against what might otherwise be spent for student support, the added cost of a new, high-stakes examination system is simply not warranted. Not only are the logistics of a new high-stakes system daunting, but the challenges of building an altogether new accountability system for NCLB are also a significant and expensive technical problem to surmount.

An important lesson learned from other states that have moved to high-stakes exit exams is that the price of holding all students to a common standard is often far higher than anticipated. New York and Maryland, for example, have retreated from their original graduation standards because too many students initially failed the exams and too few dollars were available to support those who did. Rather than make this mistake in our final design, we intend to build for success by focusing first on student supports. This proposal assumes that a key element of secondary reform is to begin immediately by building the support system needed by the thousands of students in Grades 6-10 who are currently struggling academically. If we are to expect more, then we must be prepared to invest more, and to do so by middle school if not earlier.

This proposal also assumes that if we are to engage teachers successfully in the changes needed to push all students to high achievement (fundamentally to transform instruction) then we will need to involve them directly in building the model curricula and final exams accompanying the core curriculum, and mastering the new technologies available to them. Costs associated with each of these activities are shown in all of the estimates provided in Appendices A-D.

Appendices A-D present four estimates of what the State of Connecticut will need to invest to reform our secondary schools. Appendices A-D, translated, represent Option 1, 2, 3, and 4. The projected costs in Appendix A, as discussed, are discounted in this proposal, in favor of those identified in Appendix B. But even the costs in Appendix B may exceed what we can legitimately afford, in light of other PK-12 state costs such as *Sheff*, early childhood education, or school and district accountability. In this period of financial austerity, restraint and moderation are essential.

For these reasons, Appendices C and D, offer additional alternatives for cutting costs. The costs outlined in Appendix C, for example, strip away dollars set aside for SAT support to districts and scholarship incentives for high-scoring students to attend a higher education institution in Connecticut. The costs in Appendix D, finally, offer a phased in approach that targets only a fifth of Connecticut's students engaged to secondary school reform. Under the scenario envisioned in Appendix D, approximately 25 districts statewide would agree to start the reform package four years before all districts were required to join them in 2013-2014. In so doing, these "lead" districts would have four extra years, with additional dollars for student support and curriculum work, to reach the standards established for all by 2016-2017. Table 1 below, summarizes Options 1-4.

Table 1 Projected Cost Options to State

	PROJECTED COSTS				
Fiscal Year	***Option 1***	***Option 2***	***Option 3***	***Option 4***	**Notes**
	Exit Exams	***Full Cost***	***Modified***	***Phased In***	
2009-2010	$28,594,716	$18,804,603	$17,904,603	$7,536,603	*Implement Phase In*
2010-2011	$30,460,932	$28,126,179	$27,172,179	$9,892,179	*Implement Phase In*
2011-2012	$37,956,654	$39,265,346	$35,724,106	$14,988,106	*Implement Phase In*
2012-2013	$42,353,151	$39,067,570	$35,345,656	$11,585,656	*Implement Phase In*
2013-2014	$45,856,764	$42,783,641	$38,838,412	$38,838,412	*Implement Statewide*
2014-2015	$47,797,245	$38,952,163	$34,779,220	$34,770,220	*Implement Statewide*
2015-2016	$48,478,695	$36,571,109	$34,138,249	$32,138,249	*Implement Statewide*
2016-2017	$49,541,221	$36,919,179	$32,220,348	$32,220,348	*Implement Statewide*
Total	**$331,039,378**	**$280,489,790**	**$256,122,773**	**$183,958,773**	

The Committee will recommend that the State Board of Education adopt the phased in approach working with 25 districts. How might this work? Contained in Appendix E are the basic cost estimates of what it will cost districts to implement this proposal. As one

can see, for some districts the price of implementing these new mandates will be limited and reasonable. For others, like Bridgeport, the capacity to start a new state initiative like this would be considerable and pose a genuine hardship. As a result, whichever districts do participate in the phase-in will have to do so voluntarily, on the belief that the immediate benefits of participation will outweigh any long-term additional costs.

The full details of implementing this entire proposal will require a multiyear plan grounded in the day-to-day realities of the Department of Education, which will work closely with the 25 districts in implementation of the Plan. Under an ideal scenario, a cross-section of districts from DRGs A through I, will volunteer to participate. And as we collectively build the capacity to engage all districts, non-participating districts can use this time to build up and prepare for full statewide implementation in 2014. In addition to giving communities sufficient time to prepare for the changes, the Department can also take steps legislatively to adjust how some districts can implement the plan without undue financial hardship. This will not be an easy path, but the strategy is sensible and attainable. (For further details on local district costs, consult Appendix F).

SECTION SIX: Evaluation of Secondary School Reforms

How Will We Measure Success?

Such an undertaking as reforming our secondary schools cannot commence without clearly stated criteria for how we will measure the success of this program in providing an engaging and rigorous educational program that prepares each high school graduate for the demands of career and family in the 21st century. There are hard statistics that we will use to judge the progress of the reform.

1. Do the graduation rates, particularly for minorities, increase at an acceptable rate toward a target percentage of close to100 percent?

2. In addition to increased graduation rates, does the achievement gap close between various groups as measured by the CAPT, SAT, the NAEP, and other tests that the state may deem appropriate?

3. Are schools in need of improvement as designated by No Child Left Behind policies making gains because of the implementation of these reforms?

4. Do we have a comprehensive system of measuring non-test data and correlating those data with academic performance data, e.g. attendance, behavior, and socio economic data? If so, do these data reflect continuous improvement?

5. How many schools perform at higher levels of the rubric used by the New England Association of Schools and Colleges (NEASC) visiting teams during the accreditation process?

6. Has the rigor in the secondary school reform significantly reduced the number of students who need to take remedial courses in language arts and math before fully matriculating in a post-secondary degree program?

7. How many students who start a degree program in a Connecticut institution of higher education finish it? How many students pursue a graduate degree? Is there a positive trend among all sub-groups over time?

There will also be some softer data that will measure the success of these reforms.

1. Do survey results from middle and high school students indicate that their coursework, Success Plan, school support system, and school experience in general contributed positively to their academic, social, emotional and physical growth?

2. Do survey results from graduates indicate that their high school experience prepared them well for entering college or the workforce?

3. Do survey data from the business community indicate that increasing numbers of students are prepared for the rigors of the 21st Century work environment?

4. Do periodic surveys indicate that parents perceive improvements in the education of their middle and high school aged children?

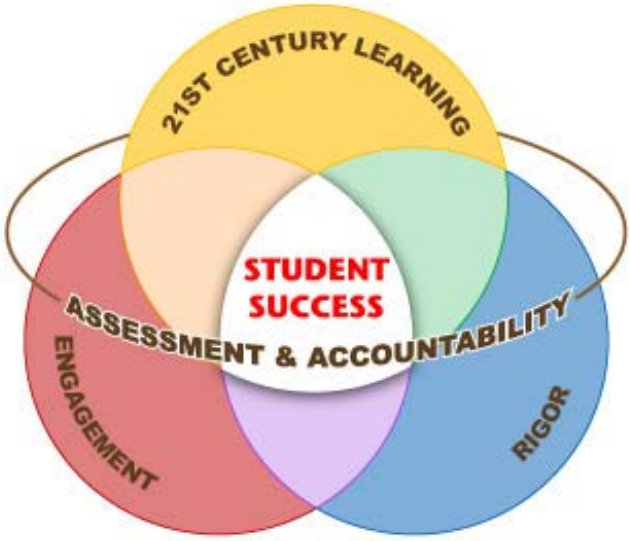
5. Do survey data demonstrate that high school graduates are well prepared for the demands of college or the work environment?

SECTION SEVEN: Conclusion

If there is any doubt that Connecticut should implement this secondary school reform plan, one need only consider just how far behind we have fallen relative to other states in the country. On the NAEP exams in 2003, Connecticut led the country; today we are moving toward the middle of the distribution. Of the 33 states that have stepped forward to participate in the America Diploma Project, Connecticut joined the consortium only this year, while others like Ohio, North Carolina, and Texas have been participants for years. Currently, more and more of our high school graduates are enrolling in community colleges or state universities inadequately prepared and must take remedial classes before they can truly begin earning college credits, at great expense. And, as we consider the increasing numbers of students who are dropping out of high school, the competitiveness of the flat world we inhabit, to say nothing of the sheer cost of filling our prisons with young men and women who were once students in our public schools, can there be any question that these reforms are not needed and warranted?

The Ad Hoc Committee expresses its deep appreciation to all of those who have participated in this process, in both formal and informal settings. We believe that this plan for secondary school reform will create an educational environment that promotes success for all high school graduates in Connecticut. Our plan is complex, and it is costly. It will demand much from many, and it will require long-range commitment. It will take several years to prepare for full implementation, and a careful assessment of the implementation process will likely require changes and modifications to the plan along the way.

The creation of the P-20 Council, described in Appendix G, is not just a work group, but rather a symbol of the partnerships required to fully prepare our students for the unknown challenges of the 21st Century. The Council will lead and facilitate the implementation of the plan. It is not a perfect plan, but it is a plan that represents the serious commitment to the well being of all of our children. Rigorous curriculum without engaging strategies will produce more disappointment. Engaging strategies without a consistently rigorous curriculum, creative and informed instruction, and high quality assessments will also make certain that many students in Connecticut will not achieve success in the 21st century. We cannot let that happen. We have a moral imperative to make this leap of faith, to capture the spirit of what is best in Connecticut and to give it to our children in such a way that the future for our children's children will raise each and every one of them up to achieve the promise of what this remarkable country has to offer.



Appendix G

Context and Historical Overview of the Ad Hoc Committee's Work

The Ad Hoc Committee for Secondary School Redesign first convened in June 2007 to embark on a very ambitious effort to reform the Connecticut High School System so that every student had the maximum opportunity to succeed in the 21st Century. This was not a new effort. Committees had convened in the past and worked very hard to develop recommendations for meaningful change in high school. There was in fact skepticism that this effort was more of the same, and therefore would create initial hope but in the end achieve only frustration. We are not at the end of that process yet and there is a danger that the skepticism will become reality once again. However, there is much hope that the plan that unfolds in this document will find its legs and become the driving force for meaningful change in Connecticut's high schools, middle schools, and by connection, the PK-5 systems. There is also much hope that institutions of higher education in Connecticut will travel this journey with us and together as we will become a P-20 system of education.

How will we know we are successful with the plan presented for implementation over the next decade? We will be successful when our students graduate from high school at significantly higher rates than currently, enter the world of higher education without having to take remedial courses in the language arts and mathematics, succeed in finishing degree programs, and transition successfully into the workforce with all the demands of a 21st Century global economy. In the process, our success will dramatically close the achievement gap between urban and suburban schools in Connecticut.

What awaits you in this report is a reform package, but more than that a story of a process that began early in June 2007 and will culminate in a comprehensive plan approved by the State Board of Education in the fall of 2008, followed by submission to the Connecticut General Assembly for appropriate legislation and funding. As you may have surmised from the previous comment, we are still in the middle of the story moving toward a climax.

The Ad Hoc Committee for this important initiative, which included representation from various stakeholders (see the membership in Appendix A), began meeting in July 2007. The Committee spent the fall examining existing data on student performance in Connecticut' high schools, examining what other states are doing with high school requirements, reviewing existing best practices in Connecticut and other states, and generating the initial draft of the Plan based on the three concepts of academic engagement, academic rigor and raising standards, and ensuring the acquisition by all students of 21st century skills.

During the course of the Committee's deliberation, it became clear that the middle school had a role to play in ensuring success for all students. Recent research of major urban school districts has identified that students who are at risk for completing high school begin to demonstrate these factors at about Grade 6. The Committee knew that it was too late to begin engagement strategies in Grade 9. The research identified four areas of risk beginning at the middle school level:

1. attendance that falls below 80 percent,
2. frequent behavior issues, and
3. failure to pass courses in language arts
4. failure to pass courses in math.

Any student exhibiting two or more of these factors is in serious jeopardy of dropping out of high school. Therefore, middle school has an important role to play in supporting student academic success. That role is presented as part of the comprehensive plan.

As part of the research process, we had presentations by the appropriate units within the State Department of Education that will have a crucial role in the implementation of the plan. Connecticut has joined the American Diploma Project, which is a consortium of 33 states that are working on the same issues we are and confronting the same struggles. We had a presentation from members of Achieve, Inc., a sponsoring group of the American Diploma Project. We anticipate a strong "critical friend" relationship that will give us good feedback on our Plan in the context of what is happening nationally. Visitations by Ad Hoc Committee members included a review of the Rhode Island plan for revising high school expectations, a trip to Finland to examine why their students are so successful on international exams, participation by one of the Committee co-chairs in a National Association of State Boards of Education Study Group on Middle School Education, which was comprised of state board members from all over the nation, and participation in a New England Middle Level Symposium by the Commissioner and other SDE staff members.

In addition to researching what others were doing to address the concepts of engagement, rigor, and the inculcation of 21st Century skills, we examined the role of higher education in this process, the curriculum and assessment components that will support the three concepts, the strategies that will support all students in achieving their potential, and the professional development that will assist the teachers in implementing the plan. In November 2007, we agreed on the initial draft of the Plan and a schedule for taking the Plan on the road for review in what we called Listening Tours, held throughout the state during the winter months (See schedule in Appendix B). These were well-attended and very lively sessions. Questions were raised about the realistic expectations for funding and the fear of unfunded mandates; the underlying assumptions that were driving the need for such a plan; concern that the initial plan looked like more of the same, rather than calling for reform of traditional high school structures - the plan had a one-size fits all tone to it; that the graduation rates would plummet rather than rise; and concern over the placement of the arts in the plan. There were other concerns too, but these were the major ones generated from the Listening Tours. Many individuals and groups submitted written position statements and recommendations for revisions.

When the Ad Hoc Committee met in the spring months to process this feedback, we knew that revisions were necessary. One of the concerns mentioned in the tours was that we did not have enough input from practicing administrators and teachers in the development of the initial plan. In answer to this criticism, we created three sub-committee groups (See Appendix C for the list of members) to spend May-June of 2008, digesting all of the feedback and developing revisions to the initial plan. The Revisions Work Group focused on the plan itself. The Middle School Work Group focused on the expectations that will fall on the middle school in preparing students to meet the new

high school expectations for graduation. The Higher Education Work Group focused on the role of higher education in supporting high school reform. The primary work of this last work group will transition to the new P-20 Council that will convene this fall for the purpose of coordinating the entire educational system in Connecticut in the years to come.

The Ad Hoc Committee met in July 2008 to receive and discuss the implications for making revisions to the plan. A small group comprised of the Commissioner of Education, a co-chair of the Ad Hoc Committee, and the co-chairs of the high school and middle school sub-committees met twice to finalize the current draft of the Plan for Secondary School Reform. This Plan is scheduled for review and adoption by the Ad Hoc Committee at two meetings in September. If the Plan is approved, the State Board will review and vote on its adoption by November 2008. In the meantime, the Ad Hoc Committee will present the revised Plan at a statewide symposium scheduled for two days in October. In addition to the presentation of the final plan, the conversation at the symposium will focus around the schedule for implementation once the Plan is accepted by the General Assembly (discussed in more detail in this document),.

In this story of secondary school reform in Connecticut, the purpose has been to describe the interactive process the Ad Hoc Committee has implemented to communicate the first draft of the Plan, receive feedback and suggestions, and involve more practicing educators in the revision process.

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