

The Case for Secondary School Reform in Connecticut

Presentation to the
Connecticut State Board of Education

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November 7, 2007



High School Reform in Connecticut

Foundations

- Connecticut General Statutes Section 10.221a
- Monograph on High School Reform 2001:
 - Re-conceptualized look at Connecticut high schools
 - Focus on improving six school components:
 - School culture
 - Curriculum
 - Instruction
 - Professional development
 - Assessment
 - Leadership



High School Reform in Connecticut

- *Framework for Connecticut's High Schools: A Working Guide for High School Redesign*
 - Developed in 2005-06 by the Connecticut High School Advisory Committee
 - Based on:
 - (NEASC) *Standards for Accreditation*
 - (NASSP) *Breaking Ranks II*



High School Reform in Connecticut

- CSBE Developed Five-Year Comprehensive Plan: Adopted January 3, 2007
 - Priority III of the Plan centers on high school reform.
 - The Plan ensures the graduation of all students prepared for the global market place.



High School Reform in Connecticut

- Creation of PK-16 Council with NGA Grant - January 2007
 - Focus on the *Framework* of CSBE Five-Year Plan
 - May 2007: Council requested CSDE to develop rigorous core curriculum and more comprehensive, high-stakes assessment program



High School Reform in Connecticut

- Legislative Session 2007: Failure of Senate Bill 1410 and Governor's Bill 1114
 - Support from CBIA, Higher Education and key legislators
- SBE creates an Ad Hoc Committee for Secondary School Improvement June 6, 2007.

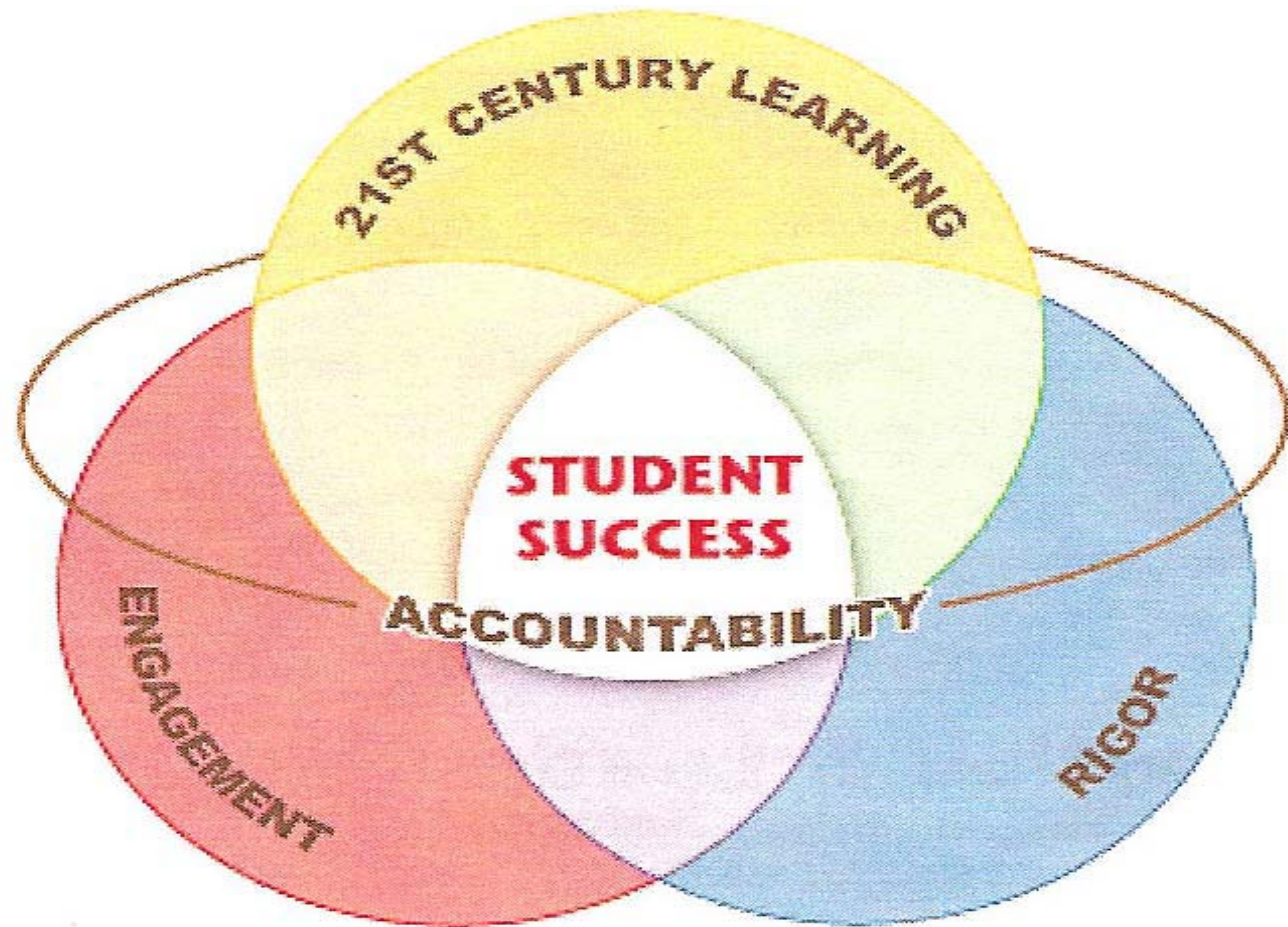


High School Reform in Connecticut

- Ad Hoc Committee to present initial recommendations to SBE on November 7, 2007, final recommendations on December 5, 2007
 - Broad representation on Ad Hoc Committee
 - Based on the work of the high school reform advocates



Secondary School Reform in Connecticut



Secondary School Reform

- Rigor
- Engagement
- 21st Century Learning

Connecticut High School Redesign:

*Essential Changes for
Connecticut Schools
To Graduate All Students
with Skills and Attitudes
for Success in Today's World*



Connecticut State
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June 2007

Secondary School Reform

- Content
- School Community, Climate and Culture
- Structure
- Instruction and Leadership

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Secondary School Reform

- **Accountability**
 - Standard curriculum measures for learning
 - Multiple measures
 - Use common assessments to monitor progress
 - HS diploma=Documented achievement
 - Assess and improve school climate
 - Use data to track student performance
 - Educators responsible for student learning

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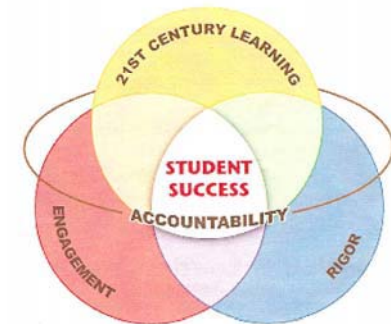
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Secondary School Reform

- Responsibility
 - Governor and Legislature: Statutes and Finances
 - CSBE: Policies, Guides, Model Curricula, and Assessments
 - CT School Districts: Implementation

Connecticut High School Redesign:

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Why is Secondary School Reform So Important?

Eight BIG Reasons:

1. CT has large achievement gaps.
2. Benchmark test scores (CAPT, CMT, NAEP) are declining or flat.
3. High numbers of CT college students taking remedial courses.
4. CT's high school diploma has low economic value.



Why is Secondary School Reform So Important?

Eight BIG Reasons (Cont.):

5. Graduates are unprepared for the CT workplace and post-secondary education.
6. By 2010-2011 approximately 100 districts will face NCLB sanctions.
7. Large percentages of students are entering Adult Education System.
8. A National Math and Science Initiative (NMSI) \$13.2M Grant has been awarded to Connecticut.



CT Achievement Gaps*

	Mathematics			Reading		
	<i>Black/ White</i>	<i>Hispanic/ White</i>	<i>Free or Reduced Price/Non Lunch</i>	<i>Black/ White</i>	<i>Hispanic/ White</i>	<i>Free or Reduced Price/Non Lunch</i>
CAPT 2007 Gr. 10 (100-400)	55	48	47	46	43	44
SAT 2007** Graduates (200-800)	120	91	**	106	83	**
NAEP 2007 Gr. 8 (0-500)	38	39	36	30	33	32

**All gaps are reported as differences in average scale scores.*

***SAT results are not reported using this variable. Numbers represent the difference in points between the groups on each of the subject area tests.*

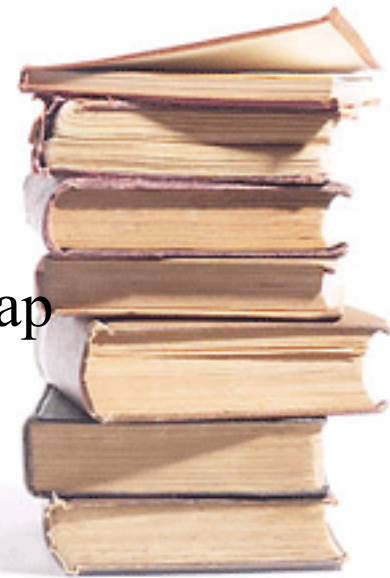
Achievement Gaps

- For the 2007 CAPT, the scale score differences translate into about 58 percent of Grade 10 White students meeting goal on each of the four sections of CAPT compared with 18 percent of Hispanic students and 15 percent of Black students.
- In 2007, the gap in SAT performance between Hispanic and White students was 83 points in reading and 91 points in mathematics and between Black and White students was 106 points in reading and 120 points in mathematics.



Achievement Gaps (cont.)

- For Grade 8 NAEP, Connecticut has some of the largest gaps in the nation among subgroups of students.
- In reading, no state has a statistically larger achievement gap between Hispanic and White students and Black and White students; for mathematics, no state has a larger gap between Hispanic and White students and only one state has a larger gap between Black and White students.

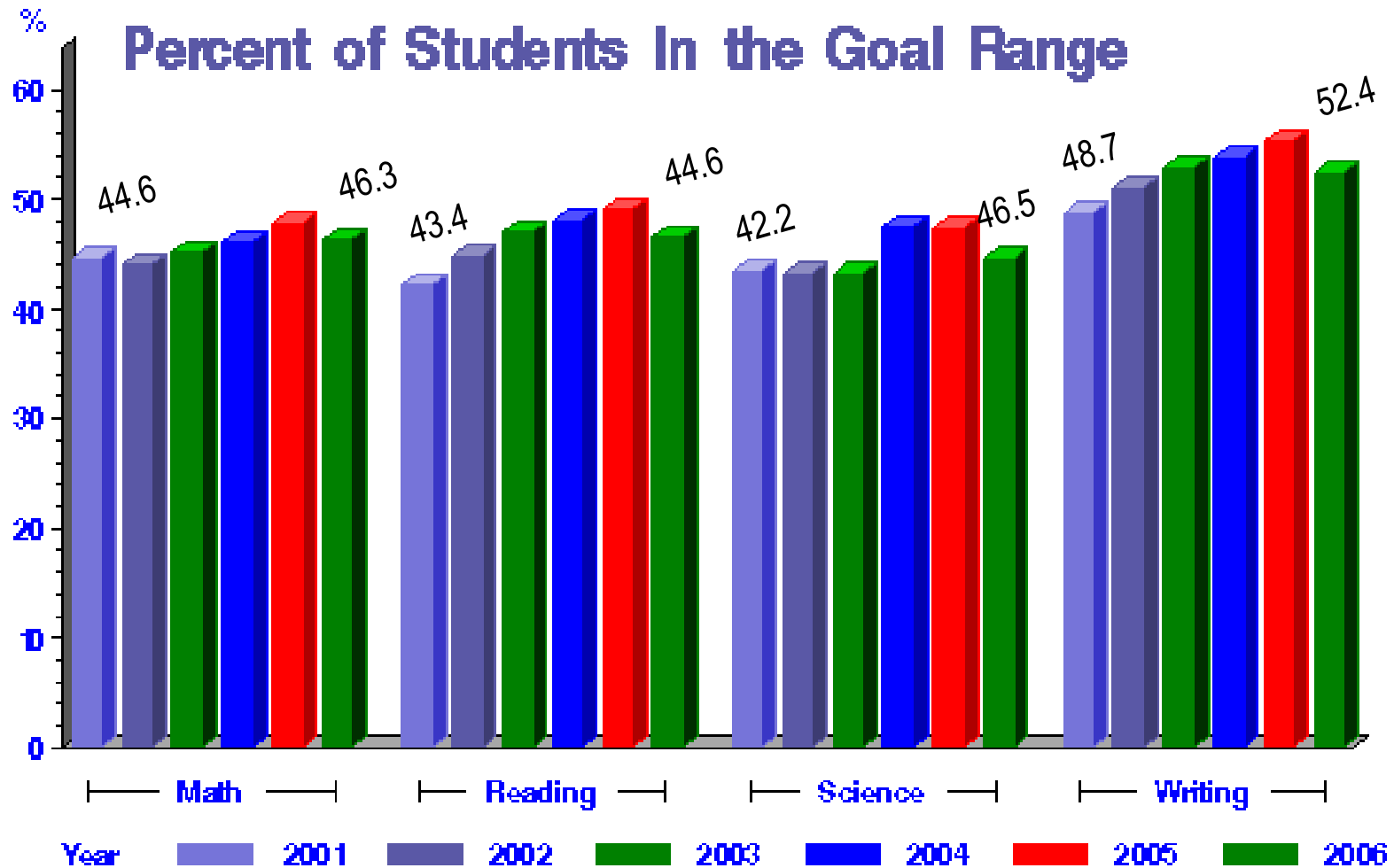


Benchmark Performance

- About half of Connecticut's Grade 10 students met goal on the CAPT in mathematics (45%), science (44%), reading (46%), or writing (53%) in 2007; this is consistent with the scores from 2001 to 2006.
- CMT scores are flat.
- After reaching a peak in 2005, Connecticut's SAT Mathematics and Critical Reading scores declined by 8 points each over the last two years.
- Since 2003, Grade 8 NAEP proficiency rates for mathematics and reading have not increased and, for science, have not increased since 2000; Connecticut's relative performance level among the states has declined.

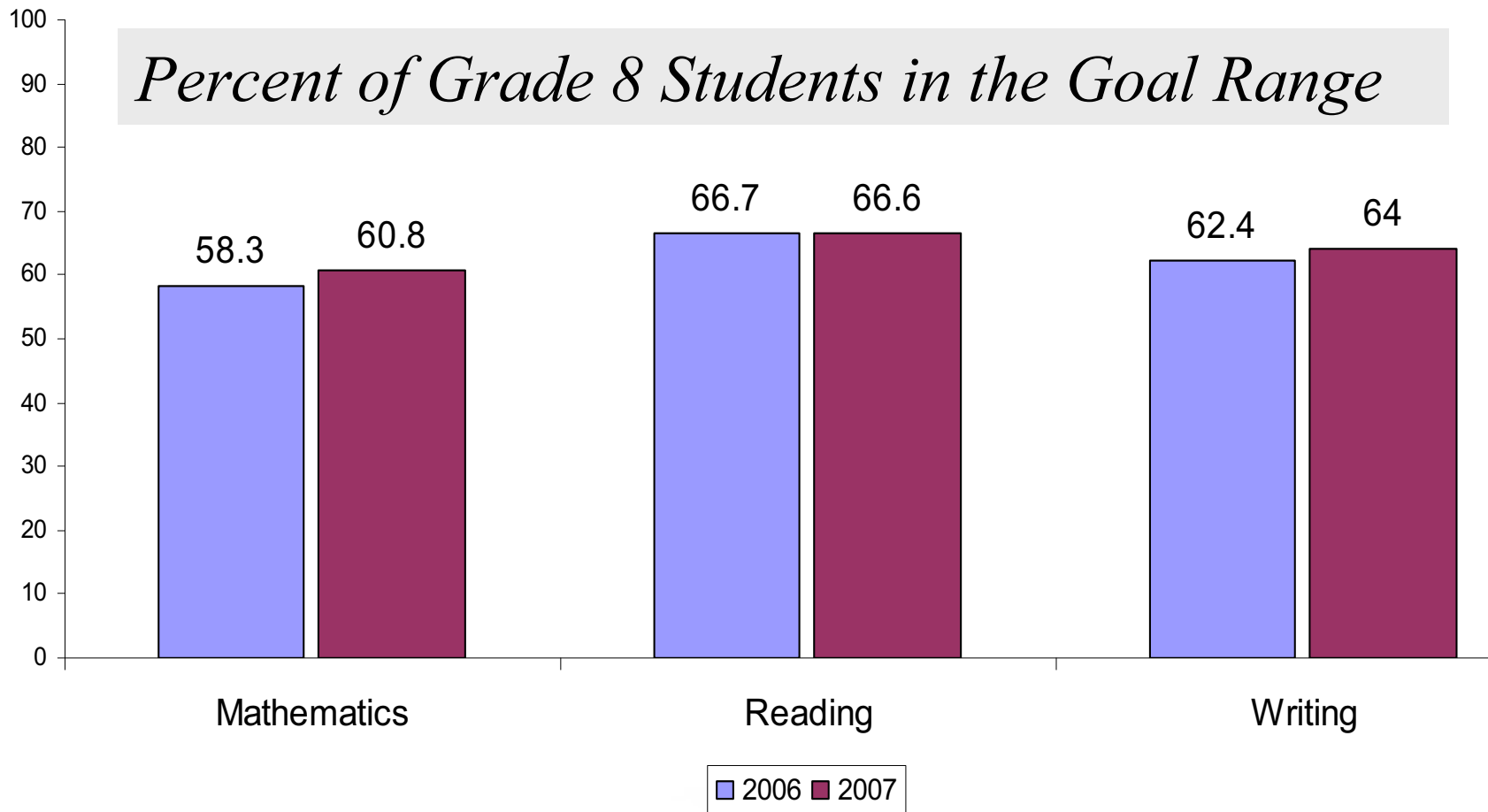


Benchmark Achievement Data: CAPT



Benchmark Achievement Data: CMT

Percent of Grade 8 Students in the Goal Range



Benchmark Achievement Data: NAEP

<i>Percentage of Grade 8 Students At or Above Proficient</i>				
	<i>Mathematics</i>			
	<i>2000</i>	<i>2003</i>	<i>2005</i>	<i>2007</i>
Nation	25*	27*	28*	31
CT	33	35	35	35
	<i>Reading</i>			
	<i>2002</i>	<i>2003</i>	<i>2005</i>	<i>2007</i>
Nation	31*	30*	29	29
CT	37	37	34	37

*Value is significantly different from the value for the same jurisdiction in 2007.

Connecticut Community and Technical College (CCTC) and Connecticut State University Remediation

- For the fall 2005 semester, 8,800 students enrolled in remedial courses in English and 10,800 students enrolled in remedial courses in mathematics.
- The estimated cost of offering these remedial courses was \$10.8 million.
- Approximately 23 percent of students attending a CCTC are enrolled in at least one basic skills course in mathematics or English during any semester.



College Level Remediation

Estimated Costs of Remedial Education at CSU and CCTC, Fall 2005

<i>Course</i>	<i>Enrollment</i>	<i>Estimated Cost</i>
English	8,843	\$5,347,337
Mathematics	10,769	\$5,501,841
Total	19,612	\$10,849,178

US Census Bureau 2005: Education and Earnings

- A fifth of Connecticut wage earners don't earn enough to meet the basic needs of their families.
- According to the United State Census Bureau (2005), the median income for a Connecticut employee who did not graduate from high school was \$22,939, compared with \$30,766 for an employee who had graduated. Both of these are well below the \$35,000 to \$38,000 needed to maintain a family in Connecticut.
- The expected lifetime earnings of males with a bachelor's degree in 1979 was 51 percent higher than their peers with only a high school diploma. By 2004, however, this difference had widened to 96 percent.

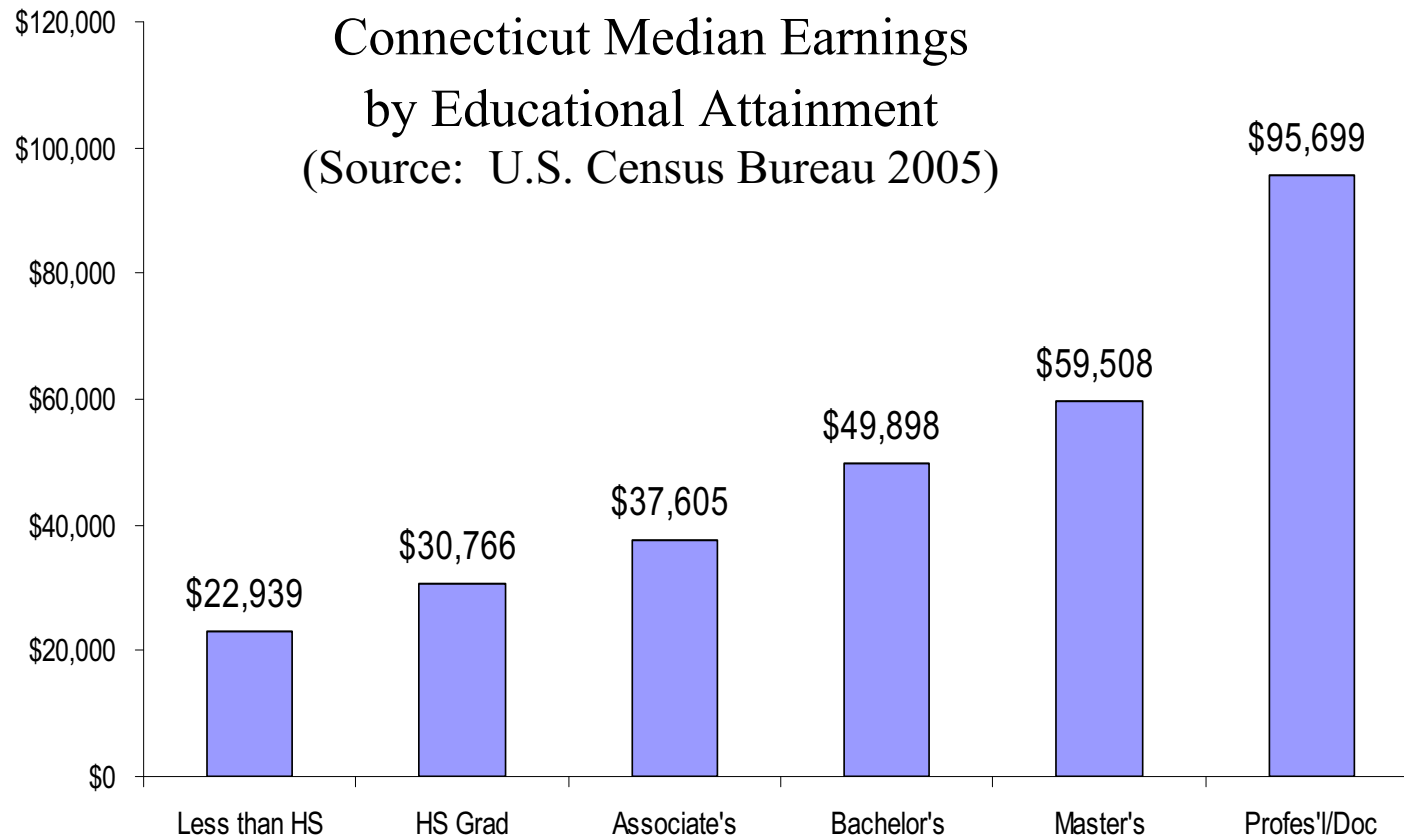


Education and Earnings (cont.)

- The median annual salary for employees with an associate's degree was 22 percent higher than those with only a high school diploma, while the difference increased to 62 percent for a bachelor's degree, 93 percent for a master's degree and 312 percent for a professional/doctoral degree.
- Connecticut's unemployment rate for individuals who do not have a high school diploma is 1.7 times higher than for individuals who have graduated from high school and 2.8 times higher than college graduates with a bachelor's degree.



Economic Value of HS Diploma



The State Business Perspective

- Many Connecticut public school students exiting the state's high schools are ill-prepared to succeed in Connecticut's labor market.
- The skills that graduates need to be fully successful in an economically competitive workplace have changed dramatically during the last two decades, yet the rigor and challenge of the academic programs that many of the state's high schools offer has changed little.



CT Business Community: Graduates Should be Proficient in Core Subjects

Math	Percent Agree
Algebra	72%
Geometry	58%
Trigonometry	34%
Calculus	21%
Statistics	54%

Science	Percent Agree
Chemistry	50%
Biology	45%
Physics	55%
Environmental Science	54%

CT Business Community: Recommended Changes to Reform High Schools

Recommended Changes	Percent Agree
Exposure to career pathways	70%
Reinforce analytic and problem-solving skills	69%
Higher expectations for all students	68%
More rigorous math and science	67%
Preparation for employment in a global economy	60%
Assessment of skills prior to graduation	58%
Extended school day	37%

CT Business Community: Importance of 21st Century Skills

21st Century Skills	Extremely Important	Somewhat Important
Work ethic	94%	6%
Critical thinking/problem solving	77%	22%
Oral & written communication	68%	29%
Teamwork/collaboration	68%	29%
Ethics and social responsibility	66%	29%
Self-direction and flexibility	60%	37%
Information & computer technology	50%	41%
Creativity and innovation	44%	45%

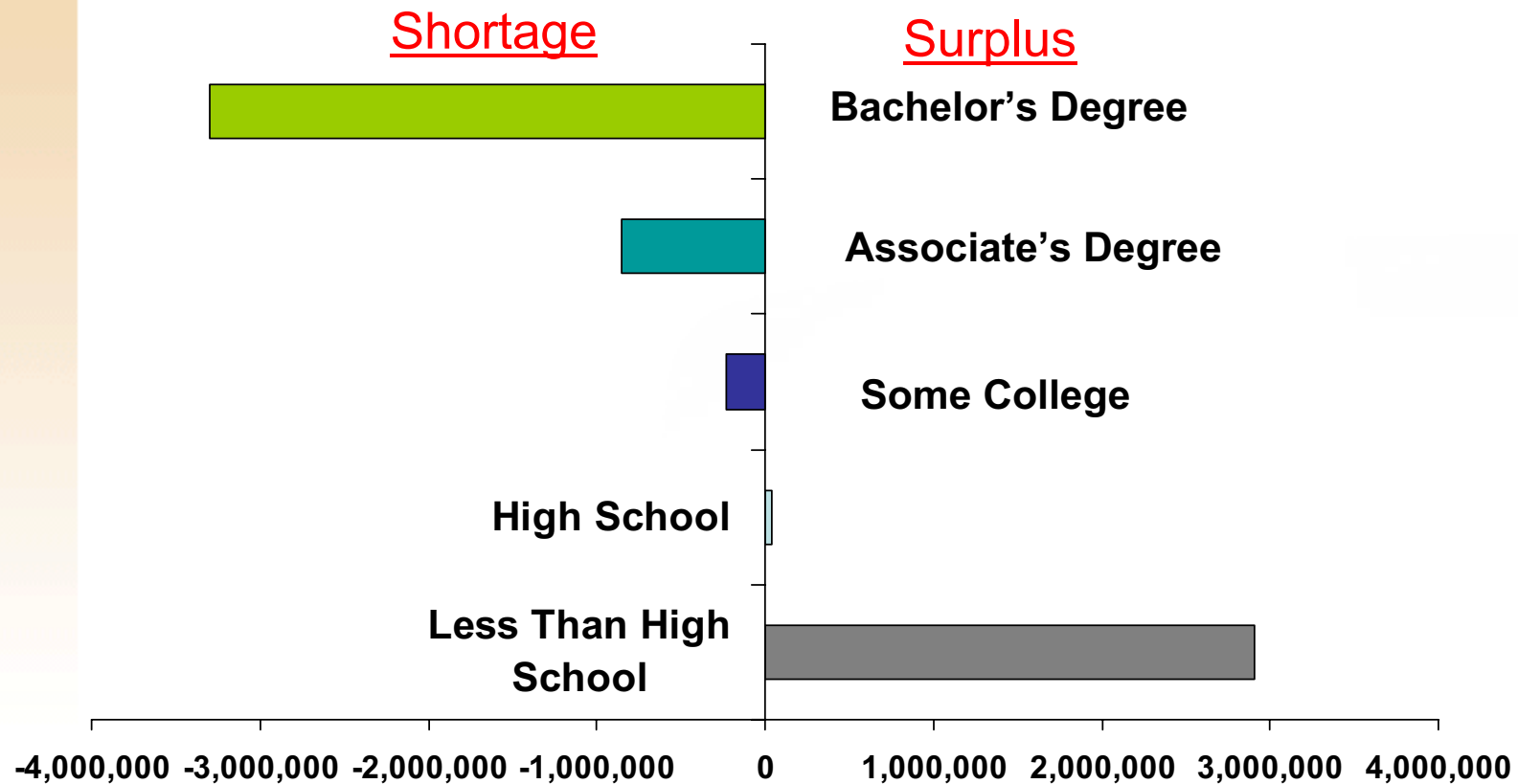
The Future Need for a High School Diploma in Connecticut

- Projections based on U. S. Census data suggest that by 2012 there will be a shortage of about 8.4 million workers who hold a bachelor's degree and a surplus of nearly 3 million workers who hold a high school diploma or less.
- Based on a survey of human resource officials, *Partnership for 21st Century Skills* found that 28 percent of employers project that their companies will reduce the hiring of new employees with only a high school diploma over the next five years.



Origins of the Nation's Future Workforce

Projections of Education Shortages and Surpluses in 2012



Source: Analysis by Anthony Carnevale, 2006 of Current Population Survey (1992-2004) and Census Population Projection Estimates

Developing CT's Workforce for the Future

- The CT Labor Department's projection indicates that accountants, computer engineers/analysts, registered nurses, and securities sales agents will be among the most highly sought after occupations from 2004-2014.
- A survey of U.S. metropolitan employers found that 86% of employers included soft professional skills among their most important hiring criteria. A student's comprehension of both technical and professional skills is the key to producing a labor supply that will meet or exceed Connecticut employers' demands now and in the future.



NCLB Status of Schools and Districts in Connecticut

- In 2006-2007, 247 schools and 29 districts were identified as “In Need of Improvement” in Connecticut.
- By 2010 the number of schools “In Need of Improvement” is estimated to be 568 and the number of districts will be approximately 100.



NCLB Sanctions Through 2010-11

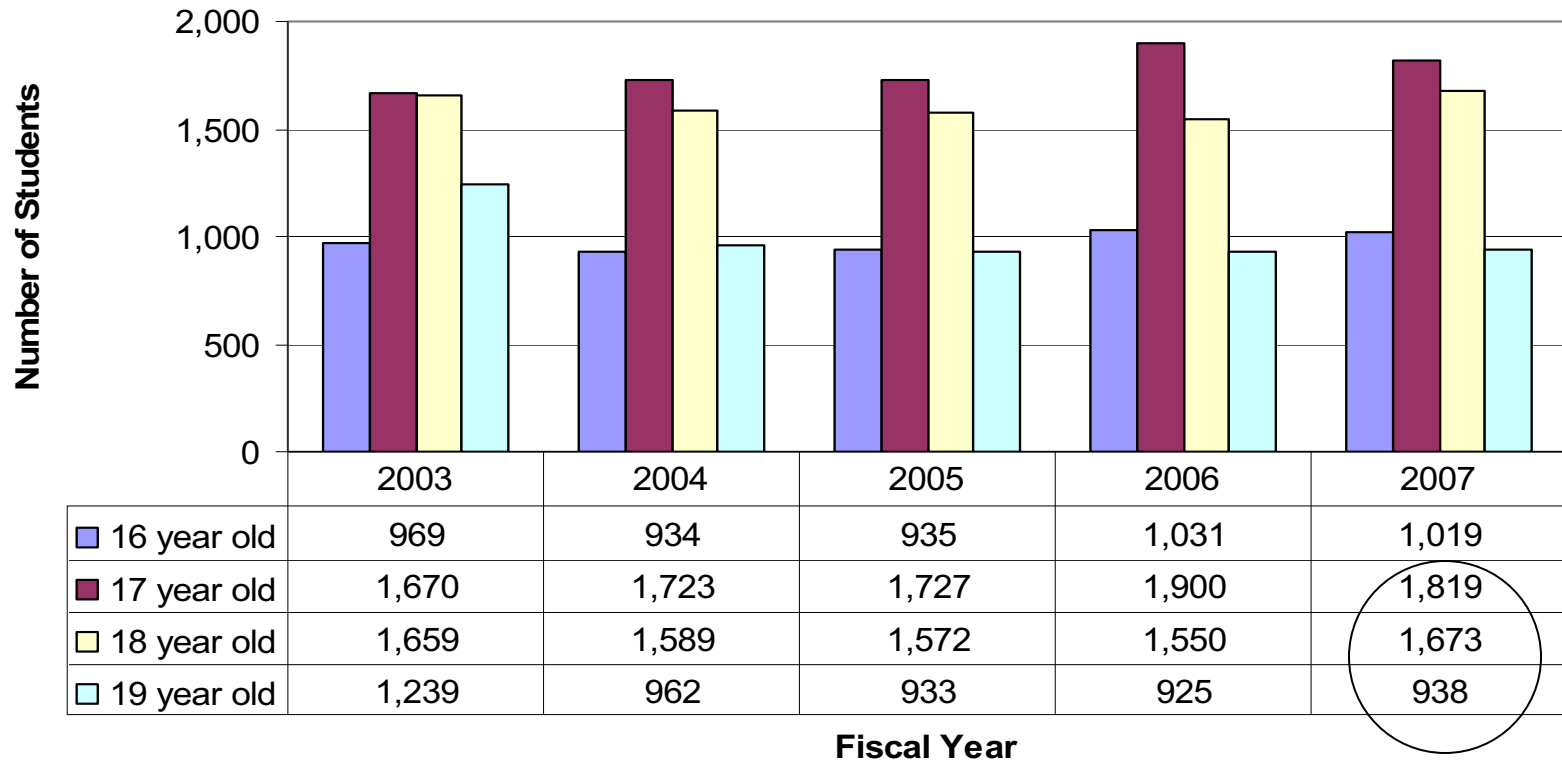
Schools and Districts “In Need of Improvement”		
School Year	# Schools	# Districts
2004-05	136	27
2005-06	185	28
2006-07	247	29
2007-08*	335	32
2010-11*	568	100

**Projected*

Adult Education Data on Adolescents

(New to System)

**Students from Connecticut High Schools
Entering Adult Education**



What Does the Ad Hoc Committee Hope to Achieve Through its Recommendations?

- High academic achievement for all students
- Prepare students for 21st Century challenges
- Build an accomplished work force
- Establish a framework consistent with PK-16 expectations
- Complete the charge of the State Board of Education, approved in June 2007



Charge of the Ad Hoc Committee

The charge of the Ad Hoc Committee on Secondary School Improvement is to develop recommendations leading to legislation that will:

1. improve Connecticut's high school graduation rate; and
2. prepare graduates for successful entry into college or the workplace, predicated on the completion of required full- and half-year courses, end-of-course examinations, authentic assessments and career paths reflecting the individual needs and aspirations of each student.



Charge of the Ad Hoc Committee

- Based on a framework developed by the State Department of Education in conjunction with the PK-16 Council, the Committee shall recommend which secondary courses and end-of-course examinations must be passed by all students to receive a high school diploma by 2013, as well as the essential 21st Century Skills needed to work successfully in a global economy.
- The Committee will formulate its recommendations by October 2007, solicit public opinion throughout the remainder of the calendar year, and present its final recommendations to the State Board of Education in January 2008.



What Expectations Underlie the Ad Hoc Committee's Recommendations?

- Align recommendations with PK-16 System
- Involve *middle school* stakeholders with *high school* recommendations
- Achieve a consistent standard of instructional quality in every school
- Ensure the integrity of a high school diploma in CT
- Allow for flexibility for struggling students to meet graduation requirements



Secondary School Reform Recommendations

A New Framework of Expectations and
Standards for All Connecticut Students

- Connecticut’s “Secondary School Reform Framework” integrates key *assumptions*, *design concepts*, and *building blocks* to form a stronger system for organizing instruction and services.



Building Blocks to Reform

- 24 Credits
- A Core Curriculum of Required Courses
- 21st Century Learning Skills Embedded in State-developed Model Curricula
- End-of-Course Assessment Examinations
- End-of-Course Performance Tasks
- Student Success Plans with Career Path Options
- A Senior Demonstration Project



Assumptions

- Diploma = 24 Credits + Required Courses + Successful Benchmark Assessments + Senior Demonstration
- Benchmark Assessments
 - **End-of-year course examinations**
 - **Performance assessments demonstrating 21st Century competencies**
- Career Path = Demonstration of Core and Specialized Competencies
- Retain Carnegie Units and Grades
- Traditional Grading Systems



Assumptions (Cont.)

- End-of-Course Examinations
 - **For Full-Year Courses**
 - **SDE Administered in Late May**
- Secondary Course Sequence: Grade Range, 7-13
- Use of CAPT after 2012 uncertain
- Embed 21st Century Skills in model curricula and performance assessments that are locally developed and administered
- Senior Demonstration to reflect learning of 21st Century Skills and Professional Skills



Design Concepts

Definitions

- Core Curriculum: The “default” curriculum or regimen of courses that must be taken and passed by all students in Connecticut in order to receive a diploma.
- State-Developed Model Curricula: A common, full- or half-year course of study consisting of essential topics and subject matter; powered standards; and appropriate 21st Century skills linked to a system of regular formative assessments.
- State-End-of-Course Examinations: State-required tests consisting of multiple choice items, short-answers, constructed responses and/or essays designed to measure a student’s proficiency in the subject matter and skills taught in a year-long or half-year course.
- State-End-of-Course Performance Tasks: State-designed performance tasks in one or more formats, underwritten by rubrics designating five areas of performance (below-basic, basic, proficient, goal and advanced), and scored by locally-trained scorers or judges.
- Course Credits: The point value assigned to a full-year or half-year course of study upon a student’s completion of the course and receipt of a passing grade. Students may earn high school credits and take end-of-course examinations and/or performance tasks as early as grade 7.



Design Concepts

- State High School Diploma: All Connecticut students must earn twenty-four (24) credits and pass all end-of-course examinations and performance tasks in order to receive a high school diploma. No more than three (3) credits may be earned prior to the start of 9th grade.
- Student Success Plan: An individualized plan of study, developed on or before a student's freshman year, delineating a scope and sequence of courses to be completed as preparation for college and/or a career. Student Success Plans will be reviewed annually by the student's mentor or guidance counselor.
- Portfolio: A collection of written products, objects of art, or products selected by a student as representative of his/her competency in meeting a course requirement or fulfilling the obligations accompanying a Senior Demonstration.
- Senior Demonstration: An end-of year research project, portfolio, performance internship, or community project tied to the completion of a Student Success Plan, and a core curriculum requirement. The Senior Demonstration project will consist of a year of independent study under the supervision of a teacher or mentor, and a tangible "product" at the end of the year that will be judged locally by members of the faculty, district, community, or institution of higher education.

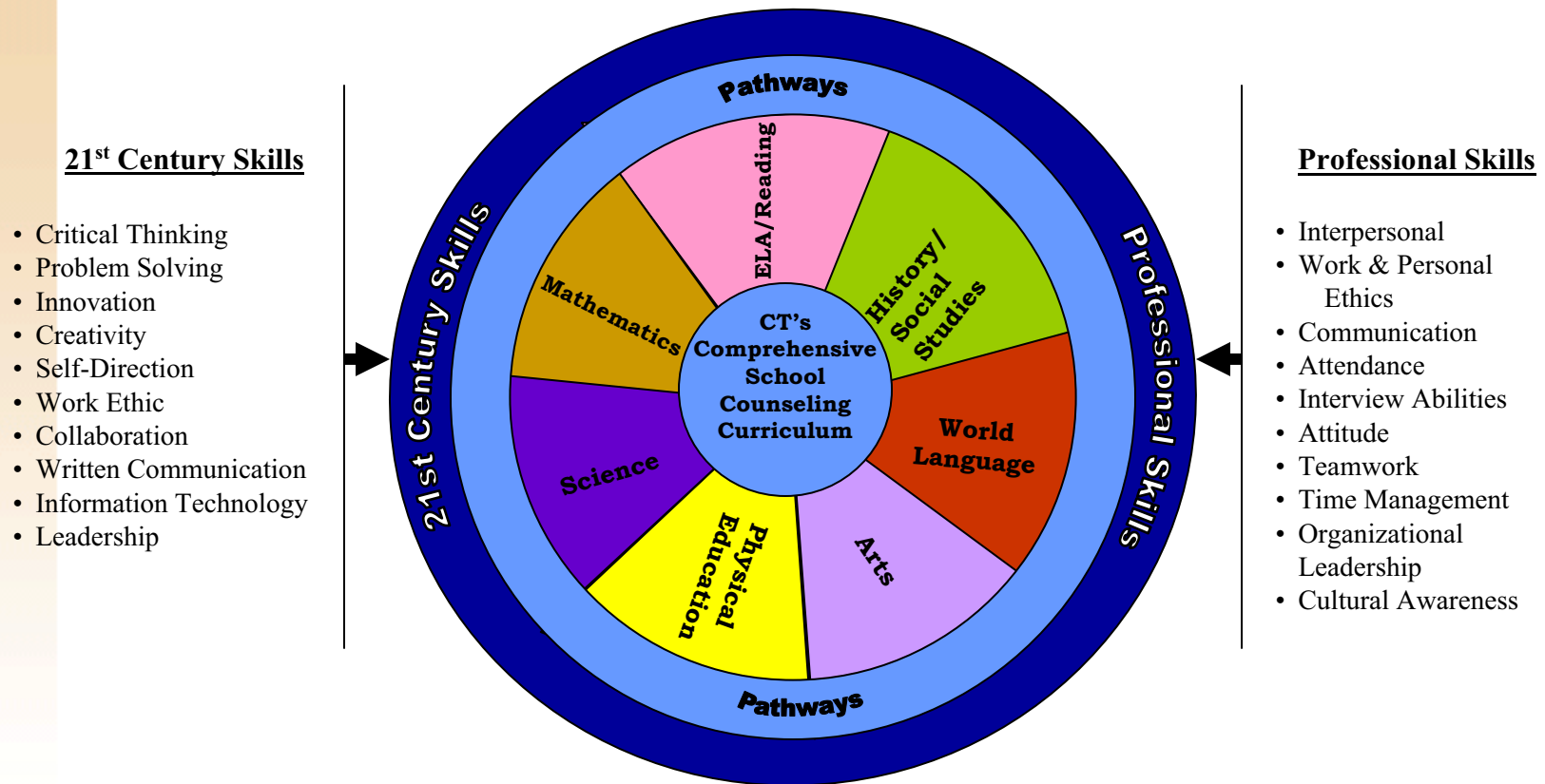


A Matrix of Requirements and Choices

Draft 11/2/07	Required Credits Distribution	State Model Curricula	Embedded 21st Century Skills	State EOC Examination	State EOC Performance Task	Local EOC Performance Task	Locally Scored
Core Curriculum							
Mathematics	3						
Algebra I	1	x	x	x			
Geometry	1	x	x				
Algebra II	1	x	x	x			
Science	3						
Biology	1	x	x	x			
Chemistry or Other Full-year Physical Science Course (See N	1	x	x		x (Chemistry)	x (Other)	x
Full-year Lab Course in Physical or Life Science	1					x	x
English, LA & Reading	4						
English I	1	x	x				
English II	1	x	x	x			
Literature & Composition I	1						
Literature & Composition II or Full-year Elective	1						
History/Social Science	3						
International Studies	1					x	x
US History: 1860-Present	1	x	x	x			
Civics	0.5	x	x				
Half-year Elective	0.5						
World Language	2						
Career & Technical Education and The Arts	2						
<i>Combination of Full or Half-Year Elective Courses</i>							
Careers and Technical Education	.5 or 1 or 2						
The Arts	.5 or 1 or 2						
Health and Wellness	2						
Health, Nutrition & Wellness	0.5	x	x				
Physical Education	1.5	x	x				
Electives: Full and Half-Year Courses	4						
Senior Demonstration	1					x	x
Total	24	11	10	5	1	4	4

Note 1: Model Curriculum for Chemistry Only

Components of Student Success Plan



Foundation: Rigorous academic courses and a related sequence of elective courses aligned to a specific career pathway in providing:

- Experiential Learning: Job Shadows, Internships, Community Service
- Dual/Concurrent Credit
- Senior Project Design
- 21st Century and Professional Skills across-the-curriculum
- Evolving post-secondary plan

Implementation: Listening and Refining

Nov. 2007-June 2008

- Refine role of PK-16 Council
- Intake from Stakeholder Groups
 - Governor and State Legislators
 - Regional Town Meetings
 - Educator Groups
 - Regional Sessions for Boards of Education
 - Business and Research Groups



Implementation: Listening and Refining

Nov. 2007-June 2008

- Stakeholder Groups (cont.)
 - Higher Education Groups
 - PTO and Parent Groups
 - State Editorial Boards
 - African-American, Hispanic, and Other Ethnic/Leadership Groups



Implementation: Legislative Strategy

November 2007-December 2008

- Actions
 - Organize Steering Committee of Executive and Legislative Branches
 - Meet with key legislators by March 2008
 - Pass legislation endorsing the framework and funding a cost analysis by March 2008
 - Conduct financial analysis and develop long-range budget July-October 2008



Implementation: Legislative Strategy

November 2007-December 2008

- Actions (cont.)
 - SBE and Joint Legislative Committee write reform legislation: October-November 2008
 - Legislative proposals sent to Governor and Legislature in December 2008



Implementation: Estimate Cost of Reform Package

- State Costs
 - Develop model curriculum for each of seven courses by 2010
 - Develop end-of-course assessments and alternatives by 2012
 - Do workforce analysis in areas of teacher shortage
 - Develop remediation support programs for middle and high school students



Implementation: Estimate Cost of Reform Package

- State Costs (Cont.)
 - Estimate additional SDE staff
 - Implement statewide professional development for teachers and administrators



Implementation: Estimate Cost of Reform Package

- District Costs
 - Estimate costs for the implementation of Senior Demonstrations
 - Do workforce analysis for teachers, administrators, support staff and school counselors
 - Estimate cost of added science facilities
- Publish cost analysis by October 2008



Summary and Questions

- Context
- Need for Reform
- Expectations and Assignments
- The CT Design
- The Plan (Matrix)
- Implementation Strategies

