



Our Students. Their Moment.

Pathways To Graduation

Current Requirements and Options

NYS Board of Regents
September 15, 2014



www.engageNY.org

College and Career Readiness

Vision: College and Career Readiness in NYS will ensure that *all* students graduate high school able to succeed in postsecondary programs of study and the workforce; that they understand and demonstrate citizenship skills; and that they may meaningfully contribute to the economic and democratic well-being of our society.

Goal: By 2015, NYS will offer *all* students an established set of pathways to graduation that are grounded in the Common Core Learning Standards, are similarly rigorous, allow for student choice and have demonstrated, effective outcomes for students.

Completion vs. Readiness

Defining What Our Students Need for Success

New York's 4-year high school graduation rate is 74.9% for All Students however, the gaps are disturbing.

June 2013 Graduation Rate

Graduation under Current Requirements
(Completion)

	% Graduating
All Students	74.9
American Indian	62.2
Asian/Pacific Islander	80.6
Black	59.7
Hispanic	59.2
White	86.5
English Language Learners	31.4
Students with Disabilities	48.7

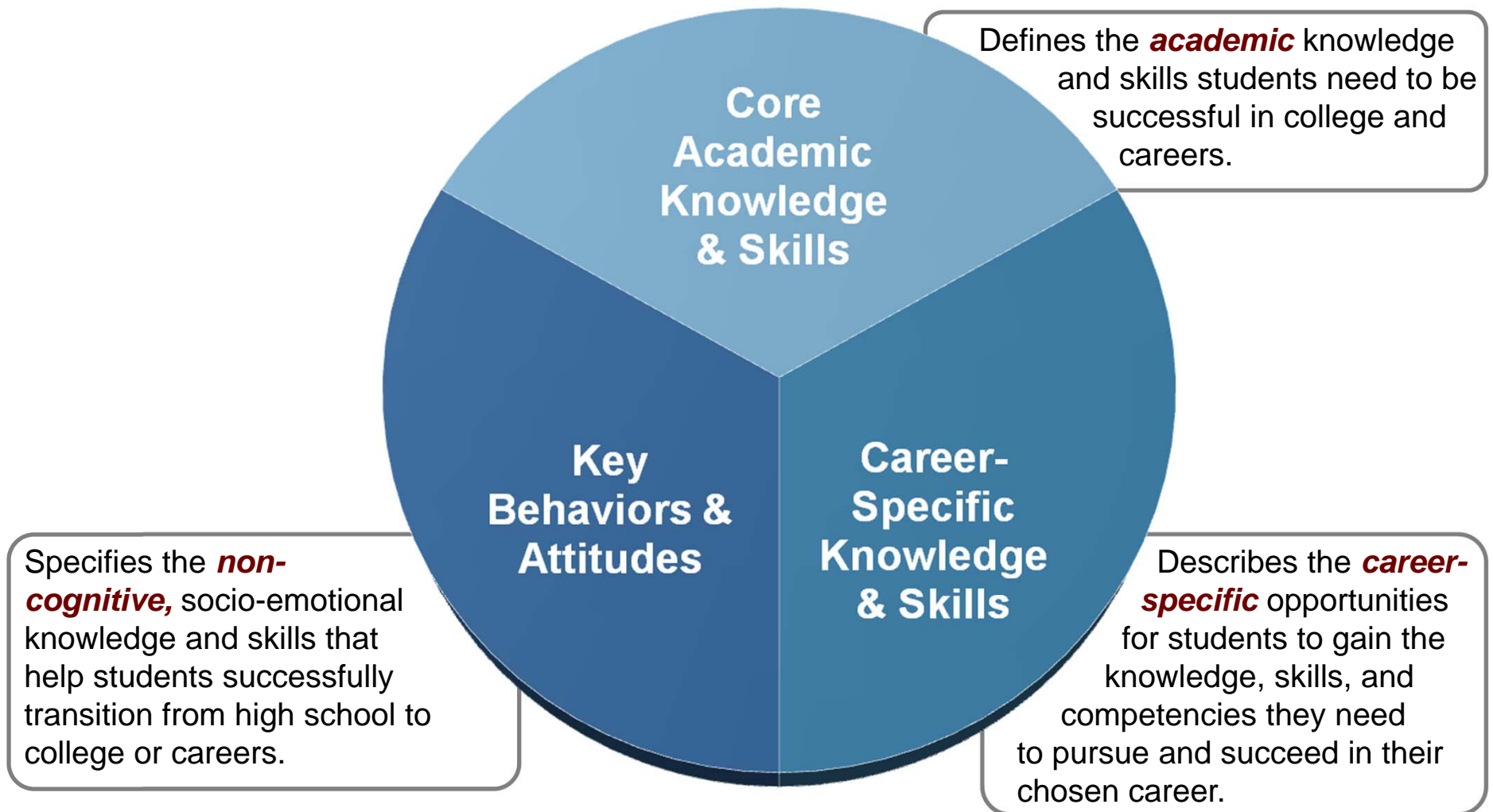
Calculated College and Career Ready*
(Readiness)

	% Graduating
All Students	37.2
American Indian	21.3
Asian/Pacific Islander	57.2
Black	14.2
Hispanic	18.0
White	50.4
English Language Learners	5.9
Students with Disabilities	5.4

*Students graduating with at least a score of 75 on Regents English and 80 on a Math Regents, which correlates with success in first-year college courses.

Source: NYSED Office of Information and Reporting Services

Readiness is more than an Academic Pursuit



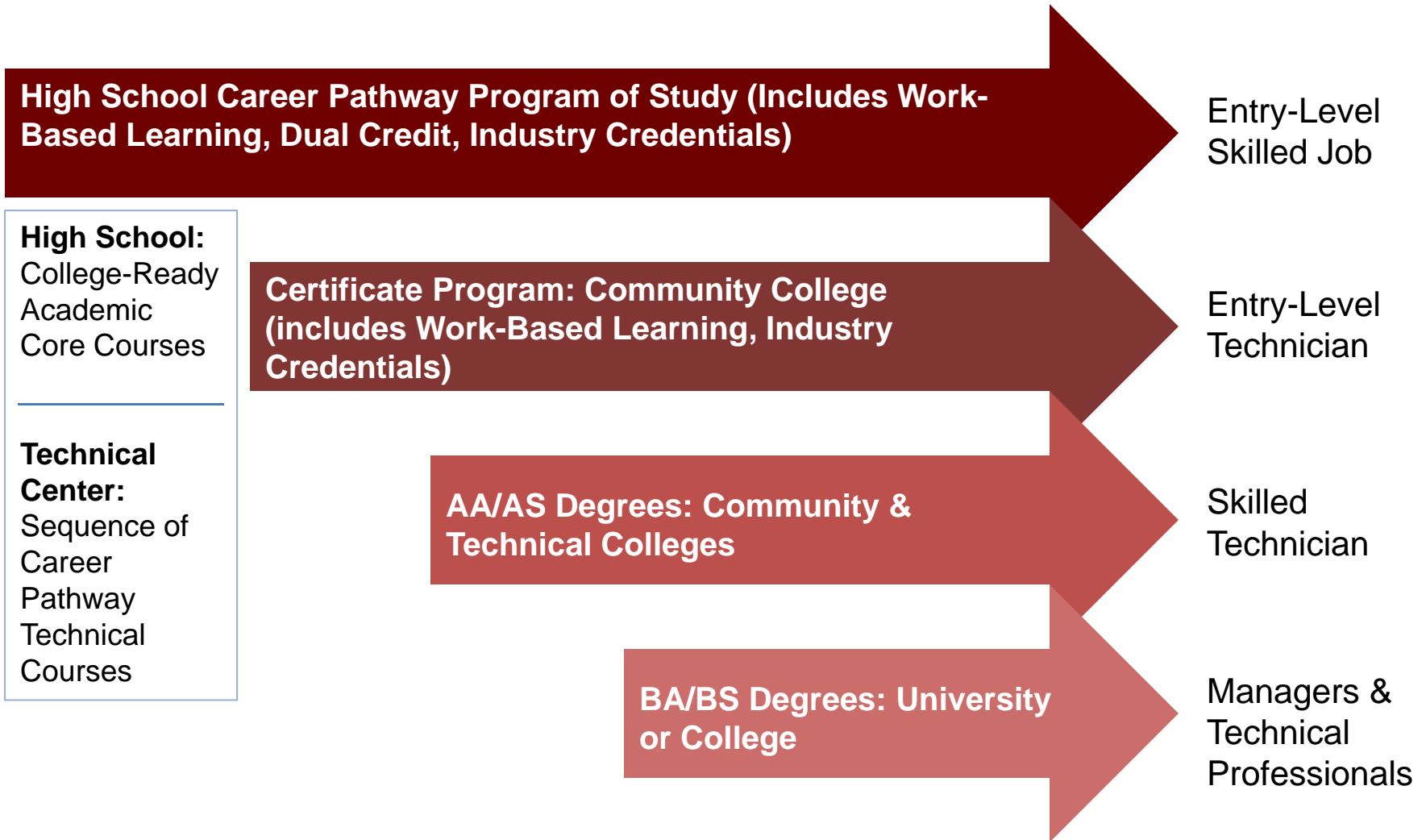
The theory of action for multiple pathways

Why Invest in a Pathways Approach?

- Under the current system of *Completion*, far too many students are either dropping out of school or are not having their academic needs met thereby leading to increasing levels of remediation in entry level college classes and/or unsuccessful attempts to achieve a living wage job.
- The lack of coherence between K-12 and college and/or career/industry must be remedied by a model of *Readiness* which contains a combination of common expectations (CCLS) and multiple, similarly rigorous pathways which lead to student success.
- Multiple market and student-choice driven pathways will increase student engagement, student achievement, and ultimately, college, career and citizenship readiness. The result will be a strengthening of our economy and our democratic way of life.

High quality pathways engage students at all levels of achievement in moving forward to postsecondary education and/or career training.

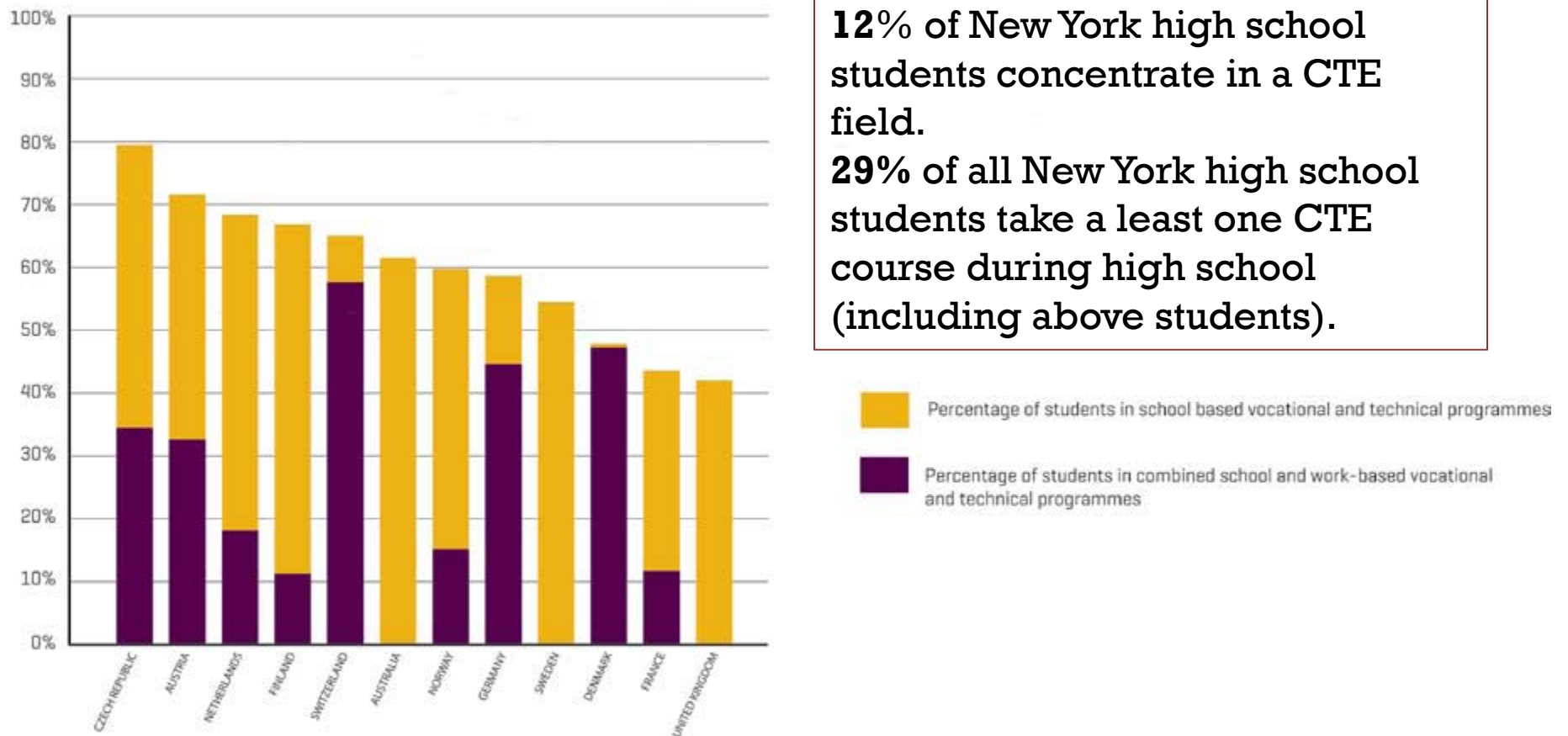
Pathways should be part of a system of stackable credentials that offer students multiple entry and exit points on the path to educational and career advancement.



Career and Technical Training

International Comparison

In strong vocational systems, 40% to 75% of upper secondary students *choose* to participate: Career and Technical Training can be school based or mix of school and work



12% of New York high school students concentrate in a CTE field.

29% of all New York high school students take a least one CTE course during high school (including above students).

Source: OECD (2008), Education at a Glance 2008, OECD indicators, Table C1.1, OECD, Paris.

Students Graduating with a CTE Diploma Endorsement in 2013

	Number of Students	Overall Graduates	% Overall Graduates
NYC Public Schools	2,822	57,628	4.90%
Large Cities	418	5,096	8.20%
High Need/Resource Urban- Suburban Districts	429	12,086	3.55%
High Need/Resource Rural Districts	1,289	10,662	12.09%
Average Need Districts	2,896	59,872	4.84%
Low Need Districts	526	32,481	1.62%
Charter Schools	0	1,785	0.00%
Totals	8,380	179,610	4.67%

Source: 2012-2013 School Report Card database

CTE Program Approval Process

Based on the Board of Regents Nationally Recognized Plan

Applications must certify that the CTE program will provide:

- Curriculum aligned with state and national learning standards and state and national skill standards;
- Rigorous curriculum content which is non-duplicative and provides the student with a coherent sequential program of study;
- Secondary CTE curriculum aligned with postsecondary education career pathways leading to degrees or credentials;
- State-certified faculty with appropriate academic and/or technical certification;
- A technical assessment that meets current industry standards (ex. NATEF, NOCTI);
- Postsecondary articulation agreements constructed to provide students with direct benefit (such as college credit or advanced standing);
- Work-based learning opportunities for all students; and
- A robust data reporting infrastructure to evaluate success on assessments and future placements

CTE Program Approval Process

Based on the Board of Regents Nationally Recognized Plan

Self Study: An Opportunity To Evaluate CTE Programs

- Input from various stakeholders (CTE Teachers, General Education Teachers, Administrators, Business/Industry Representatives, and Students)
- Analysis of curriculum for alignment and rigor
- Prepare application materials

External Review: An Opportunity To Evaluate CTE Programs

- Involvement of various stakeholders (CTE Teachers, General Education Teachers, Administrators, Business/Industry Representatives, BOCES and 2 Component Schools)
- Review, address, approve (sign-off) on CTE program plan
- Forward plan to Superintendent of Schools or District Superintendent for Approval

Board of Education Approval

- Submit Statement of Assurances Form
- Signed by Superintendent of Schools and BOE President

SED Review

- Subject specialist reviews the plan
- Letter to Superintendent of Schools or District Superintendent once approved (5 year period with option to re-approve)

Current NYS Requirements

For a Regents Diploma

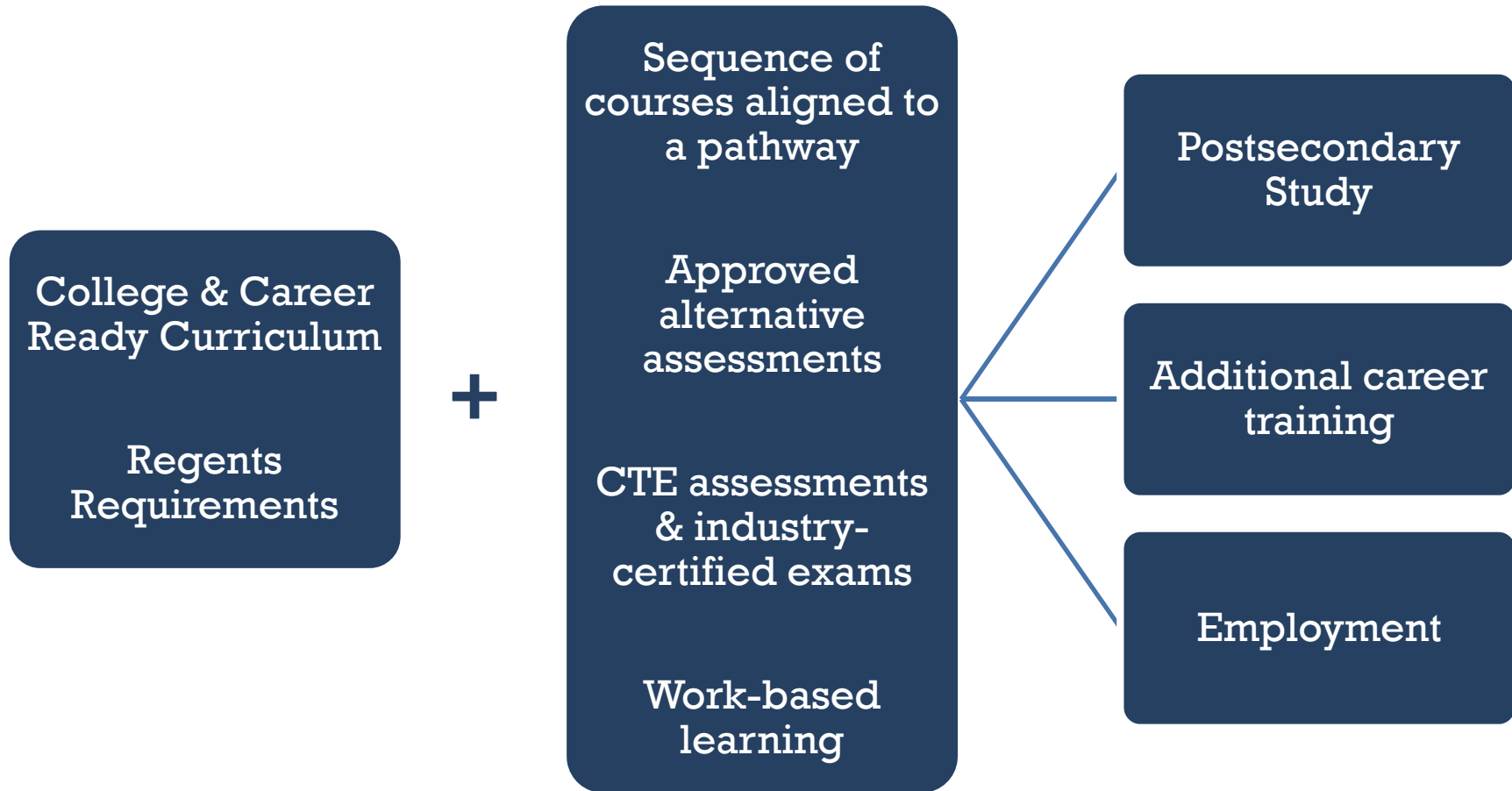
Content Area	Regents Diploma¹ Credits Required	Regents Diploma w/Advanced Designation¹ Credits Required
Mathematics	3	3
English	4	4
Science	3	3
Social Studies	4	4
Health	0.5	0.5
Arts	1	1
Languages Other Than English(LOTE)²	1	1
Physical Education	2	2
Sequence Courses/Electives	3.5	3.5
Total Credits	22	22
Regents Exams Score of 65 or above	5 (1 Math, 1 ELA, 1 Science, 2 SS)	8³ (3 Math, 1 ELA, 2 Sciences, 2 SS)

¹An Honors Designation is applicable for students earning an average of 90 on all required exams

²Students must earn additional credits in either the Arts CTE or LOTE to meet the Adv. Designation Requirements. If LOTE is chosen they must pass a Checkpoint B LOTE Exam in addition to the Regents Exams.

³ Students in earlier cohorts may be subject to more or fewer examinations due to the phase out of the Regents Exams in LOTE and the 2 Exam Series in Mathematics (Math A and B)

Pathways are a route to two-year and four-year colleges, additional career training, and employment.



Ensuring Rigorous Pathways

All Students earning a Regents Diploma will:

- **Take a Balanced Curriculum including: American History, Global Studies, Science, Language other than English, Art, Physical Education and Health**
- **Earn a minimum of 22 High School Credits,**
- **And meet required elements of their pathway.**

Required Elements of Pathways

Appropriate Assessments and Related High Rigor Courses in Each Pathway

- The Federal Government *requires*:
 - Annual testing in mathematics and ELA in grades 3-8
 - An annual science assessment in Science at least once in grades 3-5 and again in 6-9
 - Assessments at least once in Mathematics, ELA and Science in grades 10-12*
 - Alternate assessment for Students with Disabilities
 - Annual assessment of acquisition of English proficiency for English Language Learners

* Students may meet this requirement by taking Regents examinations or approved alternatives to the Regents prior to grade 9 and “banking the results” for high school accountability.

Opportunities for Students to Enter and Exit Pathway Options

- Pathways should be:
 - Grounded in the Common Core Learning Standards
 - Similarly rigorous
 - Allow for student choice
 - Have demonstrated, effective outcomes for students

Regents Pathway Diploma Option 4:1

Option to earn a Regents Diploma by passing four Regents Exams and one Pathway Exam (Student choice in one or more Regents exams) and complete a Pathway course of study.

Multiple pathways to graduation with a Regents diploma:

ELA + Math + Science (or Science CTE) + 1 Social Studies + Pathway Exam (2nd Social Studies or 2nd Math or 2nd Science or Science CTE or CTE or Humanities or Arts)

Benefits:

- Students taking additional courses in a field of study of interest can fulfill additional diploma endorsements.
- Better student engagement should increase likelihood for persistence towards graduation.
- Recognition of student skill achievement and the opportunity to use multiple measures for measuring student growth.

Challenges:

- Pathway exams require students who have strong math, reading, and oral and written communications skills.

Regents Pathways

- Pathways engage students of all levels of achievement and offer students an opportunity to explore arts, humanities, science, technology, math, and careers.
- Pathways are aligned to college and career ready standards, while also providing technical skills and work-based learning opportunities.
- Students may take an additional, approved exam within a pathway to fulfill part of the Regents examination graduation requirement.

Arts

- Students pursuing a pathway in the arts have opportunities to explore and demonstrate learning in the performing arts, visual arts, and technical arts.
- Pathways exams will be determined by a Blue Ribbon Panel on the Arts.

CTE

- Students in the CTE pathways have opportunities to explore a number of career and technical pathways that focus on work-based learning in career and technical fields.
- Pathways exams may include approved national certification or CTE exams.

Humanities

- Students pursuing a pathway in the Humanities may focus study in languages, social studies, literature, philosophy or other social studies.
- Pathways exams may include alternative assessments in social studies, literature or languages.

STEM

- Students pursuing a STEM pathway may focus study in the sciences, technology, engineering or math.
- Pathways exams may include alternative assessments in the applied sciences, technology, engineering or math.

Current Approved Alternatives

Regents ELA Approved Alternatives:

- Advanced International Certificate of Education (AICE) English Examination
- AP English Language and Composition Examination
- AP English Literature and Composition Examination
- International Baccalaureate English A1 Standard Level Examination
- International Baccalaureate English A1 Higher Level Examination

Regents Integrated Algebra Approved Alternatives:

- Advanced International Certificate of Education (AICE)
- AP Calculus AB Examination
- AP Calculus BC Examination
- International Baccalaureate Mathematics Studies Standard Level Examination
- International Baccalaureate Mathematics Methods Standard Level Examination
- International Baccalaureate Mathematics Higher Level Examination
- International General Certificate of Secondary Education (IGCSE)
- SAT Subject Test in Mathematics Level 1
- SAT Subject Test in Mathematics Level 2

Regents Geometry and Algebra 2/Trigonometry Approved Alternatives:

- AP Calculus AB Examination
- AP Calculus BC Examination
- SAT Subject Test in Mathematics Level 2

Current Approved Alternatives Cont'd

Regents Sciences Approved alternatives:

- AP Biology Examination**
- SAT Subject Test in Biology E/M**
- SAT Subject Test in Chemistry**
- SAT Subject Test in Physics**

Regents Social Studies Approved alternatives:

- AP US History Examination
- SAT Subject Test in US History
- AP World History Examination

* In addition to achieving the established score, students must complete a multi-source, in-depth research project that demonstrates the ability to use primary and secondary sources.

** In addition to achieving the established score, students must complete 1,200 minutes of hands-on laboratory work with satisfactory lab reports.

Blue Ribbon Commission

Technical Assessment Recommendations

Chaired by Chancellor Emeritus Robert Bennett and Monroe Community College President Anne Kress, the Commission recommended:

1. Adoption of 13 Technical Exams that were proven to be of equal or greater rigor to a Regents Exam
2. Creating multiple pathways to college and career readiness, including a CTE pathway
3. Increasing integrated course options for CTE students
4. Introducing students to CTE courses earlier
5. Aligning graduation requirements with specific pathways to college and career readiness
6. Strengthening graduation requirements for college and career readiness

Blue Ribbon Commission

Technical Assessment: Phase 2

The Commission will be reconvened this Fall to identify additional technical exams.

1. Current exams include: culinary, automotive, IT, metal working, graphics/printing, electronics technician, carpentry, business knowledge and skills, advertising and design, accounting, agricultural mechanics and hospitality management.
2. Will use Department of Labor data to identify programs that successfully prepare students for careers in high demand jobs that pay a living wage.
3. Will work with school districts to prioritize consideration of candidate exams reflective of high demand jobs in New York State.

Blue Ribbon Commission

Arts Assessment (Dance, music, theatre and the visual arts)

The Department will follow a process similar to the Regents Blue Ribbon Commission on Technical Assessments.

1. A technical assessment panel will develop criteria for identifying assessments that are candidates for meeting the rigor of a Regents Exam. The criteria will include but not be limited to:
 - Assessment provides credible evidence that the student is college and career ready
 - Assessment includes academic as well as technical learning and performance
2. Blue Ribbon Commission will review and recommend assessments identified by the technical assessment panel for consideration as “Pathway Exams”

Next Steps

1. Regents action on Regents Pathways Diploma

- a) Potential October Regents approval of multiple pathways
- b) Draft regulations based on Regents action
- c) Solicit public comments on draft regulations

2. Identify additional alternative assessments

- a) Establish a Blue Ribbon Panel for the Arts to discuss alternative assessments for the Arts Pathway
- b) Reconvene Blue Ribbon Technical Assessments Panel
- c) Add a stakeholder group focused on the 21st century workforce skills gap

3. Request resources and legislative approval

- a) Enhance BOCES aid for CTE schools
- b) Modernize special services aid
- c) Establish regional high schools
- d) Expand access to P-Tech schools

Appendix

Potential CTE Pathway Assessments

CTE Teacher Certification Requirements

Suggested Readings

Blue Ribbon Commission

Technical Assessments Recommendations

1. The ProStart National Certificate of Achievement

- National program that is administered by the National Restaurant Association's Education Foundation.

2. ASE Student Certification

- The National Institute for Automotive Service Excellence (ASE) administers a set of examinations to qualify automotive technicians.

3. A+ Certification

- CompTIA was created by a consortium of IT corporations including Microsoft, HP, Cisco, Dell, and Intel to certify technicians.

4. Network+ Certification

- Passing A+ is a pre-requisite for taking Network+, also from CompTIA. Students who pass are qualified for IT employment in positions such as network administrator, network technician, network installer, help desk technician, and IT cable installer.

5. National Institute of Metal Working (NIMS) Skills Certification

- Industry-written and industry-validated, and subject to regular, periodic reviews under the procedures accredited and audited by the American National Standards Institute (ANSI).

Recommended Assessments (continued)

6. PrintED

- Based on industry standards for graphic communications courses of study at the secondary and post-secondary levels, PrintED is a national accreditation program created by the Graphic Arts Education and Research Foundation.

7. Student Electronics Technician

- The SET Certification was developed by the Electronic Technicians Association (ETA) for high school students and entry-level technicians.

8. Carpentry Level-1 Certification

- This is one of many certifications sponsored by the National Center for Construction Education and Research (NCCER).

9. Assessment of Skills and Knowledge for Business (A*S*K)

- This set of examinations was developed by the Assessment of Skills and Knowledge for Business Institute with technical assistance from NOCTI.

Recommended Assessments (continued)

10. Advertising and Design (NOCTI)

- This test is designed for program completers and entry-level employees in the advertising and design field, measuring knowledge and skills in such topics as design theory and application, color theory and application, drawing and digital illustration, photography, typography, multimedia, digital image manipulation, production and printing, computer literacy, and communication skills.

11. Accounting – Basic (NOCTI)

- This test is designed for program completers and entry-level employees in the accounting/bookkeeping field, measuring knowledge and skills in such topics as general accounting knowledge, journalizing, posting, payroll preparation, cash and banking procedures, merchandise inventory, completion of accounting cycle, identification and application of source data, use of mechanical and electronic accounting devices, and data security.

Recommended Assessments (continued)

12. Agricultural Mechanics (NOCTI)

- This test is designed for program completers and entry-level employees in the agricultural mechanics field, measuring knowledge and skills in such topics as general safety, welding and mechanics, power and machinery, electrical power and process, agricultural structures, agribusiness, and environmental and natural resource systems.

13. Hospitality Management – Food and Beverage (NOCTI)

- This test is designed for program completers and entry-level employees in the hotel management field, measuring knowledge and skills in such topics as understanding of the hospitality industry, guest relations and concierge duties, opening and settling financial transactions, safety and security, legal and ethical responsibilities, marketing and sales, travel and tourism, hotel restaurant management, and food and beverage service.

Teacher Certification - CTE

Transitional A Certificate Requirements

Option A: Approved Program

Education - Associate Degree

Minimum 2.50 Undergraduate GPA

Content Core - Certificate title - 30 Semester Hours.

Pedagogical Core - 9 Semester Hours.

Occupational Work Experience - Certificate title - 2 Years

Workshop - Child Abuse Identification

Workshop - School Violence Intervention and Prevention

Fingerprint Clearance

School District Recommendation

Option B: Individual Evaluation

Education - High School Diploma or GED

Pedagogical Core - 9 Semester Hours.

Occupational Work Experience - Certificate title - 4 Years

New York State Teacher Certification Exam - Communicative and Quantitative Skills (CQST)

Workshop - Child Abuse Identification

Workshop - School Violence Intervention and Prevention

Fingerprint Clearance

School District Recommendation

Suggested Readings

Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century. Symonds, William C., Robert Schwartz, and Ronald F. Ferguson. 2011. “Pathways to Prosperity: Meeting the Challenge of Preparing Young Americans for the 21st Century.”

[http://www.gse.harvard.edu/news_events/features/2011/Pathways to Prosperity Feb2011.pdf](http://www.gse.harvard.edu/news_events/features/2011/Pathways_to_Prosperty_Feb2011.pdf).

Closing the New York State Skills Gap. Ready Nation.

<http://readynation.org/nyskillsgap072414>

RECOVERY: Job Growth and Education Requirements Through 2020. Carnevale, A.P., Smith, N. & Strohl, J. (June 2013) Washington, DC: Georgetown University Center on Education and the Workforce.

<http://cew.georgetown.edu/recovery2020/>