FINAL REPORT:
Task Force on Educational Opportunities for the Non-College-Bound Learner

October 2, 2018
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MEMORANDUM

TO: Daniel T. Sinclair, President
Lawrence S. Feinsod, Ed.D., Executive Director

FROM: Donald Webster, Jr., Immediate Past President

SUBJECT: Final Report: Task Force on Educational Opportunities for the Non-College-Bound Learner

DATE: October 2, 2018

I am pleased to submit the Final Report of the New Jersey School Boards Association’s Task Force on Educational Opportunities for the Non-College-Bound Learner. The document reflects seven months of study and deliberation by the 20-member Task Force, the active participation and valuable contributions of nine NJSBA staff members, and additional research, writing and editing by our consultant and staff.

The Task Force was comprised of school board members and administrators from local, regional, county vocational and county special services school districts. It included representatives of higher education, as well as business and industry. Its work is aligned with the objectives of NJSBA’s 2018-2020 Strategic Plan in the area of Student Growth, Learning, Well-Being and Success: “Every New Jersey student will have the tools to be successful in pursuit of their chosen life goals in a safe, healthy, caring climate.”

In developing its report, the Task Force made nine findings on the delivery, funding and breadth of programming for the career-focused student. Among the most prominent is the following:

New Jersey needs to rethink the best methods to deliver appropriate training to students, to increase the pool of career technology education (CTE) teachers, to align curriculum with necessary skill acquisition, and to test students to assure they have both the hard and the “soft” skills, such as punctuality and teamwork, that will serve them in their careers.

The Task Force believes that our schools must prepare students for an evolving job market, one influenced by technology, automation and artificial intelligence. That job market is increasingly populated by positions requiring middle-level skills—that is, those not acquired through a four-year college degree, but obtained through a variety of secondary and post-secondary educational and training experiences. To that end, it becomes the responsibility of families and educators to allow each student to find his or her best career path by considering not only the traditional four-year college route, but also the broad range of other post-secondary options.
Memorandum: Task Force on Educational Opportunities for the Non-College-Bound Learner
October 2, 2018

To address these and other challenges, the Task Force makes 69 recommendations for the consideration of New Jersey’s boards of education and school administrators, the labor and workforce community, the New Jersey Department of Education, the Legislature, the Governor, and NJSBA. The final report groups the Task Force’s recommendations to improve opportunities for non-college-bound students into the following six categories:

- **Ascertain the skills required to meet the needs of business and industry, and change the attitude toward jobs that do not require a college education.**

- **Maintain stronger communication and collaboration among local school districts, county vocational-technical schools, community colleges, state agencies, business and industry, and other prospective partners.**

- **Revisit curricula and programs so that they reflect economic realities, expose all students to the full array of post-secondary opportunities and prepare them for careers.**

- **Revise preparation and certification requirements to resolve a shortage of teachers in the STEM/STEAM and Makerspace areas.**

- **Revise student assessment and graduation requirements.**

- **Address financial needs and concerns and explore alternative funding sources.**

**Deliberation**

Although the Task Force represented diverse sectors of the educational and business communities, common themes emerged during its discussions. The members drew from their personal experience, identifying specific concerns, weaknesses within the current system, and possible solutions that warrant further exploration.

The Task Force reviewed materials on the opportunities available through the military, which were produced through the U.S. Army-NJSBA collaborative to advance STEAM (science, technology, engineering, the arts, and mathematics) education. NJSBA staff members provided support and information on careers in STEAM education and environmental sustainability, as well as professional development, labor relations, proposed legislation, and existing statute and regulation related to curriculum, standards and assessment, and teacher certification.

During its deliberations, the Task Force heard speakers from the Vernon Township Public Schools, who discussed their high school’s CTE (career and technical education) Pathways Program, and the Bergen County Workforce Development/Investment Board, who discussed successful collaborations that benefit students.

The majority of the final report is based on the work of five subcommittees, consisting of Task Force members and NJSBA staff, which took place over several months and focused on ways to expand educational opportunities through best practices and changes in state and federal policy.

It has been an honor to chair the Task Force on Educational Opportunities for the Non-College-Bound Learner. We hope that our Final Report will represent the start of a discussion among educational, governmental, labor and community leaders to reevaluate existing educational structures, assumptions and practices with the goal of expanding educational options for our career-focused learners.
Task Force on Education Opportunities
For the Non-College-Bound Learner

Charge
The NJSBA Task Force on Educational Opportunities for the Non-College-Bound Learner will –

(a) Study the current status of education programs and post-secondary training and career opportunities for non-college-bound high school students;
(b) Identify strategies to expand program options, and
(c) Recommend appropriate action by local school boards, NJSBA, and other governmental entities involved in education.

Members

**Donald Webster, Jr.,** Chairman
NJSBA Immediate Past President
Manchester Township Board of Education (Ocean County)

**Barbara Dawson**
Morris County Vocational Board of Education

**Linda DiPalma**
Manasquan Board of Education (Monmouth County)

**Jo Ann Groeger**
Lawrence Township Board of Education (Mercer County)

**Carol Grossi,** Superintendent
Hanover Park Regional School District (Morris County)

**Marsha Hershman**
Lindenwold Board of Education (Camden County)

**Jonathan Hodges, M.D.**
Paterson Board of Education (Passaic County)

**Dr. Penelope Lattimer,** Director, Rutgers Institute to Improve Student Achievement
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**Irene LeFebvre**
Boonton Town Board of Education (Morris County)

**Tammy Molinelli,** Executive Director, Bergen County Workforce Investment Board
Pascack Valley Regional Board of Education (Bergen County)

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Newton Board of Education (Sussex County)
NJSBA Task Force on Educational Opportunities for the Non-College-Bound Learner
Continued

Ginny Murphy
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Ira Stern
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Jersey City Board of Education (Hudson County)

Raymond Topoleski
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Karen Vick
Clearview Regional Board of Education (Gloucester County)

Jason Waugh
Collingswood Board of Education (Camden County)

Anthony Wilcox
Special Services & Vocational School District of Gloucester County

Dan Sinclair, NJSBA President ex officio
Lakeland Regional Board of Education (Passaic County)

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Dr. Lawrence S. Feinsod, Executive Director ex officio

Vincent DeLucia, Director of Training & Professional Development (chief staff liaison)

Jesse Adams, Field Service Representative

John Henry, STEAM & Sustainable Schools Specialist

Robert Greitz, Consultant/Negotiator, Legal & Labor Relations Services Department

Jonathan Pushman, Legislative Advocate, Governmental Relations Department

Carl Tanksley, Director, Legal & Labor Relations Services Department

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Resource Persons:

• Arthur DiBenedetto, Superintendent, Vernon Township Public Schools (Sussex County)
• Charles McKay, Assistant Superintendent, Vernon Township Public Schools (Sussex County)
EXECUTIVE SUMMARY

Ensure that all students are prepared for higher education and the workforce.

These words express the primary goal of our state’s education system. Yet, they beg the question: “Are we adequately serving those students who are not bound for college immediately after graduation?”

Given that our current high school structure and curricula are based largely on recommendations of the Committee of 101, dating back to 1894, it is time for New Jersey to review what we are teaching and when. Without an alignment to the needs of business, industry and post-secondary educational organizations, the pre-kindergarten-through-12th grade public school system will not be able to fully prepare all students for their futures.

America has experienced radical changes in employment. Many well-paying jobs that do not require a college degree are going unfilled as companies search for employees with the skills they need. Business groups report that New Jersey has 44,000 vacant “middle-skills” jobs, which the Harvard Business School describes as “those that require more education and training than a high school diploma but less than a four-year college degree.”2 There is a disconnect between the skills that are being taught in schools, and the skills required in many entry-level positions. Technological advances require skill sets very different from those required for 20th century employment.

We owe it to our students to respond to societal change and employment needs.

In September 2017, the New Jersey School Boards Association, under the leadership of President Daniel T. Sinclair, created the Task Force on Educational Opportunities for the Non-College Bound Learner. The 20-member study group was asked to think “outside the box” and to challenge the perception that the path to success invariably requires attendance at a four-year college. The project’s ultimate goal: Identify strategies to better equip students with the skills required in a job market that is rapidly changing due to advances in artificial intelligence, automation, robotics, and other factors. These strategies, reflected in the Task Force’s 69 recommendations, encompass best practices by local school districts, changes in state and federal policy, and action by the New Jersey School Boards Association and other stakeholders.

The Task Force concluded its work with a clarion call for a reevaluation of the philosophy that guides our educational system, a redefinition of the roles of comprehensive high schools, county vocational-technical school districts and county college, and a formal plan for the future of our preK-12 education system.

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FINDINGS

During its deliberations, the NJSBA Task Force on Educational Opportunities for the Non-College-Bound Learner made the following observations on the delivery, funding and breadth of programming for the career-focused student:

- New Jersey needs to identify the best methods to deliver appropriate training to students, to increase the pool of career technology education (CTE) teachers, to align curriculum with necessary skill acquisition, and to test students to assure they have both the hard and the “soft” skills that will serve them in their careers. The effort must include a redefinition of the roles of comprehensive high schools, county vocational-technical school districts, and county colleges.

- The belief that, to be successful, one must earn a four-year college degree is simply not true, and the entire education community should work to dispel the notion that pursuing a technical-vocational career pathway is inferior to obtaining a bachelor’s degree. Even the term “non-college-bound learner” is stigmatizing and negative; “career-focused learner” is more accurate and appropriate. (While this report continues to use the term “non-college-bound learner” because it is reflected in the original charge, the Task Force recommends that, going forward, all references be to the “career-focused learner.”)

- Artificial intelligence will increasingly replace workers in many areas of employment, and experts say that new skills will be necessary to compete in the future job market. Communication between the education and business communities is critical for educators to appreciate employers’ current and emerging needs and to prepare students with the skills and content essential for entry-level positions in the various industries.

- Schools must raise student awareness of all careers and the broad variety of career pathways through meaningful experiences and exposure. Consideration should be given to models such as Colorado’s CareerWise youth apprenticeship program and other dual-enrollment strategies.

- Existing curricula are inadequate to prepare students with practical, job-ready skills. Current assessment tools are not designed to reflect whether students have acquired the skills necessary to obtain industry certifications and state licenses or to succeed in current and emerging jobs that do not require a college education.

- K-12 and regional high school districts have difficulty building CTE programs because they lack the financial resources and are unable to attract properly certificated staff due to a shortage of teachers in technical fields.

- County vocational-technical schools traditionally focused on the trades or “middle skills,” but many have become increasingly selective and geared toward the college-bound student. For example, the growth of selective county vo-tech “academies” has reduced opportunities

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3 “Soft” skills include punctuality, teamwork, and communication with management and co-workers.

for career-focused students interested in learning a trade. This shift in focus has altered relationships between local school districts and county vocational-technical schools, often making them tense and competitive, rather than collaborative.

- The number of seats available in the county vocational-technical schools is insufficient to serve all New Jersey students who wish to pursue career and technical education, leaving a significant number underserved. In 2013, almost 17,000 students who applied to county vocational-technical high schools could not be accommodated, according to the New Jersey Employer Coalition for Technical Education, created by the New Jersey Council of County Vocational-Technical Schools and the New Jersey Business and Industry Association.

- Dialogue, information-sharing and collaboration among school districts that operate comprehensive high schools, the county CTE districts and the community colleges are necessary components to providing a full range of opportunities to the college-bound and the career-focused learner. The New Jersey Department of Education should take a leadership role in encouraging such communication.

**RECOMMENDATIONS**

The Task Force on Educational Opportunities for the Non-College-Bound Learner makes 69 recommendations for the consideration of New Jersey’s local boards of education, school administrators, the labor and workforce community, the New Jersey Department of Education, the Legislature and the Governor. Recommendations are grouped into the six categories. Each category is listed below, followed by examples of specific recommendations. (A complete list of the Task Force’s recommendations starts on page 78 of this report.)

**Chapter 1 (page 31)**

- **Ascertain the skills required to meet the needs of business and industry, and change the attitude toward jobs that do not require a college education.**

- The New Jersey Department of Education should explore the use of new assessment tools to measure the skills necessary to succeed in available jobs.

- NJDOE should develop measures of school and student success that focus on “career readiness.”

- The New Jersey Departments of Education and Labor & Workforce Development should establish a formal, standing structure to facilitate collaboration with representatives of industry, trade unions, and other entities to ensure that students recognize the array of careers available to them and the multiple pathways to those careers. These pathways include earning job-specific professional certification and two-year degrees, as well as experience in apprenticeships and internships and CTE programs at the secondary and post-secondary levels.

- NJDOE should ensure the availability of a staff liaison to engage in dialogue with schools about meaningful career preparation.

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Chapter 2 (page 34)

Strengthen communication, collaboration and support among local school districts, county vocational-technical schools, community colleges, state government and its various agencies, business and industry, and other prospective partners.

- The state should support and fund the expansion of CTE programs in all school districts, including those that operate comprehensive high schools. (There is no state funding category specifically aimed at CTE programs in comprehensive high schools. A state bond issue that will appear on the November 2018 ballot would set aside $350 million for both school security enhancements and expansion of CTE programs. Funds for CTE program expansion, however, would apply only to county vocational-technical school districts.⁶)

- The state Department of Education should take a more active role in assisting local school districts in developing CTE programs. The assistance should facilitate the sharing of CTE programs among neighboring districts, thereby providing additional educational opportunities in a cost-efficient manner.

- The New Jersey Department of Education and local school districts should study the Colorado CareerWise program⁷, a public-private partnership that provides three-year apprenticeships to students starting in their junior year of high school and leading to industry credentials and associate degrees.

- NJDOE and the Department of Labor & Workforce Development should review current restrictions on using Workforce Development Board and Workforce Investment Board funds for currently enrolled high school students. They should consider revisions that would permit current high school students to participate in county Workforce Development Board training.

- The state Department of Labor & Workforce Development should provide preK-12 and regional school districts with a level of assistance comparable to its support of county CTE schools.

- NJDOE should establish regional liaisons to help K-12 school districts respond to area employment needs. It should consider the use of the county roundtable structure for assistant superintendents and curriculum directors to encourage dialogue among schools and businesses about regional employment needs and the status of education programs.

- County vocational-technical schools should structure their admissions processes to create more options for students across the achievement spectrum.

- Representatives of local school districts and county vocational-technical school districts should create opportunities to engage in respectful dialogue about the issues they face, and work constructively toward the advancement of student achievement.

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Chapter 3 (page 49)

Revisit curricula and programs so that they reflect economic realities, expose all students to the full array of post-secondary opportunities and prepare them for careers.

- As they consider a replacement for PARCC as the state’s assessment program, the New Jersey Department of Education and State Board of Education should explore a variety of alternative methods to determine student progress toward state learning standards. These alternatives may include the SAT, the ACT, the Armed Services Vocational Aptitude Battery, licensing/certification tests, and admission to apprenticeship programs.

- School districts should provide exposure to various post-secondary opportunities through community-based instruction, job shadowing, internships, college visits, and apprenticeships. These efforts should focus on the career opportunities that will exist when students graduate, which will be affected by artificial intelligence, robotics and automation.

- School districts should ensure that the curriculum provides all students with instruction in the “soft skills,” such as punctuality and teamwork, that are necessary for workplace success, as well as experience with asynchronous web-based courses.

- School districts should educate parents and students about the cost and return on investment for all post-secondary opportunities, as well as methods to reduce the expense.

- Students should be able to benefit from a dual-enrollment system that would allow them to graduate from high school with (a) certification that qualifies them for entry-level employment in certain fields and/or (b) a two-year associate’s degree or significant credit toward that degree.

- School districts should evaluate the choice of courses offered to students and the sequence in which they are provided. For example, the “biology-chemistry-physics” sequence is based on alphabetical order of the subject areas, not a pedagogical rationale. A revaluation is especially critical in subjects related to engineering and science, areas that have experienced substantial growth.

Chapter 4 (page 54)

Revise preparation and certification requirements to resolve a shortage of teachers in the STEM/STEAM and Makerspace areas.

- NJDOE and the State Board of Education should clarify CTE teacher certification and preparation requirements that contain conflicting and ambiguous provisions involving required levels of education and the substitution of work experience for a college degree.

- NJDOE and the State Board of Education should consider revisions to alternate-route-to-certification qualifications to encourage more skilled individuals to become licensed to teach CTE programs.

- The state Department of Education should relax teacher certification standards in vocational instructional areas to allow credit for years of working experience.
NJDOE and the State Board of Education should create a new certification category, or amend existing requirements, to enable non-CTE teachers to instruct in the STEM/STEAM (science, technology, engineering, the arts and mathematics) and Makerspace learning areas. There is a shortage of teachers in these content areas, which stress problem-solving and practical application.

Chapter 5 (page 63)

Develop an assessment system that better reflects student growth and learning. Revise student assessment and graduation requirements in collaboration with the business community.

NJDOE and the State Board of Education should revise graduation regulations to allow credit for internships, apprenticeships and cooperative learning opportunities.

NJDOE should consider the use of multimodal testing platforms to more accurately measure student growth and learning, and assessments to enable students to demonstrate competency in vocational applications of mathematics and technology.

NJDOE should align statewide testing to standards for entry-level employees based on NOCTI (National Occupational Competency Testing Institute) or comparable industry benchmarks.

Chapter 6 (page 67)

Assess financial needs and concerns, and explore alternative funding sources.

NJSBA and other state education organizations should work with local school districts to advocate for more state and federal funding for CTE programs to benefit students in all settings, including comprehensive high schools.

NJSBA, other state education organizations and local school districts should create partnerships with business and industry and labor unions to generate internships and apprenticeships.

Boards of education and other agencies should collaborate on the cost-effective inter-district delivery of career training for the non-college-bound student.

Wherever possible, school districts should identify resources within the annual budget to support the career-focused student.

Boards of education should establish public-private partnership committees that include school officials, local business leaders, municipal officials and members of the municipal economic or industrial board.

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9 NOCTI is a not-for-profit consortium focusing on improvement of the American workforce. (See: https://www.nocti.org/aboutnocti.cfm.) NOCTI's Job Ready tests are one of two assessment batteries used by the Pennsylvania Department of Education to measure the occupational competency of career and technical education students. (See: https://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Pages/Assessment-Information.aspx.)
The Next Steps

- The New Jersey business and education communities should engage in a formal study to determine the best methods to deliver CTE training to our students and to define the roles of local school districts, county vocational-technical high schools and community colleges in the effort. The study should be initiated by the state. It should involve representatives of the following: The New Jersey School Boards Association; other stakeholders in K-12 education, including county vocational-technical school districts; community colleges; other institutions of higher education, the New Jersey Department of Education; the New Jersey Department of Labor and Workforce Development; state-level business organizations, and government workforce development agencies.

MOVING FORWARD

The NJSBA Task Force on Educational Opportunities for the Non-College-Bound Learner hopes that its work will prompt educational, governmental, labor and community leaders to reevaluate existing educational structures, assumptions and practices. The report represents a springboard for additional discussion and future research.

Reform must take place, with a fresh eye and the willingness to anticipate a future in which workforce opportunities will be radically different than those of yesterday and today.
List of Recommendations

Chapter 1

Ascertain the skills required to meet the needs of business and industry, and change the attitude toward jobs that do not require a college education.

1. The New Jersey Department of Education should explore the use of new assessment tools to measure the skills necessary to succeed in available jobs. The effort should address the use of NJCAN127 as an assessment support.

2. NJDOE should develop additional measures of school and student success that focus on career readiness.

3. The New Jersey Departments of Education and Labor & Workforce Development should establish a formal, standing structure to facilitate collaboration with representatives of industry, trade unions, and other entities to ensure that students recognize the array of careers available to them and the multiple pathways to those careers. These pathways include earning job-specific professional certification and two-year degrees, as well as experience in apprenticeships and internships and CTE programs at the secondary and post-secondary levels.

4. NJDOE should ensure availability of a staff liaison to engage in dialogue with schools about meaningful career preparation.

5. Inter-agency collaboration is critical to address the issues raised by the Task Force. Therefore, the state Departments of Education and Labor & Workforce Development, along with other state agencies, should establish a formal structure to identify current programs and propose additional efforts that would support the goals of this Task Force.

6. Working with its partners in business and industry, government and higher education, the New Jersey School Boards Association should conduct programming for its members to promote consideration of, and dialogue about, the full range of career pathways available to students.

Chapter 2

Strengthen communication, collaboration and support among local school districts, county vocational-technical schools, community colleges, state government and its various agencies, business and industry, and other prospective partners.

A Communications Gap and Lack of Collaboration and Support

7. The state should support and fund the expansion of CTE programs in all school districts, including those that operate comprehensive high schools. (There is no state funding category specifically aimed at CTE programs in comprehensive high schools. A state bond issue that

127 The New Jersey Career Assistance Navigator is an internet-based system sponsored by the NJDOE and the state Department of Labor & Workforce Development that provides information on careers, post-secondary education and financial aid. See: https://njcis.intocareers.org/materials/portal/home.html.
will appear on the November 2018 ballot would set aside $350 million for both school security enhancements and expansion of CTE programs. Funds for CTE program expansion, however, would apply only to county vocational-technical school districts.128)

8. The state Department of Education should take a more active role in assisting local school districts in developing CTE programs. The assistance should facilitate the sharing of CTE programs among neighboring districts, thereby providing additional educational opportunities in a cost-efficient manner.

9. The New Jersey Department of Education and local school districts should study the Colorado CareerWise program129, a public-private partnership that provides three-year apprenticeships to students starting in their junior year of high school and leading to industry credentials and associate degrees.

10. NJDOE and the Department of Labor & Workforce Development should review current restrictions on using Workforce Development Board and Workforce Investment Board funds for currently enrolled high school students. They should consider revisions that would permit current high school students to participate in county Workforce Development Board training.

11. The state Department of Labor & Workforce Development should provide preK-12 and regional school districts with a level of assistance comparable to its support of county CTE schools.

12. NJDOE should establish regional liaisons to help K-12 school districts respond to area employment needs. It should consider the use of the county roundtable structure for assistant superintendents and curriculum directors to encourage dialogue among schools and businesses about regional employment needs and the status of education programs.

13. County vocational-technical schools should actively share information with local boards of education about the needs of employers and the skills that the business community requires of its employees.

14. Local school districts should actively forge relationships and networking opportunities with business organizations and community groups to obtain information and share resources related to the labor market.

15. Parents and guidance counselors should be involved as early as the 7th or 8th grade in discussions of CTE options and their benefits.

16. Local school districts should provide programming for all students beginning in elementary school and continuing through the middle grades and high school to raise awareness of all careers and the broad variety of career pathways. Districts should consider initiatives, such as open houses and “Career Awareness Days” with follow-up discussions, as effective introductions. Districts should provide students with additional age-appropriate opportunities.

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such as site visits, technology-based field trips and internships, to foster greater understanding of careers and to refine students’ potential career interests and pathways.

17. Local boards of education should forge relationships with county, municipal and state government. For example, representation by a school district on the community Industrial Development Board (or similar structures) would provide a forum for local industry to explain its skill needs for entry level employees.

Tension between County Vocational and K-12 Districts

18. Representatives of local school districts and county vocational-technical school districts should create opportunities to engage in respectful dialogue about the issues they face, and work constructively toward the advancement of student achievement.

19. Local school districts and county vocational-technical school districts should consider possible areas of collaboration, such as offering career pathways to students in other districts where such programs do not exist.

20. If a local district offers a unique career pathway, that district is encouraged to offer other districts the option to enroll tuition students in the program when seats are available.

21. Vocational-technical schools are encouraged to establish “satellite” programs in local school districts through inter-local agreements. Such CTE programs would be open to students from the host district as well as from neighboring high schools.

Impact on School Performance Reports and Access to Opportunity

22. County vocational-technical schools should structure their admissions processes to create more options for students across the achievement spectrum.

23. The New Jersey Department of Education should develop additional measures of school and student success that place more emphasis on “career readiness” as opposed to “college readiness.”

24. NJDOE should revise or weight its performance measurement system in a way that does not penalize a comprehensive high school for the loss of its highest achievers to county vocational-technical schools. The departure of high-achieving students creates a perception about the quality of the district, which may be misleading or completely inaccurate.

Lack of Information about Military Opportunities

25. Local districts should educate students and parents about the opportunities that the military can offer with respect to post-secondary education and career training and about requirements for enlistment.

26. Local districts should actively confront the stigma associated with the military that may dissuade parents and students from considering this option.

27. Local districts should establish a “Military Opportunities Day” as part of their efforts to prepare students for their post-secondary pathway.
Overlooking the Faith-Based Community

28. School districts should consider consulting faith-based communities when developing CTE programming. These communities can provide a point of access for employers to engage with students who are preparing to enter the workforce.

Is Higher Education the Best Preparation for Every Student?

29. Local school districts should provide appropriate career awareness guidance to students who are contemplating post-secondary education with honest conversations about college-readiness and the availability of other pathways.

Chapter 3

Revisit curricula and programs so that they reflect economic realities, expose all students to the full array of post-secondary opportunities and prepare them for careers.

30. As they consider a replacement for PARCC as the state’s assessment program, the New Jersey Department of Education and State Board of Education should explore a variety of alternative methods to determine student progress toward state learning standards. These alternatives may include the SAT, the ACT, the Armed Services Vocational Aptitude Battery, licensing/certification tests, and admission to apprenticeship programs.

31. School districts should provide exposure to various post-secondary opportunities through community-based instruction, job shadowing, internships, college visits, and apprenticeships. These efforts should focus on the career opportunities that will exist when students graduate, which will be affected by artificial intelligence, robotics and automation.

32. School districts should ensure that the curriculum provides all students with instruction in the “soft skills,” such as punctuality and teamwork, that are necessary for workplace success, as well as experience with asynchronous web-based courses.

33. School districts should educate parents and students about the cost and return on investment for all post-secondary opportunities, as well as methods to reduce the expense.

34. Students should be able to benefit from a dual-enrollment system that would allow them to graduate from high school with (a) certification that qualifies them for entry-level employment in certain fields and/or (b) a two-year associate’s degree or significant credit toward that degree.

35. School districts should evaluate the choice of courses offered to students and the sequence in which they are provided. For example, the “biology-chemistry-physics” sequence is based on alphabetical order of the subject areas, not a pedagogical rationale. A revaluation is especially critical in subjects related to engineering and science, areas that have experienced substantial growth.

36. Students should be made aware of all post-secondary options including military careers, post-secondary certification opportunities, non-traditional academic settings, as well as traditional two- and four-year degree programs.
37. School districts should assist students in determining the economic sustainability of various career paths so that they are well-informed when faced with career choices.

38. School districts should offer access and preparation for a student’s preferred career regardless of the student’s current placement or socioeconomic status.

39. Local districts should consider developing short- and long-term strategic plans to revise curricula and course offerings at all grade levels, along with accompanying short and long-term funding for those programs.

Chapter 4

Revise preparation and certification requirements to resolve a shortage of teachers in the STEM/STEAM and Makerspace areas.

40. The New Jersey Department of Education and the State Board of Education should clarify CTE teacher certification and preparation requirements that contain conflicting and ambiguous provisions involving required levels of education and the substitution of work experience for a college degree.

41. NJDOE and the State Board of Education should consider revisions to alternate-route-to-certification qualifications to encourage more skilled individuals to become licensed to teach CTE programs.

42. The state Department of Education should relax teacher certification standards in vocational instructional areas to allow credit for years of working experience.

43. NJDOE should collaborate with employers and labor organizations when revising requirements for the CTE endorsement.

44. NJDOE and the State Board of Education should create a new certification category, or amend existing requirements, to enable non-CTE teachers to instruct in the STEM/STEAM (science, technology, engineering, the arts and mathematics) and Makerspace learning areas. There is a shortage of teachers in these content areas, which stress problem-solving and practical application.

45. The state Department of Education should collaborate with NJSBA, the New Jersey Technology and Engineering Educators Association, university partners, NJEA and other organizations to create the framework for a short course for Integrative STEM/STEAM and Makerspace courses.

46. The state Department of Education should create a shorter training program (6-12 months) for teachers so that they can obtain a certificate to teach STEM and STEAM courses that include design-based pedagogy and manufacturing components.

47. The state Legislature and the State Board of Education should identify and revise statutes and regulations, respectively, that unduly impinge on the ability of school districts to deliver necessary services to students pursuing post-secondary employment opportunities.

48. School districts should identify and publicize issues that they face in hiring and keeping appropriately certified staff to provide required instruction to students who are pursuing post-secondary employment opportunities.

Chapter 5

*Develop an assessment system that better reflects student growth and learning. Revise student assessment and graduation requirements in collaboration with the business community.*

49. NJDOE and the State Board of Education should revise graduation regulations to allow credits for internships, apprenticeships and cooperative learning opportunities.

50. NJDOE should consider the use of multimodal testing platforms to more accurately measure student growth and learning, and assessments to enable students to demonstrate competency in vocational applications of mathematics and technology.

51. NJDOE should align statewide testing to standards for entry-level employees based on NOCTI (National Occupational Competency Testing Institute) or comparable industry benchmarks.¹³¹

52. NJDOE should review graduation requirements to ensure that career-focused students have appropriate elective credits available to enable them to secure post-secondary employment.

53. The New Jersey Department of Education should place more emphasis on applied learning or problem-based learning, rather than on theoretical learning, for all students.

54. NJDOE, in consultation with various industry entities, should disseminate information regarding the minimum standards necessary for post-secondary entry-level employment.

55. The business and labor sectors should collaborate with the New Jersey Department of Education to ensure that certification and licensing requirements are consistent with industry standards.

56. Education leaders at all levels should initiate a public advertising campaign to re-introduce the concept of vocational education as an alternative to traditional post-secondary alternatives.

57. The education community should use the term, “career-focused learner,” in lieu of the term “non-college bound learner,” when referring to the population of students who do not plan to attend college directly after high school but intend to pursue other career pathways.

¹³¹ NOCTI is a not-for-profit consortium focusing on improvement of the American workforce. (See: https://www.nocti.org/aboutnocti.cfm.) NOCTI’s Job Ready tests are one of two assessment batteries used by the Pennsylvania Department of Education to measure the occupational competency of career and technical education students. (See: https://www.education.pa.gov/K-12/Career%20and%20Technical%20Education/Pages/Assessment-Information.aspx.)
Chapter 6

Assess financial needs and concerns, and explore alternative funding sources.

Financial Resources for the Education of Career-Focused students

58. NJSBA and other state education organizations should work with local school districts to advocate for more state and federal funding for CTE programs to benefit students in all settings, including comprehensive high schools.

59. NJSBA, other state education organizations and local school districts should create partnerships with business and industry and labor unions to generate internships and apprenticeships.

60. Local districts should reach out to local, regional or national businesses that operate in their geographic areas and labor unions for funding, support and resources.

61. Boards of education should identify areas in which existing funds for curriculum can be reallocated in a way to meet the needs of all students, including the college-bound and the career-focused learner.

62. Wherever possible, school districts should identify resources within the annual budget to support the career-focused student.

63. Boards of education should establish public-private partnership committees that include school officials, local business leaders, municipal officials and members of the municipal economic or industrial board.

64. The New Jersey School Boards Association should involve the New Jersey Public School Labor-Management Collaborative in the development of public-private partnerships for the benefit of students.

65. NJSBA and/or its corporate members should assist local school districts by developing a guide on effectuating public-private partnerships.

66. NJSBA should explore grant opportunities and formal partnerships with all branches of the military to support non-college-bound learners.

Inter-District Collaboration

67. Boards of education and state education leaders should collaborate on the cost-effective inter-district delivery of career training for the non-college-bound student.

68. NJDOE and NJSBA should provide a forum for addressing the delivery of career training to non-college-bound students through inter-district collaboration.
Chapter 7:  

The Next Steps  

69. The New Jersey business and education communities should engage in a formal study to determine the best methods to deliver CTE training to our students and to define the roles of local school districts, county vocational-technical high schools and community colleges in the effort. The study should be initiated by the state. It should involve representatives of the following: The New Jersey School Boards Association; other stakeholders in K-12 education, including county vocational-technical school districts; community colleges; other institutions of higher education, the New Jersey Department of Education; the New Jersey Department of Labor and Workforce Development; state-level business organizations, and government workforce development agencies.