

**Chapter 3**

**Curriculum and school-based programs**

*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.*

**CONCERN: Meeting the Curricular and Programming Needs of All Students**

Given the diverse student population and the broad range of existing and emerging career opportunities, school districts face significant challenges in meeting the curricular and programmatic needs of all students.

**RECOMMENDATIONS**

- 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 reevaluation 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.

### **BACKGROUND/DISCUSSION**

Public school districts must embrace the reality that there are many career opportunities for students—traditional careers, new technology-driven careers and, as yet, undefined emerging careers—all with multiple pathways to success. Similarly, the programmatic needs of each student vary greatly, depending on the career path that student chooses.

The Task Force finds that career success is dependent on how well school districts meet the programmatic needs of each student—whether the student has an individualized education program (IEP), is enrolled in an advanced placement class, is bound for a community college, a four-year college or an apprenticeship program, is technologically oriented, an entrepreneur, an artist, a musician, etc. The list is as diverse as our students, and so are the challenges.

The recommendations in this chapter were developed following discussion of the following issues:

- *Measures of School Success: Do they provide for a measurable proficiency in mathematics and literacy?*

Governor Murphy has announced that the state’s current standardized testing instrument, PARCC, will be replaced, and the Commissioner of Education is facilitating a process to gather input regarding the parameters for a new state testing program. The Task Force referenced some of the many tests currently administered to students. Depending on a student’s pathway, some of these alternative testing instruments could serve to establish graduation standards for certain students. Therefore, in conjunction with its review of PARCC, the Department of Education should consider whether and how the following tests might serve to establish graduation standards:

- SAT, ACT, Armed Services Vocational Aptitude Battery (ASVAB).
- Licensing/Certification Tests
- Admission to apprenticeship program
- Alternative testing as it exists today
- Meeting IEP goals
- Local choice/autonomy
- Outcome-based tests

- *Measures of Student Readiness to Graduate: Does the local school district offer access to a variety of robust programs/pathways that ensure that graduates are career-ready or college-ready?*

Each school district must examine course offerings in grades 7-12. While schools are generally preparing students to be college-ready, efforts vary greatly with regard to career readiness.

The Task Force believes that dual enrollment should be available to all high school students, enabling them to graduate with an entry-level certificate for employment in a trade, along with flexible pathways to continue advancing in that chosen career. Alternatively, they should graduate high school with a two-year (associate) degree or with significant coursework completed towards that degree.<sup>104</sup>

Additionally, for both college-bound and career-focused students, we must reconsider the courses we offer and the reasons we offer them. For example, rather than offer instruction in the sciences in alphabetical order (i.e., biology, chemistry, physics), there should be a pedagogical rationale for the timing and sequence of these courses. For a decade there has been a national movement to teach “physics first” in the sequence of high school sciences; especially an Algebra I-based physics program.<sup>105</sup>

The methods used to deliver instruction should expand and enable students to acquire employment traits considered important in this century. High school students should have experiences with asynchronous web-based courses, work in collaborative teams, have opportunities to “tell a story” or communicate, and become aware of their empathetic feelings.<sup>106</sup>

- *Opportunities to Examine Careers: Do districts provide students the opportunity to examine a variety of careers and the multiple paths to success within these careers? What are the roles of vocational-technical high schools and community colleges?*

Explorative opportunities are rarely imbedded within structured curricula. Guidance counselors often use Naviance, a college and career platform, to help students explore their interests and develop a course of study that matches their career goals. The subcommittee believes that school districts should go beyond this and provide a realistic view of the employment experience. They should actually expose students to various career opportunities and academic settings through job shadowing, community-based instruction, internships, college visits and fairs, and apprenticeships.

As noted earlier in this report, Colorado has implemented the nation’s first statewide youth apprenticeship program, CareerWise. Under the program, junior and senior students attend school three days a week, and work as apprentices on site two days a week. Like New Jersey, Colorado faces a huge gap of unfilled “middle skills” jobs. By linking the businesses with the

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<sup>104</sup> Jennifer Dounay Zinth, "CTE Dual Enrollment: A Strategy for College Completion and Workforce Investment," Education Commission of the States, March 2014, accessed September 4, 2018, <https://www.ecs.org/clearinghouse/01/11/50/11150.pdf>.

<sup>105</sup> Bamford, “Physics for All,” *New Jersey School Leader*, <https://www.njsba.org/news-publications/school-leader/julyaugust-2014-volume-45-1/physics-for-all/>.

<sup>106</sup> Dan Schawbel, “Geoff Colvin: Why Humans Will Triumph Over Machines,” *Forbes*, August 4, 2015, accessed June 26, 2018, <https://www.forbes.com/sites/danschawbel/2015/08/04/geoff-colvin-why-humans-will-triumph-over-machines/#6a2dd6322b54>.

school district, students gain “practical learning experience to augment the classroom in fields such as healthcare, business operations, information technology, advanced manufacturing and financial services.”<sup>107</sup> Students also learn many of the softer workplace skills like good communication and time management. The State of New Jersey, as well as local school districts, should study this program as it may inform apprenticeship programs on a local and statewide basis.

Career exploration should be embedded in the curricula as well as the focus of specific courses from P-12. For example, the study of community helpers in the primary grades is also an introduction to careers (police, fire, store keepers, doctors, etc.). Efforts should be made by teachers and facilitated by administrators to make connections between all content (academic, the arts, technology, etc.) and the careers that emphasize that content.

While there are many unfilled jobs in multiple lucrative fields, many high school graduates do not qualify to fill those positions due to lack of certification and training. Students are not aware of employer needs and opportunities. School districts should expose students to the broad range of workplaces including military careers, post-secondary certification opportunities and non-traditional academic settings. Districts should conduct comprehensive assessments of the career exploration programs they provide at all levels (P-12) to ensure that students receive the background career information to make informed potential career choices. In addition, school districts should provide programming and curricula that are responsive to employer needs in the student’s particular, and informed, career choice.

- *Post-Secondary Education: Are students and parents knowledgeable about the cost of college, the potential debt burden, and how to mitigate it?*

Many students leave high school well-prepared to attend a four-year college where, upon completion, they attain an advanced degree that prepares them for the career of their dreams. There are students who, once employed, earn enough to pay off the loans that financed their education. We should all celebrate their accomplishments, identify the opportunities and supports that were provided to these students, and then use their successes as a learning experience to inform what needs to be in place for this type of achievement.

Unfortunately, not every student experiences a similar outcome. Many graduate high school without a realistic vision of the career opportunities available to them. They may be directed towards a four-year college and graduate with significant debt. Some find no job, or only jobs for which they are deemed undertrained despite their expensive education, or jobs that do not pay enough to cover the loan payments.

To reduce the probability of this all-too-frequent scenario, school districts should provide early and frequent education for parents and students regarding the cost and return on investment of a four-year college education. They should provide information to assist parents in analyzing the availability and economic sustainability of the desired career path. We do not educate parents early enough about life options for students. This creates

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<sup>107</sup> “About: CareerWise connects education and industry to benefit students and businesses,” CareerWise Colorado, accessed August 6, 2018, <https://www.careerwisecolorado.org/about/>.

unrealistic expectations on the part of some parents, or no expectations at all. Educating parents about the various career paths is in everyone's best interest. Likely sources of information about options for students include the workforce, the vocational-technical schools, career and technical programs in the district, and elective classes such as home economics or shops.

School districts should also provide information to parents and students on possible avenues to reducing the cost of a college degree. Some students might obtain college credits while in high school through the following options, among others:

- Advanced Placement and International Baccalaureate (AP/IB) programs;
- Dual-credit programs (which in effect enroll students in college courses at a low cost while they are still in high school, allowing them to earn credit for both);
- Academy programs;
- Two-year associate's degrees, with guaranteed credit transfer to a four-year college, and
- Military service.

- *Access for All: Does the curricula provide instruction for all students on the “soft skills” necessary for workplace success?*

The members believe that curricula should ensure that all students have structured, inclusive instruction in the soft skills necessary for workplace success. School districts should offer access and preparation for a student's preferred career regardless of the student's current placement or socioeconomic status.

There are various student populations—some largely overlooked by current curricula—that can benefit from career education. These populations include those students who are at risk because they are on probation from the corrections system, who are incarcerated, who are returning from rehabilitation or other judicial programs, and those who are on the verge of dropping out and have been directed to remain in school.

Accordingly, the curricular needs of this diverse population of students is varied, and might encompass the acquisition of soft skills like team work and punctuality on the job as well as other life skills. They might best benefit from project-based preparation, outcome-based preparation and internships. Local districts should consider developing short- and long-term strategic plans to revise curricula and course offerings at all grade levels with accompanying short- and long-term funding for those programs.

In order to offer these students an effective curriculum, school districts should explore opportunities for apprenticeship programs, making connections with community colleges, county vocational-technical schools, trades and their unions, large corporations and other local businesses, government agencies, and existing training programs. Internship opportunities might include work experience, senior service projects, volunteer programs, distributive education programs, cooperative industrial education (C.I.E.), work study, and education projects.