Council for Education Policy,
Research and Improvement

Career and Professional Education: Preparing Florida's Students for the Knowledge Economy

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THE GOAL

In the course of developing a Master Plan for K-20 Education, the Council for Education Policy, Research and Improvement (CEPRI) has identified **career and professional education** as a primary area where increased focus, resources and new approaches will produce a very significant improvement in the quality and effectiveness of Florida's education system. Career and professional education encompasses those activities in high school that prepare students for the challenges of the workplace and for entry into postsecondary education at a technical center, community college or university. It also includes the coordination of the K-12 and postsecondary sectors in providing students with high quality experiences that ensure success in the workplace.

Achieving this significant improvement requires a combination of a clear and specific goal and taking the steps necessary to achieve the goal. The following goal will ensure students acquire the academic and personal skills needed for them to be successful as they leave their K-12 educational experience:

> **All students will graduate from high school fully capable of choosing, entering and being successful in either the workplace, further career education, or postsecondary degree programs.**

Realizing this goal will have a profound impact on the lives of young people and on Florida's economy. Doing so will require:

- High quality early childhood learning and transition through the middle grades – with effective counseling and guidance throughout the process; and

- Programs in middle and high school which build on and reinforce the interests and potential career choices of individual students.

THE CHALLENGE

While Florida has improved its student performance in the elementary and middle grades through the implementation of the A+ Plan, significant challenges remain at the high school level and beyond. It is important to "stay the course" and continue the achievements made at the early grades, but additional reforms are necessary to ensure every student graduates high school with the essential skills for success. A significant percentage of Florida's students currently leave high school without adequate preparation to enter a career or continue into a technical center, community college or university program, as shown by the following:

- Out of every ten ninth graders, three do not earn a high school diploma – and drop out of the K-12 system without having attained a basic set of skills necessary to be successful in today's economy.

- Of the seven who do earn a diploma, only four immediately pursue further postsecondary education in a technical center, community college or university – leaving three without the skills and training required for high skill, high wage employment today.

Thus, more than half of ninth grade students are not being adequately prepared to be successful on a personal basis and meet the needs of Florida's economy. This deficiency in basic skills is a critical barrier to enhancing the economic potential of Florida, given that the vast majority of projected jobs in Florida will require postsecondary education, but not necessarily a bachelor's degree. To overcome this deficiency, three specific issues need to be dealt with – **readiness**, **meaningful career guidance**, and **an optimal learning environment**.

Readiness in Fundamental Skills

While the state has made great strides in improving the reading, mathematics and writing skills of its K-12 population, there remains considerable room for improvement. Florida must continue to improve the reading, writing, and other academic skills of its K-12 population by maintaining and strengthening reforms that have lead to recent gains in performance.

On the Florida Comprehensive Assessment Test (FCAT), student performance has improved but additional efforts are necessary for the achievement of high standards for all students, particularly for students in later grades with the need for acceleration in reading and mathematics. While average student scores have increased, in some cases substantially, a large percentage of Florida's third and eighth graders are not performing at grade level on the state assessment:

- In the 2004 FCAT, 34 percent of third graders scored below grade level on reading, compared to 43 percent in 2001.
- In the 2004 mathematics FCAT, 36 percent of third graders scored below grade level, compared to 48 percent in 2001.

The gains at the upper grades have been less impressive. In the 2004 reading exam, 55 percent of eighth graders scored below grade level, which was down from 57 percent in 2001. The results for eighth graders in mathematics have been flat with 44 percent below grade level in 2004 compared to 45 percent in 2001.

Of particular concern to the Council is the relative lack of improvement seen in the performance of high school students on the tenth grade FCAT assessment. In 2004, 37 percent of tenth graders scored below grade level which was an improvement over the 41 percent in 2001. However, there has been a decline in the performance of tenth graders in the reading assessment. In 2001, 62 percent were below grade level, but in 2004, 66 percent performed below grade level.

Despite improvements in the K-12 school population, many Floridians still require assistance in the acquisition of functional literacy and workplace literacy skills. A large segment of Florida's adult population experience literacy and basic skills deficiencies, with about 20 percent of Florida residents age 25 and older without a high school diploma. It is important to serve the adult and youth populations who have not obtained the necessary skills in elementary and secondary schools. These include immigrants, migrants from other states, high school dropouts and those who exited the K-12 system with remedial needs. Adult general education programs in Florida currently serve more than 350,000 adults. Many of these adults without basic skills are recent dropouts from the K-12 student population:

- More than 25,000 9-12th grade students drop out of high school each year; most will never return for a high school diploma, technical certificate or a college degree.
- Based on data on the 1990-91 high school dropouts, 68 percent of those dropouts had achieved no educational credential ten years later and less than ten percent had any credential beyond a high school diploma (Florida Education Training and Placement Information Program (FETPIP), 2002).

For students who exit K-12 without a diploma, their future wage earning potential is limited. Ten years following high school graduation, the average full-time wages of Florida public high school graduates exceed those of high school dropouts by 44 percent. In addition, high school dropouts are three times more likely to be incarcerated than high school graduates and six times as likely to be under community supervision (FETPIP, 2001).

Readiness for Career and Professional Education

Many Florida graduates do not master the rigorous curriculum that prepares students for both the workplace and enrollment in a technical center, community college, or a university prior to high school graduation. They are often ill-prepared for subsequent enrollment, as evidenced by the high percentage of students requiring remediation in college. While 93 percent of state university first-time-in-college students (FTICs) are "ready" in reading, writing and mathematics, only 37 percent of community college FTICs are ready in all three areas. Currently, only about half of Florida's high school graduates take the rigorous curriculum that assures readiness for admission to a Florida state university.

The research clearly shows students who have taken a college preparatory curriculum are much more likely to enroll and succeed in postsecondary education. Recent analysis by CEPRI on the postsecondary success of a high school graduating class demonstrates this finding. In ***Postsecondary Progression of 1993-94 Florida Public High School Graduates: 2002 Update***, CEPRI reported the seven year bachelor's degree graduation rate for students who had taken a college preparatory curriculum was significantly higher (49 percent) than for those student who had not (19 percent).

The skills and competencies gained through a rigours curriculum are becoming essential for all students, not just those who are on a fast track to a bachelor's degree. The American Diploma Project, a joint project of The Education Trust, Achieve, Inc., and the Thomas B. Fordham Foundation, recently released a report, ***Ready or Not: Creating a High School Diploma That Counts***, intended to guide states in developing a plan to reconnect the expectations of students and employers with the curriculum that is necessary for successful careers. As noted in the report, "Re-establishing the value of the diploma will require the creation of an inextricable link between high school exit expectations and the intellectual challenges that graduates invariably will face in credit-bearing college courses or in high-performance, high-growth jobs."

Meaningful Career Guidance

While their aspirations are high for entry into college, many students are not prepared to enter postsecondary education based on the curricular choices they have made in high school. Nationally, the percentage of seniors who plan to attend a four year college has increased from 34 percent to

more than 50 percent from 1972 to 1992. However, many do not have realistic expectations of what it takes to be successful in college and are not aware of all of their options.

Meaningful career and academic advice is probably not available to students in ways that make a difference. Based on data available for the 2001-02 school year, the statewide student to high school counselor ratio is 364 to 1. The ratios at some high schools were as high as 500 or 600 to 1. It is impossible for counselors to provide adequate advice to such large numbers of students.

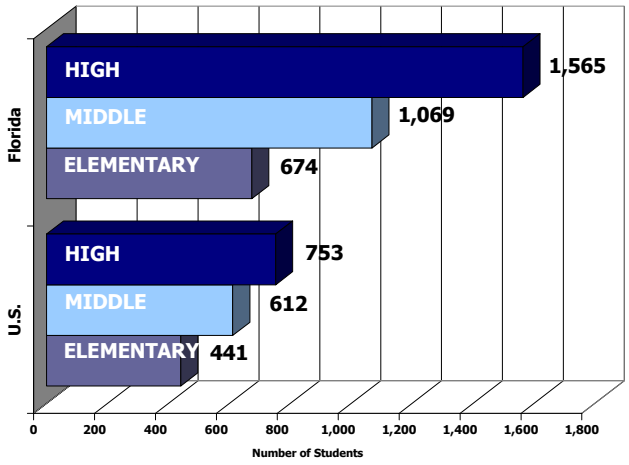
Optimal Learning Environment: Small Learning Communities

It is imperative that the educational atmosphere promotes rather than hinders the successful transition of students from school to careers. An important structural issue that affects student achievement is the size of the learning community.

Nationally, the "small schools" movement has been influenced by the participation of the Bill and Melinda Gates Foundation in providing funding for small high schools. The Gates Foundation cites some of the following research when presenting its case for smaller high schools:

- Higher average achievement and higher pass rates in core cores
- Lower dropout rates and more students continuing their education
- Greater effects of school size for low-income and minority students
- Fewer student behavioral problems and more positive student attitudes toward school

Some of the benefits of small schools cited by the Foundation include more personalized learning, higher achievement, more engaged communities of learning, equity, and professional growth for teacher.



Source: National Center for Education Statistics, *Overview of Public Elementary and Secondary Schools and Districts: School Year 2001-02.*

Florida faces a unique and critical challenge with regard to school size. Currently, Florida leads the nation in average school size across all levels: elementary, middle, and high. Florida high schools are over twice the size of the national average of 753 students. In 2003-04, ninety-six percent of ninth through twelfth graders attended a high school with a student enrollment exceeding the national average. Astoundingly, eighty-five percent of students attended a high school with 1,500 or more students.

Achieving small school objectives can be accomplished within existing schools. School-within-a-school models, for example, have become more popular as the size of schools in Florida has become larger. These smaller learning communities of generally 200 to 500 students can provide the benefits of a small school without the capital expense of building new, smaller schools.

The Florida Legislature had implemented a statutory revision to limit the size of new educational facilities, allowing for school-within-a-school models to accommodate existing schools with populations that exceeded the new capacity limits. The 2003 Legislature repealed this statute due in large part to the reality of implementing the 2002 voter-approved constitutional amendment to reduce class size.

OVERCOMING THE CHALLENGES

To overcome the challenges outlined above and meet the goal CEPRI has set forth, a new approach to high school education should be pursued. As noted in a recent publication of the Bill and Melinda Gates Foundation, ***Closing the Graduation Gap: Toward High Schools That Prepare All Students for College, Work, and Citizenship***:

> *Successful schools combine rigor — high expectations and a meaningful course of study — with relationships — powerful, sustained involvement with caring adults who mentor, advise, and support students throughout their high school careers.*

Florida must focus its efforts on creating a learning environment for high school students centered on the following elements:

- A small learning community
- High standards for all students – "All Means All"
- A rigorous and relevant curriculum
- Effective and extensive career guidance and counseling

The elements listed above are necessary components of an effective system of secondary education. The Council has identified these keys through an investigation of national and international examples of high school reform. One such system is Denmark. Denmark is notable for the high quality of its technical training and for the flexibility of its system. High school education in Denmark offers pathways between technical and academic education and training at all levels, responding rapidly to the needs of business. As ***Learning from Denmark***, a study of high school education in Denmark conducted by the Public School Forum and the North Carolina Center for International Understanding, notes, this nation's approach to high school education has been highly recognized for the following:

- Offering high school students a wide array of individual choices as to programs and focus
- Providing early guidance on which path would be best suited to individual needs and ambitions
- Operating a system flexible enough to accommodate changes in educational direction
- Achieving a very high success ratio in terms of young people successfully completing their high school education

Over the past 25 years, Denmark has recognized that their citizenry is the key national resource and has purposefully invested in the high quality education and training critical to the nation's economical success.

The demographic and structural differences between Denmark and Florida preclude a complete adoption of the Denmark system of high school education in the state. The Council does not advocate such a replication. However, the Council strongly endorses the value of benchmarking with other systems, both domestically and internationally, to uncover the key components necessary for high achievement. Once identified, these universal components can be shaped to meet the unique needs of Florida. The following proposal for high school reform—based on a strong foundation in fundamental skills, effective and extensive career guidance, the creation of Career and Professional (CAP) Academies, and high standards for all students—presents Florida with a blueprint, grounded in proven successes abroad, to assist students in reaching their maximum potential.

POLICY RECOMMENDATIONS

Building a Foundation for Success

POLICY RECOMMENDATION 1

Schools and school districts should be responsible for establishing intensive acceleration programs to get students to grade-level reading, writing, and mathematics benchmarks in 5th, 8th, and 12th grade, modeling best practices nationally and internationally.

In order for this new approach to high school education to be a success, **a strong foundation in elementary and middle school education is a necessity**. The K-12 system, particularly the early grades, has the primary role in improving student achievement. The development of a skilled, educated workforce in Florida must be built on the foundation of a strong K-12 system that provides the basic skills necessary for higher education training and employment. The failure to achieve basic skills early in elementary school leads to problems with learning and achievement in subsequent years. Research has shown that children who are not proficient readers by the end of the 3rd grade have difficulties throughout the course of their schooling, perform poorly in other subjects, and may never graduate.

The first steps to improvement are already underway through recent reforms in Florida. Among the most critical are the funding for literacy skills being provided through the federal *Reading First* grant and state resources provided through *Just Read, Florida!*. The Department of Education received $50.6 million from the federal government for *Reading First* for 2003-04. The Department of Education awarded 26 Reading Coaches Model Grants in 2003, totaling $13.4 million. The Governor proposed and the Legislature passed the Middle Schools Reform Act, to increase the rigor of academic instruction in grades six through eight. Almost $17 million in funding for reading coaches in the lowest performing programs was provided for the 2004-05 fiscal year.

Though the state has seen great advances in student achievement, aggressive strategies to accelerate student learning and improve basic skills must still be pursued by the state. Industrialized countries that have undertaken large scale education reform provide a vision for how to achieve high standards for all students. In countries that have succeeded in bringing students to high standards, the following characteristics are an important part of the reform:

- Core teachers stay with students for two or more years,
- Common planning time is allowed for all core teachers,

- Tutoring is provided on a daily or weekly basis by the same teachers,
- Longer school calendars for students (190 – 210 days) are mandated with similar hours per day.

It is critical to avoid involving students in "more of the same" pedagogy that allowed them to fall behind in the first place. The state must continue to emphasize the use of research-based teaching practices and pedagogies that have been shown to improve student learning and skill acquisition in a particular discipline.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 1

- Elementary and secondary schools should implement "summer bridge" programs for the acceleration of students in reading, writing and mathematics skills, for those who are not meeting or who are marginally meeting the standards.

- Elementary and secondary schools with after-school and weekend tutoring programs should utilize the same teachers who are providing the core instruction for the students, to ensure continuity with the classroom instruction.

- School districts should administer college placement tests no later than the 11th grade to evaluate student readiness for postsecondary education. This will ensure students planning to attend a community college or university engage in coursework that will increase their likelihood of success in postsecondary education by the time of graduation.

- Elementary schools should consider adopting teacher assignments that emphasize "looping", which allows a teacher to remain with the same single-grade class for two or more years.

- Teachers should be provided with professional development opportunities to help them learn to implement research-based "best practice" teaching strategies in normal and intensive acceleration educational environments.

- School administrators should be provided with professional development opportunities to help them learn to lead and manage change within their school organizations.

- The Legislature should continue to support policies that leverage private resources like those provided through the Partnership to Advanced School Success program and the School District Matching Grants program.

Effective and extensive career guidance

POLICY RECOMMENDATION 2

Every student in Florida should be made aware of career options by the start of high school and provided with extensive guidance in order to plan their coursework in accordance with their career aspirations.

Florida faces the challenge of ensuring that students in the K-12 system are properly informed and prepared for their future careers. The idea that "the only path for students to follow is the traditional route to a four-year college degree" has become the perceived standard for educational success. But not all students have the desire or need for such a college degree. Better academic and career preparation are necessary to ensure the readiness of all students for the workplace. However, in the current environment, many students with different skills and abilities may not be well served. This problem in Florida may be evidenced by the high dropout rate and the fact at that only seven out of ten ninth graders graduate high school within four years. Whether students drop out or are "pushed" out because few viable alternatives are presented to them, these students leave the system with few marketable skills and limited job prospects—a situation with profound implications for these students and for the economic development of the state.

Every middle and high school in Florida must be educating its students about potential career paths as they progress through their academic careers. The historically negative perception about the quality of career education programs in high schools needs to change. Today's career education programs provide students with the skills and training necessary to pursue careers in high-wage, high-demand fields, as well as a college education, if desired. **Re-branding and marketing** requires a better awareness of careers on the part of parents and students, provided through a state-sponsored, school-to-career preparation advertising campaign. While the current tools are valuable, more time and resources are needed to get students on the right track. The appropriate guidance and counseling must be offered early enough to make a difference in their long-term planning and goals.

Many graduates exit high school without adequate knowledge of their education and employment opportunities. This, unfortunately, may lead students in making uninformed career path decisions. In the report, ***Decisions Without Direction: Career Guidance and Decision-Making Among American Youth***, the authors confirm that students perceive a lack of career guidance in their schools, and often cannot name anyone outside of their parents who have been helpful in career guidance. A nationwide survey of high school juniors and seniors found only 10 percent of students identified school personnel as playing the primary influence in career guidance. Fifty-one percent of respondents did not perceive any real career guidance occurring in high school. This lack of career guidance can have dire consequences for the student, including:

- A decreased likelihood of success in the workplace or in postsecondary education
- Acquired skills and student aspirations not being aligned with employers' needs

The combination of the factors above has far-reaching effects on the overall economic development of the state – resulting in a diminishing pool of qualified workers.

Meaningful one-on-one school advising is certainly limited in Florida where the average student to counselor ratio is 364 to 1. Currently, the state offers CHOICES and eCHOICES, a program designed to provide the framework for the career planning process. Access to this program is provided to all public schools in the state. In addition, Florida provides Career Resource Network seminars and other support to school districts to enhance their career advising system.

The marketing of viable career alternatives for students must be a priority. It is imperative that parents and students are properly informed of the wide variety of high wage, high skill careers available through participation in all forms of postsecondary education, not just the bachelor's degree and beyond.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 2

- The Department of Education, in partnership with the business community, should develop an intensive marketing campaign to attract high school students into career and professional education programs leading to careers of critical need to the state.

- The Department of Education should identify best practices for an advising system that ensures all students have access to quality time with an academic advisor. Explore the teacher-advisor model in which each teacher advises and monitors the progress of a small number of students.

- School districts should mandate the development of an education and training plan related to career interests for late middle school and high school students, to be updated along the progression towards graduation.

- School districts should utilize peer mentoring programs that rely on high achieving school peers and young adults to provide support for secondary students planning their education and careers.

Career and Professional Academies

POLICY RECOMMENDATION 3

Every high school in Florida should develop a research-based Career and Professional (CAP) Academy with the following features: 1) small learning community, 2) strong academics in a career context (with standards-based career-technical coursework), and 3) partnerships with the local business community.

What are Career and Professional (CAP) Academies?

CAP Academies are **research, standards-based career academies**. The CAP Academy is a school-within-a school model characterized by:

(1) a small learning community;
(2) a college-prep curriculum with a career theme; and
(3) partnerships with employers, the community, and higher education.

Each CAP Academy is organized around an occupational area such as health professions, travel and tourism, finance, information technology, or construction. This model creates a structure in which the student learning is linked with potential career outcomes, but provides the base knowledge to ensure the success of its students in any number of fields. The CAP Academy differs from traditional academic and vocational education by **preparing students for both careers and college**. For example, students who are interested in dental hygiene careers may work along side students who are planning to become physicians. The career theme is woven throughout the curriculum with the high standards necessary for admission to a university, providing students a rigorous and relevant education.

How do the CAP academies bridge the gap between high school and careers?

Developing CAP Academies in every high school provides the bridge from school to careers that is currently lacking. Incentives for the development of CAP Academies should serve as the catalyst for reform. A research-based CAP Academy will prepare the next generation of students to enter postsecondary education without the need for remediation and provide them with the opportunity for meaningful exploration of careers. Meaningful relationships and counseling are enhanced by a smaller learning community which provides interaction among a team of instructors and a smaller group of students. But these programs must be designed in the most effective manner. A CAP Academy should be a real reform in which structure, curriculum, and student expectations are transformed into a true integration of academic and career education. Although some current programs call themselves academies, a CAP Academy is a very specific, research-based model from the principles described by the Career Academy Support Network (CASN). According to CASN, the primary clearinghouse of career academy resources, the key characteristics are:

THE MAIN CHARACTERISTICS OF A CAREER AND PROFESSIONAL (CAP) ACADEMY		
SMALL LEARNING COMMUNITY	**STRONG ACADEMICS IN A CAREER CONTEXT**	**PARTNERSHIPS WITH THE LOCAL BUSINESS COMMUNITY**
• Academy-only classes for 2-4 years • Self-selected cross-disciplinary team of teacher-facilitators, with a lead teacher/coordinator • Voluntary enrollment, cross-section of students • Size limited to maintain personalization (no larger than 250 students) • A family-like atmosphere with a motivating, supportive, disciplined instructional tone • Core academic academy classes must be in a block, back-to-back schedule • Administrator and counselor support • Other course and activities outside of academy	• Several academic courses per year that meet high school graduation and college requirements • Students will take at least several technical college courses on a college or high school campus before they graduate • One or more courses per year in a broadly defined career field that lets students explore a full range of career options • Contextual, applied, integrated curriculum • Common teacher planning time to allow curricular integration • Project-based learning that bring together skills across academic and career classes, possibly a school based enterprise • College and career planning, articulation	• Steering committee to govern academy • Locally selected career field with a cadre of employer partners • Parental involvement in students' decision to enroll, and in various program activities • Business representatives who provide role models, show students career options and paths • Field trips/job shadowing to illustrate work environments • Mentor, employee volunteers that serve as career-related "big brothers and sisters" • Workplace experiences (paid or unpaid internships, community service) in the last year or two • Postsecondary institution articulation, concurrent enrollment

While not specifically advocated by the CASN, it is advisable that academy students should consider an option to take several technical college courses on a college campus before they graduate, in the summer, on weekends, or during their senior year.

What are the benefits of the CAP Academy Model?

The positive results associated with career academies, structured in the research-based CAP Academy mold, have been researched thoroughly in recent years. Studies have found students in similar career academies perform better in high school and are more likely to continue their education, compared to similar students in the same schools. After assessing the most extensive, longitudinal study conducted to date on academies by Manpower Demonstration Research Corporation, William Rasberry, of the Washington Post, succinctly wrote, "The magic, apparently, is in the combination of linking academics to job prospects and the intensive involvement of adults."

Several independent studies of the National Academy Foundation's (NAF) Academy of Finance and Academy of Travel and Tourism were conducted by the Academy for Educational Development

(AED) in the early 1990s. These independent studies were commissioned by NAF board member companies interested in seeing the impact of the program. Among the conclusions of these studies were the following:

- Women and minorities were introduced to career options that were not previously available to them and gained clear perceptions of the professional career paths within each industry.
- Over 90% of academy students were going onto higher education.
- High school graduates rated their Academy internship highly and considered it helpful in their career decisions.
- 50 percent of Academy of Finance graduates and 40 percent of Academy of Travel and Tourism graduates were working in their respective Academy career fields after graduation.

Several studies in California have found academy students perform better than students in the same high schools who have similar demographic characteristics and ninth-grade records of grades, absenteeism, and disciplinary problems. Annual data collected from state-funded academies in California continue to show improvement after students entered an academy and while they are enrolled in academies.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 3

- The Florida Department of Education and the State Workforce Board should work in cooperation to create a high level office to oversee the development of Career and Professional (CAP) Academies. This office should be responsible for the coordination of state planning grant awards to high schools for the development of a research-based CAP Academy design. In partnership with local business, high schools should design a rigorous academic curriculum with a career-based focus. The local business community should be responsible for the career-based elements of the program (internships, job shadowing, business lectures and steering committees or boards made up of business partners).

    - The Florida Legislature should adopt statutory language that defines a Career and Professional (CAP) Academy and provides for a process for certification of career academies that meet the criteria.

    - Planning grants in the amount of $15,000 for high schools should be provided through a RFP competitive process to develop a research-based CAP Academy. High schools that currently have a career academy would be eligible to apply and re-design their model to meet the rigorous standards of the research-based CAP Academy model.

- Accelerated learning opportunities for students in the middle grades should be developed to encourage and prepare them for participation in a CAP Academy. Opportunities should be available for students, who participate in pipeline activities organized as "summer bridge" or weekend programs, to have first choice in CAP Academies. An example of a program would be a partnership between a school district and NASA for a summer science/math preparation program.

- As part of the Department of Education's overall marketing plan to attract high school students into career and professional education (as described under Recommendation 2), CAP Academies should be actively marketed as programs that demonstrate the integration of academic and career education and provide students a pipeline into highly skilled careers.

High Standards for All Students – "All Means All"

POLICY RECOMMENDATION 4

Every student in a Florida high school should graduate with a rigorous, high standards-based curriculum and an area of concentration (i.e., math/science, career/technical, humanities). Each concentration should have the same high academic foundation in reading, mathematics, and writing.

At all stages of development, age appropriate curriculum with an emphasis on career introduction, exploration and planning should be adopted in the public schools. No student should be allowed to leave school without being exposed to the opportunities available to ensure their future success in life and without developing a plan on the education and training required to achieve that success. Students must be made aware of career opportunities early enough to develop a plan by the start of high school. They should have a plan for education and work prior to putting on their caps and gowns on graduation day. And the schools that graduate these students must be evaluated on more than basic reading and writing skills – the career readiness of their students is essential.

Fundamental reform requires higher standards, better support for students, and a restructuring of curriculum. **The standards for students should be the same regardless of whether a student plans to go directly to work or directly to a postsecondary institution**. In the old paradigm, students were guided in their curricular choices by assumptions about their level of ability. The new paradigm assumes all students have the ability to meet higher standards and their efforts will determine their success.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 4

- The Florida Department of Education should establish new standards for a high school diploma based on the following outcomes:
  a) Middle grades mathematics curriculum designed to have students mastering Algebra 1 in the 8th grade.
  b) Phase out all general mathematics courses offered to high school students
  c) Pursue policies that vertically align the curriculum of students in the middle grades with the high school that will be serving those students, similar to pre-AP vertical alignment efforts of the College Board.

- Funding and resources should be provided to support teacher professional development in instructional practices that will support high student achievement, integration of academic and technical curricula, and use of "applied academics" that is rigorous but contextual and leads to improved student motivation and conceptual understanding.

- In partnership with community colleges and school district area technical centers, high schools should identify opportunities for students to include career/technical coursework in their program of study.

Better Educated and Highly Skilled Workers

Providing a high quality high school education with academic rigor and career relevance is Florida's best opportunity to increase the economic well-being of its citizens and the economic development of the State. Following the path outlined above will allow Florida to realize the following long-term outcomes:

- More students graduating from high school with high levels of academic and career skills.
- More graduates continuing their education and training in postsecondary institutions, both career-technical and academic programs.
- More high skill, high wage "knowledge workers" to attract greater economic development to the state.

To ensure these reforms are implemented and the desired outcomes are reached, it is imperative that evaluation of high schools is expanded to include performance outcomes that are critical indicators of the state's success in preparing students for the workplace.

POLICY RECOMMENDATION 5

High schools should be evaluated and rewarded for improvement on measures relating to the successful transition of students from high school into careers and postsecondary education through the use of outcomes such as graduation from high school and continuation rate into a school district technical education center, community college or university program.

The most important catalyst for change is a high-stakes accountability process that provides incentives to high schools for improvement in the transition of their students to careers or further education. Currently, the application of school grades based on the FCAT has created a culture of accountability that has produced significant improvements in student achievement. Unless high schools are held accountable for completion and postsecondary continuation outcomes, their primary focus will remain on assuring students meet the minimum standards on the 10th grade FCAT examinations. The minimum FCAT score required for graduation does not align with the competencies necessary to enter a postsecondary institution without the need for remediation.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 5

- The Department of Education should include multiple measures of performance for use in accountability. Measures such as attendance, the lowering of dropout rates, and the percentage of students passing end of course exams may be added to the FCAT scores currently used.

- The Department of Education should create a career/workforce outcomes feedback report on the postsecondary progression and success of high school students to provide a baseline analysis for which high schools may be evaluated on their success in getting their students ready for postsecondary career-technical and/or academic programs.

- School districts should develop a set of applied learning standards that lead into more powerful exploration of careers, integrated into high academic standards.

The Transition to Careers

A skilled workforce is a primary determinant of the state's ability to respond to the demands of the economy of the 21st century for a knowledge-based workforce. Career and technical education programs are essential in meeting this demand given that **over 60 percent of the projected job growth in Florida through 2010 will be in occupations requiring postsecondary education and training, but not a bachelor's degree**. Additionally, nine of the top ten fastest growing jobs in Florida over this period will require an associate's degree or a postsecondary vocational certificate. Despite these figures, state support for career and technical education has declined dramatically in the past few years. Florida must recognize that career, technical and adult education is critical to the current and future economic development of the state of Florida. Therefore, a higher priority must be placed on it in the budget process in order for Florida to successfully compete in the global marketplace.

POLICY RECOMMENDATION 6

Florida should place a greater priority on ensuring adequate resources are provided to postsecondary adult and career education programs to meet the current and projected demand for skilled workers.

Despite the fact that demand for workers with this educational level is out-pacing the supply, funding levels for career and technical education have decreased substantially compared to other educational sectors, in recent years. Though many factors may account for this substantial decrease, the lack of strong political advocacy perpetuates the perception that career and technical education is the forgotten "stepchild" in the budgetary process. Postsecondary career and technical education accounts for a very small share (about 5 percent) of the entire education budget.

Without adequate funding, the state will not have the skilled workforce necessary to be competitive in the global marketplace. In recent years, the current funding structure has not provided adequate support for the development of programs that recruit and train high school students and graduates in high demand fields.

It is imperative that the importance of career and technical education to the economic development of the state is recognized and greater attention and resources are placed on such education. In a recent report, CEPRI outlined specific steps for ensuring an accountable and adequate funding procedure for adult and career education (see ***A New Emphasis and Funding Methodology for Adult and Career Education***).

POLICY RECOMMENDATION 7

All career and technical education programs should ensure that their program completers exit with skills and credentials endorsed by local and/or state industry sectors.

The training offered must be relevant in today's economy and look toward the jobs of the future. Peter Drucker has spoken of how the "next society will be a knowledge society." Education and training efforts must focus on development of programs to fulfill these needs. Creating more high-wage jobs in Florida requires employers know there will be skilled workers to fill those jobs.

No one benefits more from excellent career-technical education and training programs than Florida's business community. As the employers of the workers produced by the state's education and training providers, the presence of business and industry leaders in career education planning is essential. Still, business involvement will likely be most successful on a regional level. Local stakeholders have vested interests in producing qualified workers for local employers. The communication among these education and business leaders is vital to the success of local efforts to coordinate education and training with the skills required by employers.

Public sector vocational-technical centers, community colleges and universities provide most education and training in Florida. The state has made great strides in recent years in focusing the efforts of these institutions in high-wage, high-skill areas. With organizations like the Workforce Estimating Conference, the path to success in this objective has already been laid out.

Local training providers must request business input and local employers must respond to the call for help. Training requirements for education programs must be in line with current work skills requirements. Career-technical training efforts and cooperative arrangements, like those provided through pre-apprenticeship programs, charter technical centers and collegiate high schools, are excellent ways to achieve a better-trained workforce.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 7

- School districts and chambers of commerce should promote the development of educational partnerships in which high school students graduate with a two year career-technical credential endorsed by local business and industry through programs like charter-technical and collegiate high schools.

- The Legislature should provide funding and incentives for technical centers and community colleges to offer postsecondary career-technical coursework for high school students in partnership programs.

POLICY RECOMMENDATION 8

Community colleges and area technical centers should jointly develop, within their local service areas, a strategic plan for career and technical training in partnership with local industry sectors.

The workforce development system in Florida is decentralized and fragmented with dozens of agencies involved in various components of the system. The populations served through this system are varied, from at-risk youth to unemployed or displaced workers to current workers. A dual system of delivery exists throughout the state with a mix of education and training programs provided by community colleges and school district technical centers.

Currently, school districts and community colleges both provide postsecondary career, technical and adult education programs:

- 48 school districts and 25 community colleges provide postsecondary adult vocational certificate (PSAV) programs; some of which are in overlapping service areas.
- 57 school districts and 18 community colleges provide adult general education programs.
- Only the 28 community colleges offer associate in science (AS/AAS) degrees.

The dual system of delivery for career, technical, and adult education has raised several issues over time, focusing mainly on duplication and access. The system should require local educational institutions work together in producing a credentialed workforce rather than competing for students to enroll in their programs. Duplication of services within a local service area should not be encouraged, but adequate access to training programs is essential, especially for Florida's most disadvantaged citizens.

IMPLEMENTATION STRATEGIES FOR RECOMMENDATION 8

- In cooperation with local workforce development boards, area chambers of commerce, community colleges, school districts, and area technical centers should conduct a "needs assessment" analysis to determine which training programs are critical to the economic development of their region. These needs assessments should form the basis for a strategic plan for career education for the region. These strategic plans should address, at a minimum, the following elements:
  - Articulation agreements between postsecondary vocational and college programs to assure the "seamless" transition of students.
  - Plans for avoiding duplication of high-cost facilities and equipment, either by avoiding program overlap or by sharing resources
  - The development of "career ladders," with support from local employers, which take students from high school through higher levels of postsecondary training.

- The local strategic plan should ensure adequate access to education and training programs by examining the feasibility of the following:
  - Multiple site offerings to reach the most disadvantaged populations,
  - Flexible scheduling through weekend and night courses for the working population
  - Short-term, accelerated training options, and
  - Distance learning, where appropriate.

- To ensure access to training for disadvantaged populations, the Legislature should provide adequate financial aid for enrollment in career and technical education programs and part-time students.

- Districts that develop and implement effective strategic plans, based upon outcomes established by the accountability process, should be eligible for incentive funding.

CONCLUSION

Creating effective high school learning communities that provide rigor and relevance to students is critical to the development of a highly skilled Florida workforce. As Florida looks for ways to improve the social and economic welfare of its citizens, this report recommends the development of more effective high schools and better connections between the K-12 and postsecondary sectors. By overcoming several critical barriers to success – readiness in fundamental skills, readiness for career and professional education, the lack of meaningful career guidance, and the size of the learning community – **the Council seeks to improve the fundamental skills and career/postsecondary readiness of its K-12 population, providing students with the tools to make a choice to pursue immediate employment following high school graduation, a technical certificate/degree at a technical center or community college, or a bachelor's degree at a community college or university**.

The K-12 system should provide the following elements to assist in the successful transition of students to careers:

- A small learning community
- High standards for all students – "All Means All"
- A rigorous and relevant curriculum
- Effective and extensive career guidance and counseling

The Council believes "Career and Professional Academies" (CAP Academies) provide a comprehensive solution for many of the challenges faced in creating a high quality high school experience. However, regardless of a student's willingness or ability to participate in an academy, Florida must focus on providing the rigorous curriculum, necessary for attaining the education and skills for high wage, high skill employment, to all of its students.

In addition to the issues discussed in this report, the Council also understands many Florida citizens who have already exited the K-12 system have education and training needs. Serving these populations requires continuing support for adult education and exploration of new models to serve recent high school dropouts. As the Council examined best practices, one of the programs developed by Denmark in their education reform stood out. The Danish "production school" model may serve as an example of a program that combines the attainment of basic skills and specific career skills in a single model.

To reach the goal of all students graduating from high school fully capable of choosing among various outcomes for success, the Council strongly recommends the path outlined in this report. The challenge is great with over half of Florida's ninth grade students not adequately prepared to be successful and meet the needs of the state's economy; yet, the opportunity is there. A career and professional education system with a greater focus of attention and resources is the main catalyst for significant improvement on the road to successfully achieving this goal.

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