CAREER ACADEMIES DEFINED

Career academies are secondary-level programs that are designed to provide students with integrated academic and technical skills to seek employment in a career area while preparing them for transition to post secondary education. In most fields, a high school diploma is not sufficient for entry-level positions, so college preparation in these cases is essential. In the national literature and research, career academies have three defining characteristics: college preparatory curricula with an integrated career theme, small learning communities, and partnerships with employers and postsecondary institutions. In addition, the state of Florida has placed emphasis on the importance of industry certification to ensure that students who complete career academy programs leave with industry-recognized credentials that validate the acquisition of essential technical skills.

POLICY BACKGROUND

Since their inception in the 1970s, career academies have evolved from a dropout prevention program to a key strategy for high school reform in the 21st Century. Policymakers have come to realize that the traditional high school model no longer serves well in an increasingly knowledge-based economy. Secondary education must equip students with skills that will make graduates competitive in the global labor market. This means aligning curricula with essential occupational skills and preparing students for entry into the workforce, preferably after continuing postsecondary education. Career academies are designed to engage students with a rigorous college preparatory curriculum integrated with hands-on instruction in relevant occupational skills. This blended curriculum requires strong partnerships with both business and industry and postsecondary institutions.

From 1993-2001 the Legislature appropriated funds for the planning and implementation of 38 career academies across the state. In 2004, the Council for Education Policy Research and Improvement (CEPRI) issued a report on career and professional education that recommended the development of career academies with small learning communities, strong academics in a career context, and partnerships with the local business community.1 CEPRI recommended that a high level office coordinate state planning grants to high schools for the development of career and professional academies. In 2005, the Legislature initiated the SUCCEED, Florida, Career Paths program, which awards planning, implementation, and redesign grants for the development or continuation of career academies. Beginning in 2005-06 the state implemented a competitive process that sought applications from regional workforce boards for projects to replicate Okaloosa County’s Career High Skill Occupational Initiative for Career Education (CHOICE) academies. Funding for this initiative came from an allocation to the Youth Development Council and totaled $1 million in Workforce Investment Act (WIA) funds. To date, 16 districts have been funded through this process for a total of $2,909,216. In 2006, the Legislature defined “career and professional academies,” and SUCCEED grant criteria were revised to align with this definition.

In 2007, the Legislature passed the Career and Professional Education Act (F.S. 1003.491), which repealed the CHOICE project section and amended the career and professional academies statute. The law requires districts to develop 5-year plans collaboratively with business and postsecondary partners and establish at least one career and professional academy no later than the beginning of the 2008-2009 school year. Students completing a career and professional academy must receive a standard high school diploma, the highest available industry certification, and opportunities to earn postsecondary credit if the academy partners

1 CEPRI, September 2004, Career and Professional Education: Preparing Florida’s Students for the Knowledge Economy
with a postsecondary institution approved to operate in the state. All career courses offered in a career and professional academy must lead to industry certification or college credit linked directly to the career theme of the course. In 2007, Workforce Florida, Inc. (WFI) awarded $1 million of federal Workforce Investment Act funds to Okaloosa County’s CHOICE Institutes to form The Banner Center for Excellence – Career Academies/Secondary to provide technical assistance to districts that are developing or redesigning career academies.

OPPAGA’S STUDIES ON CAREER ACADEMIES IN FLORIDA

The Office of Program Policy Analysis and Government Accountability (OPPAGA) has published two reports on Florida’s career academies. The first report was a survey study of career academies operating in 2004-05 designed to determine the extent to which districts were incorporating nationally-recognized core elements and industry certifications in their career academies. The core elements OPPAGA identified based on the national literature were a college preparatory curriculum with a career theme, small learning communities, and partnerships with businesses and postsecondary institutions. Thirty-six districts identified 544 career academies in operation in 2004-05, and OPPAGA collected data from 379 of them for the study. The most common career themes were information technology followed closely by health science.

Eighty-five percent of the academies were implementing at least two of the three core elements, and 51% were implementing all three. Most (89%) of the academies were implementing to some degree an integrated college preparatory curriculum with a career theme. Seventy-six percent had some aspects of a small learning community, and 69% maintained partnerships with postsecondary institutions and business and industry.

The depth and completeness of the implementation of these elements varied, particularly the small learning community element.

The study found that among stakeholders, school and district personnel were most likely to provide input in selecting the academy’s career theme. Local business and industry was involved in career theme selections among almost two-thirds of the surveyed academies. Local employers provided input in career theme selection for 63% of the academies, and 40% of the academies reported that local workforce boards had input in selecting the career theme. Industry experts and local employers provided input in curriculum development among 69% and 64% of the academies respectively. Local employers partnered with career academies in a number of ways including providing guest speakers, hosting field trips, offering job shadowing opportunities, and administering internships.

Regarding industry certification, 35% of the surveyed academies incorporated student industry certifications as an element of the curriculum. Among the academies that did not have any form of industry certification (program-, teacher-, or student-level certification), 56% reported that no certification was available for their program or that further postsecondary education was necessary to obtain a certification.

The second OPPAGA report analyzed career academy student data to compare their academic and employment outcomes with similar traditional high school students. The study found that career academy students were less likely to be chronically absent, more likely to score at grade level on the FCAT, and more likely to graduate than comparable peers who were not in career academies. Post-graduate employment outcomes for the two comparison groups were similar, but students who attended career academies that culminated in an industry certification had higher earnings than their peers.

THE DEPARTMENT OF EDUCATION’S 2006-07 FINDINGS

Over 90,000 career academy participants were reported in the state in 2006-07; on average they performed well compared to traditional students.

2 OPPAGA reports 06-55, More Than Half of the State's School Districts Have Career Academies, Most Operating in 2004-05 Incorporated Nationally Recognized Core Elements (July 2006) and 07-40, Career Academy Students Perform Better Than Other Students During High School; Later Outcomes Vary (October 2007)
According to the Division of Workforce Education’s analysis of district data reported to the state, in the 2006-07 school year, there were 90,751 career academy participants in the state, representing 10.4% of the total high school population (871,062). Exhibit 1 displays the distribution of reported career academy students by district. Fifty-two percent of career academy students were female compared to 48% among non-career academy high school students. There was a higher percentage of white students among career academy students (53.9%) than among traditional high school students (48.2%) and correspondingly lower percentages of minority students (see Appendix, Exhibit A1). Career academy students were less likely (10.1%) than traditional students (15.1%) to have on record a physical, mental, emotional, or learning disability. Career academy students were less likely (2.1%) to be English language learners than traditional high school students (5.9%).

Exhibit 1
Distribution of Career Academy Students by District

Career academy students outperformed traditional high school students in a number of areas (see Table 1):

- The one-year dropout rate among career academy seniors was 1.5% compared to 4.0% among traditional high school seniors.
- Career academy seniors maintained a higher cumulative grade point average (2.66) than traditional high school seniors (2.36).
- Career academy seniors also had a better average attendance record than traditional high school seniors.
- Career academy seniors missed 6.6% of the school year on average compared to 7.6% for traditional seniors.
- Career academy seniors were less likely (16.0%) to have had disciplinary action taken against them than traditional high school seniors (17.1%).
- Career academy students who completed three career and technical education (CTE) courses in a single program were higher performers than career academy participants as a whole.¹

¹ Students who complete three CTE courses in a single program are designated “CTE concentrators” for accountability purposes according to the federal Carl D. Perkins Career and Technical Education Act of 2006.
Table 1
Career academy students outperformed traditional high school students in several areas

<table>
<thead>
<tr>
<th>Measure</th>
<th>Traditional high school students</th>
<th>Career academy participants</th>
<th>Career academy career and technical education (CTE) concentrators</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-year, 12th grade dropout rate</td>
<td>4.0%</td>
<td>1.5%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Average 12th grade GPA</td>
<td>2.69</td>
<td>2.85</td>
<td>2.90</td>
</tr>
<tr>
<td>Percent of year absent (12th grade)</td>
<td>7.6%</td>
<td>6.6%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Percent disciplined (12th grade)</td>
<td>17.1%</td>
<td>16.0%</td>
<td>13.9%</td>
</tr>
</tbody>
</table>

Source: Florida Department of Education

Given the scope of this study it is not possible to isolate the effect of career academy participation on outcomes and performance. The differences noted here may be largely determined through selection, i.e. students who enroll in career academies tend to be higher performers, on average, than traditional high school students.

**Academy student characteristics and outcomes varied by career theme**

Career academy students are reported within career cluster categories. Some career academy clusters are predominantly single-gender (see Appendix, Table A1). Over 66% of the students were male in architecture and construction; manufacturing; science, technology, engineering, and mathematics; and transportation, distribution, and logistics. Over 66% of the students were female in education and training and health science.

The academy career clusters with the highest percentage of disabled students are manufacturing (20.3%) followed by transportation, distribution, and logistics (19.8%) and business, management, and administration (15.2%) (see Appendix, Table A2). The lowest percentage of disabled students is found in finance (4.3%); law, public safety, and security (6.2%); and information technology (7.4%). The highest percentage of students with limited English proficiency (see Appendix, Table A3) is found in manufacturing and government and public administration (both at 3.2%). The lowest percentage is found among students in academies with no selected career track (0.9%).

The average grades of career academy students (cumulative unweighted GPA) varied by career academy cluster (see Appendix, Table A4). The academy career cluster with the highest mean GPA was finance (2.84) followed by “no selected career track” (2.81). The academy career cluster with the lowest mean GPA was transportation, distribution, and logistics (2.30).

The incidence of recorded disciplinary action by schools against career academy students varied by career cluster (see Appendix, Table A5). The highest incidence of disciplinary action was among students in transportation, distribution, and logistics and manufacturing academies. The lowest incidence was among students in finance academies.
A 19-question survey of district administrators was conducted by telephone to collect descriptive information about the structure and operation of career academies operating in 2006-07. The survey included items related to the core nationally recognized elements of career academies: college preparatory curricula with a career theme, small learning communities, and partnerships with employers and the local business community. The districts surveyed were Baker, Miami-Dade, Escambia, Gilchrist, Hillsborough, Lee, Manatee, Palm Beach, St. Johns, and Volusia. These districts represent a cross section of urban, rural, large, and small districts from all geographic regions of the state. For the purposes of selecting this sample, all districts must have reported career academy participants to the state in 2006-07.
ACADEMIES

5 academies representing business, criminal justice, culinary arts, health, 9th grade transition

2006-07 ENROLLMENT

262

STANDARDS

NCAC National Standards of Practice

CAREER THEME SELECTION

Assessment of student demand; SUCCEED grant funding required high-wage/high-skill programs

SMALL LEARNING COMMUNITY

Cohort scheduling; common teacher planning time

BUSINESS PARTNERHIPS

Representation on advisory boards; business partners provide input by career area

INDUSTRY CERTIFICATIONS

Certified Nursing Assistant
MIAMI-DADE COUNTY

ACADEMIES
219 academies representing all career clusters

2006-07 ENROLLMENT
14,403

STANDARDS
Career academies are one of the school board’s strategic imperatives; district funds a Secondary School Reform Office which creates, maintains, and evaluates academies

CAREER THEME SELECTION
Match community and school interest surveys with Targeted Occupation and High-Skill/High-Wage lists

SMALL LEARNING COMMUNITY
In order to be an academy, the faculty must approve an eight-period day, which allows for cohort scheduling; the district receives federal Small Learning Community grant funds

BUSINESS PARTNERHIPS
Representation on advisory boards

INDUSTRY CERTIFICATIONS

<table>
<thead>
<tr>
<th>Career Cluster</th>
<th>Number of Certifications Available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, Food, and Natural Resources</td>
<td>9</td>
</tr>
<tr>
<td>Architecture and Construction</td>
<td>8</td>
</tr>
<tr>
<td>Arts, A/V Technology, and Communications</td>
<td>12</td>
</tr>
<tr>
<td>Business, Management, and Administration</td>
<td>9</td>
</tr>
<tr>
<td>Education and Training</td>
<td>10</td>
</tr>
<tr>
<td>Finance</td>
<td>1</td>
</tr>
<tr>
<td>Government and Public Administration</td>
<td>0</td>
</tr>
<tr>
<td>Health Science</td>
<td>17</td>
</tr>
<tr>
<td>Hospitality and Tourism</td>
<td>10</td>
</tr>
<tr>
<td>Human Services</td>
<td>2</td>
</tr>
<tr>
<td>Information Technology</td>
<td>5</td>
</tr>
<tr>
<td>Law, Public Safety, Corrections, and Security</td>
<td>11</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>9</td>
</tr>
<tr>
<td>Marketing, Sales, and Services</td>
<td>7</td>
</tr>
<tr>
<td>Science, Technology, Engineering, and Mathematics</td>
<td>7</td>
</tr>
<tr>
<td>Transportation, Distribution, and Logistics</td>
<td>5</td>
</tr>
</tbody>
</table>
ACADEMIES

20 academies representing agriculture; architecture and construction; arts, A/V technology, and communications; education; health science; hospitality and tourism; information technology; law, public safety, corrections, and security; science, technology, engineering, and mathematics (STEM); and transportation, distribution, and logistics

2006-07 ENROLLMENT

1,507

STANDARDS

NCAC National Standards of Practice; district handbook and application process ensure uniformity of implementation

CAREER THEME SELECTION

Match facilities and faculty with high-skill/high-wage list using NCAC standards

SMALL LEARNING COMMUNITY

Cohort scheduling for all career and technical core courses and most academics, academy t-shirts provided to students and teachers

BUSINESS PARTNERHIPS

Regular contact between district and Regional Workforce Board; Chamber of Commerce hosts all advisory committee meetings and recruits members; industry groups (e.g. American Welding Society) involved in curriculum development, instruction, and equipment acquisition; district-wide advisory boards by career theme host field trips and provide speakers

INDUSTRY CERTIFICATIONS

Cisco Certified Network Associate
Certiport Internet and Computing Core Certification
Microsoft Office Specialist
National Cable Telecommunications Institute’s Broadband Premises Specialist
National Center for Construction Education and Research
Oracle Database Administrator
<table>
<thead>
<tr>
<th><strong>GILCHRIST COUNTY</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ACADEMIES</strong></td>
</tr>
<tr>
<td><strong>2006-07 ENROLLMENT</strong></td>
</tr>
<tr>
<td><strong>STANDARDS</strong></td>
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<tr>
<td><strong>CAREER THEME SELECTION</strong></td>
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<tr>
<td><strong>SMALL LEARNING COMMUNITY</strong></td>
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<tr>
<td><strong>BUSINESS PARTNERHIPS</strong></td>
</tr>
<tr>
<td><strong>INDUSTRY CERTIFICATIONS</strong></td>
</tr>
</tbody>
</table>
ACADEMIES
33 academies representing all career clusters except for education; government and public administration; manufacturing; and transportation, distribution, and logistics

2006-07 ENROLLMENT
3,276

STANDARDS
District has goal of NCAC/CAPE accreditation of five to ten career academies per year

CAREER THEME SELECTION
Assessment of student, parent, and community interest; input from CAPE Strategic Planning Committee

SMALL LEARNING COMMUNITY
Cohort scheduling; workshops on cohort teaming and curriculum integration through District Support Staff; meetings on small learning communities four times a year. Goal is to have all academies dually certified as CAPE/NCAC and our CAPE 5 Year Plan reflects this goal

BUSINESS PARTNERHIPS
All Career Academies have an advisory board that follows District Standards as documented in a procedural handbook. Business partners advise on curriculum, industry standards, provide guest speaker, internships, job-shadowing opportunities and OJT; CTE Workgroup with Hillsborough Education Foundation

INDUSTRY CERTIFICATIONS
American Drafting and Design Association
Early Childhood Professional Certificate
Certified Nursing Assistant
Emergency Medical Technician/Firefighting
Licensed Practical Nurse
ProStart
IT
Practical Nursing
ASE
A+, Net+, Security+, HTI, CCNA
LEE COUNTY

ACADEMIES
23 academies representing all career clusters except for government and public administration and human services

2006-07 ENROLLMENT
2,108

STANDARDS
No formal district board policy on career academy standards; district administration uses NCAC standards

CAREER THEME SELECTION
Focus groups of employers, Economic Development Council, and postsecondary institutions

SMALL LEARNING COMMUNITY
Cohort scheduling (except for math classes) in close physical proximity; advisors, students, and teachers meet monthly to monitor student progress

BUSINESS PARTNERHIPS
Business partner representation on advisory board; representation on career theme selection focus groups; input on curriculum and desired student outcomes; issues taken regularly to the Youth Council of the Regional Workforce Board; trade associations regularly hold meetings at schools and tour academies

INDUSTRY CERTIFICATIONS
Automotive Service Excellence (ASE)
Certified Nursing Assistant
CISCO Certified Network Associate
CompTIA A+
CompTIA Network+
Firefighter 1
Microsoft Certified Professional
Microsoft Certified Desktop Support Technician
Microsoft Certified Systems Administrator
Microsoft Certified Systems Engineer
National Center for Construction Education and Research
ProStart
MANATEE COUNTY

ACADEMIES

12 academies representing agriculture; arts, A/V technology, and communications; business; education; health; hospitality and tourism; law, public safety, corrections, and security; and science, technology, engineering, and mathematics

2006-07 ENROLLMENT

2,302

STANDARDS

NCAC National Standards of Practice

CAREER THEME SELECTION

Analysis of labor market data

SMALL LEARNING COMMUNITY

Cohort scheduling; district funds substitute teachers to allow regular teachers to attend small learning community training

BUSINESS PARTNERHIPS

Representation on advisory board; participation in evaluations; advisory council coordinator is provided an office by the Chamber of Commerce, which gives access to local business leadership

INDUSTRY CERTIFICATIONS

- Cisco A+
- Certified Nursing Assistant
- Early Childhood Professional Certificate
- National Center for Construction Education and Research
- Pharmacy Technician
ACADEMIES
97 academies representing all career clusters except for manufacturing and human services

2006-07 ENROLLMENT
11,555

STANDARDS
NCAC National Standards of Practice; district application process ensures uniformity of implementation

CAREER THEME SELECTION
District works with local business leaders and workforce development board; career themes selected based on local labor market trends

SMALL LEARNING COMMUNITY
Small learning communities are a key element of the National Standards of Practice; no other specific district-wide requirements or policies related to small learning communities

BUSINESS PARTNERHIPS
Representation on advisory boards; involvement in curriculum development and some financial decisions; assistance with evaluations; local employers host job shadowing and internship experiences

INDUSTRY CERTIFICATIONS

A+
Automotive Service Excellence
Basic Life Support for Healthcare Providers
Certified Clinical Medical Assistant
Certified Dental Assistant
Certified EKG Technician
Certified Health Unit Coordinator
Certified Home Care Aide
Certified Medical Laboratory Assistant
Certified Office Laboratory Technician
Certified Patient Care Technician
Certified Pharmacy Technician
Certified Nursing Assistant
Early Childhood Professional Certificate
First Responder
Health Assisting
Home Health Aide
Licensed Practical Nurse
Medical Office Skills
Microsoft Office Specialist
National Health Care Foundation Skill Standards
Nursing Assistance
Oracle
Phlebotomy Technician
ProStart
SafeStaff
ServSafe
ST. JOHNS COUNTY

ACADEMIES

15 academies representing all career clusters except for agriculture; government and public administration; hospitality and tourism; information technology; and manufacturing

2006-07 ENROLLMENT

704

STANDARDS

Form must be submitted by school to district office explaining the impact of the academy on other schools and programs; developing a regional career academy accreditation rubric that would be one-third of the cost of NCAC accreditation

CAREER THEME SELECTION

Analysis of Targeted Occupations List; Chamber of Commerce economic forecasting (local and regional)

SMALL LEARNING COMMUNITY

Cohort scheduling; academy students second in scheduling priority to ESE students; limit enrollment to 40 students

BUSINESS PARTNERHIPS

Chamber of Commerce and local businesses represented on the district advisory board, which meets four times a year; fifty business partners provide in-kind contributions; business partners assist in the development of curriculum and standards and provide professional development courses to instructors; business partners will serve as the review board for the regional accreditation model

INDUSTRY CERTIFICATIONS

Adobe Professional
Apple Professional
Autodesk AutoCAD
Certified Nursing Assistant
CISCO Certified Network Associate
Credit Business Associate
General Airframe and Power Plant
Marketing Concepts
Microsoft Office Specialist
National Center for Construction Education and Research
ACADEMIES

30 academies representing all career clusters

2006-07 ENROLLMENT

3,328

STANDARDS

Assessment rubric adapted from NCAC National Standards of Practice; district-level career academy advisory committee (“Career Connections Cadre”) reviews applications before submitting the academy to the Instructional Council and Superintendent for approval. Each academy is evaluated annually and must meet district career academy standards in order to continue as an academy.

CAREER THEME SELECTION

Analysis of high-wage/high-skill list; input from Chamber of Commerce, Center for Business Excellence (Workforce Development Board), and the Career Connections Cadre

SMALL LEARNING COMMUNITY

Cohort scheduling except in some IB and honors courses; 125-150 students per academy; 75 hours of common teacher planning time required per year, including summer; some schools provide stipends for additional common planning

BUSINESS PARTNERHIPS

Regional Workforce Board, Chamber of Commerce, and Economic Development Committee represented on the Career Connections Consortium Cadre; three business partners required for each career academy advisory committee; Regional Workforce Board recruits and recommends members of advisory committees; full participation of advisory boards in decision-making and evaluation

INDUSTRY CERTIFICATIONS

AutoDesk/AutoCAD
Microsoft Office Specialist (MOS)
National Early Childhood Certificate
Florida Childcare Professional Credential
Certified Nursing Assistant
National Center for Construction Education and Research
Print ED
ProStart
DISTRICT IMPLEMENTATION OF CAREER ACADEMIES

Broad range of themes represented in the sample

Results from the ten districts surveyed identified 120 high schools with 457 career academies. Themes of the 457 career academies represented all 16 Career Pathway Clusters: Agriculture, Food, & Natural Resources (17); Architecture & Construction (22); Arts, Audio/Video Technology, & Communications (59); Business, Management & Administration (9); Education & Training (37); Financial Services (30); Government & Public Administration (9); Health Science (53); Hospitality & Tourism (48); Human Services (8); Information Technology (46); Law, Public Safety & Security (33); Manufacturing (6); Marketing, Sales & Service (13); Scientific Technology, Engineering & Mathematics (41); and Transportation, Distribution & Logistics (25).

Career themes selected to fit local economy

Districts employed several methods to determine academy themes that fit with the local labor market:

- Determine demand by identifying career and technical education programs with the highest enrollments
- Use Regional Targeted Occupations Lists, especially programs leading to High-Skill/High-Wage jobs
- Use regional labor market information from the Agency for Workforce Innovation (AWI) website that provides average annual openings and wage data
- Follow recommendations from business partners or funding sources

Employers and postsecondary institutions represented on advisory boards

Most districts reported that the district representative to the Youth Council of the Regional Workforce Board has strong relationships with the business members, but that the full board rarely includes career academy items on its agenda. Relationships are informal and person-to-person. All ten districts reported having relationships with employers who serve on their advisory committees. Typical career academy advisory committees consist of a student, postsecondary teachers, and employer representatives. Most advisory committees are not directly involved with decision making but provide input on program equipment and curriculum.

Six of the ten districts have officially adopted National Standards of Practice

Six districts have adopted the National Career Academy Coalition (NCAC) National Standards of Practice in some form as district policy for establishing career academies.

Districts implementing elements of small learning communities

Small learning communities are elements of all career academies in the districts surveyed. Nine reported having career academies structured as school-within-a-school models offering courses within a career cluster. Three districts provide wall-to-wall models offering multiple academies with each structured around a career cluster with all students in the school enrolled in an academy. All ten districts reported scheduling students as a cohort in all career and technical education and academic courses, but math is often an exception because students frequently are in various levels of math. Five districts have common planning on a daily basis for academy faculty.

Districts are preparing to implement Career and Professional Education Act academies

The 2007 Florida Legislature passed Senate Bill 1232 creating section 1003.493, F.S., which requires all districts to offer at least one Career and Professional Education (CAPE) academy. These academies integrate college preparatory instruction with career and technical education and require partnerships with business and industry and postsecondary institutions. In addition, for each student who completes a CAPE academy program and earns the highest available level of industry certification for that program, the school district will
earn 0.3 bonus FTE the following year. The list of approved certifications eligible for bonus FTE is developed and maintained by the Agency for Workforce Innovation (AWI). All 10 districts surveyed reported that implementation is pending AWI list approval, linkage of certifications with secondary programs, and funding for exams.

**Most districts have minimal entrance requirements**

Only one district has minimum GPA requirements for acceptance into a career academy. One district requires a teacher recommendation for acceptance. Five districts reported that they use an online application as early as 8th grade and students all the way through high school including 12th grade are eligible to apply to an academy as long as their schedules will allow them to complete three career and technical education courses before graduation.

**Districts require teachers to be in-field and provide continuous teacher development**

All districts surveyed reported that all career academy teachers are certified in-field. All reported some level of continuous teacher development varying from topics such as team building, curriculum development, teacher mentoring, and business partner externships. Five districts provide stipends for teachers to attend summer institutes and two districts pay for participation in conferences such as the National Career Academy Coalition annual meeting.

**Districts facilitate dual enrollment opportunities for career academy students**

The NCAC Career Academy National Standards of Practice require that curriculum meets or exceeds external standards and articulates its upper level curriculum with relevant postsecondary programs. All ten respondents indicated that they had formal articulation options for student credits, including dual enrollment, with district career technical centers and community colleges.
Exhibit A1
Comparison of Race/Ethnicity Distribution between Career Academy and Traditional High School Students

Career Academy Student Race/Ethnicity Distribution

- Asian: 2.5%
- Black: 20.9%
- Hispanic: 20.1%
- Am Indian: 0.3%
- Multi: 2.4%
- White: 53.9%

Traditional Student Race/Ethnicity Distribution

- Asian: 2.4%
- Black: 24.0%
- Hispanic: 23.1%
- Am Indian: 0.3%
- Multi: 2.0%
- White: 48.2%

Source: Florida Department of Education
Table A1

Some career academy fields are predominantly single-gender

<table>
<thead>
<tr>
<th>Academy Career Cluster</th>
<th>Total</th>
<th>Male</th>
<th>Pct Male</th>
<th>Female</th>
<th>Pct Female</th>
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<tbody>
<tr>
<td>Agriculture, Food, &amp; Natural Resources</td>
<td>3324</td>
<td>1548</td>
<td>46.6%</td>
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<td>53.4%</td>
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<td>Architecture and Construction</td>
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<td>Arts, A/V Technology &amp; Communications</td>
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<td>40.1%</td>
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<td>Business, Management, and Administration</td>
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<td>Hospitality &amp; Tourism</td>
<td>5918</td>
<td>2646</td>
<td>44.7%</td>
<td>3272</td>
<td>55.3%</td>
</tr>
<tr>
<td>Human Services</td>
<td>7866</td>
<td>2842</td>
<td>36.1%</td>
<td>5024</td>
<td>63.9%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>6064</td>
<td>3828</td>
<td>63.1%</td>
<td>2236</td>
<td>36.9%</td>
</tr>
<tr>
<td>Law, Public Safety, &amp; Security</td>
<td>4858</td>
<td>1962</td>
<td>40.4%</td>
<td>2896</td>
<td>59.6%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>217</td>
<td>189</td>
<td>87.1%</td>
<td>28</td>
<td>12.9%</td>
</tr>
<tr>
<td>Marketing, Sales, &amp; Service</td>
<td>1627</td>
<td>753</td>
<td>46.3%</td>
<td>874</td>
<td>53.7%</td>
</tr>
<tr>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
<td>8452</td>
<td>5904</td>
<td>69.9%</td>
<td>2548</td>
<td>30.1%</td>
</tr>
<tr>
<td>Transportation, Distribution, &amp; Logistics</td>
<td>2067</td>
<td>1879</td>
<td>90.9%</td>
<td>188</td>
<td>9.1%</td>
</tr>
<tr>
<td>No Selected Career Track</td>
<td>4133</td>
<td>2008</td>
<td>48.6%</td>
<td>2125</td>
<td>51.4%</td>
</tr>
<tr>
<td>Total</td>
<td>90829</td>
<td>43226</td>
<td>47.6%</td>
<td>47603</td>
<td>52.4%</td>
</tr>
</tbody>
</table>

Source: Florida Department of Education
The highest percentage of disabled students were found in manufacturing and transportation, distribution, and logistics academies.

<table>
<thead>
<tr>
<th>Academy Career Cluster</th>
<th>No Disability</th>
<th>Disabled</th>
<th>Total</th>
<th>Percent Disabled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>173</td>
<td>44</td>
<td>217</td>
<td>20.3%</td>
</tr>
<tr>
<td>Transportation, Distribution, &amp; Logistics</td>
<td>1657</td>
<td>410</td>
<td>2067</td>
<td>19.8%</td>
</tr>
<tr>
<td>Business, Management, and Administration</td>
<td>6867</td>
<td>1232</td>
<td>8099</td>
<td>15.2%</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>5184</td>
<td>734</td>
<td>5918</td>
<td>12.4%</td>
</tr>
<tr>
<td>Architecture and Construction</td>
<td>3545</td>
<td>487</td>
<td>4032</td>
<td>12.1%</td>
</tr>
<tr>
<td>Agriculture, Food, &amp; Natural Resources</td>
<td>2930</td>
<td>394</td>
<td>3324</td>
<td>11.9%</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>2529</td>
<td>328</td>
<td>2857</td>
<td>11.5%</td>
</tr>
<tr>
<td>Human Services</td>
<td>6972</td>
<td>894</td>
<td>7866</td>
<td>11.4%</td>
</tr>
<tr>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
<td>7563</td>
<td>889</td>
<td>8452</td>
<td>10.5%</td>
</tr>
<tr>
<td>No Selected Career Track</td>
<td>3715</td>
<td>418</td>
<td>4133</td>
<td>10.1%</td>
</tr>
<tr>
<td>Arts, A/V Technology &amp; Communications</td>
<td>13218</td>
<td>1255</td>
<td>14473</td>
<td>8.7%</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>2426</td>
<td>212</td>
<td>2638</td>
<td>8.0%</td>
</tr>
<tr>
<td>Marketing, Sales, &amp; Service</td>
<td>1500</td>
<td>127</td>
<td>1627</td>
<td>7.8%</td>
</tr>
<tr>
<td>Health Science</td>
<td>10278</td>
<td>840</td>
<td>11118</td>
<td>7.6%</td>
</tr>
<tr>
<td>Information Technology</td>
<td>5617</td>
<td>447</td>
<td>6064</td>
<td>7.4%</td>
</tr>
<tr>
<td>Law, Public Safety, &amp; Security</td>
<td>4556</td>
<td>302</td>
<td>4858</td>
<td>6.2%</td>
</tr>
<tr>
<td>Finance</td>
<td>2952</td>
<td>134</td>
<td>3086</td>
<td>4.3%</td>
</tr>
<tr>
<td>Total</td>
<td>81682</td>
<td>9147</td>
<td>90829</td>
<td>10.1%</td>
</tr>
</tbody>
</table>

Source: Florida Department of Education
Table A3
The lowest percentage of English language learners were found among academy students with no reported career track

<table>
<thead>
<tr>
<th>Academy Career Cluster</th>
<th>Not ELL</th>
<th>ELL</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing</td>
<td>210</td>
<td>7</td>
<td>217</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>2765</td>
<td>92</td>
<td>2857</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>5732</td>
<td>186</td>
<td>5918</td>
</tr>
<tr>
<td>Business, Management, and Administration</td>
<td>7845</td>
<td>254</td>
<td>8099</td>
</tr>
<tr>
<td>Human Services</td>
<td>7641</td>
<td>225</td>
<td>7866</td>
</tr>
<tr>
<td>Transportation, Distribution, &amp; Logistics</td>
<td>2011</td>
<td>56</td>
<td>2067</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>2570</td>
<td>68</td>
<td>2638</td>
</tr>
<tr>
<td>Information Technology</td>
<td>5919</td>
<td>145</td>
<td>6064</td>
</tr>
<tr>
<td>Architecture and Construction</td>
<td>3940</td>
<td>92</td>
<td>4032</td>
</tr>
<tr>
<td>Health Science</td>
<td>10898</td>
<td>220</td>
<td>11118</td>
</tr>
<tr>
<td>Marketing, Sales, &amp; Service</td>
<td>1595</td>
<td>32</td>
<td>1627</td>
</tr>
<tr>
<td>Arts, A/V Technology &amp; Communications</td>
<td>14213</td>
<td>260</td>
<td>14473</td>
</tr>
<tr>
<td>Law, Public Safety, &amp; Security</td>
<td>4781</td>
<td>77</td>
<td>4858</td>
</tr>
<tr>
<td>Agriculture, Food, &amp; Natural Resources</td>
<td>3276</td>
<td>48</td>
<td>3324</td>
</tr>
<tr>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
<td>8352</td>
<td>100</td>
<td>8452</td>
</tr>
<tr>
<td>Finance</td>
<td>3053</td>
<td>33</td>
<td>3086</td>
</tr>
<tr>
<td>No Selected Career Track</td>
<td>4096</td>
<td>37</td>
<td>4133</td>
</tr>
<tr>
<td>Total</td>
<td>88897</td>
<td>1932</td>
<td>90829</td>
</tr>
</tbody>
</table>

Source: Florida Department of Education
Table A4
Highest average GPA among students in finance academies and academy students with no reported career track

<table>
<thead>
<tr>
<th>Academy Career Cluster</th>
<th>Mean GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>2.84</td>
</tr>
<tr>
<td>No Selected Career Track</td>
<td>2.81</td>
</tr>
<tr>
<td>Science, Technology, Engineering, &amp; Mathematics</td>
<td>2.77</td>
</tr>
<tr>
<td>Law, Public Safety, &amp; Security</td>
<td>2.76</td>
</tr>
<tr>
<td>Arts, A/V Technology &amp; Communications</td>
<td>2.74</td>
</tr>
<tr>
<td>Health Science</td>
<td>2.70</td>
</tr>
<tr>
<td>Information Technology</td>
<td>2.70</td>
</tr>
<tr>
<td>Agriculture, Food, &amp; Natural Resources</td>
<td>2.64</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>2.64</td>
</tr>
<tr>
<td>Marketing, Sales, &amp; Service</td>
<td>2.62</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>2.58</td>
</tr>
<tr>
<td>Human Services</td>
<td>2.55</td>
</tr>
<tr>
<td>Architecture and Construction</td>
<td>2.54</td>
</tr>
<tr>
<td>Business, Management, and Administration</td>
<td>2.53</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>2.50</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>2.48</td>
</tr>
<tr>
<td>Transportation, Distribution, &amp; Logistics</td>
<td>2.30</td>
</tr>
</tbody>
</table>

Source: Florida Department of Education