

Do high school industry certifications reflect local job demand?

An examination of Florida

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Florida Industry Certification Study



Demand for postsecondary credentials

- Jobs require postsecondary credentials, but not necessarily a college degree.
- Nationally recognized, independently created industry certifications give people credentials separate from college degrees.
- Many states have policies to help students get certifications.
 - As of 2019, 28 states had enacted policies pertaining to earning industry-recognized credentials.

Florida's Career and Professional Education (CAPE) Act

- Established in 2007
- Provides rigorous, relevant coursework leading to industry certification and potential college credits
- State approved industry certifications
 - Critical to FL employers
 - Achievable by secondary students
 - Require a minimum of 150 instructional hours

In 2017-18 Florida had 236 specific certifications nested in 12 career areas.

Examples (Agriculture, IT, Health Sciences, Hospitality)

Currently, about 25% of students earn some certification at some point in high school.

Why is certification program popular?

- Students get credential without
 - Paying for exam
 - Scheduling the exam
 - Arranging transportation to exam site
- Students do get
 - Relevant coursework
 - Potential for college credit
- Schools get points in the state School Report Card
 - Number of students taking exams
 - Number of students passing exams

Do certifications reflect local job demand?

- Does local job market demand influence school practices for implementing the certification program?
- Are certification rates higher when counties have more job opportunities?
- Are certification rates higher in career areas with more job opportunities?

Data sources

Level of data collection	Indicator	File	Source
Student	Certification Earning	Education Data Warehouse	Florida Department of Education
	Demographic data	Education Data Warehouse	Florida Department of Education
School	Perceptions of certification link to job	Florida CTE study survey	RTI
	Percentage of CTE courses	Education Data Warehouse	Florida Department of Education
	Academic performance	High School Rankings	U.S. News & World Report
	Locale, poverty level	Common Core of Data Public School Universe	NCES, IES
County/District	Jobs requiring credential	Job market data	Burning Glass Technologies

Data and method

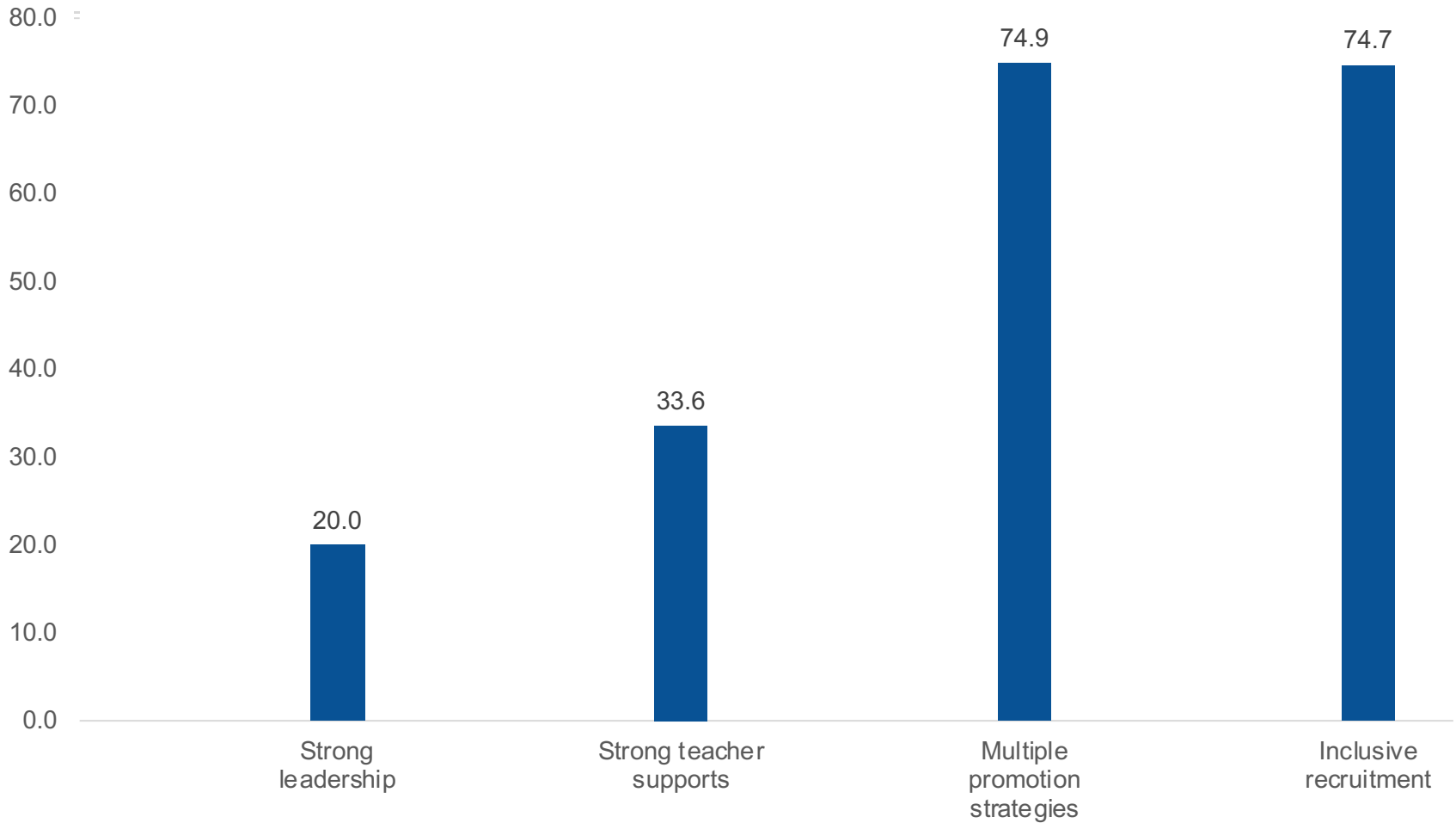
- Cohort of first-time 9th graders in 2014-15.
 - Expected to be high school seniors in 2017-18.
 - We've got their entire high school experience.
- Burning Glass job data - every Florida job posting in 2017
- RTI conducted survey of every FL high school 2018.
 - (77% response rate)
- 2-level logistic regression (random school intercepts, fixed district effects)

Key implementation strategies influencing certifications

- **Strong leadership:** The school has a dedicated CAPE coordinator and specific goals for students' taking and passing certification exams.
- **Teacher support:** The school offers both certification-specific professional development and planning time for teachers preparing students for certifications.
- **Multiple promotion strategies:** The school promotes the program to students both by both providing information about the program and recognizing certification earners.
- **Inclusive encouragement:** The school encourages all students /all CTE students to take certification exams as opposed to only encouraging only students who have met certain academic thresholds.

School implementation strategies

Percentage of schools reporting each implementation strategy



Measuring job opportunities

- We classify jobs from broader to narrow definitions
- Calculate the percentage of all job postings requiring
 - a sub-baccalaureate degree or less
 - a sub-baccalaureate certification in any of the 12 career areas identified by FLDOE
 - a sub-baccalaureate certification that matches FLDOE's list by certification title
- Finally, we looked by career area to measure the percentage of jobs requiring a certification within each of the 12 career areas.

Minimal link between job opportunity and implementation

Likelihood (odds ratio) of school implementation strategy given county job market

Job market - percent of jobs requiring

Sub-baccalaureate degree or less

Any certification

A specific Florida certification

Multiple promotion strategies

* $p < .05$; Model includes school/student controls

Certifications earned, job listings by career area

Percentage of certifications earned and job listings, by career area

Agriculture	3.9	0.5
Architecture & Construction	4.7	1.3
Arts, Audiovisual Technology & Communication	41.5	0
Business Management & Administration	1.7	15.2
Health Science	11.1	63.3
Hospitality & Tourism	7.6	2.2
Information Technology		

Note: Career areas with < 3% certifications earned or job listings were omitted.

Student and school characteristics associated with earning certification

- Students – girls, Black, Hispanic, Limited English Proficient, exceptional students *less likely* to earn certification than peers.
- Schools – percentage economically disadvantaged students, rural, high percent of CTE courses offered and strong academic performance index are *positively associated* with earning a certification.
 - Charter schools are negatively associated with earning a certification.

No relationship between county job demand and earning a certification

Likelihood (odds ratios) of earning a certification given student characteristics, school factors, and county job market.

Model 1

County-level job demand
% of jobs requiring

Sub-baccalaureate degree or less

Any certification

A specific Florida certification

* $p < .05$

Associations by career area

Likelihood (odds ratio) of earning a specific area certification given county job market for area-specific certifications

% of jobs requiring certification in given area

Agriculture

Architecture & Construction

Arts, A/V Technology & Communication

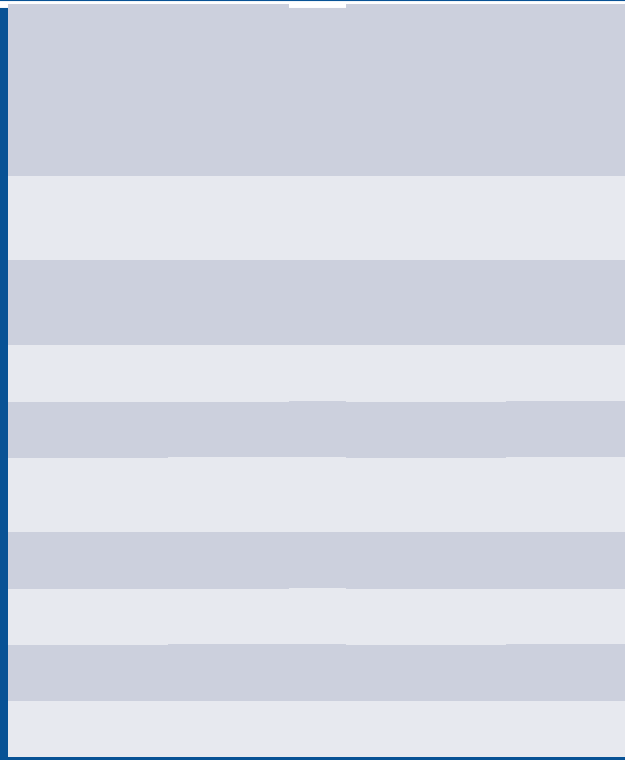
Business Management and Administration

Health Science

Hospitality & Tourism

Information Technology

† Too few cases to estimate.



* p<.05; ** p <.01; *** p< .0001. n=212,087. Net of student and school-level controls.

Note: Areas with < 3% certifications or job postings omitted. Outcome is earning a certification in the specific field associated with the county-level job area demand. For example, the outcome for the "Health Science" row is earning a certification in Health Science.

Conclusion

- Under CAPE Act, many more Florida students earn certifications.
- We expected that the local economy might influence implementation, but do not find that – except for teacher supports.
 - Without qualified teachers, schools cannot offer certifications.
- Even though approved certifications are supposed to be key to business, we find no association between job demand and certifications earned overall.
 - Some association by career area, particularly when we use a broad definition of job demand.

Why minimal link between job demand and certification earning?

- Some jobs may require skills, but not specific certifications.
- Students earn certifications offered by their schools – but schools cannot offer all certifications.
- Schools may seek School Report Card points by pushing students into easy-to-get certifications, regardless of job link.

- Students may not focus on specific job requirements
 - Belief earning any certification strengthens their resume

- Students may be right about the more general benefits to certifications.



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