Opportunities to earn industry certifications in high school:

Implementation of Florida's Career and Professional Education Act

Background

Jobs that pay livable wages increasingly call for people to have more than a high school diploma, but not all of those jobs require a bachelor's degree (Perna, 2013; Sparks & Waits, 2011). Nationally recognized, independently created industry certifications offer students one way to obtain additional credentials. Many states are giving students the opportunity to earn industry certifications in secondary school (ACTE, 2017).

Established in 2007, Florida's Career and Professional Education (CAPE) Act provides rigorous, relevant coursework leading to industry certifications. Students can take courses to prepare for approved industry certifications, which have been deemed critical to Florida employers. However, districts and schools have leeway in administering this program. They may emphasize different certification areas through course offerings. They may use different strategies to inform students about the program and recruit them into it. They may support teachers in different ways. Within schools and districts, different staff may manage it. These practices may influence the rates at which students earn certifications. Further, although the overall percentage of students earning certifications has increased dramatically (Florida Department of Education, 2017), it is not clear how earning a certification benefits students beyond simply having a credential. Analyses of the secondary and postsecondary outcomes of earning certifications may influence decisions about expanding this type of educational program.

Purpose

This IES-funded exploratory study of Florida's industry certification program has two primary research questions:

1. Which high school practices are associated with a higher likelihood of taking and passing certification exams?
    a. Across Florida, do students have equal opportunities to take and pass industry certification exams?
2. Is obtaining an industry certification associated with secondary and postsecondary academic success indicated by high school graduation and enrollment and success in postsecondary educational institutions?
    a. Is the influence of earning an industry certification the same for certifications in different career areas?

Population

We examine certification-earning and academic achievement for four cohorts of first-time 9th grade students in Florida. These students were first time 9th graders in 2012-13 through 2015-16. Data include all students in traditional public, charter, and magnet high schools. (Table 1.)

Intervention

Under Florida's CAPE Act, high school students have the opportunity to earn industry certifications that were approved as critical to Florida's employers, achievable by high school students, and associated with at least 150 hours of instruction (Florida Department of Education, 2018). As of 2017-18, this list of certifications included 236 specific certifications (such as Carpentry or Certified Medical Assistant) nested in 12 career areas (such as Architecture & Construction or Health Science). In this program, students receive relevant school-based instruction, and they do not pay examination costs or manage the planning to take exams. Additionally, some certifications give students the potential to earn college credit.

Research Design

We will employ multilevel logistic regression models to examine associations between district and school resources and practices and students' likelihood of taking and passing a certification exam. We will use propensity score matching to assess the impact of certifications on postsecondary education outcomes.

Data sources and analyses

In 2018, we conducted a web-based survey about implementation of the CAPE program that targeted one respondent per district and school who was aware of that organization's CAPE practices. We asked about program administration, teacher supports, and the challenges and benefits of the program. Across districts and schools, 77% of contacts responded to the survey. Of those, 100% of the districts and 96% of the schools reported offering certifications to students. We have linked survey data to the Common Core of Data (CCD) Public School Universe to get school-level information about enrollment, demographics, and poverty levels.

The Florida Department of Education's state longitudinal data system, the Education Data Warehouse (EDW), maintains student data pertaining to student demographics, attendance, and kindergarten through grade 12 transcripts. Then, it collects information about postsecondary enrollment and degree attainment for those students. This study follows 4 cohorts of first time ninth grade students from 8th grade through postsecondary education. Table 2 shows the grade-levels we have, and we will request annual updates throughout this project.

Preliminary Results

Currently, we are linking the various datasets, creating longitudinal files, preparing for propensity score matching, and conducting exploratory analyses. Preliminary analyses of the

survey show that schools and districts have different approaches to implementing the CAPE program. For example, 64 percent of schools promote a particular certification area, mostly Information Technology or Health Science while schools promote certifications in Manufacturing or Human Resources. (Figure 1). In districts, a CTE or CAPE coordinator typically manages this effort, but in schools, teachers do so (Table 3). Schools have different expectations for the program. About 2/3 set goals for both taking and passing these exams, but 11 percent do not set any goals. Additionally, schools have different practices for encouraging students to take certification examinations (Figure 3) and for promoting the program (Figure 4). However, in comparing high- with low-poverty schools, we find that high-poverty schools provide each type of support more often than low-poverty schools do (Figure 5).

For this poster, we examine schools and district implementation strategies for this program and how these strategies influence certification earning.

Conclusion

Exploratory analyses show that many Florida students do earn certifications in high school and that schools have different practices for promoting this opportunity. Analyses of the influence of promotion strategies on certification-earning can inform educators and policy makers in implementing such programs.

References

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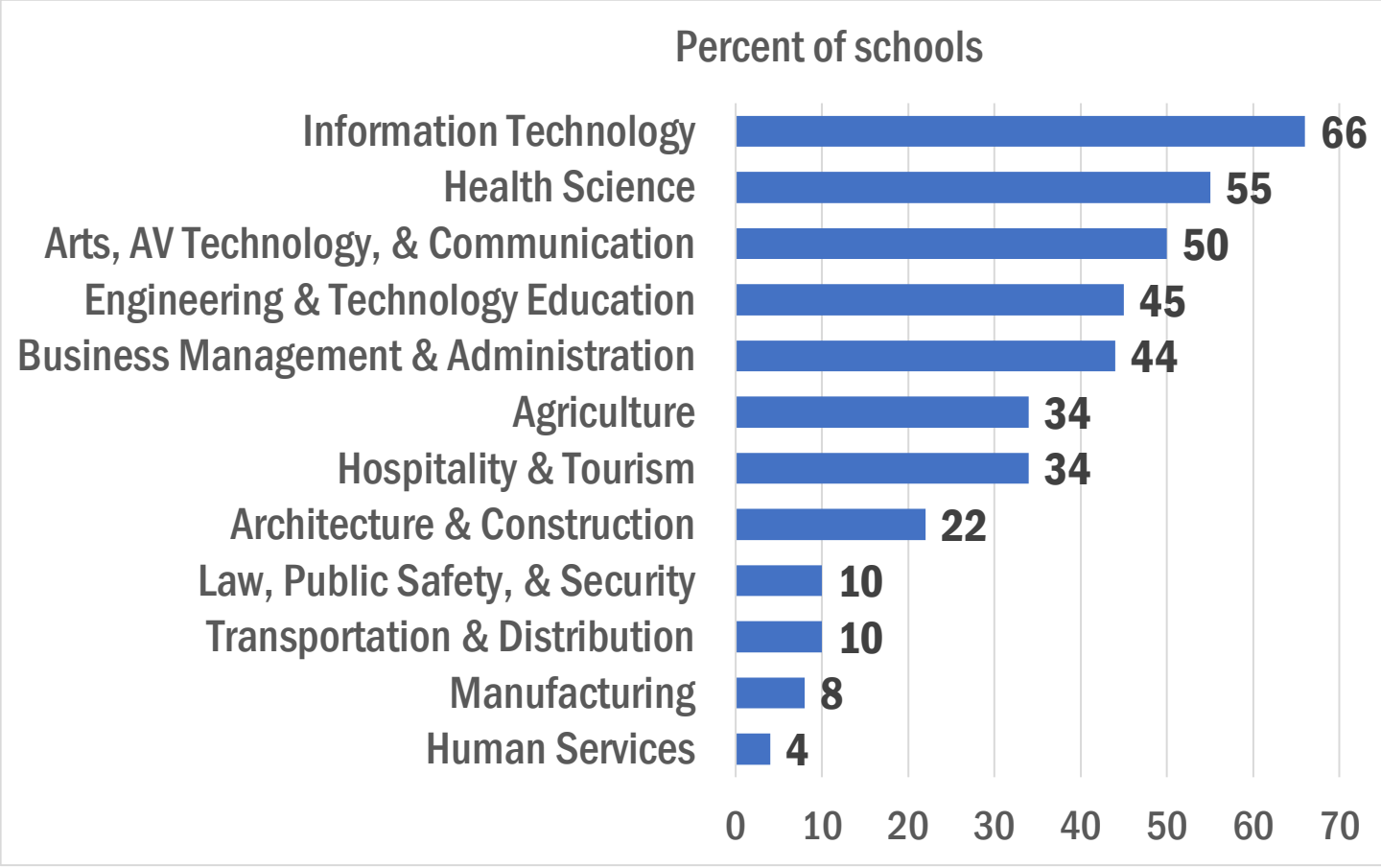
Table 1: Number of students earning certifications in each cohort, each year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Cohort 1 (N= 218,932)	9,275	12,600	13,888	17,600	174	11
Cohort 2 (N= 224,264)	--	13,237	11,312	16.046	22,651	382
Cohort 3 (N= 225,638)	--	--	12,152	14,216	19,258	25,942
Cohort 4 (N= 229,467)	--	--	--	16,604	16,269	22,394

Table 2: Expected grade level of students in each cohort, each year

	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Cohort 1 (N = 218,932)	9	10	11	12	12 + 1	12 + 2
Cohort 2 (N= 224,264)	--	9	10	11	12	12 + 1
Cohort 3 (N = 225,638)	--	--	9	10	11	12
Cohort 4 (N = 229,467)	--	--	--	9	10	11

Figure 1: Percentage of schools promoting a given career area:



Note: Because respondents could choose more than 1 area, percentages do not sum to 100.

Table 3: Person in organization responsible for administering program

	School	District
School leader	27.0	0
CTE Coordinator	25.9	83.3
Teachers	40.1	0
Other	7.1	16.7

Figure 2: Percentage of schools setting goals for the CAPE program

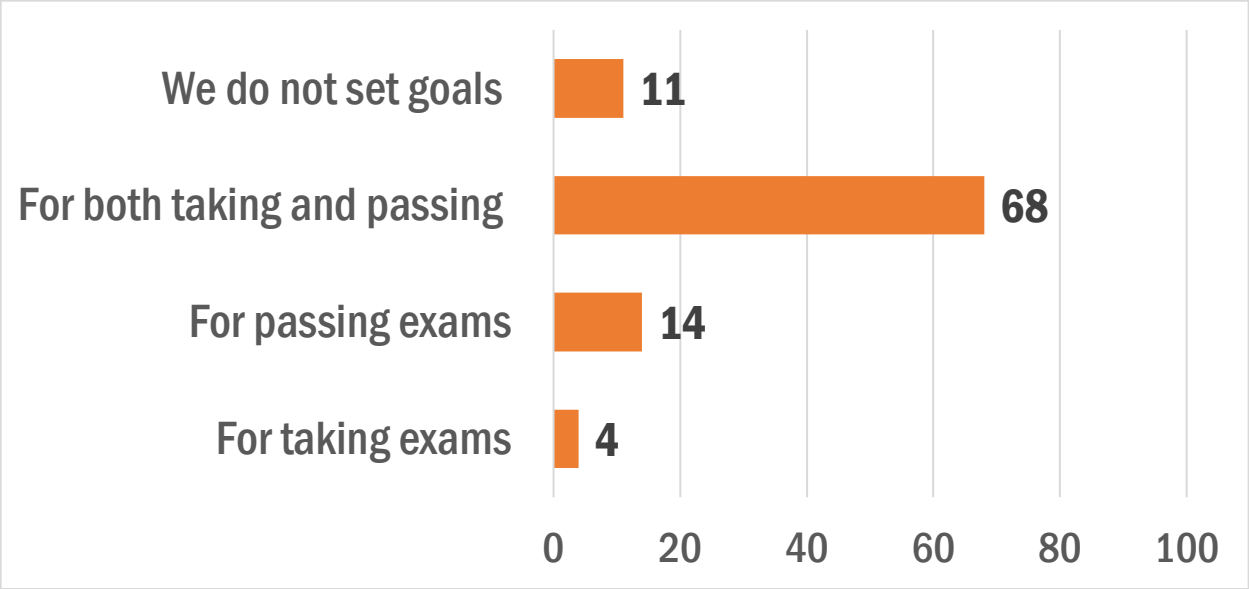
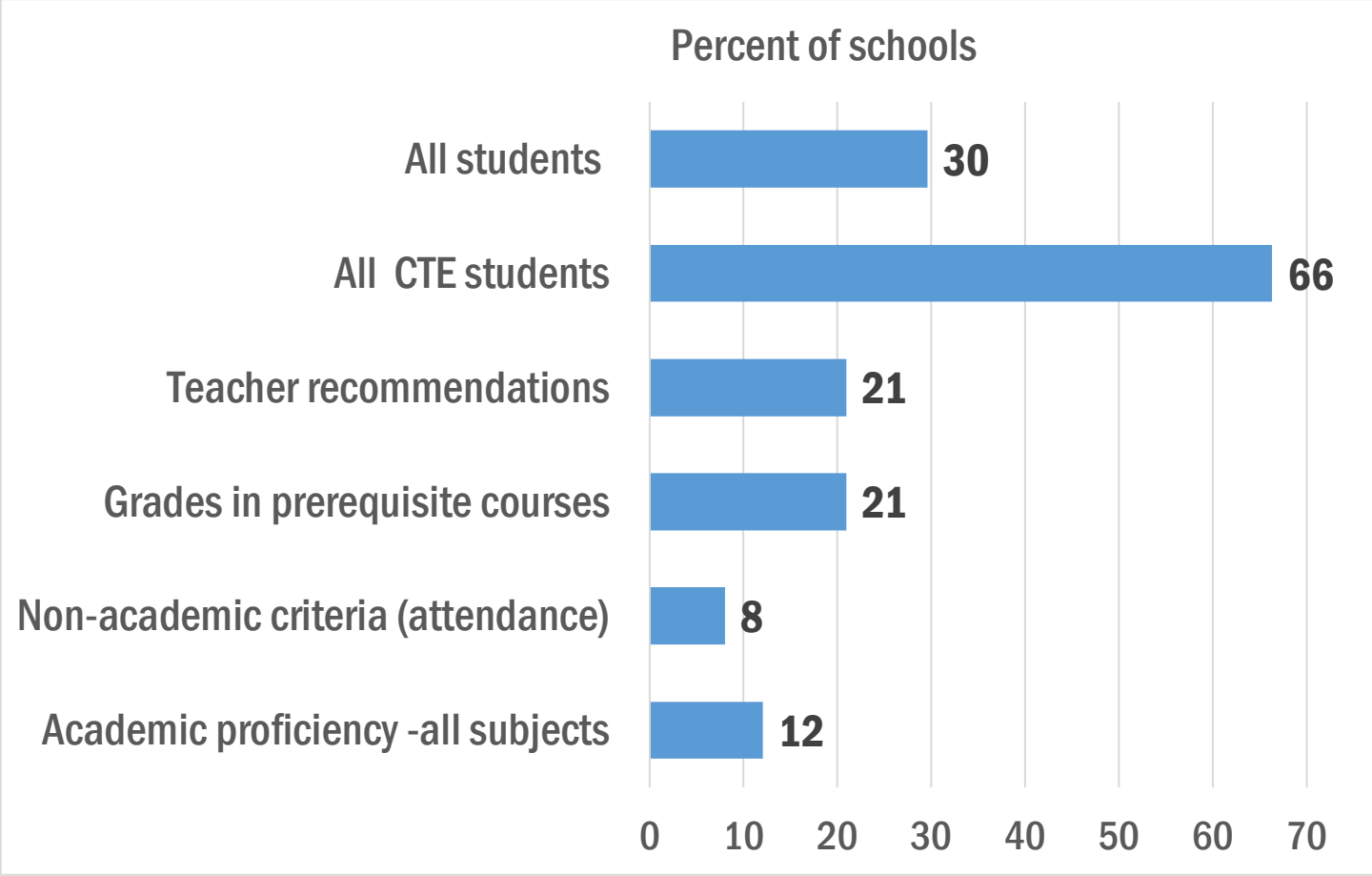
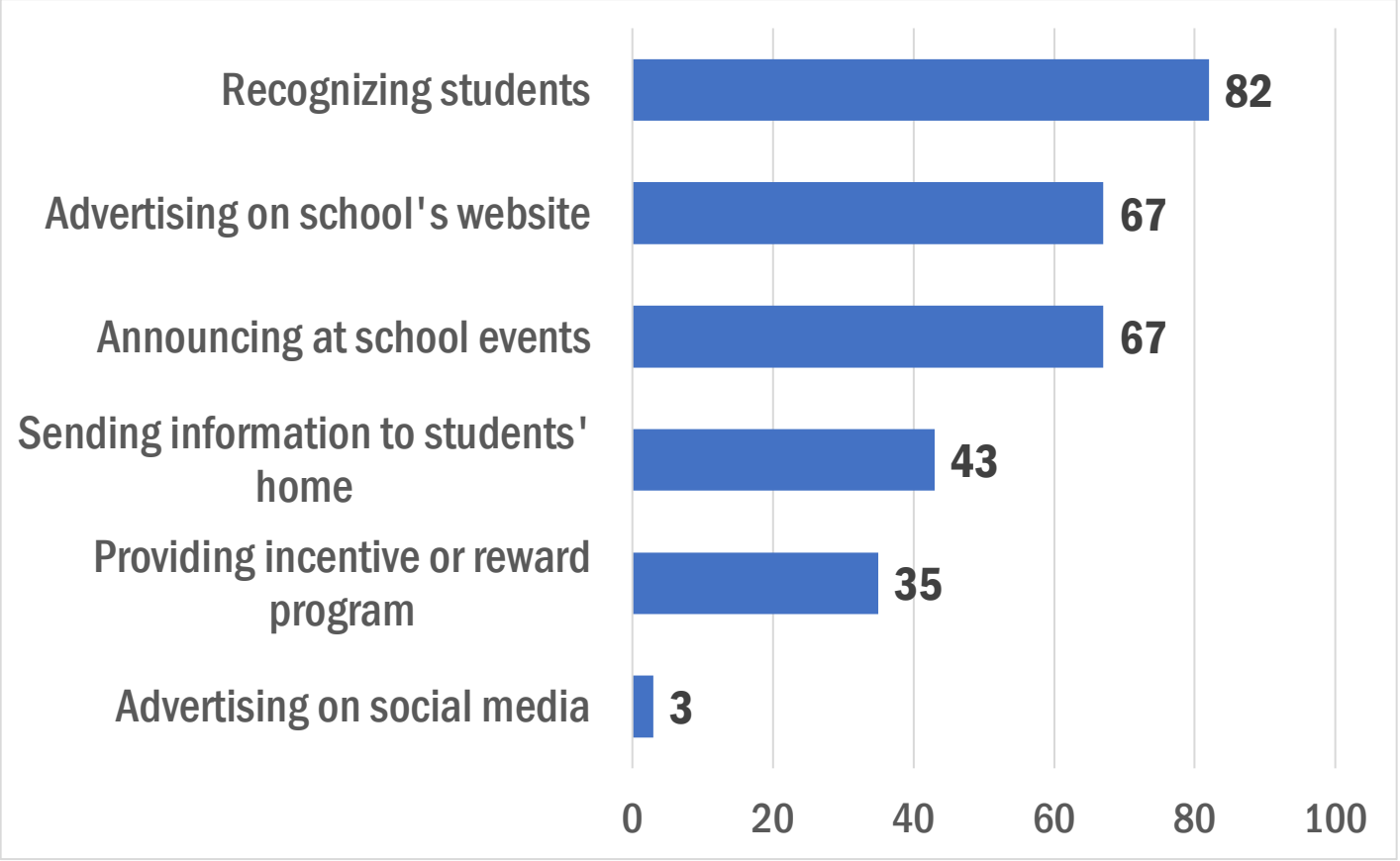


Figure 3: Students that schools encourage to take certification examinations



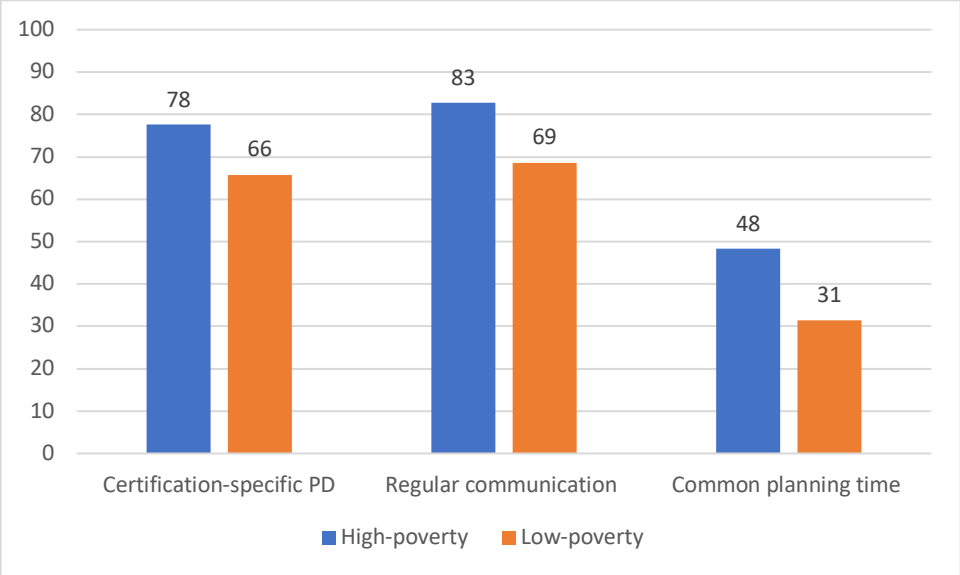
Note: As respondents could select more than one option, percentages do not sum to 100.

Figure4: Percentage of schools using each promotion strategy



Note: As respondents could select more than 1 strategy, percentages do not sum to 100.

Figure 5: School support for those teaching classes that lead to industry certifications, by poverty level



Note: Because schools could report more than one type of support, percentages do not sum to 100.