SPRING 2019 20
FLORIDA CTE INSTRUCTOR VACANCY SURVEY RESULTS

Survey Overview

From January 14th through January 31st of 2020, a survey was distributed to Florida Districts and Colleges that offer Career and Technical Education (CTE). This survey had two main objectives: First, to ascertain CTE instructor vacancies – both current and projected in districts and colleges. Second, to elicit feedback on how the Florida Department of Education could take an active role in supporting CTE instructor recruitment, retention, and training. One hundred and seven responses were received (47 secondary agencies, 34 district postsecondary agencies, and 26 colleges). A complete list of open-ended responses, organized by topic, can be viewed here. Pivot tables with vacancy counts are available here. A copy of the survey questions is available here.

MAJOR FINDINGS

Nursing Instructors in Demand

A significant takeaway from this survey is the dominance of the demand for nursing instructors in postsecondary. Nursing R.N., AS and Practical Nursing were listed as the programs with the most current instructor vacancies - 14 and 9 vacancies respectively, which is roughly twice as many vacancies as the next program. This trend continues for projected vacancies for Nursing R.N., AS and Practical Nursing with 9 and 12 projected vacancies, again roughly double the next program. The secondary feeder programs for these postsecondary nursing programs – Allied Health Assisting (8417130) and Nursing Assistant (Acute and Long-Term Care) (8417210) – are in the top 5 highest reported current and projected secondary instructor vacancies. Practical Nursing's primary SOC is Licensed Practical and Licensed Vocational Nurses (SOC: 292061). According to Florida's Department of Economic Opportunity's Demand Occupation List in 2019-20, there were 4,488 openings, projections to grow by 19% between 2016 and 2026, and a mean hourly wage of $20.09. Nursing R.N., AS prepares students for becoming a Registered Nurse (SOC: 291141) and this has an annual openings of 14,248, a projected growth of 17% between 2016 and 2026, and a mean hourly wage of $31.19 (designated as high-wage).

Strategies Sought to Raise CTE Instructor Compensation

Calls to raise CTE instructor pay accounted for 26 of the recruitment comments and 38 of the retention comments. Several strategies emerged from the comments, including additional bonuses and benefits, targeting funds towards challenging-to-recruit industries, adopting adjunct funding models in secondary, and putting instructors on 12 month contracts.

Publicity Requested for CTE Instructor Openings

Requests for FDOE assistance in recruitment by raising awareness of CTE instructor openings by strategies like advertising, online job listings, and job fairs accounted for 26 recruitment comments. The most frequent request (9 instances) was for the FDOE to assist by creating an online job listing platform that agencies could post openings on.

New Instructor and Online Training Wanted

Virtual training was the most abundant form of training requested (11 comments). Second to that at 9 comments was requests for new teacher training. Notably, training was also mentioned as a retention strategy (6 comments). The feedback regarding new teacher training centered largely around transitioning from industry and building pedagogical skills necessary for classroom success.

Industry-Specific Training, Mentoring, and Collaboration Requested

Training, mentoring, and collaboration that was industry specific was requested by eleven respondents. Examples included: "…paid summer externships in program-related businesses…", "…CTE peer mentoring…", "…online training by Career Cluster to help teachers collaborate…" These requests seem to indicate a need for industry-specific peer support as well as ongoing instructor technical skill development.

Feedback from CTE Directors and Administrators

Educational agencies were asked, "What are the most important actions the FL Dept. of Education can take to improve CTE instructor…" and then three vertically adjacent text boxes had the words "Recruitment," "Retention," and "Training." Below is a summary of the ideas contained in agencies' written feedback broken out by major and minor topic.

# of Comments	Recruitment Feedback
	Summary and Nuances
26	**Increase Pay** *Nuances provided*: • Increase bonuses • Increase benefits • Target challenging-to-recruit industries • Adopt adjunct model to allow flexibility in teaching units
11	**Advertise** *Nuances provided:* • Advertise to businesses • Spotlight programs • Social media ads • Promote alternative certification
9	**Online Job Listings** *Nuances provided:* • Job board for agencies to post on
6	**Offer Job Fairs** *Nuances provided:* • Statewide CTE job fair • CTE representation at existing job fairs
5	**Assist Local Certification** *Nuances provided:* • Give flexibility in industry requirements for CTE certifications • State assistance for District certification • Reduce certification costs
2	**Bolster University Pipeline** *Nuances provided:* • State should partner with universities to produce more CTE teachers • Expand CTE add-on certificates for education majors
14	**All Other Bright Ideas** *Nuances provided:*

	• Salaried teaching internships • Recognize and award CTE teachers • Reduce accreditation requirement • Review FRS regulations to allow instructors to return to teaching prior to one year after retirement

Retention Feedback

# of Comments	Summary and Nuances
38	**Increase Pay** *Nuances provided*: • Place instructors on 12 month contracts to increase pay • Additional bonuses beyond CAPE • Strengthen retirement benefits
6	**Offer Training** *Nuances provided:* • New teacher training that provides industry-specific teaching peers and community • Focus on classroom management and pedagogy
4	**Improve Certification** *Nuances provided:* • Streamline certification process • Give Districts flexibility in certification requirements • Minimize education requirements for new teachers • Make certification cost free
2	**Facilitate Mentoring** *Nuances provided:* • Provide academic coaches • Establish mentoring program that can provide new teacher observation and coaching
2	**Survey Teachers** *Nuances provided:* • Survey needs • Get input from instructional staff reviewing Curriculum Frameworks
13	**All Other Bright Ideas** *Nuances provided:* • Provide career advancement options • Find sponsors for CTSOs • Spotlight industry experts in the classroom • Spotlight District postsecondary teachers of excellence • Provide teaching resources • Provide additional funds for programs that have high student injury risks to reduce class sizes

Training Feedback

# of Comments	Summary and Nuances
11	**Offer Virtual Training** *Nuances provided*: • Online training by Career Cluster to help teachers collaborate and share • Expand FACTE online offerings
9	**Offer New Teacher Training** *Nuances provided:* • State-wide "boot camp" for new teachers
7	**Offer Industry Specific Training** *Nuances provided:* • Bring teachers together to discuss best practices and challenges • Online catalogue of training by metamajor or Cluster • Regional content-specific training • Provide training for teachers to obtain certifications (e.g., Auto Service Tech training during summer, which is mandated by NATEF)
2	**Increase CTE Bachelor's Education Programs** *Nuances provided:* • Bring back closed CTE education programs
2	**Fund Externships** *Nuances provided:* • Paid, industry-specific externships
2	**Facilitate Mentoring** *Nuances provided:* • CTE peer mentoring (not with academic teachers) • New teacher mentoring
2	**Give Resources for Adult and Postsecondary Learning** *Nuances provided:* • Provide resources for postsecondary institutions to train pedagogy • Pedagogy training for instructors in adult learning
2	**Provide Summer Training** *Nuances provided:* • Additional sessions during FACTE • Provide additional summer training sessions
20	**All Other Bright Ideas** *Nuances provided:* • Additional funds for travel and training expenses • Additional funds for onboarding days and staff to support transition from industry to teaching • Provide training for teachers to prepare students for new, difficult, or high-attempt certifications

Current CTE Instructor Vacancies by Career Cluster

Educational agencies offering CTE were asked to report current vacancies. 'Current vacancies' were defined in the survey as "positions that are/were open at any point from the start of the present semester until the time the survey is submitted."

Secondary		Clock Hour		College Credit	
Business Management and Administration	9	Health Science	17	Health Science	42
Information Technology	8	Transportation, Distribution & Logistics	15	Manufacturing	13
Agriculture, Food, and Natural Resources	7	Law, Public Safety & Security	10	Information Technology	13
Engineering and Technology Education	7	Architecture & Construction	10	Business Management and Administration	10
Hospitality & Tourism	5	Manufacturing	9	Transportation, Distribution & Logistics	5
Health Science	5	Human Services	3	Hospitality & Tourism	3
Arts, A/V Technology & Communication	4	Information Technology	3	Arts, A/V Technology & Communication	3
Law, Public Safety & Security	3	Energy	1	Architecture & Construction	4
Transportation, Distribution & Logistics	3	Business Management and Administration	1	Agriculture, Food, and Natural Resources	4
Marketing, Sales & Services	2	Hospitality & Tourism	1	Law, Public Safety & Security	5
Architecture & Construction	2			Education & Training	3
Additional CTE Programs/Courses	1			Marketing, Sales & Services	1
Education & Training	1			Energy	1
Human Services	1			Finance	1

Projected 2020-21 Vacancies by Career Cluster

'Projected vacancies' were defined in the survey as, "vacancies that are known to be happening in the future, during or after a school year. Example: known retirements." This definition could be clarified for future surveys by explicitly including anticipated program openings and programs known to have recurrent turnover, such as for adjunct faculty.

Secondary		Clock Hour		College Credit	
Information Technology	23	Health Science	23	Health Science	31
Agriculture, Food, and Natural Resources	17	Architecture & Construction	14	Manufacturing	11
Engineering and Technology Education	16	Transportation, Distribution & Logistics	12	Information Technology	9
Health Science	16	Law, Public Safety & Security	11	Business Management and Administration	9
Hospitality & Tourism	10	Manufacturing	7	Transportation, Distribution & Logistics	5
Business Management and Administration	10	Information Technology	5	Hospitality & Tourism	5
Arts, A/V Technology & Communication	9	Human Services	2	Arts, A/V Technology & Communication	5

Transportation, Distribution & Logistics	8	Business Management and Administration	1	Architecture & Construction	3
Manufacturing	7	Education & Training	1	Agriculture, Food, and Natural Resources	3
Architecture & Construction	6	Hospitality & Tourism	1	Law, Public Safety & Security	2
Additional CTE Programs/Courses	5			Education & Training	2
Education & Training	4			Marketing, Sales & Services	1
Law, Public Safety & Security	4			Energy	1
Marketing, Sales & Services	2			Finance	1
Human Services	2				
Finance	1				
Government & Public Administration	1				

Programs with the Highest Current Vacancies

The following table includes the programs with the top five highest reported vacancies. List includes ties.

Secondary		Clock Hour		College Credit	
Culinary Arts (8800500)	5	Practical Nursing (H170607/0351390101)	9	Nursing R.N., AS (1351380100)	14
Engineering Pathways (9400300)	4	Welding Technology (J400400/0648050805)	5	Business Administration, AS (1552020102)	6
Digital Design (8209600)	4	Aviation Airframe Mechanics (T640300/0647060703)	5	Engineering Technology, AS (1615000001)	6
Nursing Assistant (Acute and Long-Term Care) (8417210)	3	Fire Fighter/Emergency Medical Technician-Combined (P430216/0743020312)	3	Computer Information Technology, AS (1511010307)	5
Computer Applications in Business 1 (8200520)	3	Aviation Powerplant Mechanics (T640400/0647060801)	3	Emergency Medical Technician, CCC (0351090415)	3
Allied Health Assisting (8417130)	2	Electricity (I460312/0646030202)	3	Network Systems Technology, AS (1511100112)	3
Information and Communications Technology (ICT) Essentials (9009100)	2	Florida Law Enforcement Academy (P430105/0743010700)	2	Physical Therapist Assistant, AS (1351080601)	2
Business Management and Analysis (8301100)	2	Correctional Officer (Traditional Correctional BRTP) (P430102/0743010200)	2	Hospitality & Tourism Management, AS (1252090101)	2
Orientation to Agriscience (8100310)	2	Health Unit Coordinator/Monitor Technician (H170107/0351070302)	2	Computer Engineering Technology, AS (1615120100)	2
Family and Consumer Science (FACS) Essentials (8500365)	1	Applied Cybersecurity (Y100300/0511100302)	2	Medical Laboratory Technology, AS (1351100405)	2

Programs with the Highest 2020-21 Projected Vacancies

The following lists include the top five programs with the highest projected vacancies. List includes ties.

Secondary		Clock Hour		College Credit	
Culinary Arts (8800500)	8	Practical Nursing (H170607/0351390101)	12	Nursing R.N., AS (1351380100)	9
Agritechnology (8106800)	6	Medical Assisting (H170515/0351080102)	4	Engineering Technology, AS (1615000001)	5
Allied Health Assisting (8417130)	6	Welding Technology (J400400/0648050805)	4	Dental Hygiene, AS (1351060200)	4
Digital Design (8209600)	5	Aviation Airframe Mechanics (T640300/0647060703)	3	Business Administration, AS (1552020102)	4
Applied Cybersecurity (9001300)	5	Florida Law Enforcement Academy (P430105/0743010700)	3	Culinary Management, AS (1612050401)	3
Engineering Pathways (9400300)	4	Correctional Officer (Traditional Correctional BRTP) (P430102/0743010200)	3	Computer Information Technology, AS (1511010307)	3
Nursing Assistant (Acute and Long-Term Care) (8417210)	4	Electricity (I460312/0646030202)	3	Accounting Technology, AS (1552030201)	2
Aerospace Technologies (8600080)	4	Surgical Technology (H170211/0351090905)	2	Network Systems Technology, AS (1511100112)	2
Early Childhood Education (8405100)	4	Heating. Ventilation, Air-Conditioning/Refrigeration (HVAC/R) (C400400/0615050111)	2	Paramedic, CCC (0351090405)	2
Advanced Manufacturing Technology (9200200)	3	Fire Fighter/Emergency Medical Technician-Combined (P430216/0743020312)	2	Physical Therapist Assistant, AS (1351080601)	2

Current Vacancies - Top 5 Programs in the Top 3 Clusters

The below tables show which programs contributed the most to making certain Clusters have numerous reported vacancies. List includes ties.

Secondary			
Top Three Clusters	Current Vacancies	Top Five Programs in Cluster	Current Vacancies
Business Management and Administration	9	Computer Applications in Business 1 (8200520)	3
		Business Management and Analysis (8301100)	2
		Computer Applications in Business 1 and Career Planning (8200220)	1
		Business Keyboarding (8200110)	1
		Accounting Applications (8302100)	1
		Administrative Office Specialist (8212500)	1
Information Technology	8	Information and Communications Technology (ICT) Essentials (9009100)	2
		Web Development (9001100)	1
		Information & Communications Technology (ICT) Essentials Career and Career Planning (9009370)	1
		Applied Information Technology (9003400)	1

		Java Development & Programming (9007200)	1
		Coding Fundamentals (9009200)	1
		Computer Systems & Information Technology (CSIT) (9001200)	1
Agriculture, Food, and Natural Resources	7	Orientation to Agriscience (8100310)	2
		Veterinary Assisting (8115110)	1
		Orientation to Agriscience and Career Planning (8100110)	1
		Agriculture Biotechnology (8003100)	1
		Agricultural Communications (8117000)	1
		Animal Science and Services (8106200)	1
Engineering and Technology Education	7	Engineering Pathways (9400300)	4
		Integrated Technology Studies and Career Planning (8600360)	1
		Technology Studies (8600100)	1
		Aerospace Technologies (8600080)	1
		-	-

Clock Hour			
Top Three Clusters	Current Vacancies	Top Five Programs in Cluster	Current Vacancies
Health Science	17	Practical Nursing (H170607/0351390101)	9
		Health Unit Coordinator/Monitor Technician (H170107/0351070302)	2
		Emergency Medical Technician - ATD (W170212/0351090413)	1
		Phlebotomy (H170302/0351100901)	1
		Radiologic Technology (W170210/0351090706)	1
		Surgical Technology (H170211/0351090905)	1
		Dental Assisting (H170106/0351060112)	1
		Medical Assisting (H170515/0351080102)	1
Transportation, Distribution & Logistics	15	Aviation Airframe Mechanics (T640300/0647060703)	5
		Aviation Powerplant Mechanics (T640400/0647060801)	3
		Diesel Maintenance Technician (T440400/0647060515)	1
		Heavy Equipment Service Technician (T440100/0647030201)	1
		Heavy Equipment Operations Technician (T440200/0649020201)	1
		Automotive CNG/LPG Technology (T401100/0647060420)	1
		Marine Service Technologies (T400210/0647061611)	1
		Automotive Service Technology - APPR (I47061R/0847060405)	1
		Avionics Systems Technician (T400310/0647060905)	1
Law, Public Safety & Security	10	Fire Fighter/Emergency Medical Technician-Combined (P430216/0743020312)	3
		Florida Law Enforcement Academy (P430105/0743010700)	2
		Correctional Officer (Traditional Correctional BRTP) (P430102/0743010200)	2
		Crossover from Correctional Officer to Law Enforcement Officer (P430125/0743010702)	2
		Fire Fighter I/II (P430210/0743020303)	1
Architecture & Construction	10	Electricity (I460312/0646030202)	3
		Plumbing (C500500/0646050312)	1
		Electrician - APPR (I46032R/0846030204)	1
		Building Construction Technologies (I460401/0646041502)	1

		Heating. Ventilation, Air-Conditioning/Refrigeration (HVAC/R) (C400400/0615050111)	1
		Building Trades and Construction Design Technology (C100100/0646041506)	1
		Carpentry (C510300/0646020117)	1
		Electrician (I460314/0646030204)	1

College Credit			
Top Three Clusters	Current Vacancies	Top Five Programs in Cluster	Current Vacancies
Health Science	42	Nursing R.N., AS (1351380100)	14
		Emergency Medical Technician, CCC (0351090415)	3
		Medical Laboratory Technology, AS (1351100405)	2
		Opticianry, AS (1351180100)	2
		Dental Hygiene, AS (1351060200)	2
		Paramedic, CCC (0351090405)	2
		Emergency Medical Services, AS (1351090402)	2
		Physical Therapist Assistant, AS (1351080601)	2
		Radiography, AS (1351090700)	2
		Respiratory Care, AS (1351090800)	2
Information Technology	13	Computer Information Technology, AS (1511010307)	5
		Network Systems Technology, AS (1511100112)	3
		Cybersecurity, AS (1511100308)	2
		Database Technology, AS (1511010308)	1
		Web Development Specialist, CCC (0511080103)	1
		Business Intelligence Specialist, AS (1552130101)	1
Manufacturing	13	Engineering Technology, AS (1615000001)	6
		Computer Engineering Technology, AS (1615120100)	2
		Pneumatics, Hydraulics & Motors for Manufacturing, CCC (0615061303)	1
		Manufacturing Technology, AS (1615061307)	1
		Rapid Prototyping Specialist, CCC (0615000012)	1
		CNC Machinist Operator/Programmer, CCC (0615000015)	1
		Industrial Management Technology, AS (1652020501)	1

Projected Vacancies for 2020-21 – Top 5 Programs in the Top 3 Clusters

The below tables show which programs contributed the most to making certain Clusters have numerous reported vacancies. List includes ties.

Secondary			
Top Three Clusters	Projected Vacancies for 2020 21	Top Five Programs in Cluster	Projected Vacancies for 2020 21
Information Technology	23	Applied Cybersecurity (9001300)	5
		Information and Communications Technology (ICT) Essentials (9009100)	2
		Java Development & Programming (9007200)	2
		Applied Information Technology (9003400)	2
		Coding Fundamentals (9009200)	2
		Game/Simulation/Animation Programming (8208300)	1
		Modeling and Simulation (9005200)	1
		Business Computer Programming (8206500)	1
		Web Application Development & Programming (9007500)	1
		.NET Application Development and Programming (9007400)	1
		Technology Support Services (9001400)	1
		Computer Science Principles (9007600)	1
		Web Development (9001100)	1
		Computer Systems & Information Technology (CSIT) (9001200)	1
		Game/Simulation/Animation Audio/Video Effects (8208200)	1
Agriculture, Food, and Natural Resources	17	Agritechnology (8106800)	6
		Orientation to Agriscience (8100310)	3
		Agriculture Biotechnology (8003100)	2
		Agricultural Communications (8117000)	2
		Horticulture Science and Services (8121600)	1
		Orientation to Agriscience and Career Planning (8100110)	1
		Veterinary Assisting (8115110)	1
		Animal Science and Services (8106200)	1
Engineering and Technology Education	16	Aerospace Technologies (8600080)	4
		Engineering Pathways (9400300)	4
		Technology Studies (8600100)	2
		Maritime Technology (8404100)	1
		Applied Robotics (9410100)	1
		Communications Technology (8601000)	1
		Materials and Processes Technology (8601100)	1
		Applied Engineering Technology (8401100)	1
		Integrated Technology Studies and Career Planning (8600360)	1
Health Science	16	Allied Health Assisting (8417130)	6
		Nursing Assistant (Acute and Long-Term Care) (8417210)	4
		Pharmacy Technician (8418200)	2
		Health Unit Coordinator (8417280)	1
		Biomedical Sciences (8708100)	1

| | | Emergency Medical Responder (8417170) | 1 |
| | | Exploration of Health Science Professions (8400310) | 1 |

Clock Hour			
Top Three Clusters	Projected Vacancies for 2020 21	Top Five Programs in Cluster	Projected Vacancies for 2020 21
Health Science	23	Practical Nursing (H170607/0351390101)	12
		Medical Assisting (H170515/0351080102)	4
		Surgical Technology (H170211/0351090905)	2
		Emergency Medical Technician - ATD (W170212/0351090413)	1
		Phlebotomy (H170302/0351100901)	1
		Dental Assisting (H170106/0351060112)	1
		Radiologic Technology (W170210/0351090706)	1
		Health Unit Coordinator/Monitor Technician (H170107/0351070302)	1
Architecture & Construction	14	Electricity (I460312/0646030202)	3
		Heating. Ventilation, Air-Conditioning/Refrigeration (HVAC/R) (C400400/0615050111)	2
		Industrial Pipefitter (I460514/0646050303)	1
		Building Construction Technologies (I460401/0646041502)	1
		Air Conditioning, Refrigeration and Heating Technology - APPR (I47021R/0847020103)	1
		Building Trades and Construction Design Technology (C100100/0646041506)	1
		Heating. Ventilation, Air-Conditioning/Refrigeration (HVAC/R)1 (C400410/0615050110)	1
		Carpentry - APPR (I46020R/0846020105)	1
		Plumbing (C500500/0646050312)	1
		Plumbing Technology - APPR (I46052R/0846050302)	1
		Electrician - APPR (I46032R/0846030204)	1
Transportation, Distribution & Logistics	12	Aviation Airframe Mechanics (T640300/0647060703)	3
		Diesel Maintenance Technician (T440400/0647060515)	2
		Avionics Systems Technician (T400310/0647060905)	1
		Automotive Maintenance and Light Repair Technician (T404100/0647060422)	1
		Diesel Systems Technician 1 (T650100/0647061305)	1
		Automotive Service Technology 1 (T400700/0647060411)	1
		Marine Service Technologies (T400210/0647061611)	1
		Automotive Service Technology 2 (T400800/0647060412)	1
		Aviation Powerplant Mechanics (T640400/0647060801)	1

College Credit			
Top Three Clusters	Projected Vacancies for 2020 21	Top Five Programs in Cluster	Projected Vacancies for 2020 21
Health Science	31	Nursing R.N., AS (1351380100)	9
		Dental Hygiene, AS (1351060200)	4
		Paramedic, CCC (0351090405)	2
		Physical Therapist Assistant, AS (1351080601)	2
		Dental Assisting Technology and Management--ATD (0351060108)	1
		Medical Information Coder/Biller, CCC (0351070714)	1
		Surgical Technology Specialist, CCC (0351090904)	1
		Emergency Medical Services, AS (1351090402)	1
		Medical Laboratory Technology, AS (1351100405)	1
		Emergency Medical Technician - ATD(0351090408)	1
		Opticianry, AS (1351180100)	1
		Emergency Medical Technician, CCC (0351090415)	1
		Pharmacy Technician -ATD (0351080503)	1
		Health Information Technology, AS (1351070700)	1
		Respiratory Care, AS (1351090800)	1
		Medical Assisting Specialist, CCC (0351080104)	1
		Cardiovascular Technology, AS (1351090100)	1
		Medical Coder/Biller--ATD (0351070713)	1
Manufacturing	11	Engineering Technology, AS (1615000001)	5
		Aerospace Technology, AS (1615080100)	1
		Rapid Prototyping Specialist, CCC (0615000012)	1
		Mechatronics, CCC (0615000013)	1
		CNC Machinist/Fabricator, CCC (0648051002)	1
		Computer Engineering Technology, AS (1615120100)	1
		Industrial Management Technology, AS (1652020501)	1
Information Technology	9	Computer Information Technology, AS (1511010307)	3
		Network Systems Technology, AS (1511100112)	2
		Database Technology, AS (1511010308)	1
		Web Development Specialist, CCC (0511080103)	1
		Business Intelligence Specialist, AS (1552130101)	1
		Cybersecurity, AS (1511100308)	1
Business Management and Administration	9	Business Administration, AS (1552020102)	4
		Accounting Technology, AS (1552030201)	2
		Business Entrepreneurship, CCC (0552070308)	1
		Office Administration, AS (1552020401)	1
		Business Analysis Specialist, AS (1552120106)	1