

The Y of LMI

Introduction to Labor Market Information (LMI)

The "Y" of LMI....

Labor Market Information (LMI)

11%

business leaders strongly agree believe that their institutions are very or somewhat effective at preparing students

96%

chief academic officers of colleges and universities believe that their institutions are very or somewhat effective at preparing students

49%

report unfilled job openings

37%

can't take on a new project or major initiative.

37%

college students say they are prepared for a job

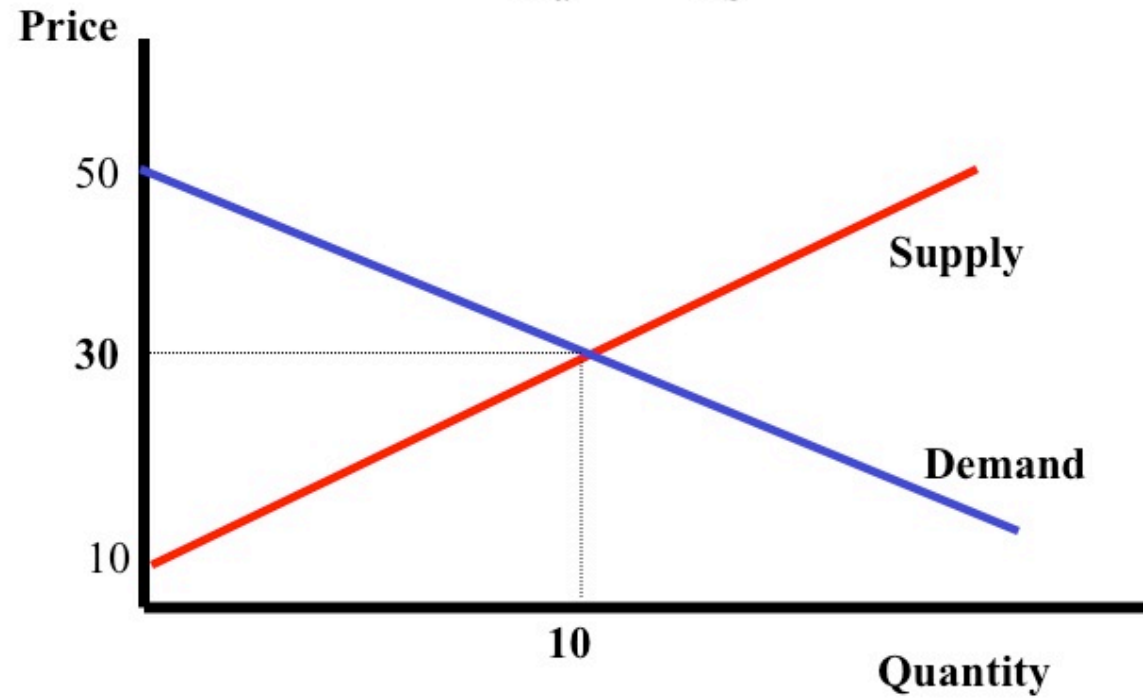
Labor Market Information (LMI)

Labor Market Information (LMI) or Labor Market Analysis (LMA)

- Community
- Business
- Academics
- Diversity
- Equity
- Future

What is LMI

Equilibrium:
 $Q_d = Q_s$



What is LMI

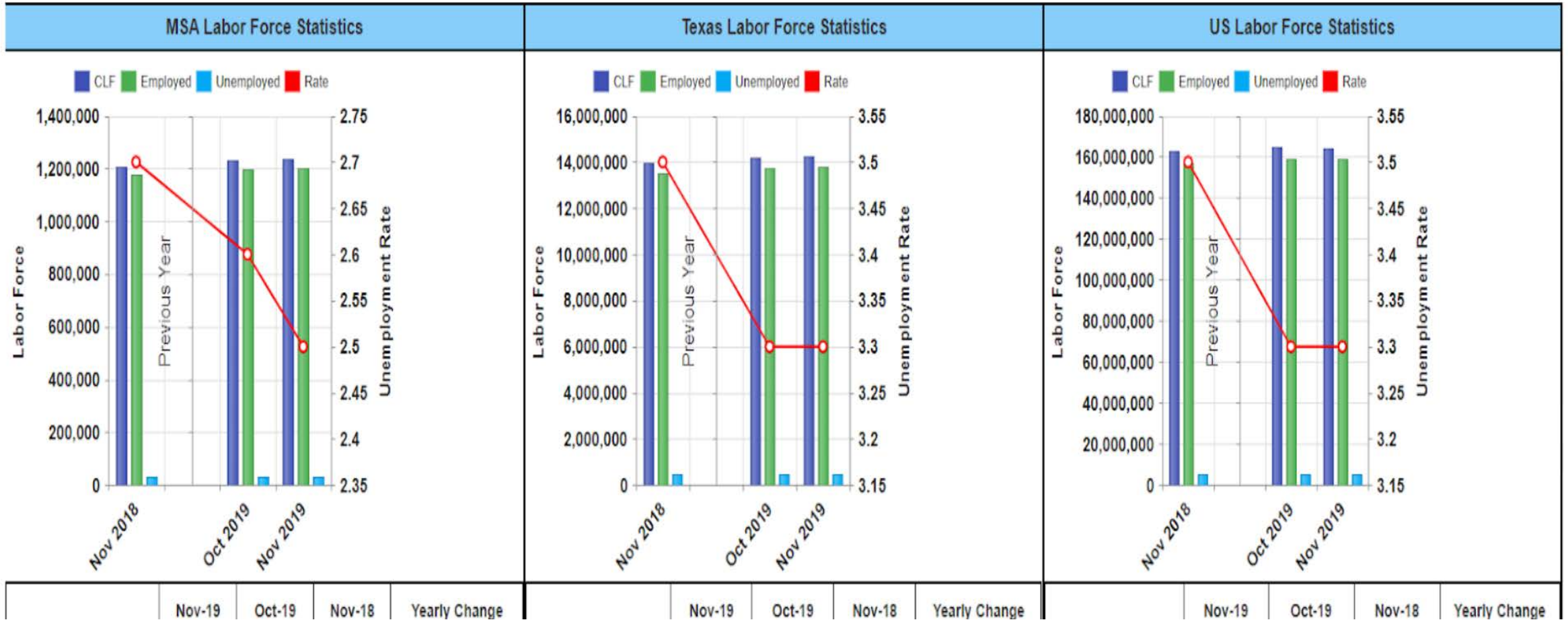
Labor **M**arket **I**nformation

Labor market (job market) information tells you about the current work and job environments in specific regions.

It includes information about specific companies, industries and occupations.

What is LMI

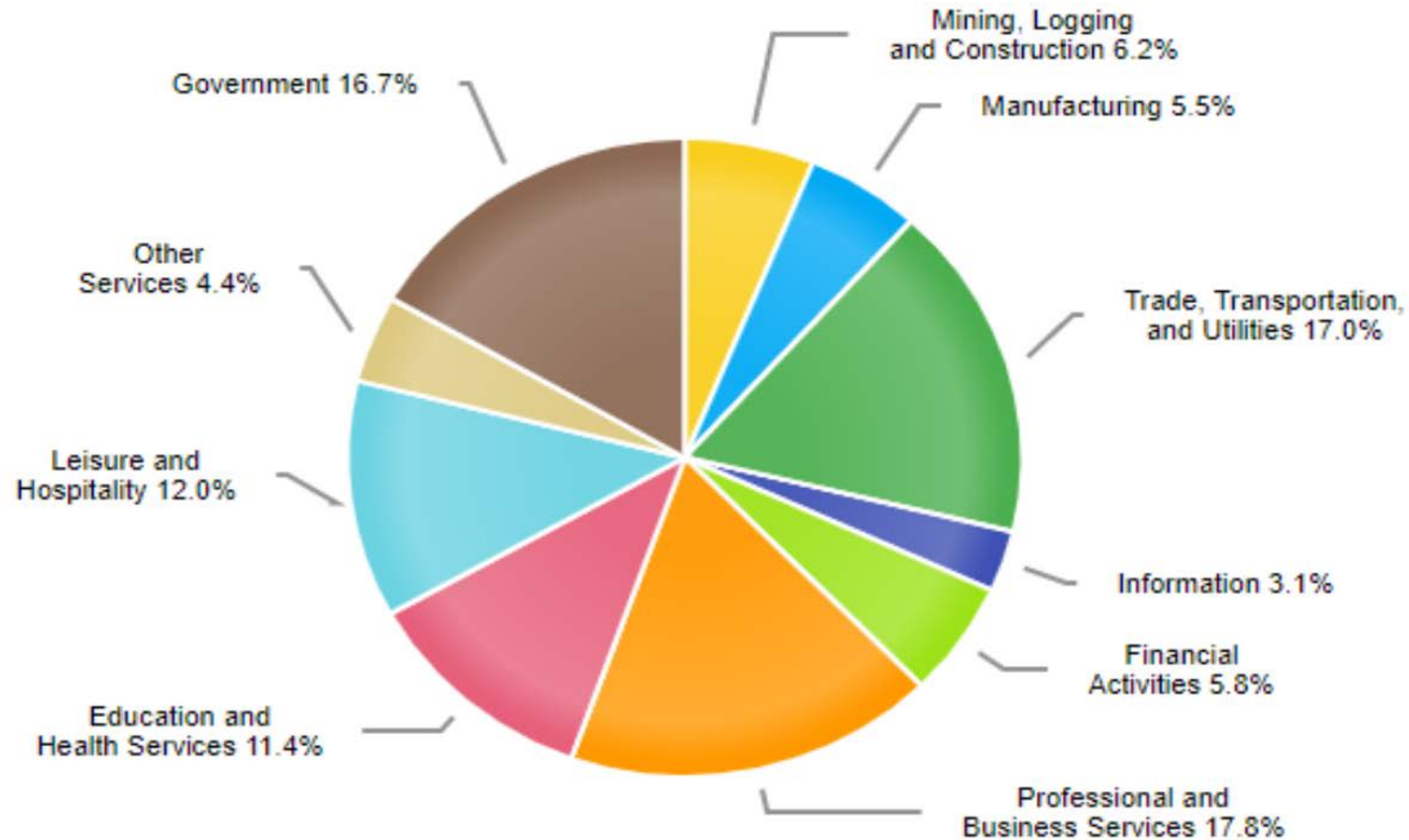
Labor Force Statistics



<https://texaslmi.com/EconomicProfiles/TexasProfile>

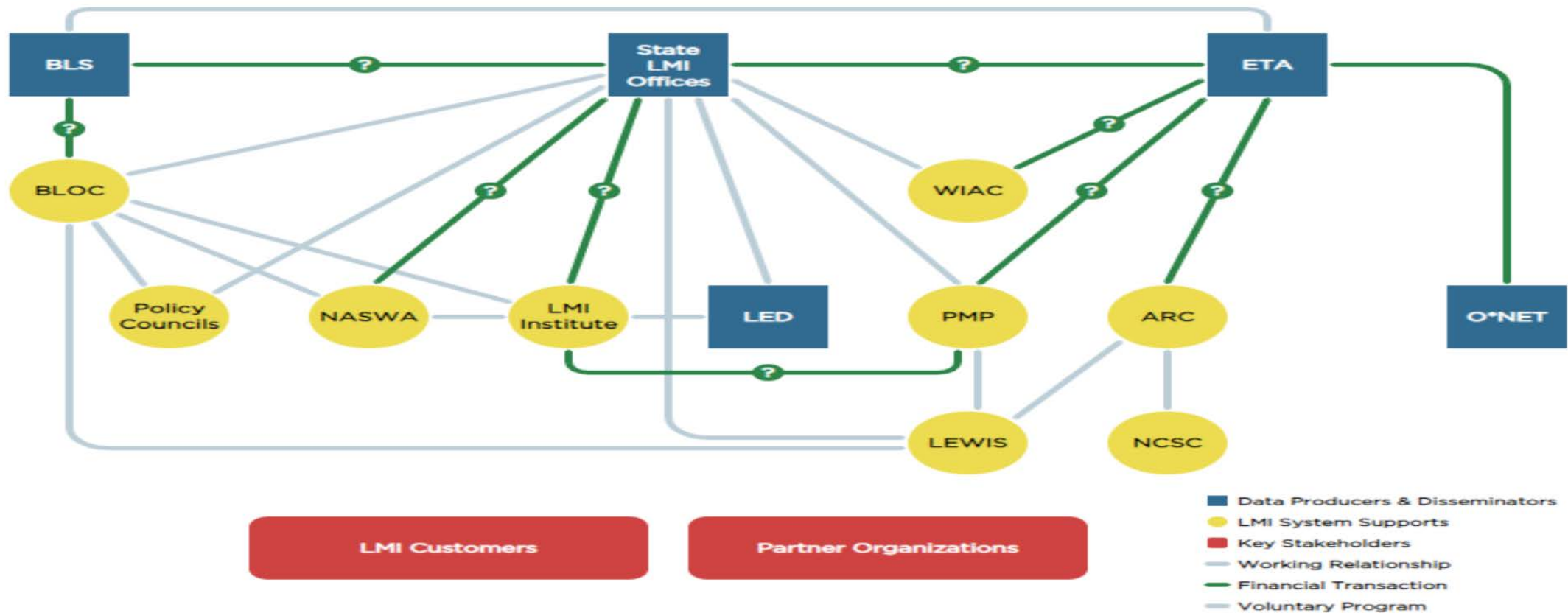
What is LMI

Employment by Industry (November 2019)



What is LMI

Federal-State Labor Market Information (LMI) Infrastructure



<http://www.lmiontheweb.org/About/LMISystem/>

What is LMI



U.S. BUREAU OF LABOR STATISTICS

Texas

QUICK GLANCE

TEXAS PRODUCTS

Select area on the map:



<https://www.bls.gov/regions/southwest/>

The “Y” *(the Aspen way)*

**USING LABOR
MARKET DATA TO
IMPROVE STUDENT
SUCCESS**

**Aligning
Talent and
Opportunity**

**AN EMPLOYER GUIDE
TO EFFECTIVE COMMUNITY
COLLEGE PARTNERSHIP**

**The Workforce
Playbook**

**A COMMUNITY COLLEGE
GUIDE TO DELIVERING
EXCELLENT CAREER AND
TECHNICAL EDUCATION**

LMI can be used to:

- **Decide** which college programs to offer and how many graduates a college should aim to produce to fill available jobs related to the program.
- **Assess** program effectiveness, signaling whether a college's programs provide the necessary skills, both in terms of specific competencies and appropriate rigor, for students to succeed after they graduate.
- **Help** students make informed choices about which programs to enter, both by accelerating student decision-making and thereby increase chances for graduation and by enhancing the likelihood they will choose a degree aligned to a well-paid, available job.
- **Advocate** for the college by using data on graduates' employment outcomes to demonstrate to the state and others that investments in the college are worth while, and will go beyond broadening access to delivering graduates able to contribute to their families, communities, and states.

LMI can be used to:

- Developing programs tailored to specific job opportunities
 - TWC focus High Wage, High Demand,
- Right size existing programs
- Improving program quality
- Closing programs with low returns
- Helping undecided students Choose
- Outreach To potential students
- Advocating For The value of Community Colleges

LMI-LMA and Equity

-help higher education institutions respond to the needs of students and employers within the boundaries of their own educational missions.
-help students balance financial and other life goals after graduation.
-examining which state expenditures will most likely enable students to graduate with the skills needed to fill jobs that will help states' economies grow.

Skills “GAP”

skills gap is present when the training or education for a given occupation does not adequately prepare students for the demands of that occupation

skills shortage is more commonly what we’re really talking about—this is when training for a given occupation is adequate, but there just aren’t enough people getting that training and then entering that occupation.

skills mismatch is when, on a broader level, the supply and demand of skills—usually measured by education level—are out of sync.



“Skills Gap” = Underemployment

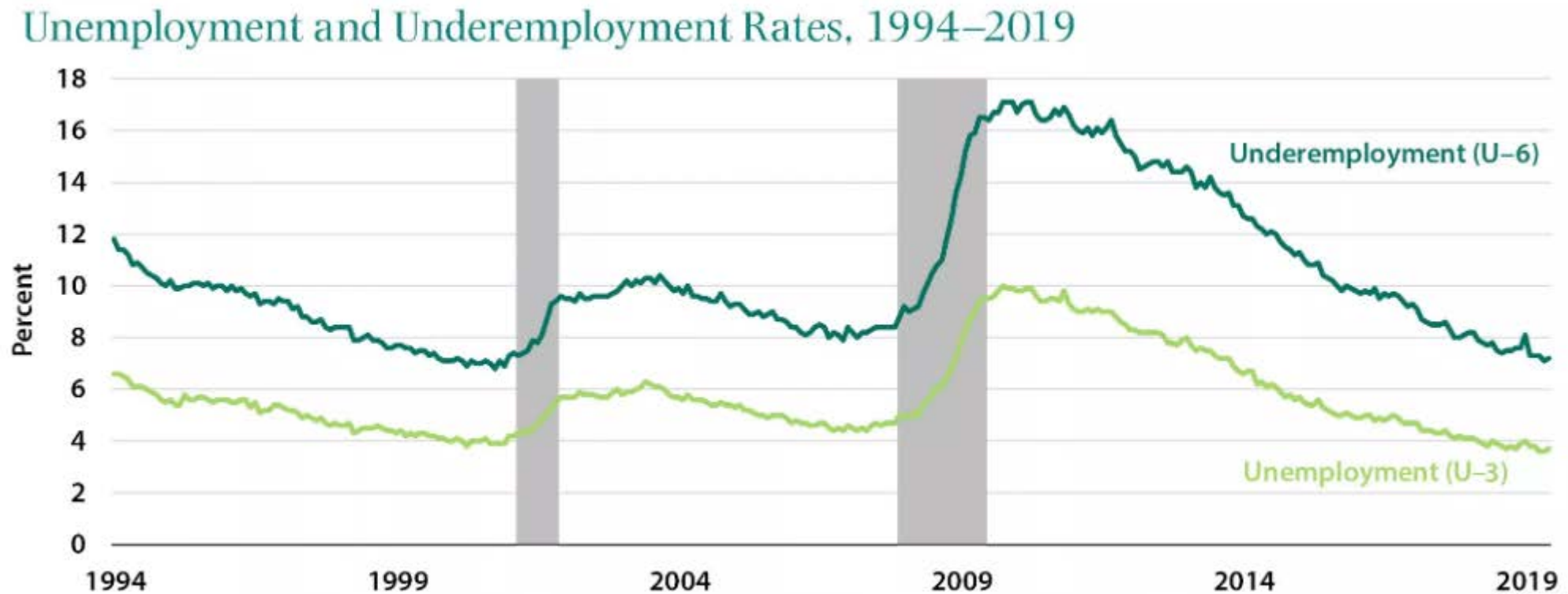
Common types of underemployed workers include these:

- Skilled workers in low-paying jobs.
- Skilled workers in low-skill jobs.
- Part-time workers preferring full-time hours.
- Unemployed workers currently looking for work.

“Skills Gap” = Underemployment

- There are two primary types of underemployment.
 - Visible underemployment
 - is underemployment in which an individual works fewer hours than is necessary for a full-time job in his or her chosen field. Due to the reduced hours, they work two or more part-time jobs in order to make ends meet.
 - invisible underemployment.
 - It refers to the employment situation in which an individual is unable to find a job in his or her chosen field. Consequently, they work in a job that is not commensurate with their skill set and, in most cases, pays much below their industry standards.
- Third type of “underemployment”
 - unable to find work in their chosen field, quit the workforce altogether....

“Skills Gap” = Underemployment



Source: Bureau of Labor Statistics 1994–2019.

Note: Values are seasonally adjusted. Data extend through June 2019. “Unemployment (U-3)” refers to non-employed persons who are available for work and have searched for a job in the previous month. “Underemployment (U-6)” includes the unemployed, people working part-time for economic reasons, and the marginally attached, defined by the Bureau of Labor Statistics as “those who currently are neither working nor looking for work but indicate that they want and are available for a job and have looked for work sometime in the past 12 months.”

<https://www.brookings.edu/blog/up-front/2019/08/01/race-and-underemployment-in-the-u-s-labor-market/>

“Skills Shortage” = Gap/ Surplus



38 Occupations

11-9199 Managers, All Other

25-2031 Secondary School Teachers, Except Spe

25-4011 Archivists

25-4012 Curators

25-4013 Museum Technicians and Conservators

27-1011 Art Directors

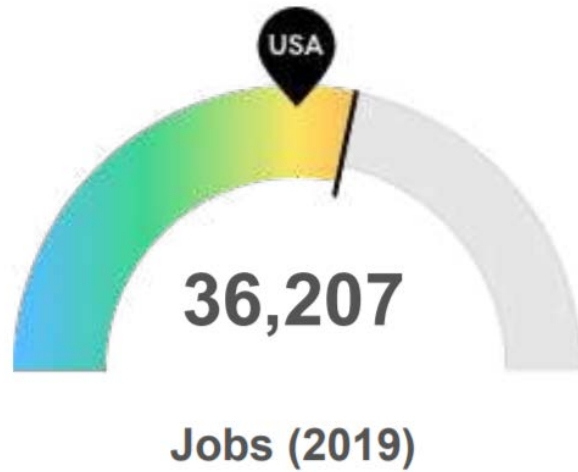
27-1012 Craft Artists

27-1013 Fine Artists, Including Painters, Sculptors

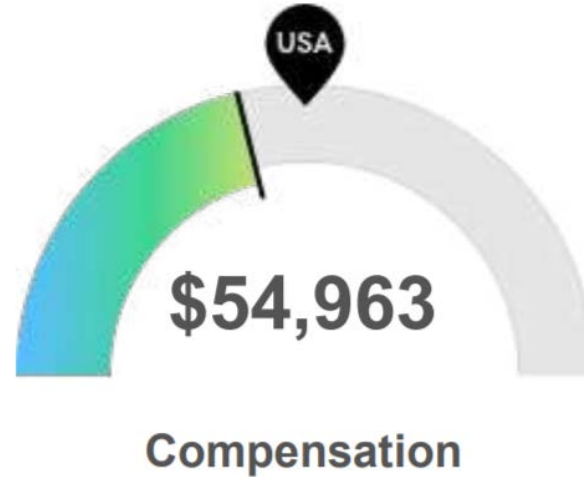
27-1014 Multimedia Artists and Animators

See Appendix A for all 38 Occupations

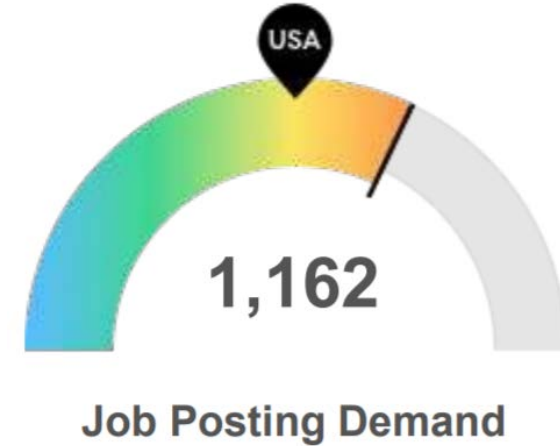
“Skills Shortage” = Gap/ Surplus



Your area is a hot spot for this kind of job. The national average for an area this size is 30,000* employees, while there are 36,207 here.



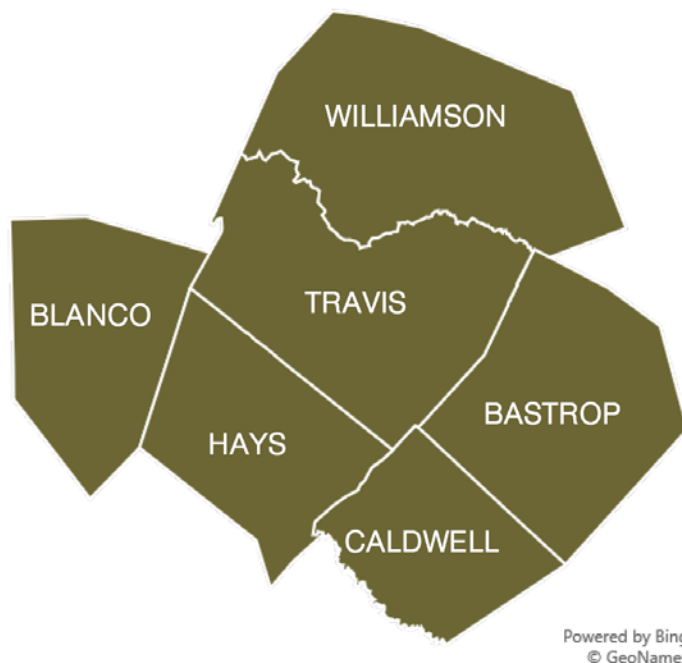
Earnings are about average in your area. The national median salary for your occupations is \$57,741, compared to \$54,963 here



Job posting activity is high in your area. The national average for an area this size is 784* job postings/mo, while there is 1,162 here.

“Skills Shortage” = Gap/ Surplus

ACC SERVICE AREA AT-A-GLANCE



1,149,949

TOTAL JOBS, 2019

1,289,432

ESTIMATED JOBS, 2024

+139,483 +12.1%

CHANGE, 2019-24 (#)

CHANGE, 2019-24 (%)

\$71,852

2019 AVERAGE EARNINGS PER JOB

796,757

OPENINGS 2019-2024

Top Industries (By 2019 Jobs):

1. Professional,
Scientific, and Technical
Services

2. Accommodation and
Food Services

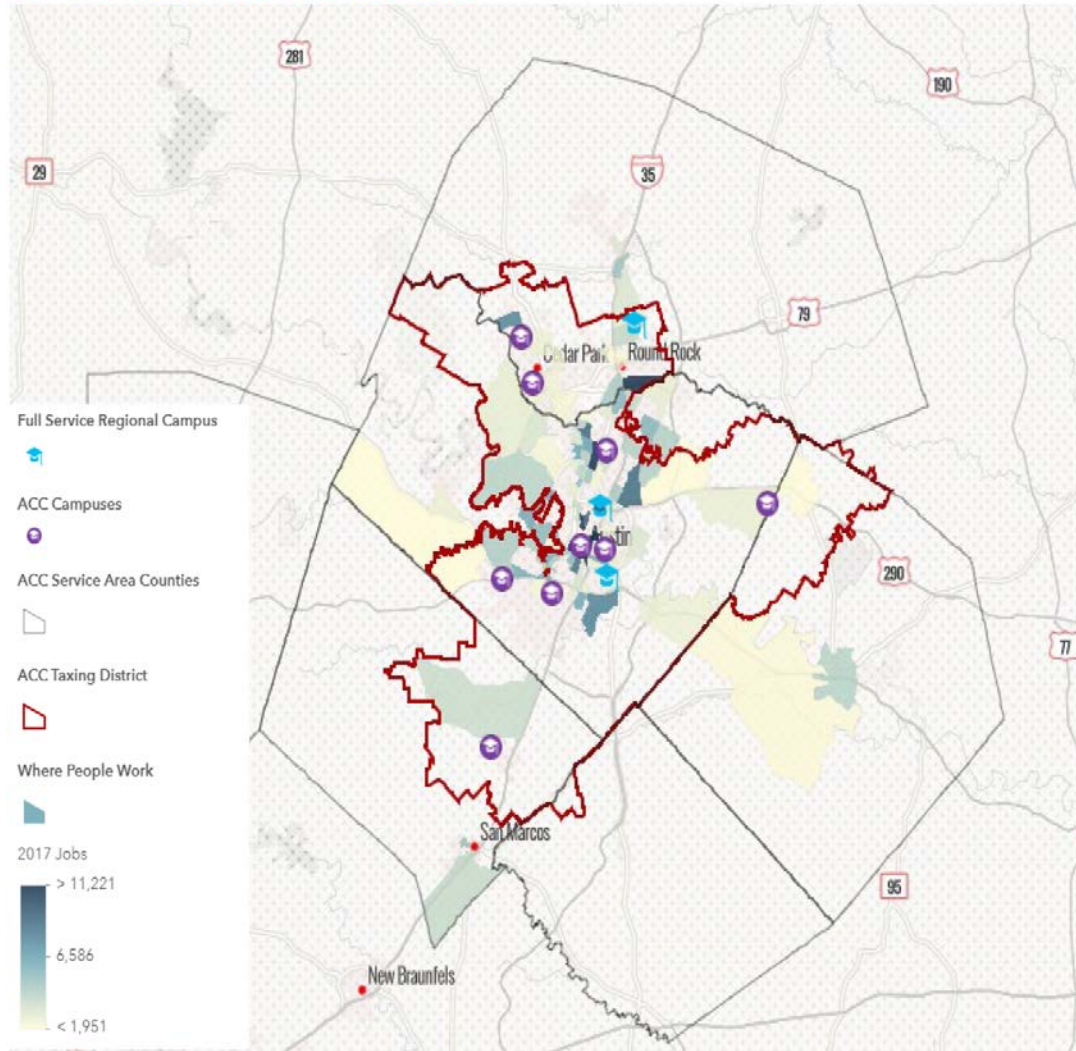
3. Health Care and
Social Assistance*

4. Retail Trade

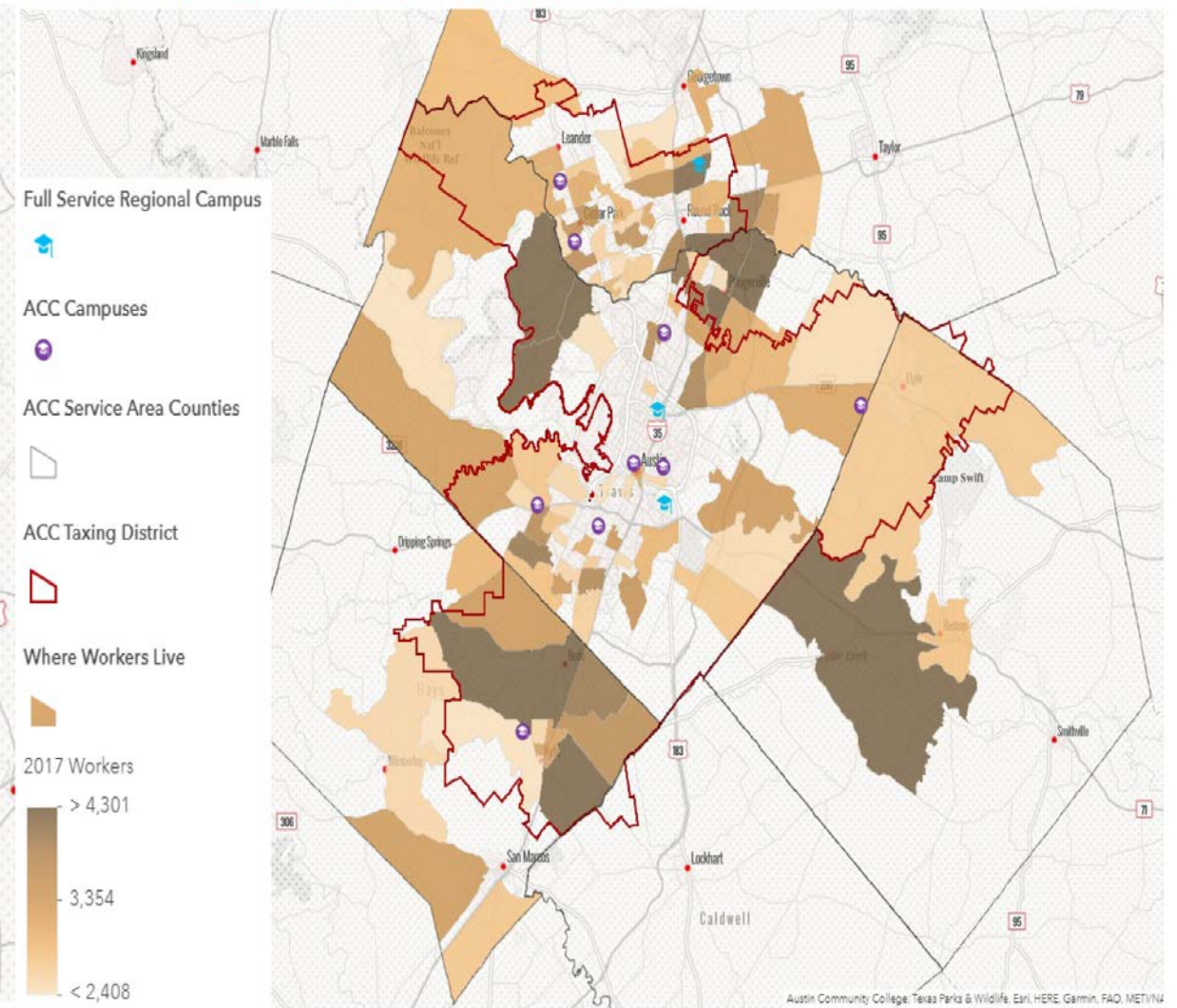
5. Education*

Geography of work

TOP 100 CENSUS TRACTS BY NUMBER OF JOBS

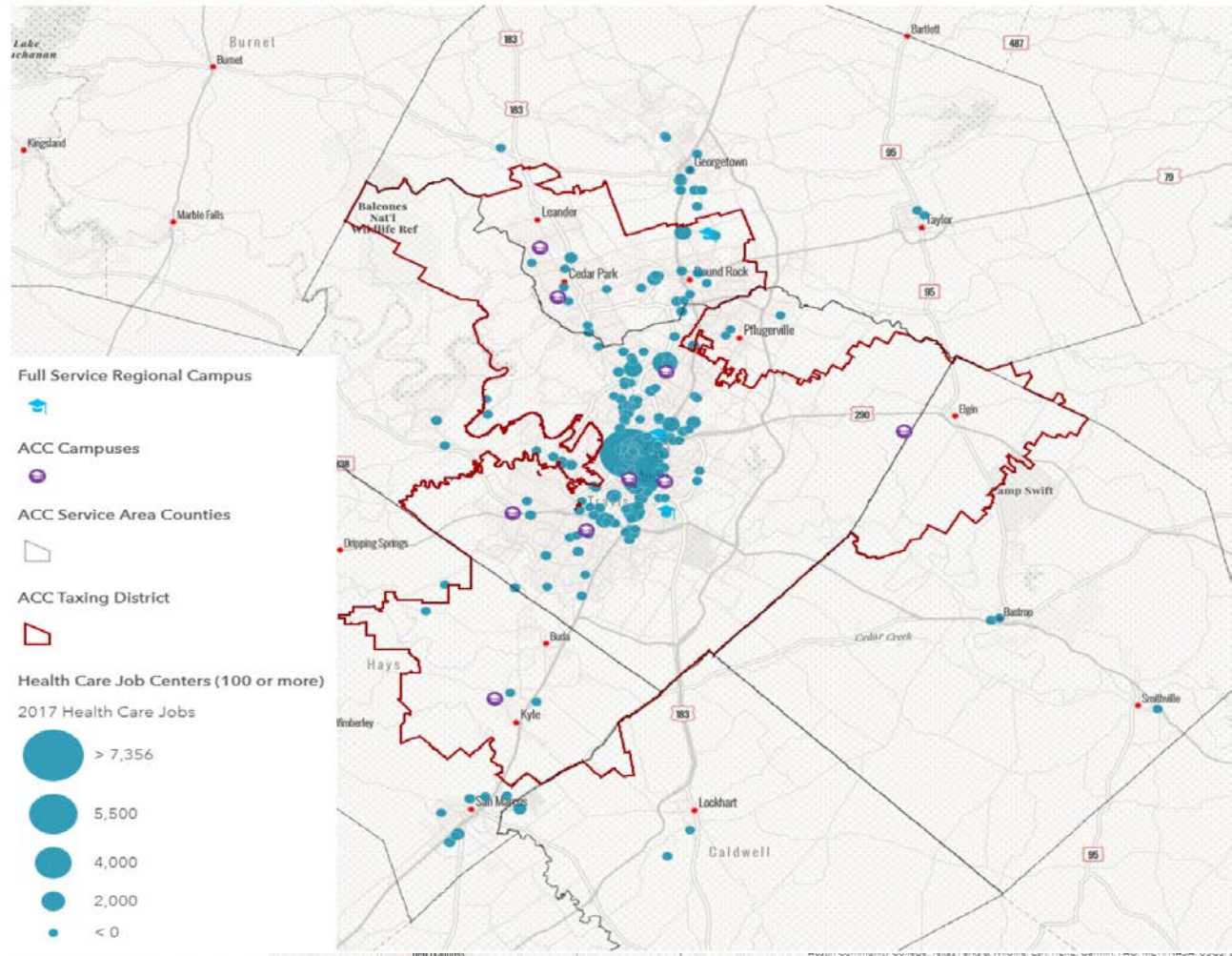


TOP 100 CENSUS TRACTS BY NUMBER OF EMPLOYED PEOPLE



Geography of work

FIGURE 15. HEALTH CARE EMPLOYMENT CENTERS
DOTS REPRESENT CENSUS TRACTS WITH EMPLOYMENT OF 100+



“Skills Shortage” = Gap/ Surplus

Top High-Demand, Middle-Skill Occupations (By Annual Openings):

OCCUPATION	ANNUAL OPENINGS (2019-2024)	MEDIAN HOURLY EARNINGS
1. Sales Representatives, Services, All Other	2,165	\$22.12
2. Bookkeeping, Accounting, and Auditing Clerks	1,637	\$20.34
3. First-Line Supervisors of Food Preparation and Serving Workers	1,438	\$20.54
4. First-Line Supervisors of Office and Administrative Support Workers	1,385	\$29.57
5. Heavy and Tractor-Trailer Truck Drivers	1,302	\$18.24
6. Maintenance and Repair Workers, General	1,295	\$17.57
7. First-Line Supervisors of Retail Sales Workers	1,128	\$18.58
8. Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	1,096	\$24.33
9. Medical Secretaries	1,061	\$16.96
10. Computer User Support Specialists	916	\$22.53

“Skills Shortage” = Gap/ Surplus

ARTS, DIGITAL MEDIA, AND COMMUNICATIONS

FIGURE 34. OCCUPATIONAL DEMAND
ACC SERVICE AREA

SOC	Description	2019 Jobs	DEMAND		RETIREMENT	WAGE PRESSURE		AUTOMATION
			Annual Openings (2019- 2024)	Annual New Jobs (2019- 2024)	EXPOSURE	Median Hourly Earnings	Earnings Premium (AUS/US)	RISK
Arts, Digital Media, Communications								
Occupations that Map to ACC Programs								
27-1024	Graphic Designers	2,729	<div><div></div></div> 345	77	19%	\$24.92	1.05	81
27-2042	Musicians and Singers	1,653	<div><div></div></div> 192	29	32%	\$22.99	0.91	89
27-3043	Writers and Authors	1,399	<div><div></div></div> 166	40	32%	\$22.22	0.92	90
27-2012	Producers and Directors	1,307	<div><div></div></div> 161	40	12%	\$30.23	0.93	89
27-3041	Editors	1,255	<div><div></div></div> 149	23	23%	\$36.05	1.32	90
27-3091	Interpreters and Translators	980	<div><div></div></div> 140	44	19%	\$36.39	1.51	96
27-4021	Photographers	1,271	<div><div></div></div> 136	29	16%	\$16.70	0.98	92
27-1014	Multimedia Artists and Animators	1,306	<div><div></div></div> 132	25	14%	\$37.94	1.31	72
27-4011	Audio and Video Equipment Technicians	929	<div><div></div></div> 116	27	11%	\$18.65	0.89	98
27-3042	Technical Writers	866	<div><div></div></div> 107	22	26%	\$28.16	0.82	94
27-2011	Actors	689	<div><div></div></div> 96	23	14%	\$11.48	0.62	113
27-1011	Art Directors	764	<div><div></div></div> 86	22	23%	\$31.09	0.91	82
27-4032	Film and Video Editors	380	<div><div></div></div> 56	17	Insf. Data	\$22.40	0.78	94

“Skills Shortage” = Gap/ Surplus

BUSINESS

FIGURE 35. OCCUPATIONAL DEMAND
ACC SERVICE AREA

SOC	Description	2019 Jobs	DEMAND		RETIREMENT EXPOSURE	WAGE PRESSURE		AUTOMATION RISK
			Annual Openings (2019-2024)	Annual New Jobs (2019-2024)	% 55+	Median Hourly Earnings	Earnings Premium (AUS/US)	Automation Index
Business								
Occupations that Map to ACC Programs								
41-2031	Retail Salespersons	34,087	5,672	598	19%	\$11.30	0.97	93
43-4051	Customer Service Representatives	26,653	3,959	458	14%	\$15.79	0.97	96
43-9061	Office Clerks, General	29,616	3,956	394	23%	\$18.36	1.17	102
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	20,178	2,376	176	29%	\$17.46	0.99	91
11-1021	General and Operations Managers	18,980	2,169	546	20%	\$47.05	0.97	82
41-3099	Sales Representatives, Services, All Other	13,927	2,165	407	17%	\$22.12	0.85	97
43-3031	Bookkeeping, Accounting, and Auditing Clerks	12,468	1,637	208	31%	\$20.34	1.05	104
13-2011	Accountants and Auditors	12,719	1,484	313	23%	\$32.99	0.97	93
43-1011	First-Line Supervisors of Office and Administrative Support Workers	11,329	1,385	231	21%	\$29.57	1.10	92
13-1199	Business Operations Specialists, All Other	11,000	1,288	255	21%	\$34.59	1.02	87
41-1011	First-Line Supervisors of Retail Sales Workers	8,847	1,128	167	20%	\$18.58	1.01	88

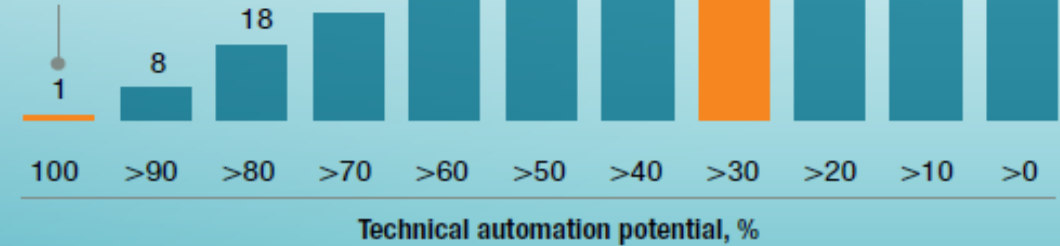
Automation Index

While few occupations are fully automatable, 60 percent of all occupations have at least 30 percent technically automatable activities

ACTIVITIES WITH HIGHEST AUTOMATION POTENTIAL:

Predictable physical activities	81%
Processing data	69%
Collecting data	64%

<5% of occupations consist of activities that are 100% automatable



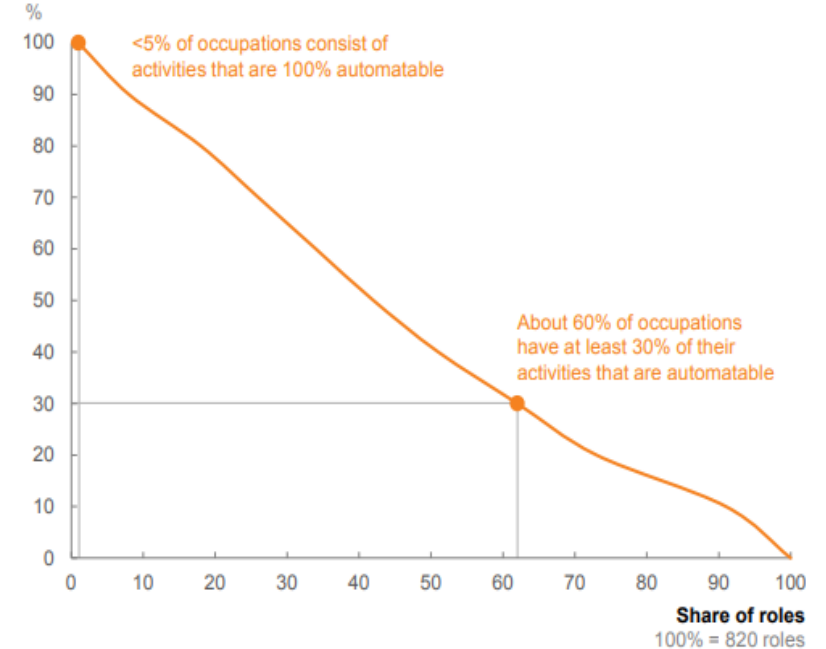
About 60% of occupations have at least 30% of their activities that are automatable

Share of roles
100% = 820 roles

Example occupations

Sewing machine operators, graders and sorters of agricultural products
Stock clerks, travel agents, watch repairers
Chemical technicians, nursing assistants, Web developers
Fashion designers, chief executives, statisticians
Psychiatrists, legislators

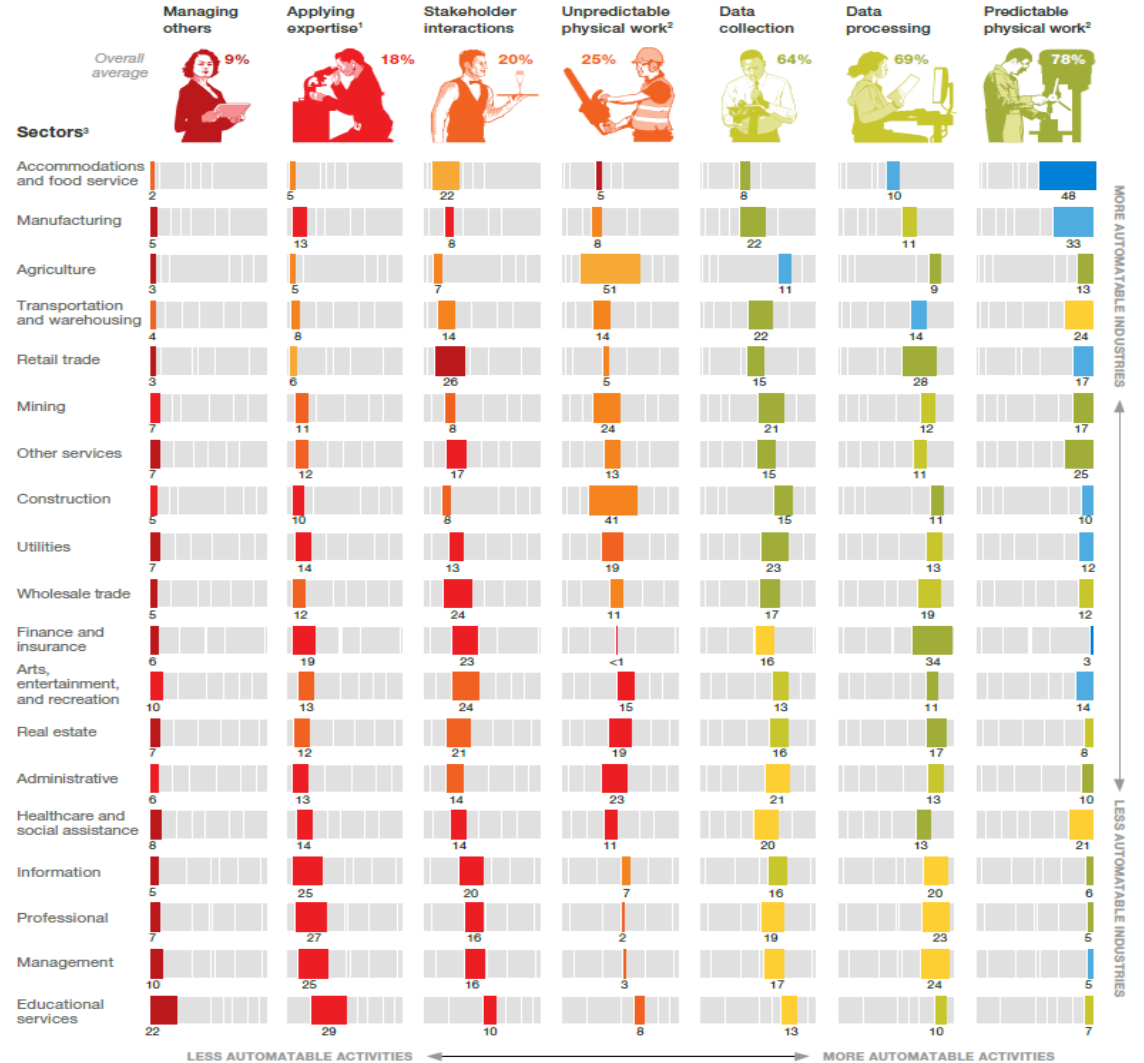
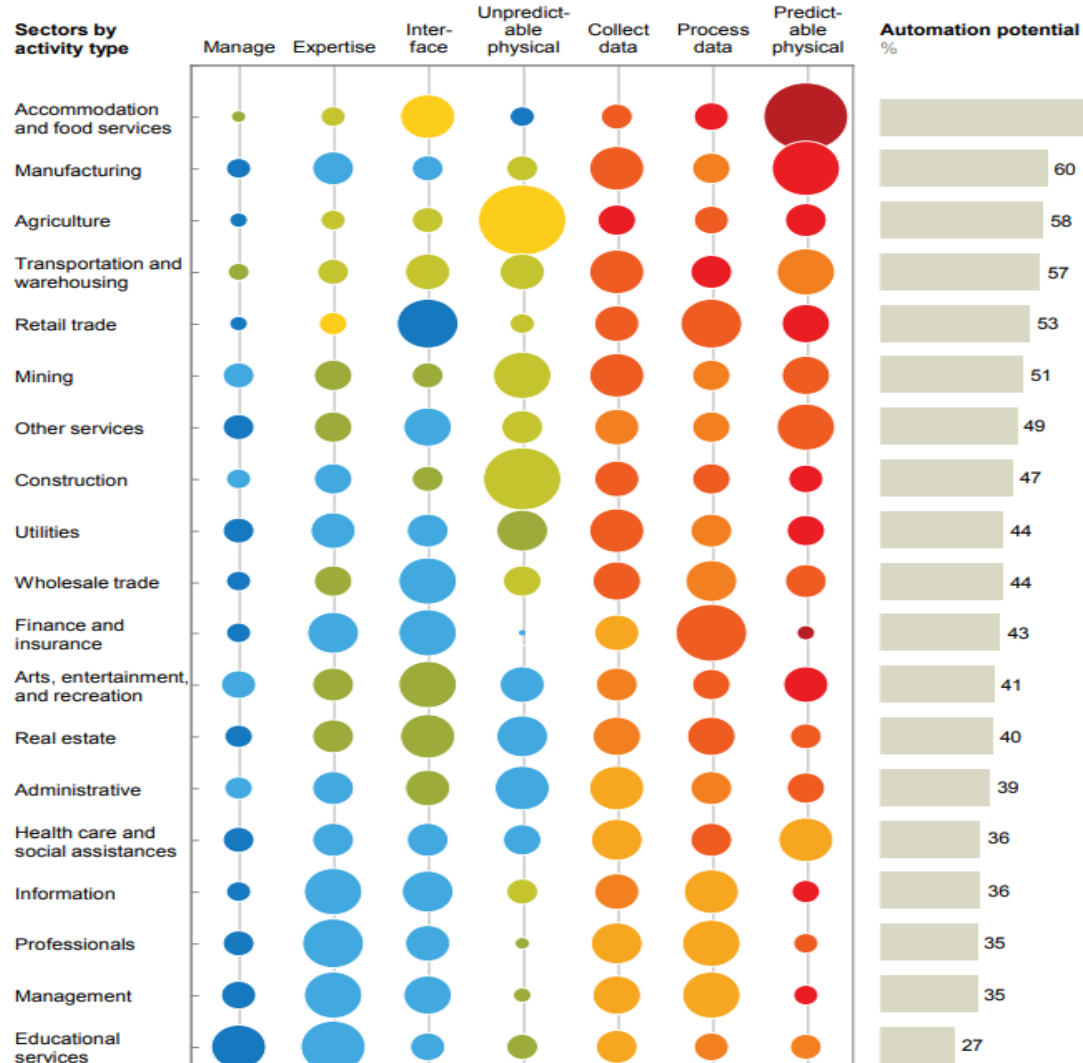
Technical automation potential



1 We define automation potential according to the work activities that can be automated by adapting currently demonstrated technology.

SOURCE: US Bureau of Labor Statistics; McKinsey Global Institute analysis

Automation Index



Retirement Index

- Retirement index is based on the Census, BLS, and ACS.
 - The percentage of workers who are currently in the occupations being studied.

Why would this matter?

What does this mean to academic planning?

RETIREMENT EXPOSURE		
SOC	Description	% 55+
11-3021	Computer and Information Systems Managers	14%
15-1122	Information Security Analysts	12%
15-1131	Computer Programmers	15%
15-1132	Software Developers, Applications	9%
15-1133	Software Developers, Systems Software	10%
15-1134	Web Developers	7%
15-1141	Database Administrators	15%
15-1142	Network and Computer Systems Administrators	10%
15-1143	Computer Network Architects	10%
15-1151	Computer User Support Specialists	12%
15-1152	Computer Network Support Specialists	12%
15-1199	Computer Occupations, All Other	13%
27-1014	Multimedia Artists and Animators	14%
27-1024	Graphic Designers	17%

Completions

Low Producing Programs by Program

New degree programs are exempt from LPP

Acad Acpg Cip	Acad Acad Program	Acpg Current Stat	Acad Degr	Grand Total '08-'18	FY2013 Review		FY2014 Review		FY2015 Review		FY2016 Review		FY2017 Review		FY2018 Review	
					Sum AY08- AY12	LPP	Sum AY09- AY13	LPP	Sum AY10- AY14	LPP	Sum AY11- AY15	LPP	Sum AY12- AY16	LPP	Sum AY13- AY17	LPP
50.0301	DANCE.AA	A	AA	27	9	LPP	9	LPP	9	LPP	13	LPP	17	LPP	14	LPP
50.0901	MUSIC.AA	A	AA	36	19	LPP	16	LPP	18	LPP	19	LPP	16	LPP	17	LPP
50.0406	PHOTO.PORT.WED.AAS	A	AAS	13	0	LPP	0	LPP	2	LPP	2	LPP	5	LPP	9	LPP
50.0406	PHOTO.VIS.MEDIA.AAS	A	AAS	6	0	LPP	0	LPP	0	LPP	0	LPP	0	LPP	2	LPP
50.0406	PHOTO.DIG.CT1	A	CT1	49	16	LPP	15	LPP	20	LPP	20	LPP	19	LPP	23	LPP
50.0406	PHOTO.ARTIST.AAS	A	AAS	11	0	LPP	0	LPP	2	LPP	5	LPP	7	LPP	9	LPP
50.0406	PHOTO.ARTIST.CT1	A	CT1	43	18	LPP	12	LPP	15	LPP	17	LPP	17	LPP	21	LPP
23.1303	BTC.GOV.CT1	A	CT1	4	3	LPP	3	LPP	4	LPP	3	LPP	3	LPP	1	LPP
23.1303	BTC.TECOM.AAS	A	AAS	24	11	LPP	11	LPP	14	LPP	14	LPP	12	LPP	11	LPP
23.1303	BTC.TECOM.CT1	A	CT1	17	8	LPP	7	LPP	9	LPP	12	LPP	10	LPP	9	LPP
23.1303	BTC.GOV.AAS	A	AAS	17	3	LPP	3	LPP	11	LPP	13	LPP	11	LPP	13	LPP
50.0401	VCD.GRART.TECH.CT2	A	CT2	6	1	LPP	1	LPP	3	LPP	5	LPP	6	LPP	5	LPP
50.0401	VCD.ILLUS.CT3	A	CT3	12	2	LPP	2	LPP	5	LPP	8	LPP	10	LPP	9	LPP
50.0401	VCD.ILLUS.CT3	A	CT4	2	2	LPP	2	LPP	2	LPP	2	LPP	0	LPP	0	LPP
50.0401	VCD.GRPH.DSG.CT2	A	CT2	31	9	LPP	8	LPP	12	LPP	15	LPP	18	LPP	22	LPP
52.1101	INTL.BUS.AAS	A	AAS	41	20	LPP	19	LPP	18	LPP	18	LPP	23	LPP	17	LPP
52.1101	INTL.BUS.CT1	A	CT1	40	24	LPP	16	LPP	22	LPP	19	LPP	17	LPP	12	LPP
52.1401	MARKETING.FASH.AAS	A	AAS	38	26	ok	20	LPP	19	LPP	15	LPP	12	LPP	11	LPP
52.1401	MARKETING.FASH.CT1	A	CT1	13	3	LPP	3	LPP	5	LPP	4	LPP	3	LPP	4	LPP
52.1401	MARKETING.AAS	A	AAS	43	17	LPP	14	LPP	14	LPP	16	LPP	22	LPP	22	LPP
52.1401	MARKETING.BAS.SK.CT1	A	CT1	42	13	LPP	9	LPP	13	LPP	19	LPP	18	LPP	21	LPP
52.0401	OST.ADMIN.CT1	A	CT1	13	8	LPP	7	LPP	9	LPP	7	LPP	4	LPP	4	LPP
52.0401	OST.LGL.ADMIN.AA	A	AAS	10	6	LPP	6	LPP	6	LPP	5	LPP	4	LPP	4	LPP
52.0401	OST.LGL.ADMIN.CT1	A	CT1	8	5	LPP	5	LPP	5	LPP	2	LPP	1	LPP	1	LPP
52.0401	OST.MED.ADMIN.AAS	A	AAS	60	26	ok	25	ok	33	ok	25	ok	23	LPP	24	LPP
52.0401	OST.MED.ADMIN.CT1	A	CT1	13	6	LPP	3	LPP	5	LPP	6	LPP	4	LPP	6	LPP
52.0401	OST.MED.OFF.CT1	A	CT1	47	19	LPP	16	LPP	23	LPP	27	ok	28	ok	23	LPP

<http://www.thecb.state.tx.us/institutional-resources-programs/public-universities-health-related-institutions/academic-program-reviews/low-producing-program-lpp-reviews/>

2020 CIPS

NCES CIP2010==>CIP2020 Crosswalk						THECB extracted data (2020-01-29)		
2010 CIP		Action	Text change	2020 CIP		CIP CODE (THECB-formatted 8-digit)	THECB Funding Code	THECB CIP TITLE http://www.txhighereddata.org/interactive/CIP/
CIPCode_2010	2-digit level			CIPCode_2020	CIPTitle_2020			
01.0000	1	AGRICULTURE, AGRICULTURE OPERATIONS, AND RELATED SCIENCES.	No substantiv yes	01	AGRICULTURAL/ANIMAL/PLANT/VETERINARY SCIENCE AND RELATED FIELDS.	1	1	AGRICULTURAL/ANIMAL/PLANT/VETERINARY SCIENCE AND RELATED FIELDS.
01.0000	1	Agriculture, General.	No substant no	01.0000	Agriculture, General.	2	1	AGRICULTURAL/ANIMAL/PLANT/VETERINARY SCIENCE AND RELATED FIELDS.
01.0000	1	Agriculture, General.	No substant no	01.0000	Agriculture, General.	2	1	AGRICULTURAL/ANIMAL/PLANT/VETERINARY SCIENCE AND RELATED FIELDS.
01.0100	1	Agricultural Business and Management.	No substant no	01.0100	Agricultural Business and Management.	2	1.01	Agricultural Business and Management
01.0101	1	Agricultural Business and Management, General.	No substant no	01.0101	Agricultural Business and Management, General.	2	01.0101.00	Agricultural Business and Management, General
01.0102	1	Agribusiness/Agricultural Business Operations.	No substant no	01.0102	Agribusiness/Agricultural Business Operations.	2	01.0102.00	Agribusiness/Agricultural Business Operations
01.0103	1	Agricultural Economics.	No substant no	01.0103	Agricultural Economics.	2	01.0103.00	Agricultural Economics
01.0104	1	Farm/Farm and Ranch Management.	No substant no	01.0104	Farm/Farm and Ranch Management.	2	01.0104.00	Farm/Farm and Ranch Management
01.0105	1	Agricultural/Farm Supplies Retailing and Wholesaling.	No substant no	01.0105	Agricultural/Farm Supplies Retailing and Wholesaling.	2	01.0105.00	Agricultural/Farm Supplies Retailing and Wholesaling
01.0106	1	Agricultural Business Technology.	No substant yes	01.0106	Agricultural Business Technology/Technician.	2	01.0106.00	Agricultural Business Technology/Technician.
01.0199	1	Agricultural Business and Management, Other.	No substant no	01.0199	Agricultural Business and Management, Other.	2	#N/A	#N/A
01.0200	1	Agricultural Mechanization.	No substant no	01.0200	Agricultural Mechanization.	2	1.02	Agricultural Mechanization
01.0201	1	Agricultural Mechanization, General.	No substant no	01.0201	Agricultural Mechanization, General.	2	01.0201.00	Agricultural Mechanization, General
01.0204	1	Agricultural Power Machinery Operation.	No substant no	01.0204	Agricultural Power Machinery Operation.	2	01.0204.00	Agricultural Power Machinery Operation
01.0205	1	Agricultural Mechanics and Equipment/Machine Technology.	No substant yes	01.0205	Agricultural Mechanics and Equipment/Machine Technology/Technician.	2	01.0205.00	Agricultural Mechanics and Equipment/Machine Technology/Technician
	1		New no	01.0207	Irrigation Management Technology/Technician.	2	01.0207.00	Irrigation Management Technology/Technician
01.0299	1	Agricultural Mechanization, Other.	No substant no	01.0299	Agricultural Mechanization, Other.	2	#N/A	#N/A

Perkins IV and CTE

SOC	Description	BLS & EMSI			ARC	ACC (assigned by ARC)	PERKINS CLASSIFICATIONS (Updated for Perkins V, except Energy Cluster)	
		Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training	Skill Level	Area of Study	Career Cluster	Program of Study
11-9199	Managers, All Other	Bachelor's degree	Less than 5 years	None	High	Business	Business, Marketing, & Finance	General Management
15-2031	Operations Research Analysts	Bachelor's degree	None	None	High	Computer Science & Information Technology	Business, Marketing, & Finance	Operations Management
19-1031	Conservation Scientists	Bachelor's degree	None	None	High	Science, Engineering & Mathematics	Science, Technology, Engineering & Mathematics	Science and Mathematics
19-3022	Survey Researchers	Master's degree	None	None	High	Liberal Arts	Science, Technology, Engineering & Mathematics	Science and Mathematics
19-3031	Clinical, Counseling, and School Psychologists	Doctoral or professional degree	None	Internship/residency	High	Public & Social Services	Human Services	Counseling & Mental Health Services
19-3032	Industrial-Organizational Psychologists	Master's degree	None	Internship/residency	High	Public & Social Services	Human Services	Counseling & Mental Health Services
19-3039	Psychologists, All Other	Master's degree	None	Internship/residency	High	Public & Social Services	Human Services	Counseling & Mental Health Services
25-2031	Secondary School Teachers, Except Special and Career/Technical Educators	Bachelor's degree	None	None	High	Education	Education & Training	Teaching/Training
27-2021	Athletes and Sports Competitors	No formal educational requirements	None	Long-term on-the-job training	Low	Culinary, Hospitality, & Tourism	Hospitality & Tourism	Recreation, Amusements & Attractions
31-9092	Medical Assistants	Postsecondary nondegree certificate	None	None	Middle	Health Sciences	Health Science	Therapeutic Services

Questions?

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