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LA REGIONAL PROGRAM ADVISORY

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Jermaine Hampton
Vice President of Workforce Development and Special Projects
LAEDC

Jose Pelayo
Director, Workforce Development
LAEDC

Alicia Nyein
Asst. Program Manager, Workforce Development
LAEDC

Jared Lopez
Asst. Program Manager, Workforce Development
LAEDC

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The LA-19 is leading industry-education partnerships to collaboratively strengthen our region's talent development ecosystem

1. Data-driven research on the supply and demand for talent
2. Industry Councils and Regional Program Advisories
3. Developing work-based learning and employment opportunities

For more information, visit: https://losangelesrc.org

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Dr. Narineh Makijan

Chair/Assistant Vice President
Los Angeles Regional Consortium

Jermaine Hampton

Vice President of Workforce Development and Special Projects
LAEDC

Matthew Skyberg

GIS Research Analyst,
Institute for Applied Economics
LAEDC

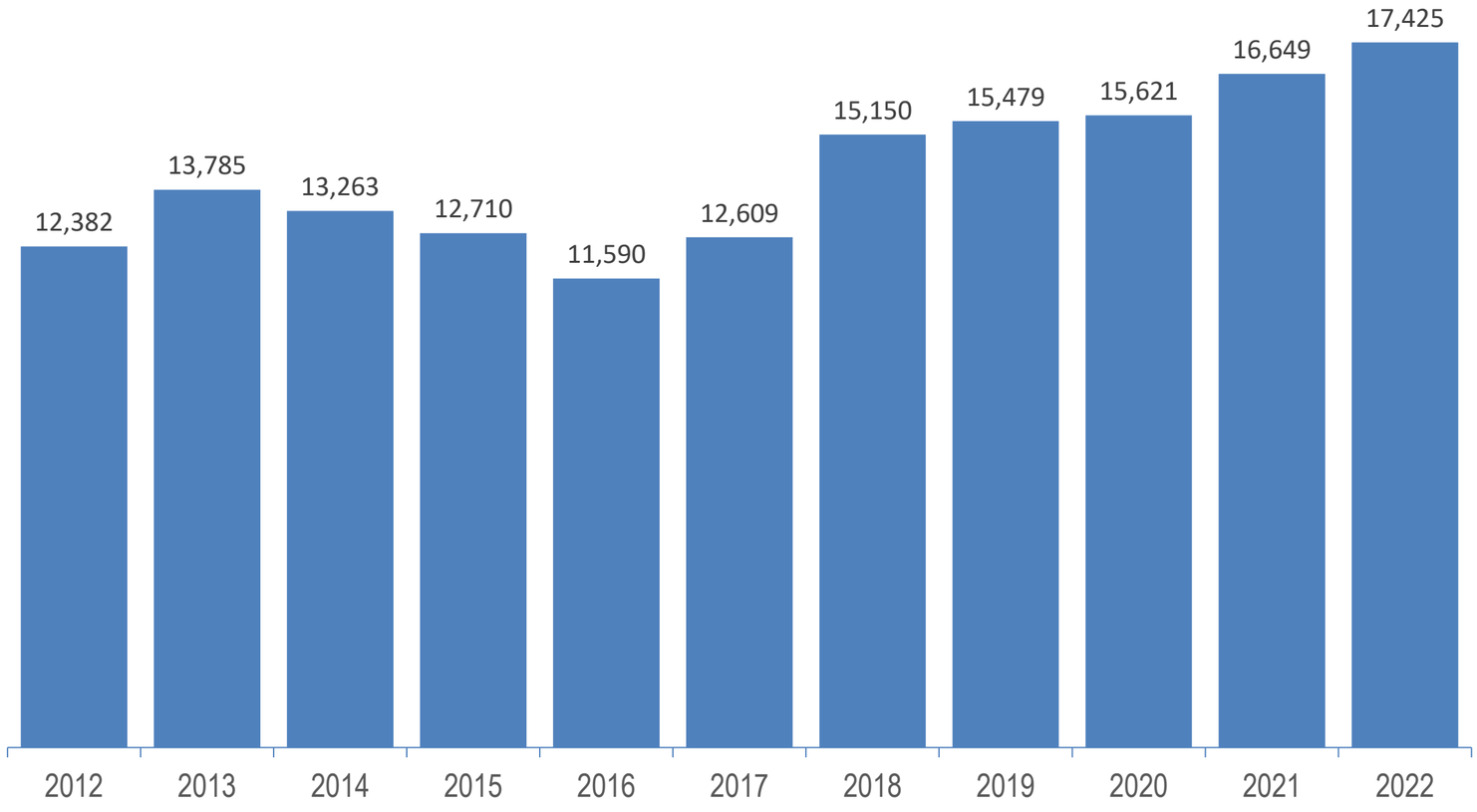
Current Landscape

For Heavy and Civil Engineering Construction employment is measured using 4 distinct NAICS codes

- 2371: Utility System Construction
- 2372: Land Subdivision
- 2373: Highway, Street, and Bridge Construction
- 2374: Other Heavy and Civil Engineering Construction

Current Landscape

Heavy and Civil Engineering Construction Employment
Los Angeles County, 2012-2022

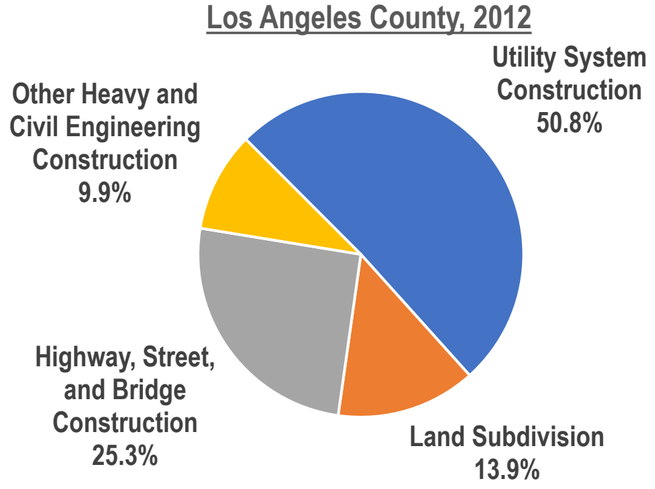


Source: CA EDD, Lightcast

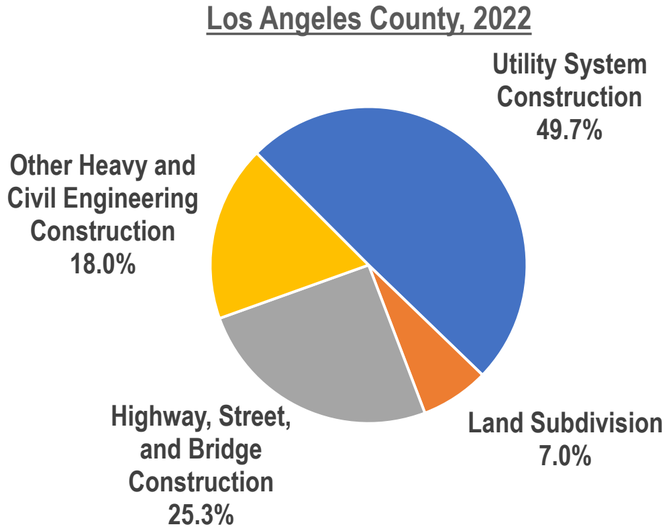
- Industry has employed over 15,000 people since 2018
- Payroll employment fell by 15.9% between 2013 and 2016 but has experienced continued growth since
- From 2016 through 2022 industry employment grew by 50.3%, adding more than 5,800 net new jobs
- Designated as an essential industry early in the COVID-19 pandemic, industry employment was not negatively impacted

Current Landscape

Change in Heavy and Civil Engineering Construction Employment, Los Angeles County, 2012 - 2022



Source: CA EDD, Lightcast

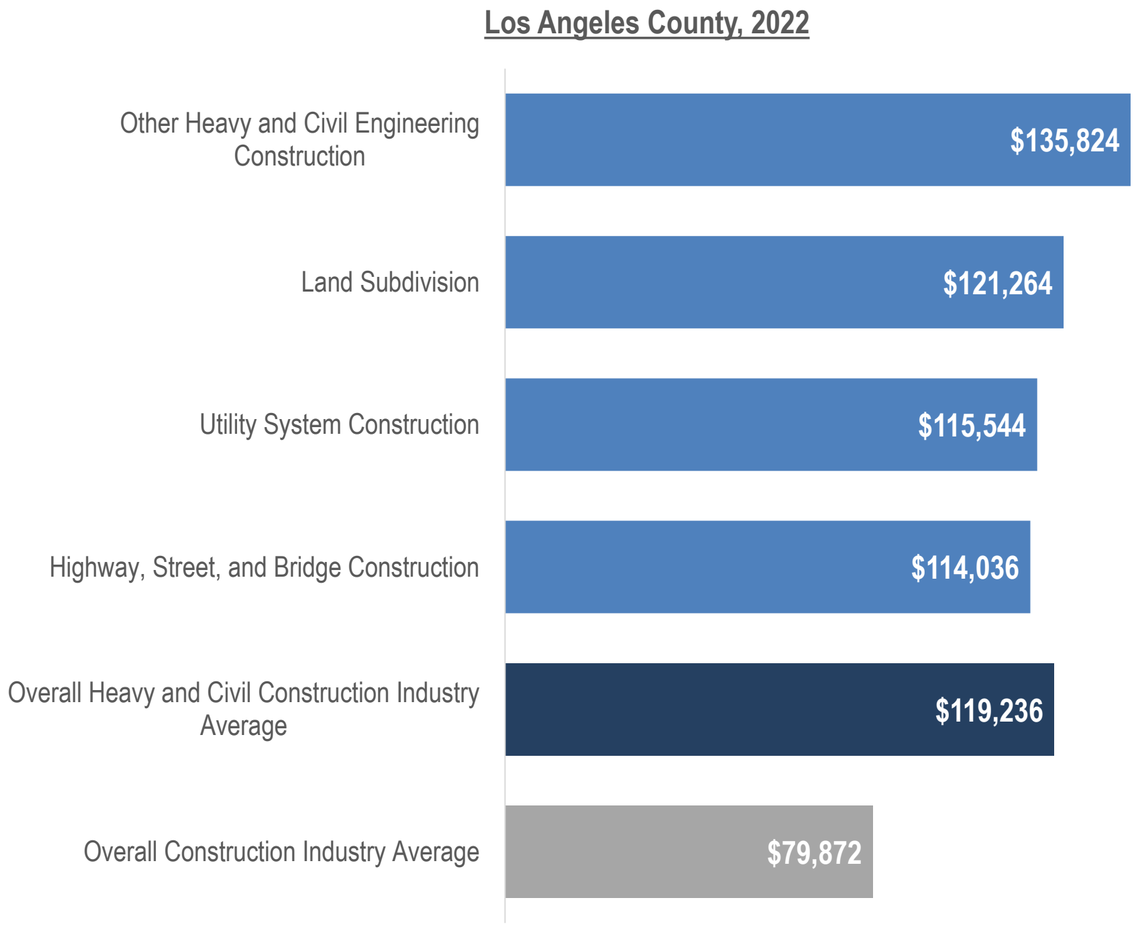


Source: CA EDD, Lightcast

- Utility System Construction remains the largest subindustry since 2012 with around 50% share of industry employment
- Highway, Street, and Bridge Construction has remained steady at 25% employment share
- Employment share of Other Heavy and Civil Engineering Construction has nearly doubled from 10% to18%
- Payroll jobs in the Land Subdivision industry have fallen from 14% to 7%

Current Landscape

Average Annual Pay in Heavy and Civil Engineering Construction Industries

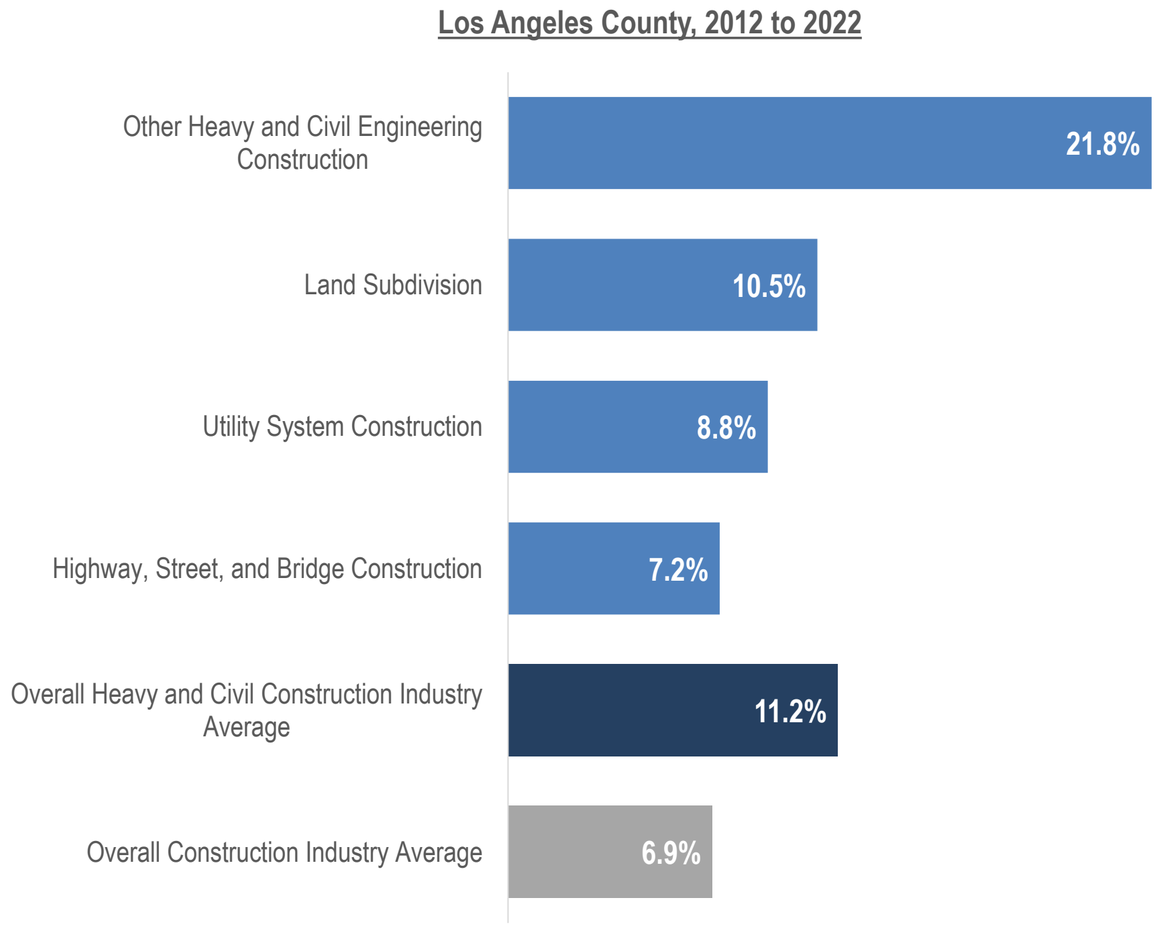


Source: QCEW, CA EDD

- Each subsector in Heavy and Civil Engineering Construction had average annual earnings exceeding the MIT living wage of $44,138 in Los Angeles County (single person) in 2022
- Other Heavy and Civil Engineering Construction is highest at over $135,000, over 3-times the living wage threshold
- In 2022, the average annual wage in:
  - Los Angeles County, $84,000 per year
  - Construction Sector, $79,870 per year
  - Heavy and Civil Engineering Construction subsector, $119,240 per year

Current Landscape

Real Wage Growth in Heavy and Civil Engineering Construction Industries

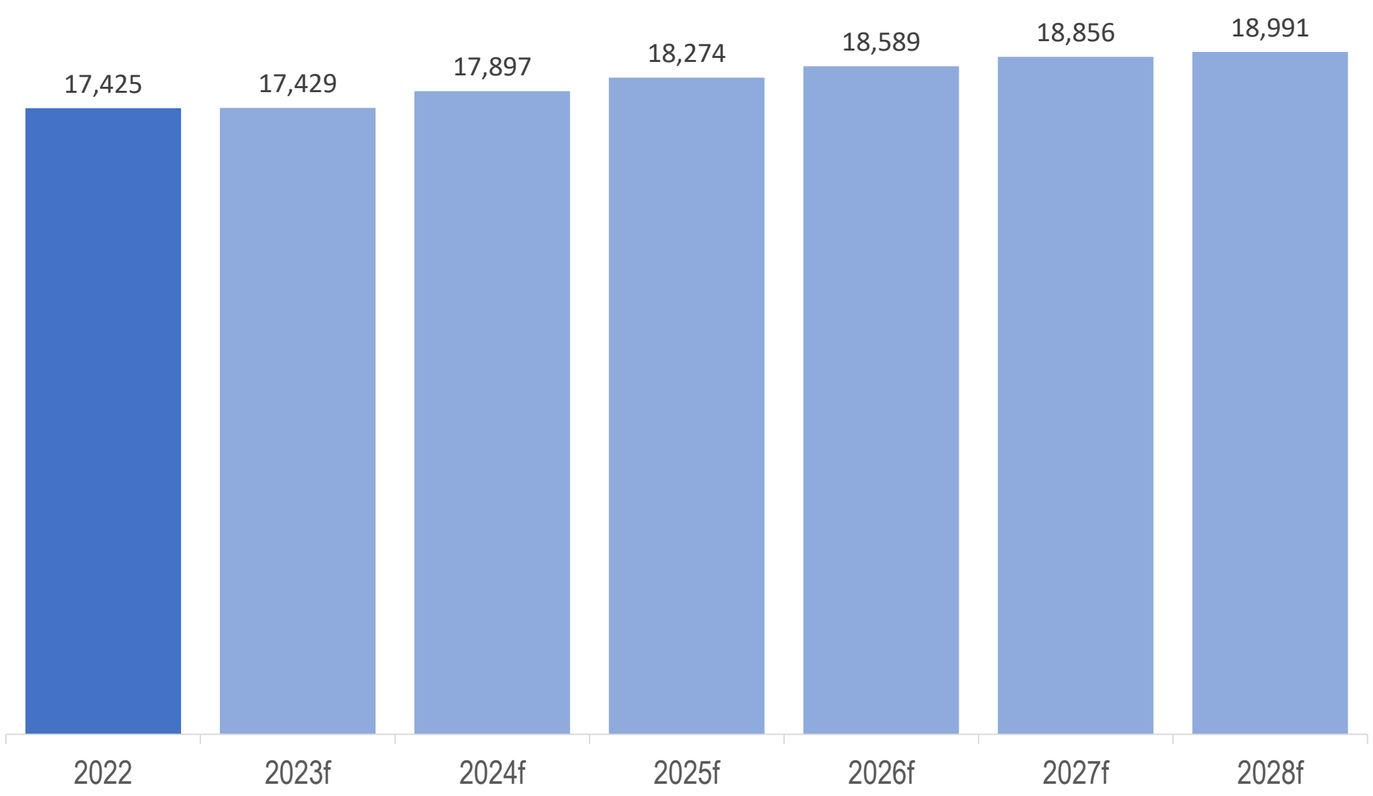


- The largest increase occurred in the Other Heavy and Civil Engineering Construction industry; real wages grew more than 21% since 2012
- Land Subdivision followed at 10.5%
- Utility System Construction and Highway, Street, and Bridge Construction grew at 8.8% and 7.2% respectively
- Overall, real wages in the Heavy and Civil Engineering Construction subsector grew by 11.2%, outpacing the Construction sector as a whole by over 4 percentage points.

Source: QCEW, CA EDD

Looking Forward

Heavy and Civil Engineering Construction Forecasted Employment
Los Angeles County, 2012-2022



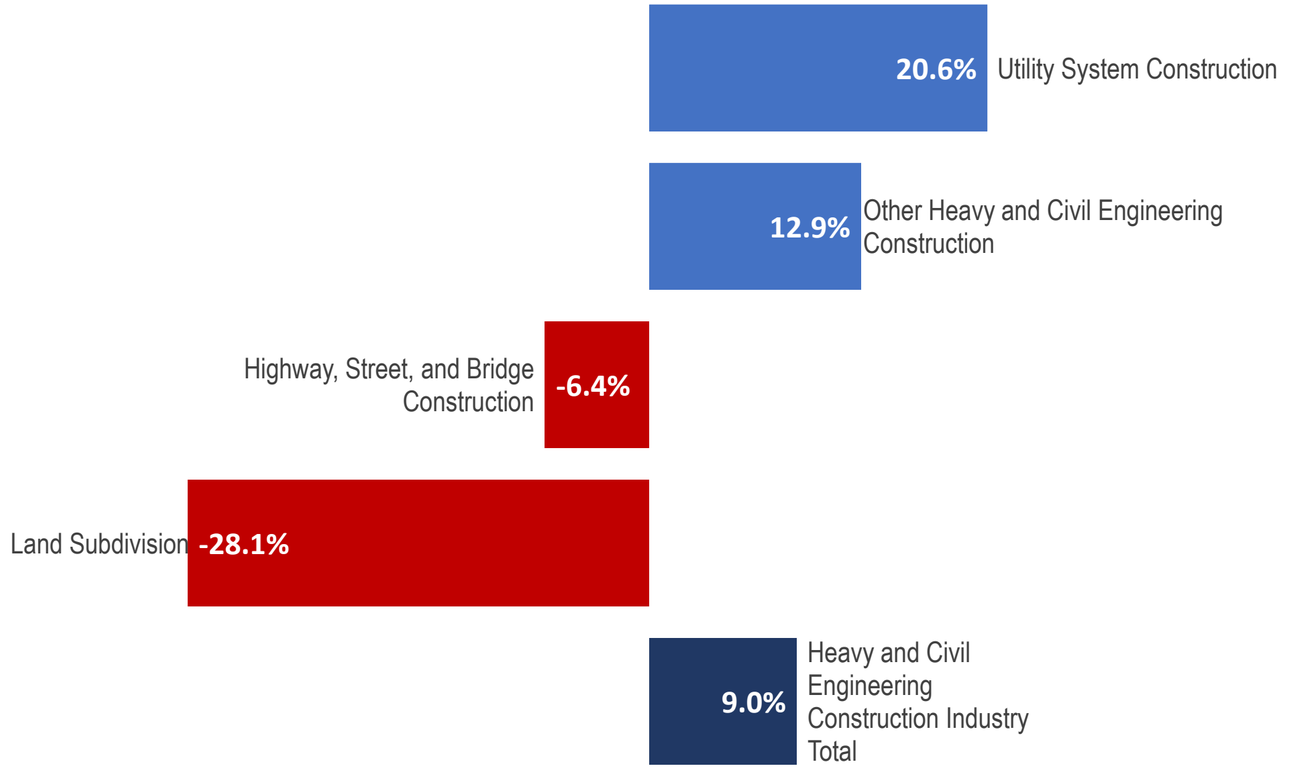
Source: CA EDD, Lightcast

- From 2022 to 2028, payroll employment in the Heavy and Civil Engineering Construction subsector overall is forecasted to grow by 9%
- Adding just under 1,600 net new jobs over the next 6 years at a rate of 260 new jobs per year

Looking Forward

- Within the subsector, the industries have varying growth projections
- Overall, Heavy and Civil Engineering Construction industries are expected to grow 9% through 2028.
- The Utility System Construction industry is forecasted to have the highest rate of job growth, increasing by 20.6%.
- Through 2028, jobs in Land Subdivision and jobs in Highway, Street and Bridge Construction are expected to decline by 28.1% and 6.4%, respectively.

Forecasted Employment Growth in Heavy and Civil Engineering Construction Industries, Los Angeles County, 2022 to 2028



Source: Lightcast

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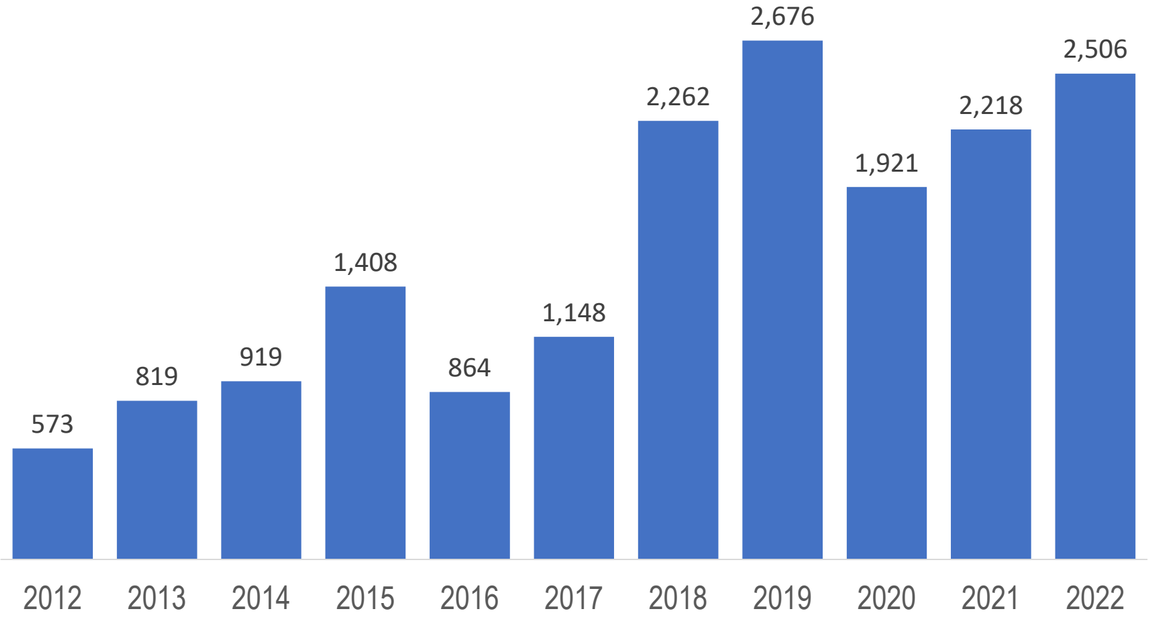
Employer Job Postings

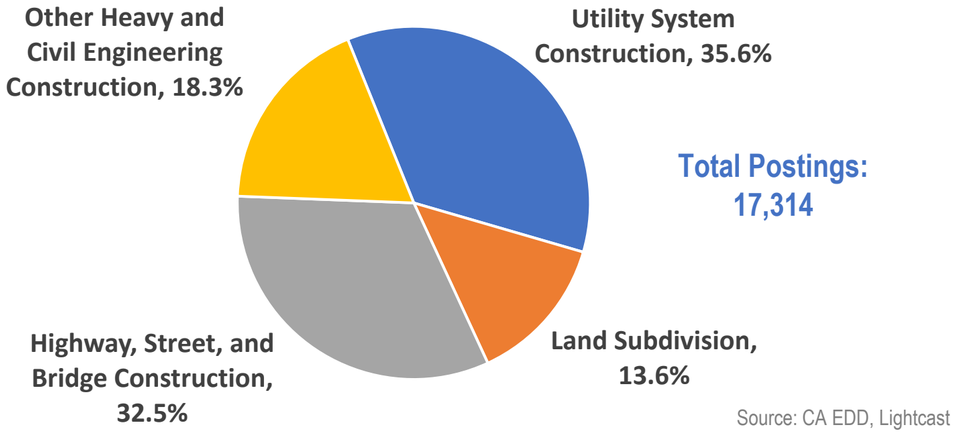
Total Heavy and Civil Engineering Construction Job Postings, Los Angeles County, 2012 to 2022



Source: Lightcast

- Job postings peaked in 2019, with more than 2,670 job postings compared to just over 570 job postings in the subsector in 2012

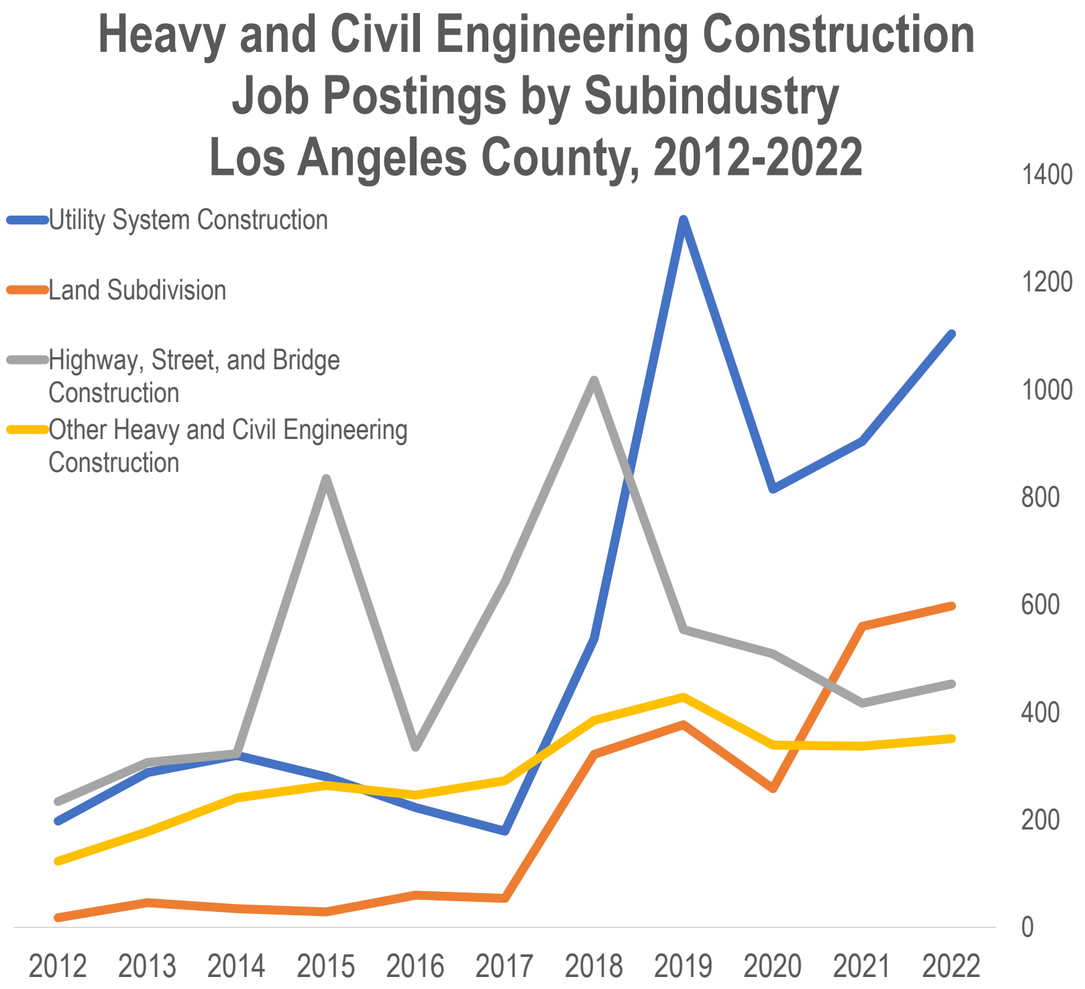
Distribution of Heavy and Civil Engineering Construction Job Postings, Los Angeles County 2012 to 2022



Source: CA EDD, Lightcast

- The Utility System Construction industry represents the largest share of job postings over the last decade, accounting for over 35% of total job postings over the period
- The Highway, Street, and Bridge Construction industry followed closely behind, accounting for 32.5% of all job postings over the period

Employer Job Postings

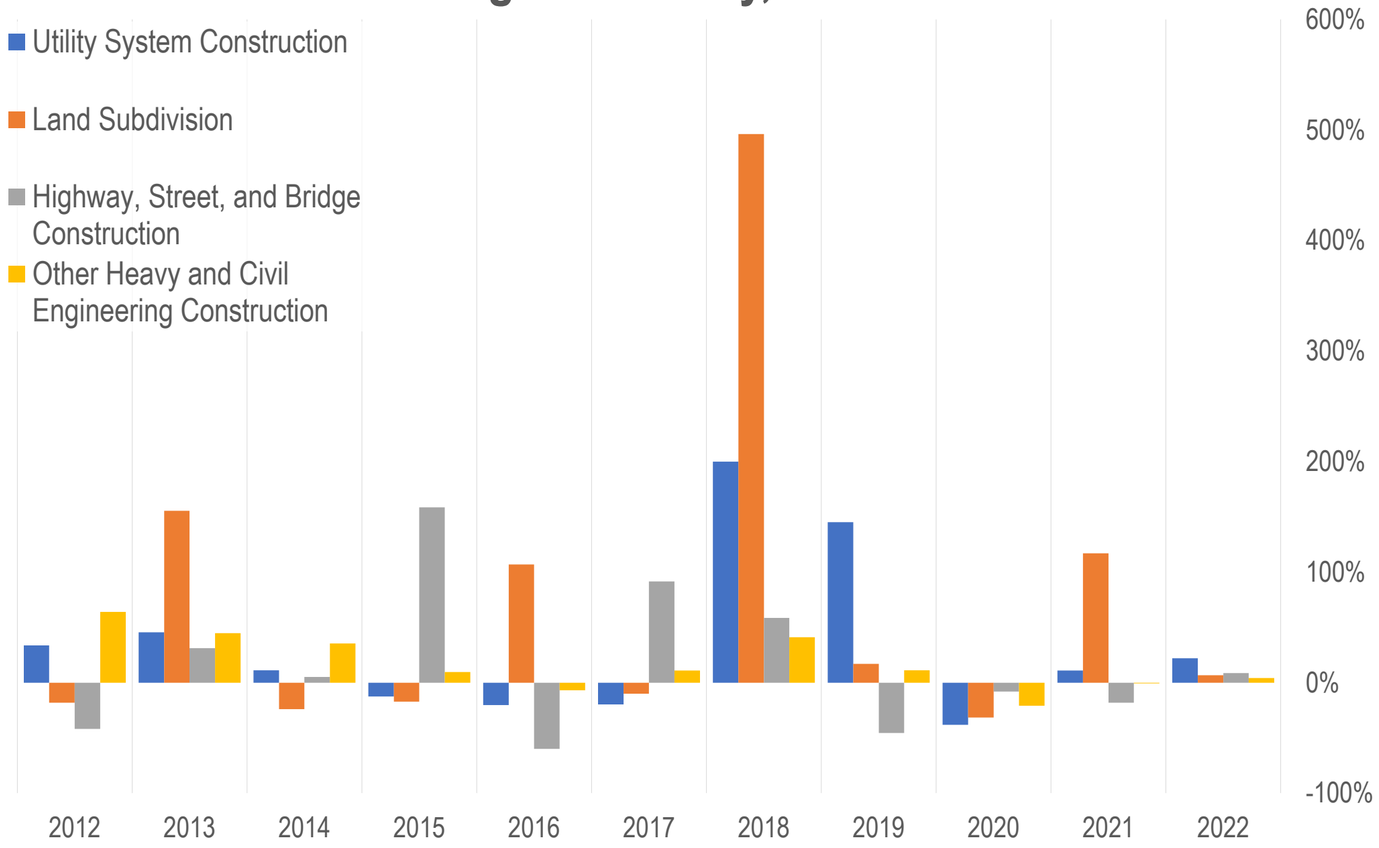


Source: Lightcast

- Utility Systems Construction industry has the most job postings in 2022 after a rapid increase in the number of postings between 2017 and 2019
- Job postings in Land Subdivision have increased from the lowest level to the second most postings in 2022, rising since 2017
- Highway, Street, and Bridge Construction has experienced the most variability in job postings, going from most postings in 2012 to the third most in 2022
- Other Heavy and Civil Engineering Construction has experienced the steadiest growth in the last decade, but have the fewest posts in 2022

Employer Job Postings

Growth in Heavy and Civil Engineering Construction Job Postings by Subindustry Los Angeles County, 2012-2022

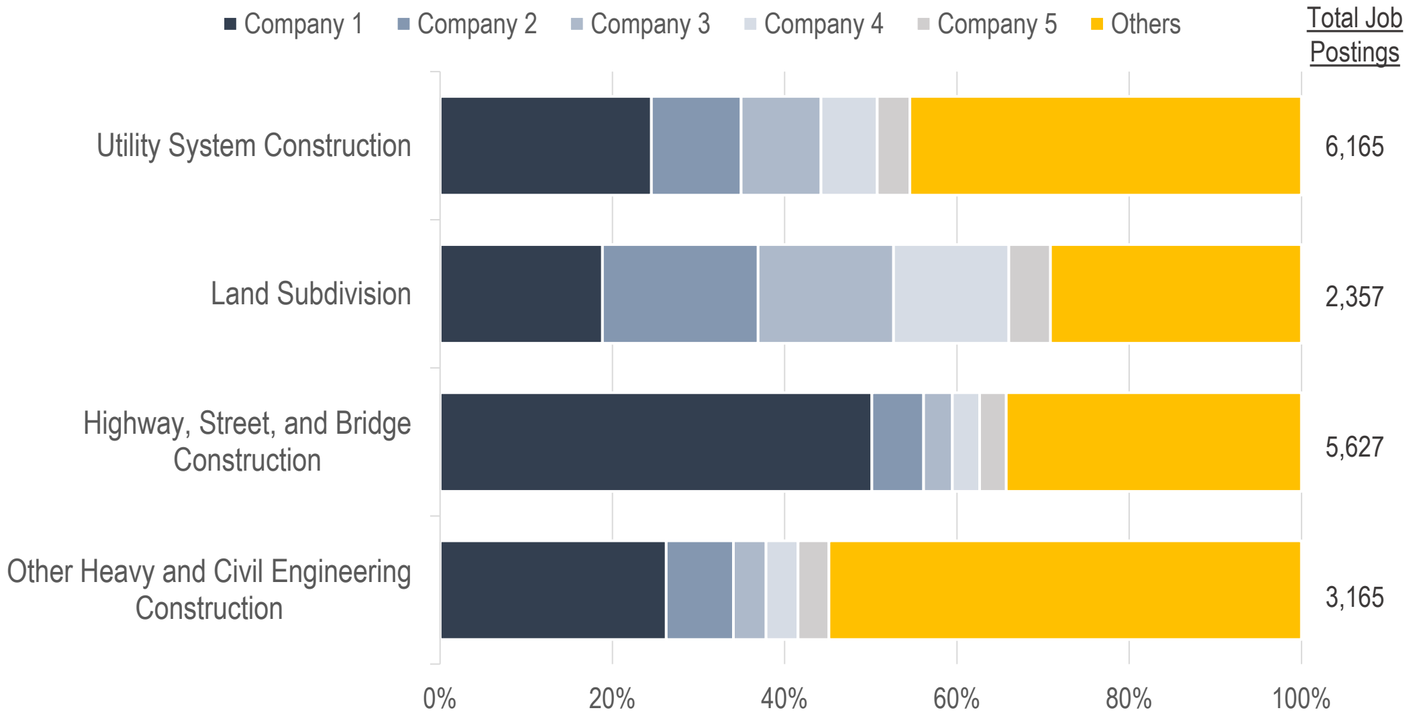


Source: Lightcast

- Land Subdivision has had the most year-to-year variability since 2012
- Utility System Construction and Highway, Street, and Bridge Construction have also experienced significant variability, with both subindustries having years of nearly 200% year-to-year growth between 2012 to 2022
- Other Heavy and Civil Engineering Construction has been the most stable

Job Postings: Concentration in Top 5

Concentration of Hiring Among the Top 5 Companies by Job Postings in Heavy and Civil Engineering Construction Industry of Los Angeles County, 2012-2022

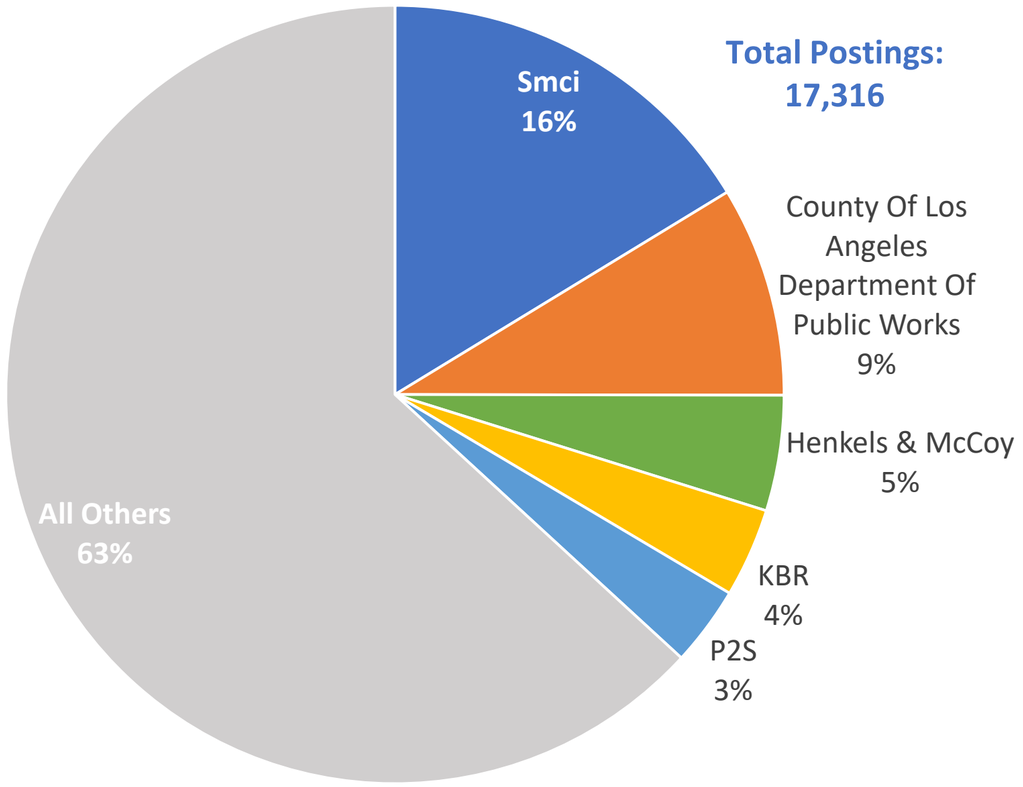


Source: CA EDD, Lightcast

- Most subindustries have a high concentration of their job postings within their top 5 respective companies.
- Land Subdivision is the most concentrated with over 70% of postings coming from the top 5 companies.
- Other Heavy and Civil Engineering Construction is the only subindustry with the top 5 companies accounting for less than half of job postings

Job Postings: Concentration in Top 5

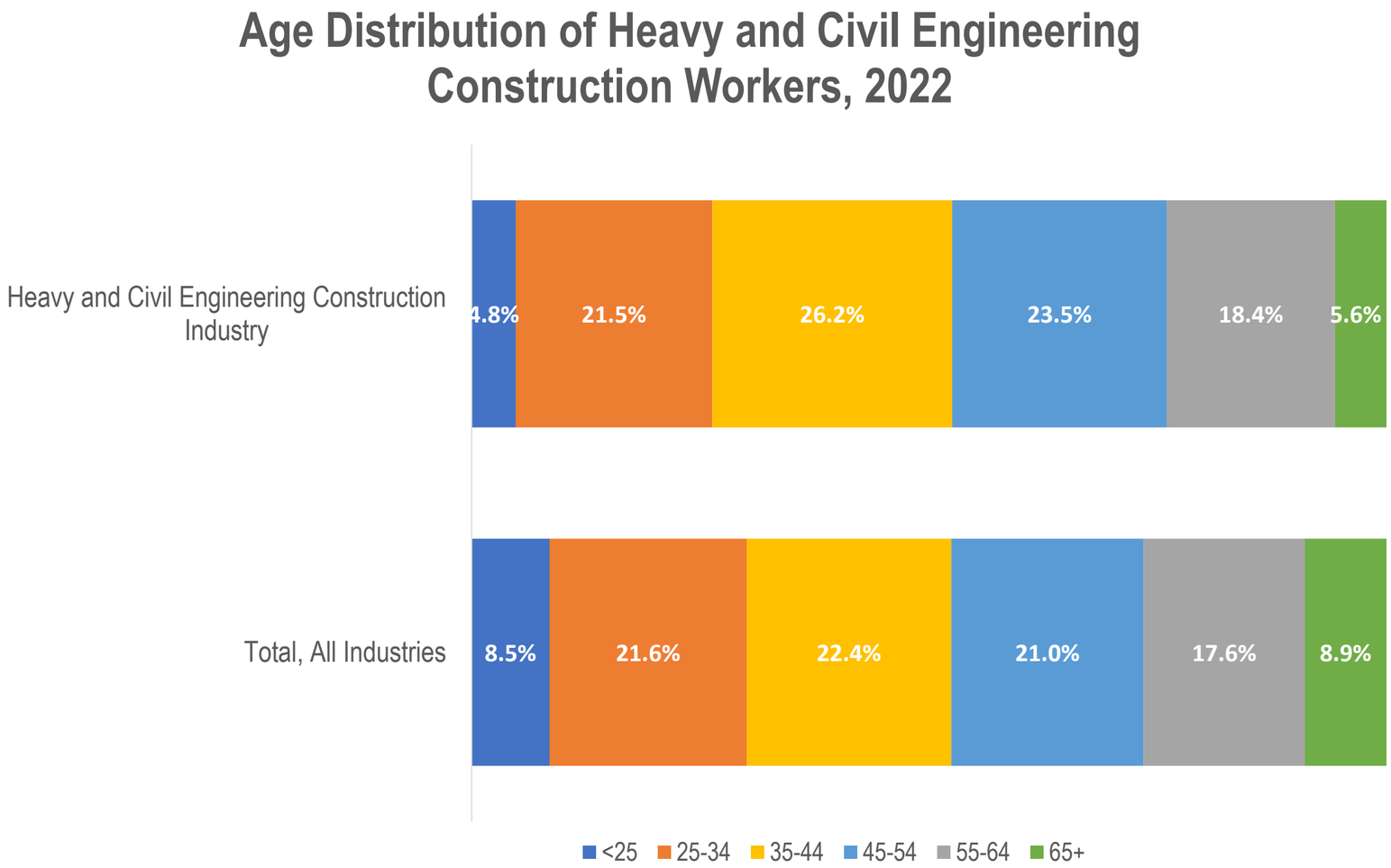
Top Companies by Job Postings in the Heavy and Civil Engineering Construction Industry, Los Angeles County, 2012 to 2022



Source: Lightcast

- Smci has the largest share of job postings, representing 16% of posted opportunities
- The top 2 companies account for a quarter of posted opportunities with County of Los Angeles Department of Public Works at 9%
- Henkel & McCoy, KBR, and P2S account for a combined 12%
- Postings are highly concentrated in these 5 companies, accounting for 37% of all postings in the industry over the period

Industry Demographics

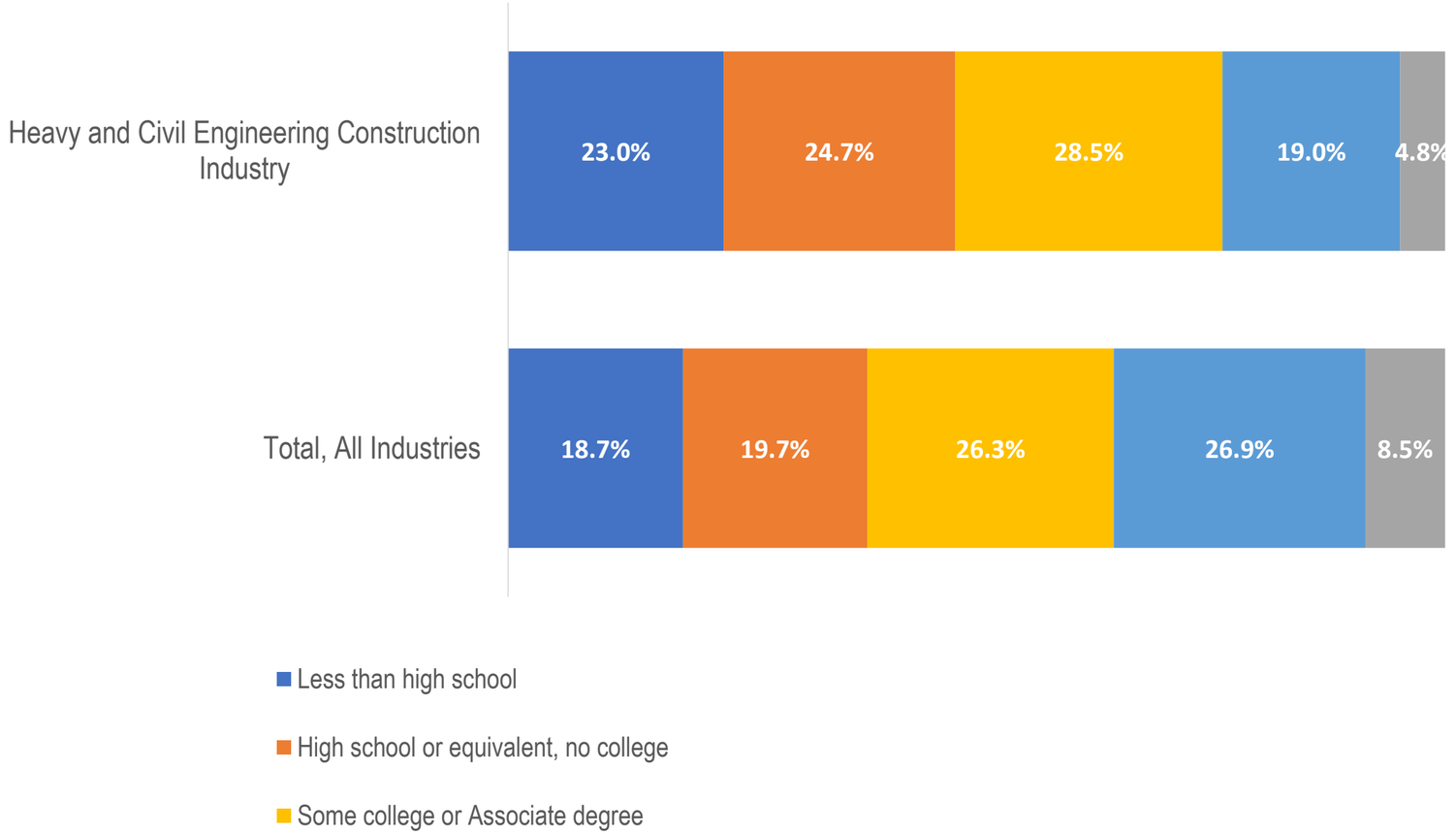


- Over 47% of employees in Heavy and Civil Engineering Construction industries are between 25 and 44 years old, about 3% more than in other industries in Los Angeles County.
- Overall, Heavy and Civil Engineering Construction workers are similar to other industries, with about 53% of workers under 45 years old.

Source: Census QWI, 2022

Industry Demographics

Educational Attainment of Heavy and Civil Engineering Construction Workers, 2022

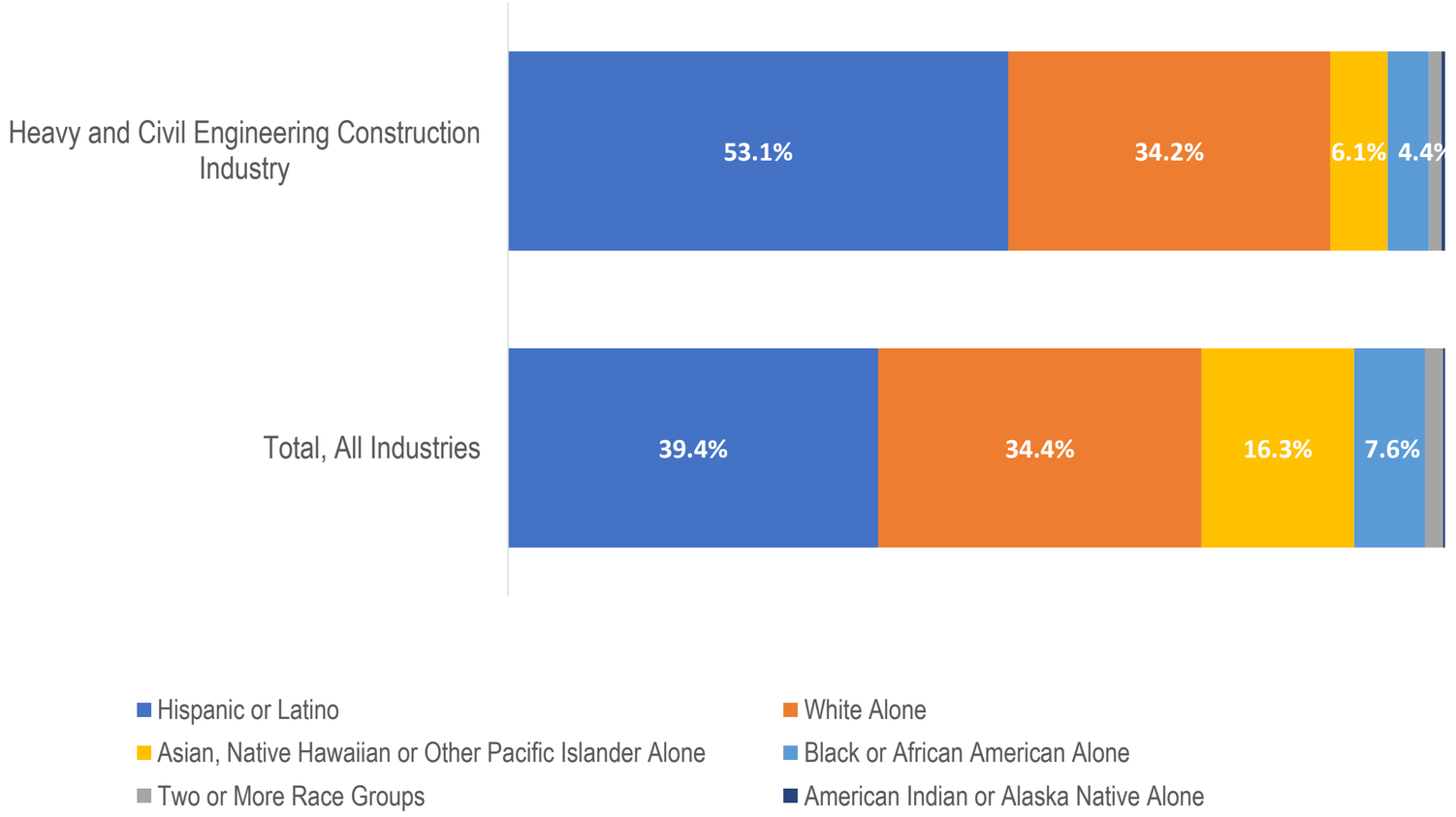


Source: Census QWI, 2022

- About 19% of employees in Heavy and Civil Engineering Construction industries have a Bachelor's degree
  - Nearly 8% less than in other industries in Los Angeles County
- Compared to other industries, jobs have a lower proportion of employees with some college experience or a bachelor's degree
  - Almost 48% of employees compared to over 53% in all other industries

Industry Demographics

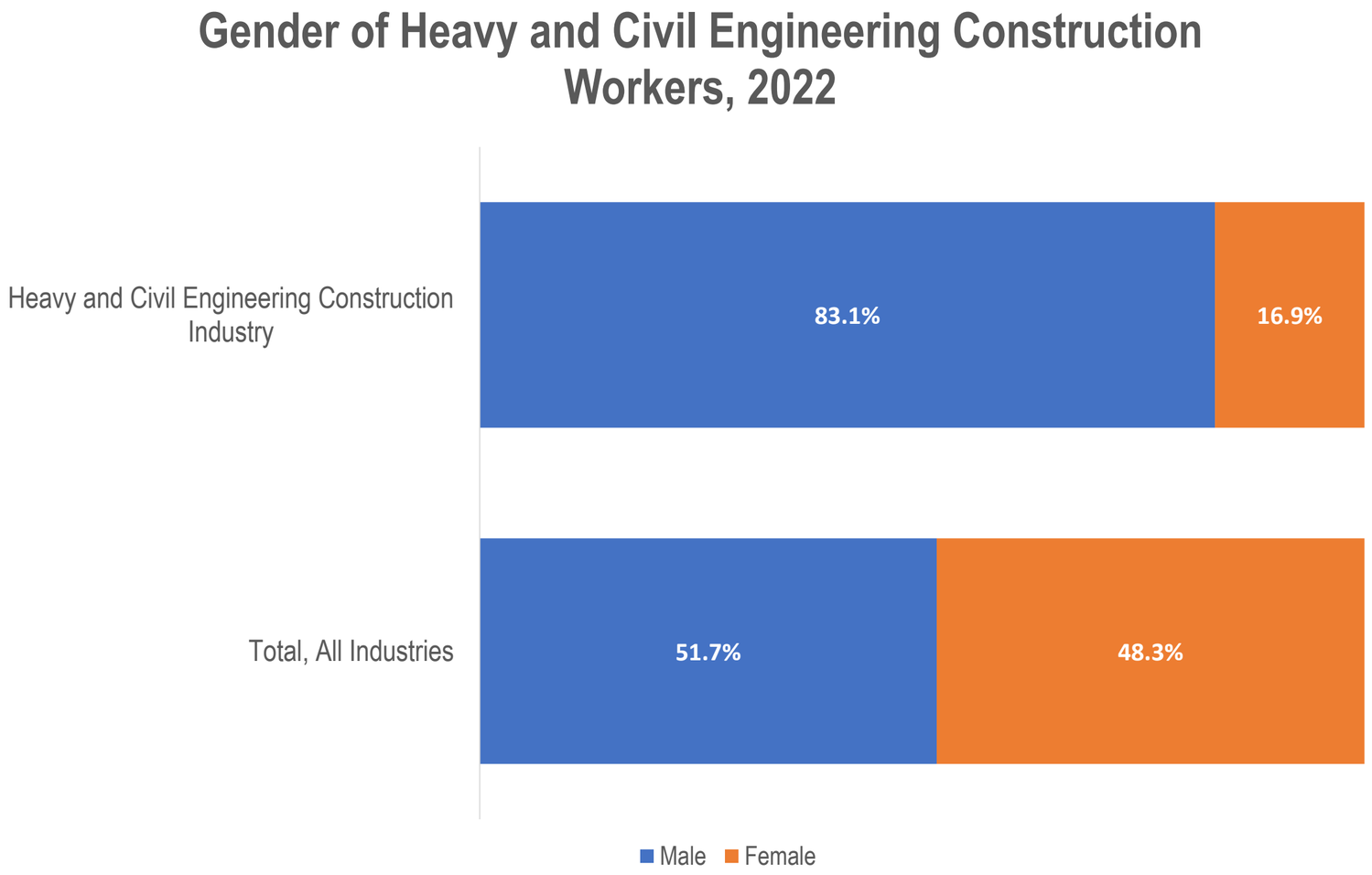
Race / Ethnicity of Heavy and Civil Engineering Construction Workers, 2022



Source: Census QWI, 2022

- Over half of its worker reporting their ethnicity as Hispanic/Latino
  - Nearly 14% points higher than the all-industry average in Los Angeles County
- Asian and Pacific Islander workers are underrepresented with only 6% of workers compared to over 16% across all industries
- Black workers are also underrepresented, with only just over 4% of workers identifying as black compared to nearly 8% across all industries

Industry Demographics



- The gender distribution in Heavy and Civil Engineering Construction is heavily skewed male, those reporting as male accounting for over 83% of the workforce
- Across all industries in Los Angeles County the distribution between genders is more even, with just under 52% of workers reporting as male that's only 3.4% points higher

Source: Census QWI, 2022

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Occupations Demographics

Source: Census QWI, 2022

Metric		First-Line Supervisors of Construction Trades and Extraction Workers	Construction Managers	Electrical Power-Line Installers and Repairers	Cost Estimators	Construction and Building Inspectors
Sex	Male	94.8%	87.5%	97.7%	81.3%	87.3%
	Female	5.2%	12.5%	2.3%	18.7%	12.7%
Education	Less than HS	16.9%	7.3%	5.0%	2.9%	2.4%
	High School	44.0%	27.9%	39.6%	20.6%	26.0%
	Some College / Associates	29.0%	31.2%	46.8%	37.7%	40.7%
	Bachelor's	8.3%	26.8%	7.6%	32.5%	24.0%
	Graduate School	1.7%	6.8%	1.1%	6.3%	6.9%
Age	<25	1.9%	1.6%	5.6%	2.8%	2.1%
	25-34	14.9%	15.2%	27.6%	16.2%	12.3%
	35-44	24.4%	24.4%	30.2%	18.7%	20.0%
	45-54	27.2%	25.4%	21.8%	20.6%	24.3%
	55-64	22.9%	23.2%	13.1%	25.5%	27.9%
	>65	8.7%	10.2%	1.7%	16.2%	13.4%
Race	Hispanic	46.0%	30.4%	42.5%	29.9%	33.9%
	White	44.9%	55.1%	45.7%	54.5%	46.3%
	Asian	3.7%	9.4%	2.9%	12.3%	9.9%
	Black	3.2%	2.9%	5.6%	1.4%	6.0%
	All Others	2.1%	2.2%	3.3%	1.9%	3.8%

- These occupations are accessible to workers with some college/AA degree or a Bachelor's degree, with about 61% to 91% of workers in these occupations with similar levels of education or less

- Female workers are underrepresented across these occupations, accounting for only 2.3% of workers in Electrical Power-Line Installers and Repairers, and 18.7% of workers in Cost Estimators occupations
- Latino workers are also most underrepresented in Cost Estimators and Construction Managers occupations, accounting for just under 1/3rd of the workers
- Across these five occupations, over 55% of workers are prime working age between ages of 25 and 54 years
  - Compared to just over 43% across all industries in LA County

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Key Takeaways

- Real wages have grown over 11% in the Heavy and Civil Engineering Construction subsector between 2012 to 2022
- All industries in subsector pay a living wage in Los Angeles county on average
- Utility Systems Construction industry is expected to grow the most through 2028, with growth over 20% percent
- Other Heavy and Civil Engineering industry is expected to grow nearly 13% through 2028
- Employment is expected to grow nearly 10% on average across all Heavy and Civil Engineering Construction industries through 2028.

CONTACT INFORMATION

Matthew Skyberg
matthew.skyberg@laedc.org

Luke Meyer

DIRECTOR

Los Angeles Center of Excellence for Labor Market Research

hosted at MT. SAN ANTONIO COLLEGE

Community College Talent Supply

Heavy and civil engineering construction programs are offered at 15/19 of the community colleges in LA, primarily focused on:

- Architecture & Architectural Technology
- Drafting
- Welding Technology
- Construction Management and Inspection
- Specific Trades (Carpentry, Electrical, Plumbing, etc.)

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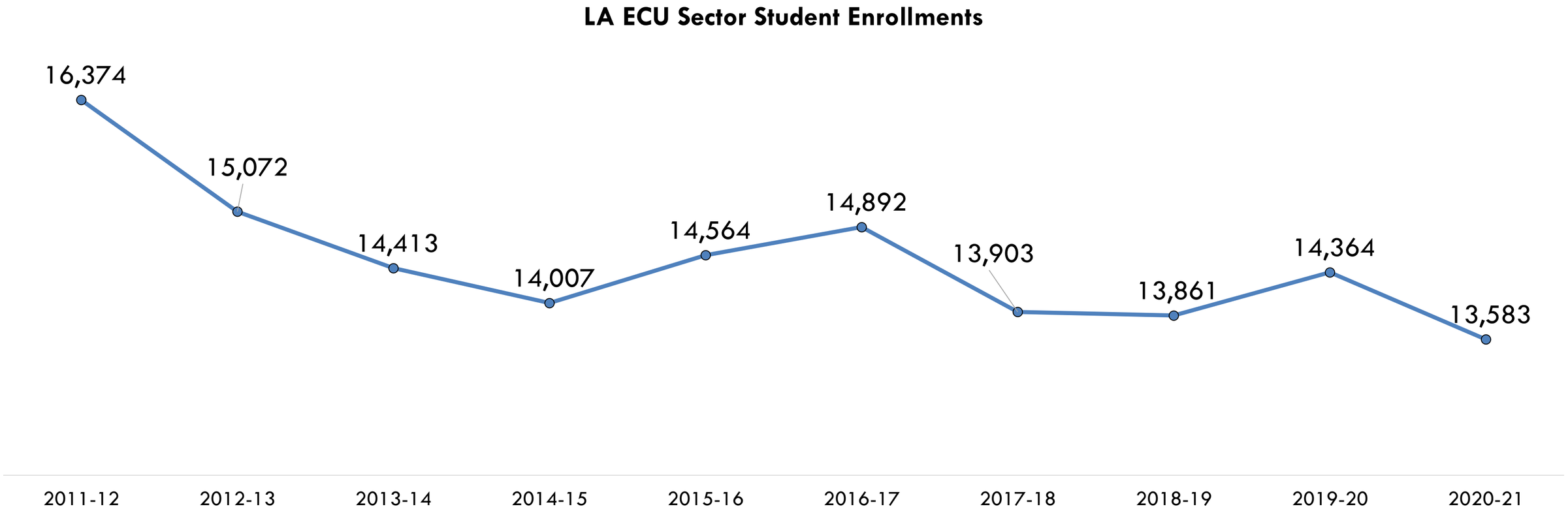
Community College Talent Pipelines

Architecture & Architectural Technology	Drafting Technology	Welding Technology	Civil & Construction Management Technology	Energy Systems Technology
• Cerritos	• Cerritos	• Cerritos	• Citrus	• Cerritos
• Citrus	• Citrus	• Compton	• East L.A.	• L.A. Southwest
• East L.A.	• East L.A.	• El Camino	• L.A. Valley	• L.A. Trade-Tech
• El Camino	• El Camino	• Glendale	• Long Beach City	• Mt. San Antonio
• Glendale	• Glendale	• L.A. Pierce	• Mt. San Antonio	• Pasadena City
• L.A. Harbor	• L.A. Mission	• L.A. Trade-Tech	• Pasadena City	• Rio Hondo
• L.A. Pierce	• L.A. Pierce	• Long Beach City	• Rio Hondo	• Santa Monica
• L.A. Trade-Tech	• L.A. Valley	• Mt. San Antonio	• West L.A.	
• L.A. Valley	• Long Beach City	• Pasadena City		
• Long Beach City	• Mt. San Antonio	• Rio Hondo		
• Mt. San Antonio	• Pasadena City			
• Pasadena City	• Rio Hondo			
• Rio Hondo				
• Santa Monica				
• West L.A.				

Other Energy, Construction & Utilities programs: Construction Crafts Technology, Environmental Control Technology (HVAC), Telecommunications Technology, Electrical Systems and Power Transmission, Surveying, Construction Inspection, Carpentry, Plumbing, Pipefitting and Steamfitting, Mill and Cabinet Work, Electrical, Drywall and Insulation, Sheet Metal and Structural Metal, Architectural & Civil Drafting, and more.

ECU Student Completions

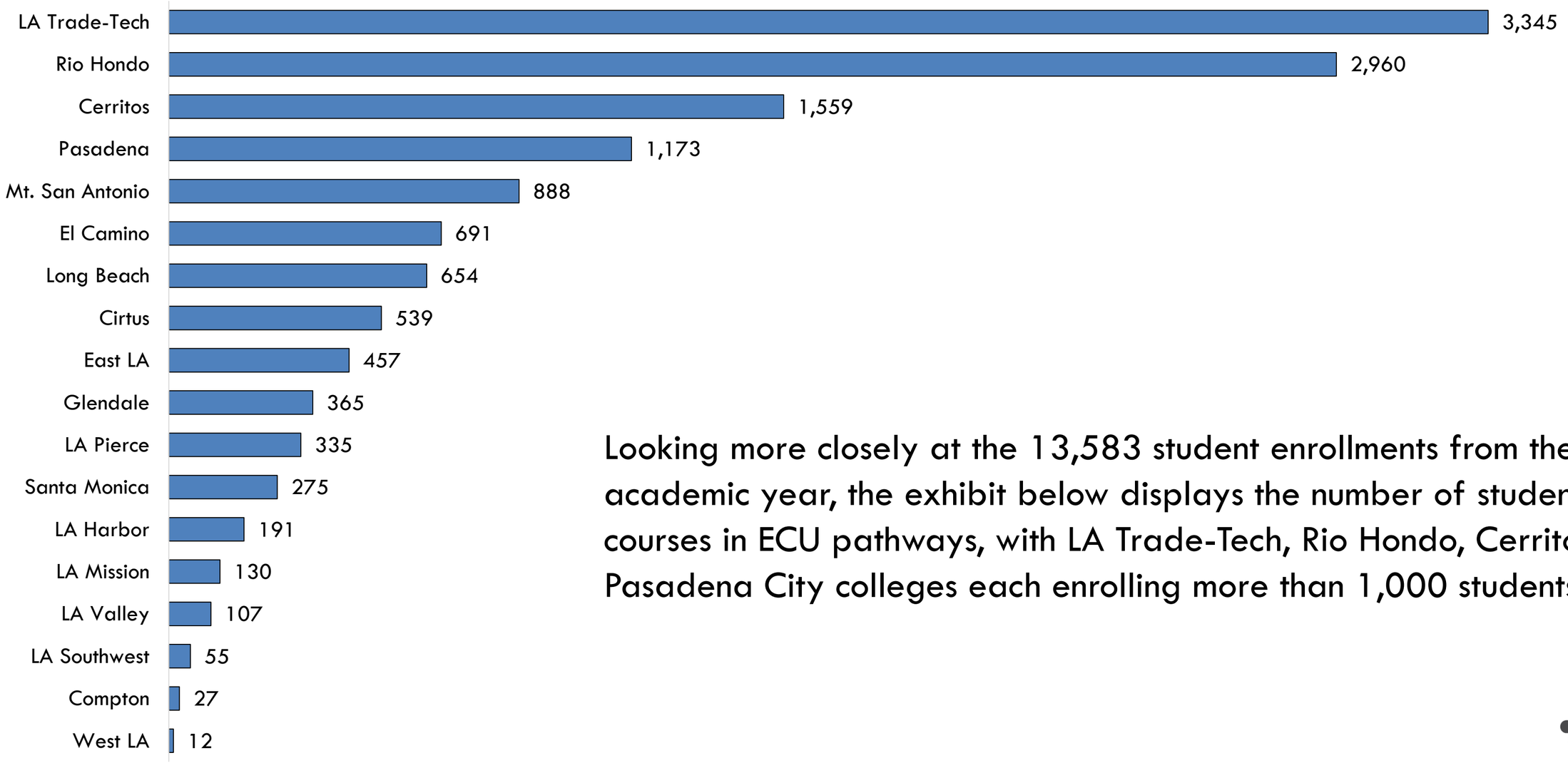
Since the 2011-12 academic year, student enrollments in Energy, Construction & Utilities (ECU) courses have declined by 2,791 or 17%, to 13,583 enrollments in the 2020-21 academic year.



Source: California Community Colleges LaunchBoard

ECU Enrollments by College

LA ECU Student Enrollments by College, 2020-21



Looking more closely at the 13,583 student enrollments from the 2020-21 academic year, the exhibit below displays the number of students taking courses in ECU pathways, with LA Trade-Tech, Rio Hondo, Cerritos, and Pasadena City colleges each enrolling more than 1,000 students.

Source: California Community Colleges LaunchBoard

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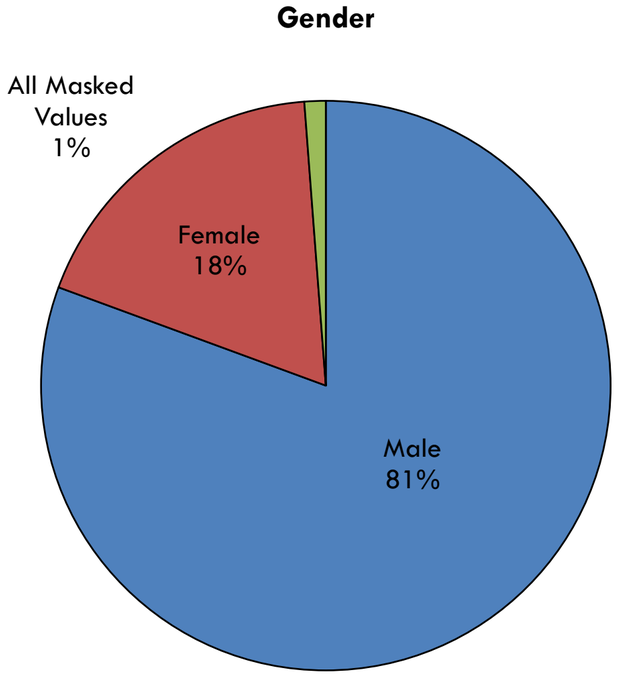
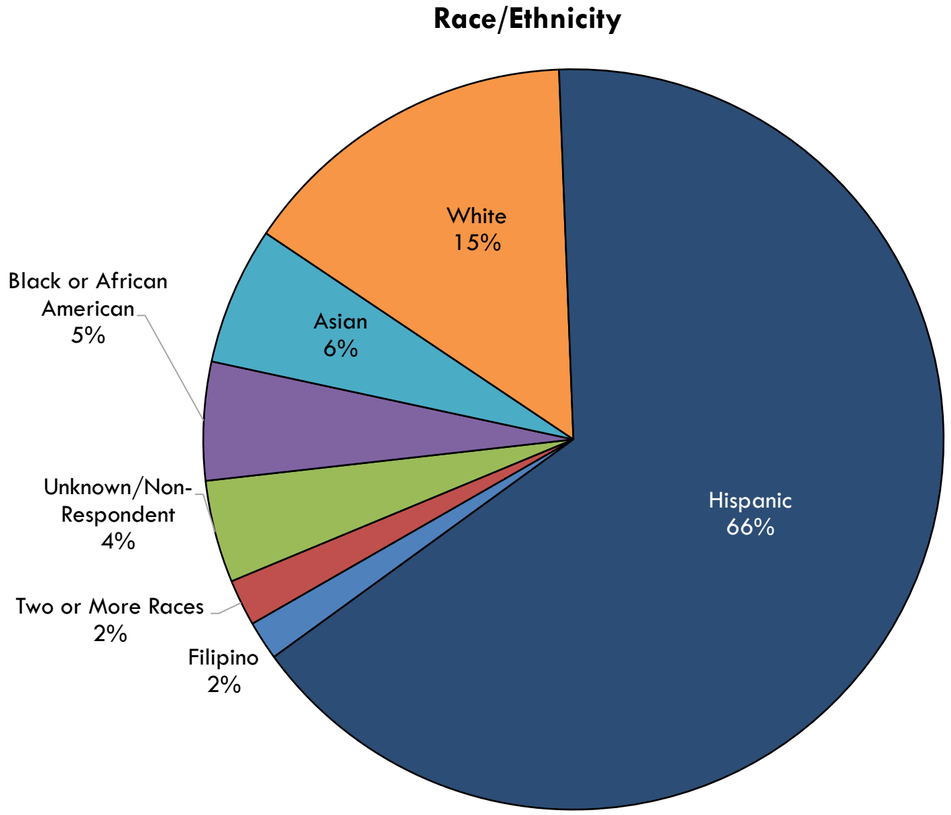
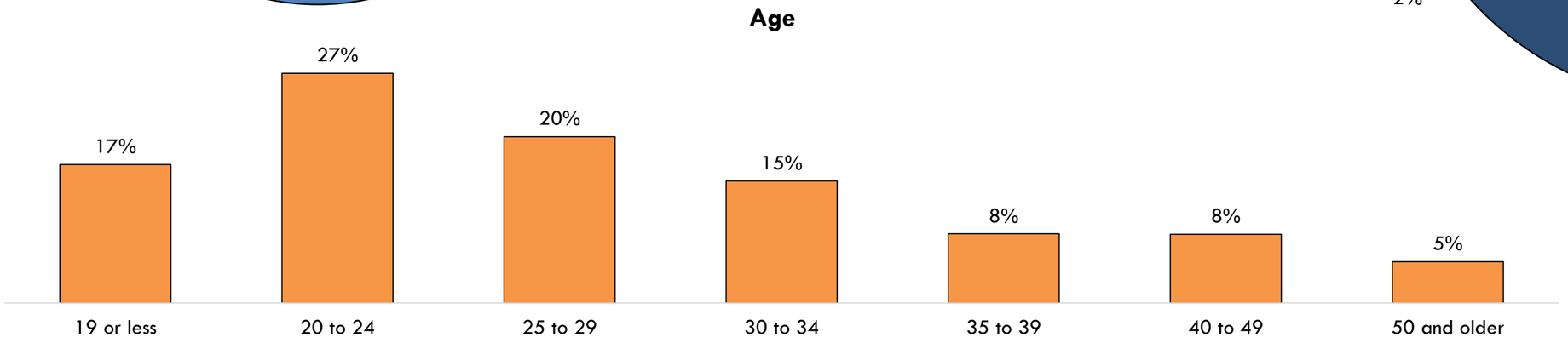
ECU Student Demographics



Approximately eight out of every ten ECU students at the LA community colleges are male, two-thirds identify as Hispanic, and just under two-thirds are 29-years-old or younger.





Source: California Community Colleges LaunchBoard

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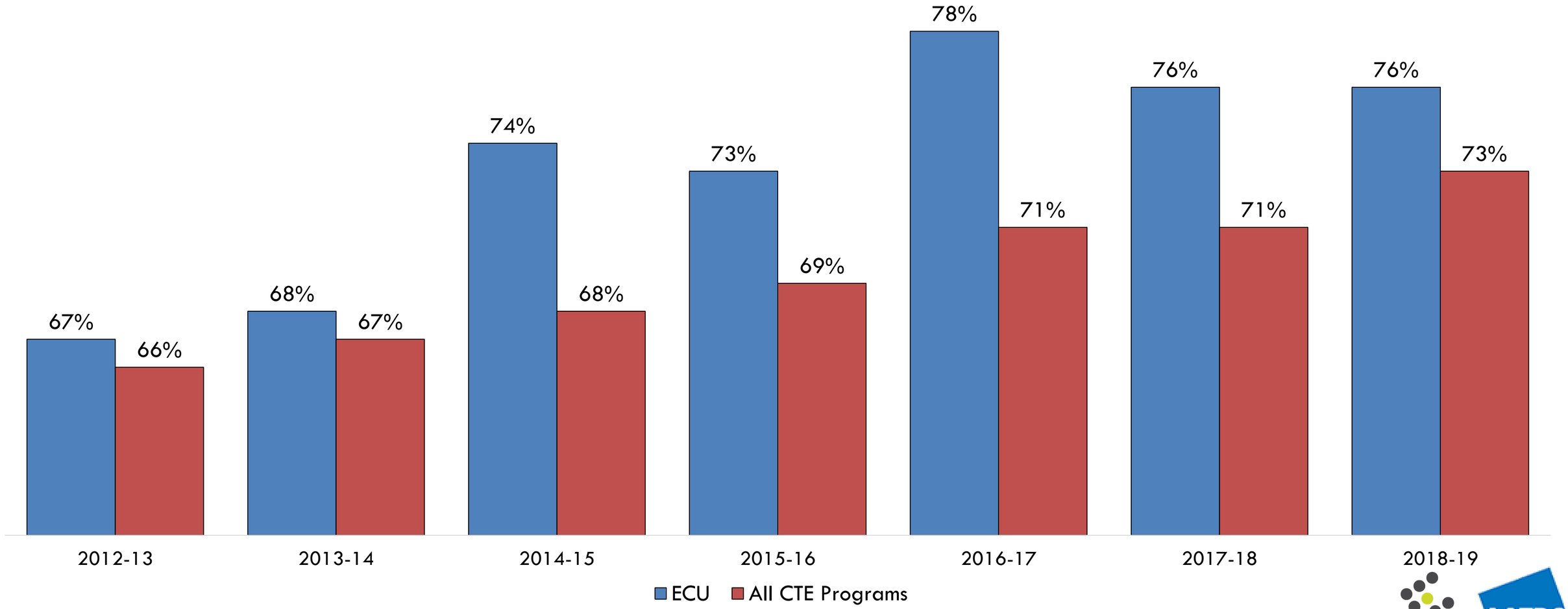
ECU Programs At-a-Glance

TOP6 - Program Title	2018-19	2019-20	2020-21	Latest 3 Yr Avg
020100 - Architecture and Architectural Technology	206	176	241	**208**
095650 - Welding Technology	228	127	233	**196**
094600 - Environmental Control Technology (HVAC)	209	102	185	**165**
095220 - Electrical	149	135	147	**144**
095200 - Construction Crafts Technology	230	120	70	**140**
095300 - Drafting Technology	93	102	125	**107**
095800 - Water and Wastewater Technology	59	74	60	**64**
095210 - Carpentry	27	38	65	**43**
094610 - Energy Systems Technology	40	24	40	**35**
095230 - Plumbing, Pipefitting and Steamfitting	31	21	33	**28**
095310 - Architectural Drafting	20	12	44	**25**
095340 - Mechanical Drafting	30	25	14	**23**
095700 - Civil and Construction Management Technology	25	24	20	**23**
095720 - Construction Inspection	21	20	14	**18**
210210 - Public Works	22	9	19	**17**
093430 - Telecommunications Technology	13	23	11	**16**
095250 - Mill and Cabinet Work	19	6	4	**10**
095640 - Sheet Metal and Structural Metal	1	11	11	**8**
095320 - Civil Drafting	3	3	4	**3**
095730 - Surveying	-	3	6	**3**
029900 - Other Architecture and Environmental Design	3	2	2	**2**
095330 - Electrical, Electronic, and Electro-Mechanical Drafting	2	-	-	**1**
Total	**1,431**	**1,057**	**1,348**	**1,279**

ECU Student Employment Outcomes



Source: California Community Colleges Chancellor's Office LaunchBoard

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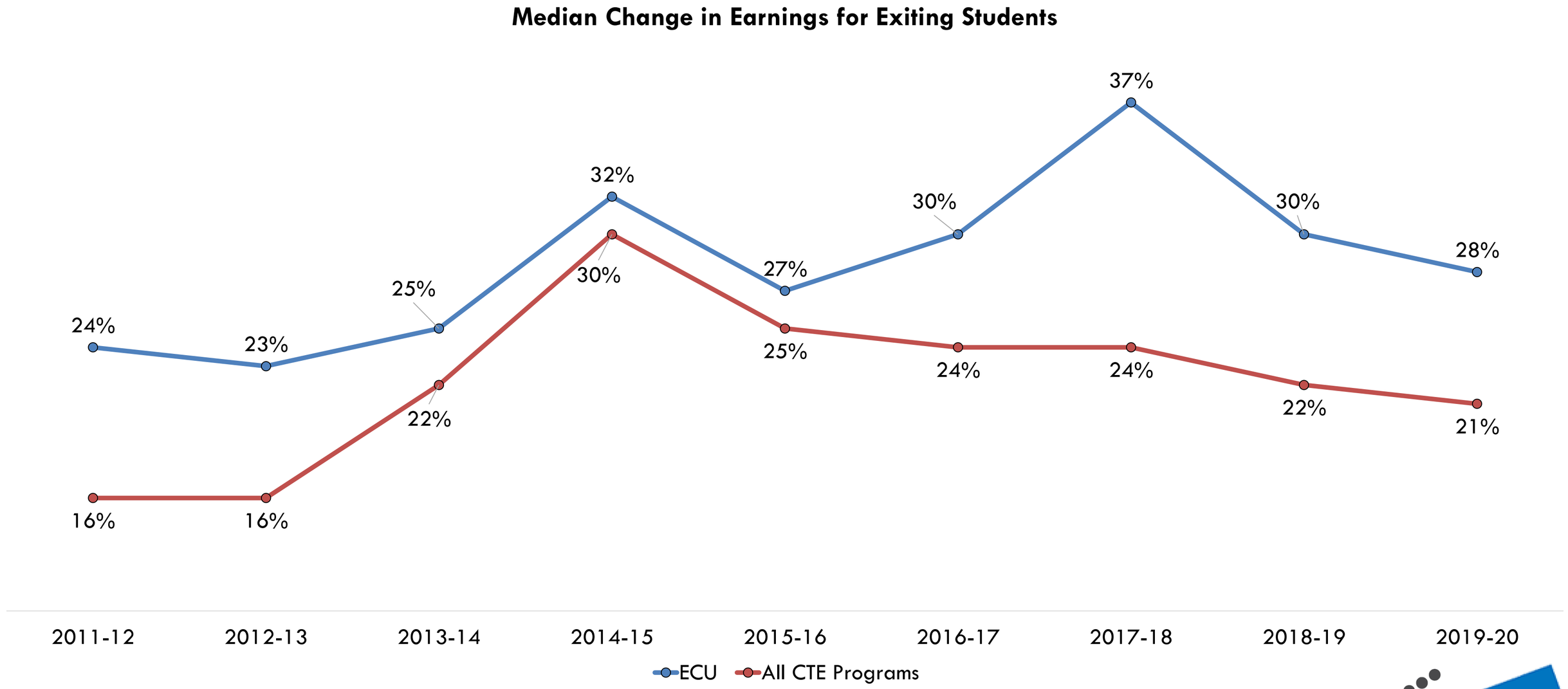
ECU Student Employment Outcomes



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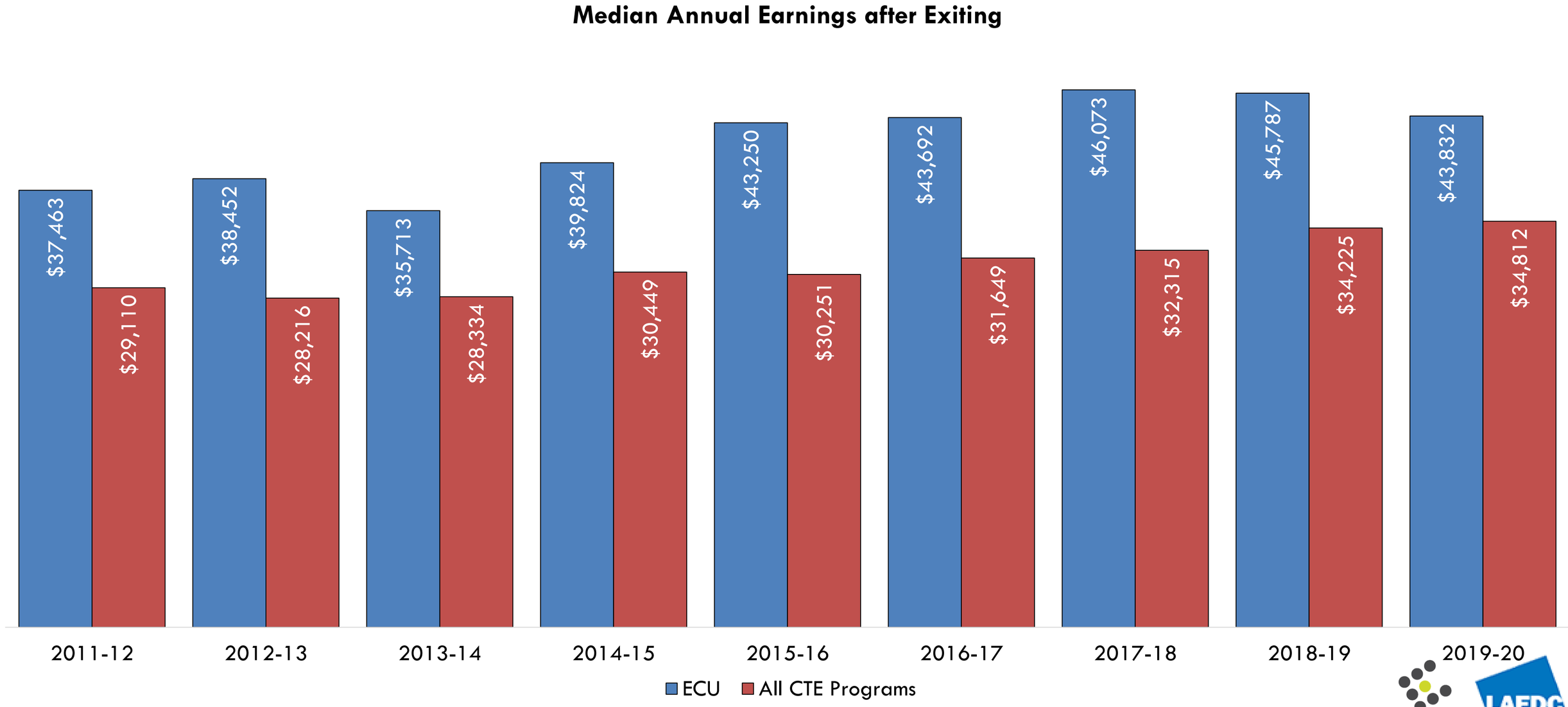
ECU Student Employment Outcomes



Source: California Community Colleges Chancellor's Office LaunchBoard

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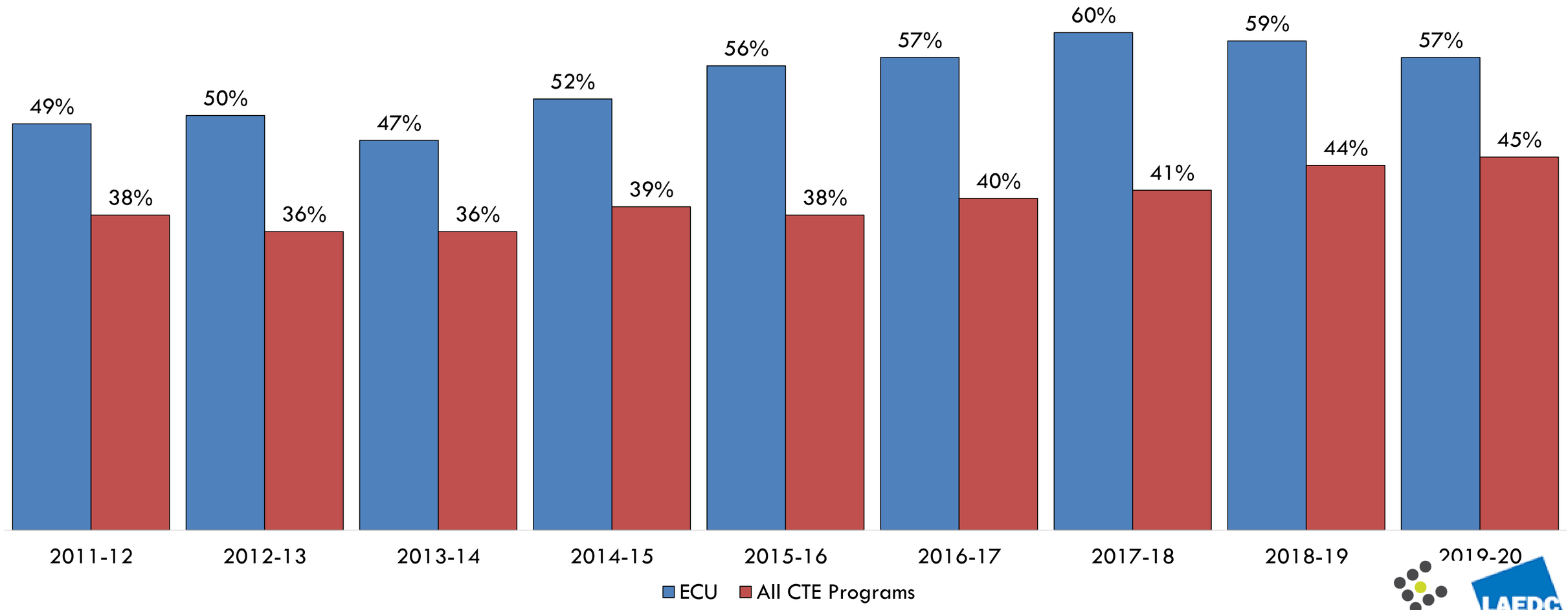
ECU Student Employment Outcomes

Exiting Students Who Attained the Living Wage



Source: California Community Colleges Chancellor's Office LaunchBoard

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Target ECU Occupations

Source: Lightcast, datarun 2024.1

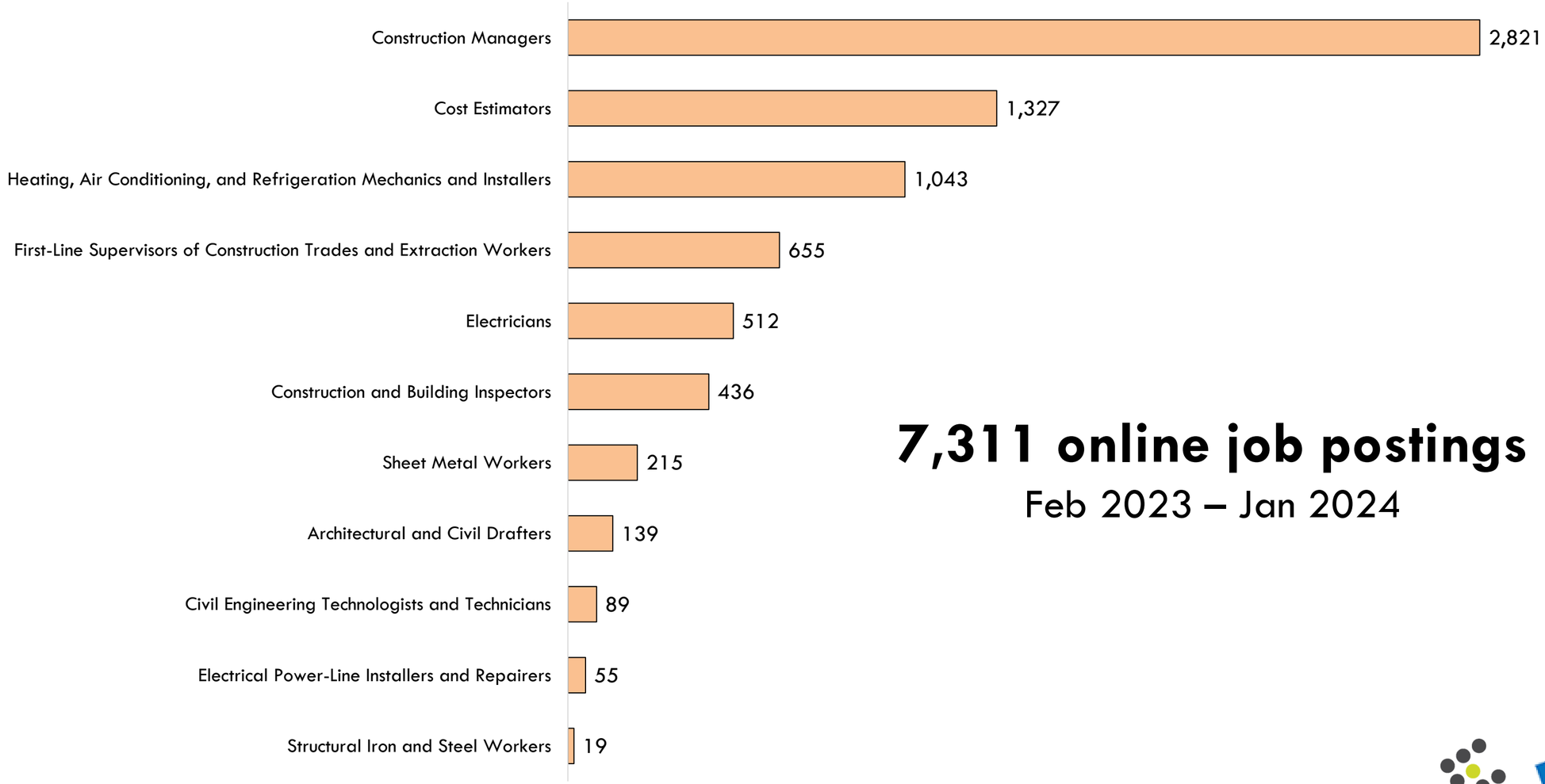
Occupation	2022 Jobs	2027 Jobs	2022 - 2027 % Change	Avg. Annual Openings	Entry-Level Hourly Earnings (25th Percentile)	Median Hourly Earnings	Median Annual Earnings*
Electricians	15,774	16,676	6%	1,582	$22.81	$33.03	$68,700
First-Line Supervisors of Construction Trades and Extraction Workers	15,227	15,637	3%	1,345	$28.93	$37.57	$78,100
Construction Managers	15,020	15,862	6%	1,245	$21.87	$41.54	$86,400
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	8,398	8,883	6%	810	$20.60	$27.32	$56,800
Cost Estimators	6,125	6,133	0%	508	$27.63	$36.51	$75,900
Construction and Building Inspectors	3,176	3,256	3%	379	$28.19	$39.49	$82,100
Architectural and Civil Drafters	2,786	2,815	1%	267	$24.73	$29.27	$60,900
Sheet Metal Workers	2,242	2,317	3%	222	$22.11	$34.64	$72,000
Structural Iron and Steel Workers	1,781	1,857	4%	170	$22.51	$28.29	$58,800
Electrical Power-Line Installers and Repairers	1,777	1,811	2%	141	$36.02	$49.80	$103,600
Civil Engineering Technologists and Technicians	1,227	1,248	2%	115	$29.83	$37.90	$78,800

Construction

REGIONAL PROGRAM ADVISORY

Employer Job Postings

Number of Job Postings by Occupation



7,311 online job postings

Feb 2023 – Jan 2024

Source: Lightcast Job Postings, datarun 2024.1

Employer Job Postings

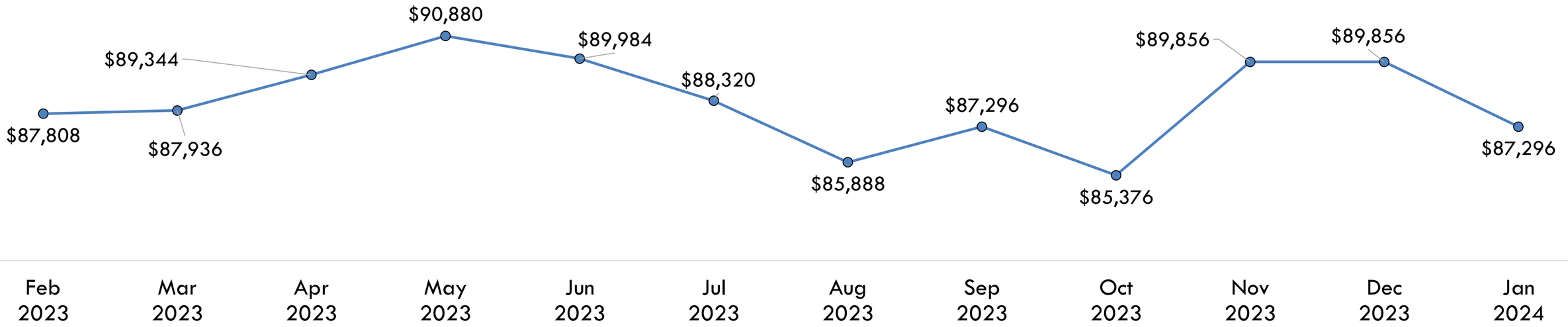
Job Title	Job Ads	Employer	Job Ads
Construction Project Managers	360	Vanir Construction Management	87
Estimators	298	Coolsys	59
Construction Superintendents	264	Northrop Grumman	50
Project Managers	234	EMCOR Group	41
Construction Managers	190	Element Consulting	41
Superintendents	161	Transdev	37
Construction Estimators	127	Turner & Townsend	35
Electricians	126	AECOM	32
HVAC Technicians	114	E. Construct USA	31
Inspectors	77	Mott MacDonald	31

Source: Lightcast Job Postings, datarun 2024.1

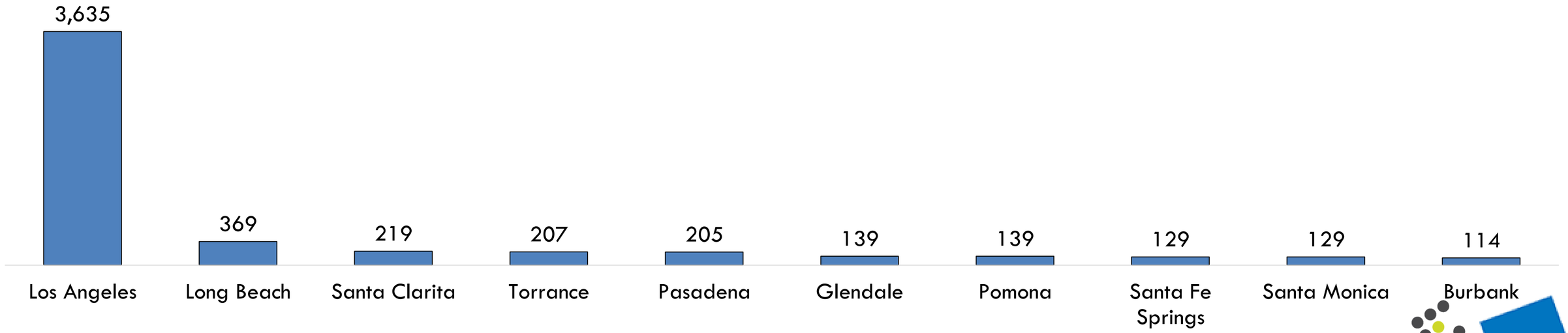
Construction
REGIONAL PROGRAM ADVISORY

Employer Job Postings

Advertised Wage Trend Over Last 12 Months



Number of Job Postings by City



Source: Lightcast Job Postings, datarun 2024.1

CONTACT INFORMATION

LUKE MEYER

(909) 274-6106

lmeyer7@mtsac.edu

ROUNDTABLE DISCUSSION

- Mute yourself throughout discussion
- Submit questions through the chat box
- 15-20 minutes of discussion per topic
- Discussion will be followed by Q&A

Praful Kulkarni

DBIA, AIA

Director of Integrated Services,

CannonDesign

Veronica Soto

Senior Advisor for Workforce Development and Economic Impact, Los Angeles World Airports $30B Capital Improvement Program

Joss Tillard-Gates

Director of Community Affairs, Clark Construction Group

Michael H. Anderson

AIA-NOMA
President & CEO,
Anderson Barker Architects

Darrell Torres

Senior Director – Preconstruction, Skanska

FEEDBACK POLL AND NEXT STEPS

THANK YOU!

For more information contact:

Jose Pelayo: jose.pelayo@laedc.org

Alicia Nyein: alicia.nyein@laedc.org

Jared Lopez: jared.lopez@laedc.org