

Summary

Program LMI Endorsement	Endorsed: All LMI Criteria Met <input type="checkbox"/>	Endorsed: Some LMI Criteria Met <input checked="" type="checkbox"/>	Not LMI Endorsed <input type="checkbox"/>
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Program LMI Endorsement Criteria

	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Supply Gap:	<i>Comments:</i> There is projected to be 4,640 annual job openings throughout Los Angeles and Orange counties for these commercial dance occupations, which is more than the 1,209 awards conferred by educational institutions . However, demand is overstated for <i>self-enrichment teachers</i> , which includes a variety of non-dance job titles such as piano teacher, driving instructor, and martial arts instructor. It is not possible to isolate labor market demand for dance-related job titles from all other <i>self-enrichment teacher</i> job titles.	
Living Wage: (Entry-Level, 25 th)	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
	<i>Comments:</i> All annual job openings for these commercial dance occupations have entry-level hourly wages below the OC living wage of \$20.63 .	
Education:	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
	<i>Comments:</i> Though the majority (79%) of annual job openings for these commercial dance occupations typically require a high school diploma or equivalent, a significant percentage of workers in the field have completed some college or an associate degree as their highest level of education .	

Emerging Occupation(s)		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<i>Comments:</i> N/A		

The Orange County Center of Excellence for Labor Market Research (OC COE) prepared this report to determine whether there is a supply gap in the Los Angeles/Orange County regional labor market related to four commercial dance occupations:

- Below Middle-Skill – denoted with a carrot (^) throughout this report.
 - *Self-Enrichment Teachers (25-3021)*[^]
 - *Dancers (27-2031)*[^]
 - *Entertainers and Performers, Sports and Related Workers, All Other (27-2099)*[^]
- Middle-Skill
 - *Choreographers (27-2032)*

Middle-skill occupations typically require a community college education while below middle-skill occupations usually request up to a high school diploma or equivalent. Though OC COE labor market analysis reports typically focus on middle-skill occupations, the below middle-skill occupations included in this report align with the program objectives. Additionally, students can obtain employment in these below

middle-skill occupations with a community college education. Therefore, the endorsement of this report considers data for both the below middle-skill and middle-skill occupations.

Based on the available data, there appears to be a supply gap for these commercial dance occupations in the region. However, it is important to note *self-enrichment teachers* includes a variety of job titles and not only dance-related titles. Therefore, labor market demand for dance-related roles is overstated. Though these occupations typically require less than a community college education, students could obtain employment in these occupations with a community college degree or certificate. However, entry-level wages are below the living wage. **Therefore, due to some regional labor market criteria being met, the COE endorses this proposed program.**

Exhibit 1 lists the occupational demand, supply, typical entry-level education, and educational attainment for the occupations included in this report.

Exhibit 1: Labor Market Endorsement Summary

Occupation (SOC)	Demand (Annual Openings)	Supply (CC and Non-CC)	Entry-Level Hourly Earnings (25 th Percentile)	Typical Entry-Level Education	Community College Educational Attainment
Self-Enrichment Teachers (25-3021)	LA: 2,203	LA: 111	OC: \$15.35	High school diploma or equivalent	26%
	OC: 1,223	OC: 170			
	TTL: 3,426	TTL: 281			
Dancers (27-2031)	LA: 321	LA: 10	OC: \$16.45	No formal education credential	29%
	OC: 162	OC: 16			
	TTL: 483	TTL: 26			
Entertainers and Performers, Sports and Related Workers, All Other (27-2099)	LA: 391	LA: 784	OC: \$17.73	No formal education credential	33%
	OC: 105	OC: 118			
	TTL: 496	TTL: 902			
Below Middle-Skill Total	4,405	1,209	N/A	N/A	N/A
Choreographers (27-2032)	LA: 141	<i>Accounted for Below</i>	OC: \$18.65	High school diploma or equivalent	29%
	OC: 94				
	TTL: 235				
Middle-Skill Total	235	<i>Accounted for Below</i>	N/A	N/A	N/A
Total	4,640	1,209	N/A	N/A	N/A

Demand:

- The number of jobs related to these commercial dance occupations are projected to increase 13% through 2027, resulting in 4,640 projected annual job openings.
- Hourly entry-level wages for these commercial dance occupations range from \$15.35 to \$18.56 in Orange County; all annual job openings have entry-level wages below the living wage.
- There were 624 online job postings for these commercial dance occupations over the past 12 months. The highest number of postings were for dance instructors, dance teachers, and Hip Hop dance instructors.

- Part-time positions made up the majority of the online postings, 63% (391), compared to full-time positions, 32% (199), and those for flexible hours 5% (34).
- The typical entry-level education for these commercial dance occupations ranges from no formal education credential to a high school diploma or equivalent.
- Between 26% and 33% of workers in these occupations have completed some college or an associate degree as their highest level of educational attainment.

Supply:

- There was an average of 317 awards conferred by 21 community colleges in Los Angeles and Orange Counties from 2019 to 2022.
- Non-community college institutions conferred an average of 892 awards from 2019 to 2021.
- Orange County community college students that exited commercial dance programs in the 2020-21 academic year had a median annual wage of \$28,856 (\$13.87 per hour) after exiting the program and 29% attained the regional living wage.
- Throughout Orange County, 75% of commercial dance students that exited their program in 2019-20 reported that they are working in a job closely related to their field of study.

Demand

Occupational Projections:

Exhibit 2 shows the annual percent change in jobs for all four of the commercial dance occupations researched in this report from 2017 through 2027. Though there was a 7% decline across all occupations from 2019 to 2020 in Los Angeles and Orange counties due to the COVID-19 pandemic, employment for the four commercial dance occupations decreased 10% in Orange County during the same period but experienced significant spikes through 2022.

In the three years preceding the pandemic, employment for these occupations held varying levels of increases. After a steep decline in employment from 2019 to 2020 and significant increases through 2022, employment is projected to increase at a higher rate relative to all occupations for each year through 2027.

Exhibit 2: Annual Percent Change in Jobs for Commercial Dance Occupations, 2017-2027

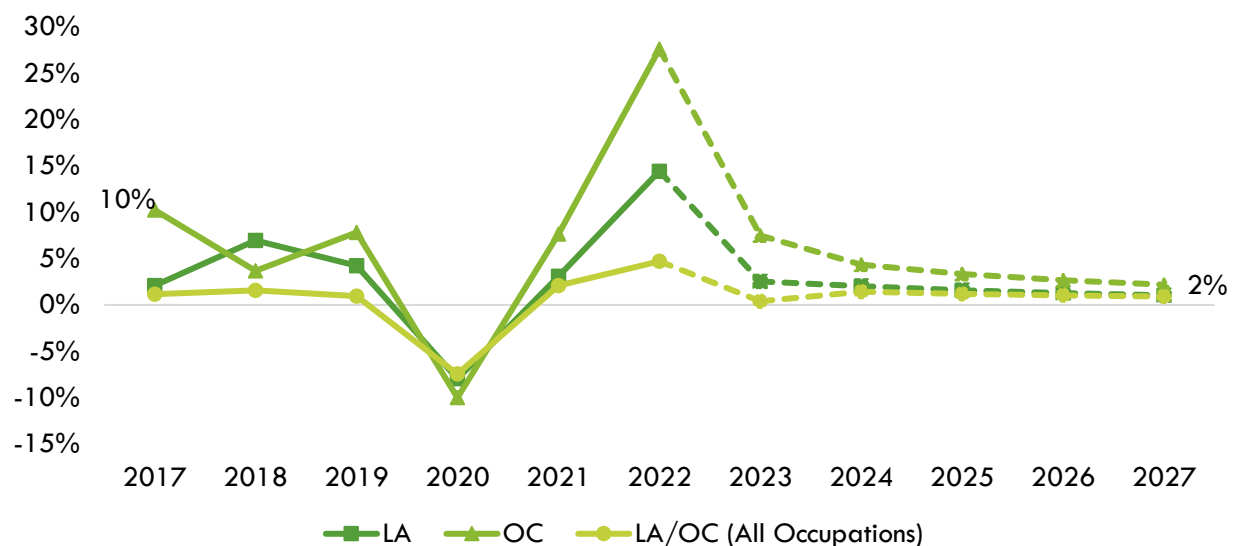


Exhibit 3 shows the five-year occupational demand projections for the three below middle-skill commercial dance occupations included in this report. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase by 21% through 2027. There is projected to be 1,490 jobs available annually.

Exhibit 3: Below Middle-Skill Occupational Demand in Los Angeles and Orange Counties

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	20,087	21,844	1,757	9%	2,915
Orange	8,348	10,118	1,771	21%	1,490
Total	28,435	31,962	3,527	12%	4,405

Exhibit 4 shows the five-year occupational demand projections for *choreographers*, the sole middle-skill occupation examined in this report. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to increase 16% through 2027. There is projected to be 235 jobs available annually.

Exhibit 4: Middle-Skill Occupational Demand in Los Angeles and Orange Counties¹

Geography	2022 Jobs	2027 Jobs	2022-2027 Change	2022-2027 % Change	Annual Openings
Los Angeles	789	857	68	8%	141
Orange	397	515	117	30%	94
Total	1,187	1,372	185	16%	235

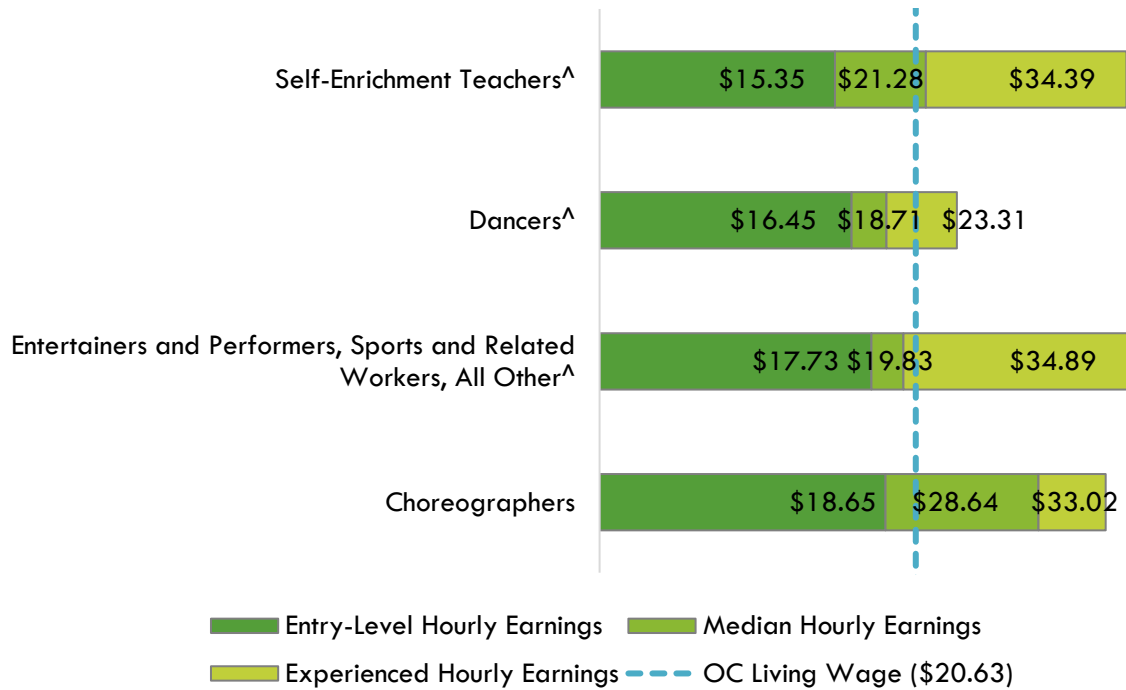
Wages:

The labor market endorsement in this report considers the entry-level hourly wages for these commercial dance occupations in Orange County as they relate to the county's living wage. Los Angeles County wages are included below in order to provide a complete analysis of the LA/OC region.

All annual openings for these commercial dance occupations have entry-level wages below the living wage for one adult (\$20.63 in Orange County). Typical entry-level hourly wages range between \$15.53 and \$18.65. Orange County's average wages of \$28.84 are significantly below the average statewide wage of \$32.17 for these occupations. Exhibit 5 shows the wage range for each of the four commercial dance occupations in Orange County and how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

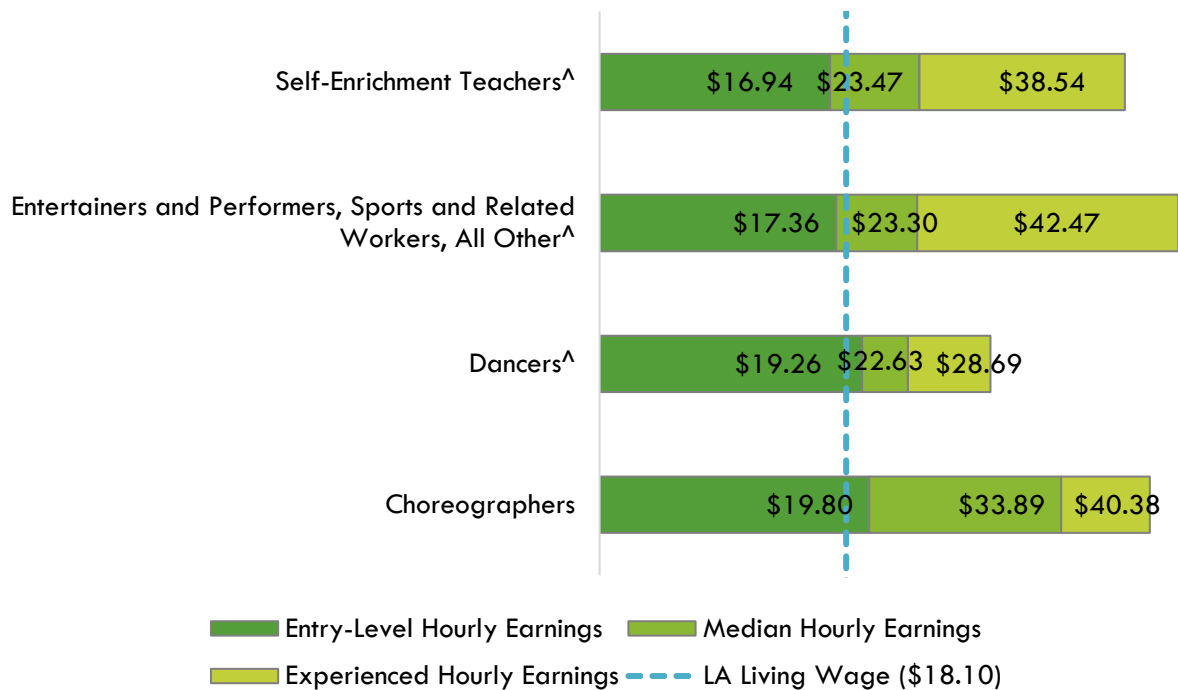
¹ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

Exhibit 5: Wages by Occupation in Orange County



The majority (85%) of annual openings for these commercial dance occupations have entry-level wages below the living wage for one adult (\$18.10 in Los Angeles County). Typical entry-level hourly wages are in a range between \$16.94 and \$19.80. Los Angeles County’s average wages of \$33.84 are higher than the statewide wage of \$32.17 for these occupations. Exhibit 6 shows the wage range for each of the four commercial dance occupations in Los Angeles County how they compare to the regional living wage, sorted from lowest to highest entry-level wage.

Exhibit 6: Wages by Occupation in Los Angeles County



Job Postings:

Important Online Job Postings Data Note: Online job postings data is sourced from Lightcast, a labor market analytics firm that scrapes, collects, and organizes data from online job boards such as LinkedIn, Indeed, Glassdoor, Monster, GovernmentJobs.com, and thousands more. Lightcast uses natural language processing (NLP) to determine the related company, industry, occupation, and other information for each job posting. However, NLP has limitations that include understanding contextual words of phrases; determining differences in words that can be used as nouns, verbs, and/or adjectives; and misspellings or grammatical errors.² For these reasons, job postings could be assigned to the wrong employer, industry, or occupation within Lightcast’s database.

Additionally, there are several limitations when analyzing job postings. A single job posting may not represent a single job opening, as employers may be creating a pool of candidates for future openings or hiring for multiple positions with a single posting. Additionally, not all jobs are posted online, and jobs may be filled through other methods such as internal promotion, word-of-mouth advertising, physical job boards, or a variety of other channels.

There were 624 online job postings related to the four commercial dance occupations listed in the past 12 months. Self-enrichment teachers[^] and entertainers and performers, sports and related workers, all other[^] include a variety of non-dance job titles such as piano teacher, driving instructor, TV show hosts, and quality control managers, etc.; therefore, postings were filtered to only account for those that were related to or similarly related to dance. Of the 624 online postings, 5% (30) were for choreographers, the only middle-skill occupation examined in this report. Exhibit 7 shows the number of job postings by occupation.

Exhibit 7: Number of Job Postings by Occupation (n=624)

Occupation	Job Postings	Percentage of Job Postings
Self-Enrichment Teachers [^]	476	76%
Dancers [^]	118	19%
Choreographers	30	5%
Entertainers and Performers, Sports and Related Workers, All Other [^]	0	0%
Total Postings	624	100%

² K. R. Chowdhary, Fundamentals of Artificial Intelligence (Basingstoke: Springer Nature, 2020), <https://link.springer.com/book/10.1007/978-81-322-3972-7>.

The top employers for the below middle-skill commercial dance occupations in the region, by number of job postings, are shown in Exhibit 9.

Exhibit 9: Top Below Middle-Skill Employers by Number of Job Postings (n=594)

Employer	Job Postings	Percentage of Job Postings
YMCA	32	5%
City Of Los Angeles Department Of Recreation & Parks	22	4%
Webreak Hip-Hop Dance Company	22	4%
Creation Station Dance	13	2%
Creation Station Franchise	12	2%
Rancho Santiago Community College	8	1%
Active Learning	7	1%
California Institute Of The Arts	7	1%
Ace Enrichment	6	1%
The Dance School La	5	1%

The top employers for the *choreographers* in the region, by number of job postings, are shown in Exhibit 10.

Exhibit 10: Top Middle-Skill Employers by Number of Job Postings (n=30)

Employer	Job Postings	Percentage of Job Postings
University of California	3	10%
Odyssey Dance Academy	2	7%
City Of Refuge Ministries	1	3%
Dance Impressions Productions	1	3%
Dreams Come True Dance	1	3%
Hart Academy Of Dance	1	3%
Monrovia Unified School District	1	3%
Pasadena High School	1	3%
RRB Dance Company	1	3%
Rk Records	1	3%

The top specialized, soft, and computer skills listed by those most frequently mentioned in job postings (number of postings in parentheses) are shown for the below middle-skill occupations in Exhibit 11.

Exhibit 11: Top Skills for Below Middle-Skill Occupations by Number of Job Postings (n=594)

Top Specialized Skills	Top Soft Skills	Top Software and Computer Skills
Ballet (125)	Teaching (282)	Microsoft Visual Studio (9)
Jazz (67)	Communication (141)	Learning Management Systems (9)
Lesson Planning (57)	Energetic (54)	Microsoft Excel (3)
Choreography (55)	Leadership (31)	Microsoft PowerPoint (3)

Top Specialized Skills	Top Soft Skills	Top Software and Computer Skills
Working With Children (45)	Writing (23)	Google Workspace (3)
Hip-hop Dance (39)	Honesty (23)	Microsoft Windows (2)
Classroom Management (36)	Interpersonal Communications (23)	Microsoft Outlook (2)
Physical Education (31)	Enthusiasm (23)	PowerSchool (Software) (2)
Painting (31)	Customer Service (22)	Samba (Software) (2)
Breakdancing (31)	Creativity (21)	Student Information Systems (2)

The top specialized, soft, and computer skills listed by those most frequently mentioned in job postings (number of postings in parentheses) are shown for *choreographers* in Exhibit 12.

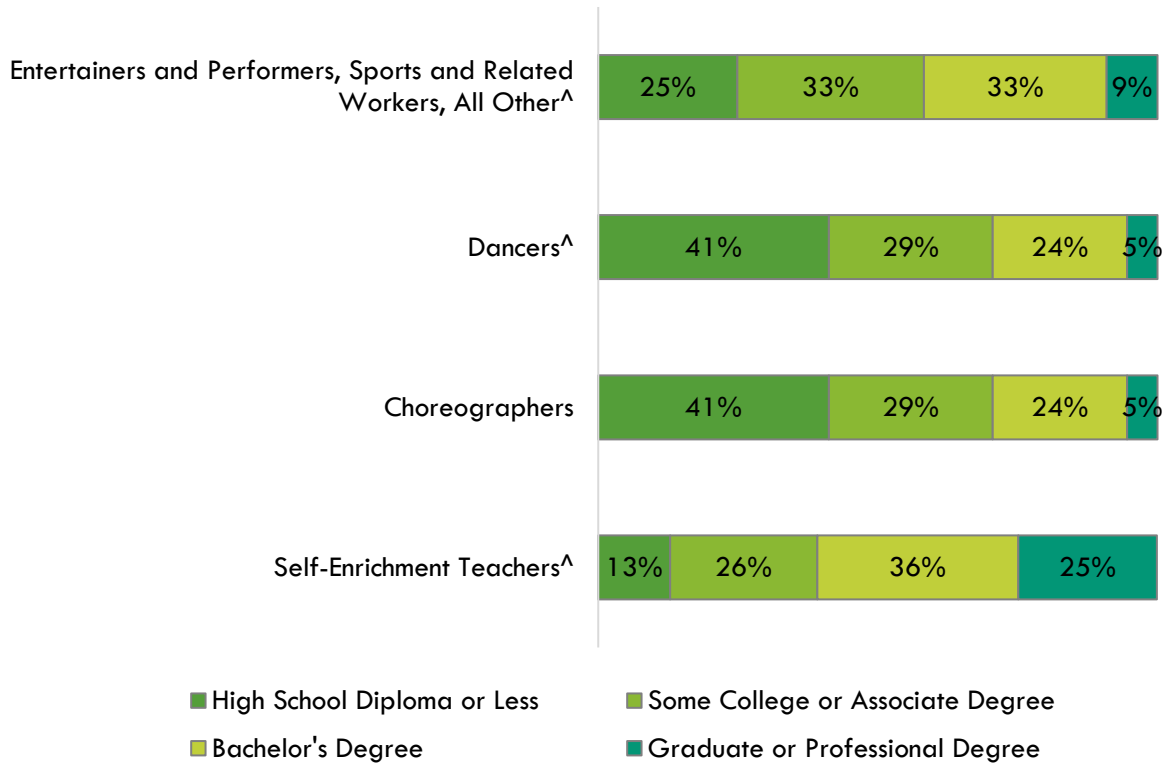
Exhibit 12: Top Skills for Middle-Skill Occupation by Number of Job Postings (n=30)

Top Specialized Skills	Top Soft Skills	Top Computer Skills
Choreography (19)	Teaching (16)	TikTok (1)
Jazz (7)	Communication (6)	
Ballet (6)	Advising (3)	
Working With Children (5)	Constructive Feedback (3)	
Musical Theater (3)	Research (3)	
Social Justice (3)	Enthusiasm (2)	
Behavior Management (2)	Interpersonal Communications (2)	
Classroom Management (2)	Patience (2)	
Costumes (2)	Planning (2)	
Dance Education (2)	Budgeting (1)	

Educational Attainment:

The Bureau of Labor Statistics (BLS) lists no formal education credential as the typical entry-level education for *dancers*[^] and *entertainers and performers, sports and related workers, all other*[^] and a high school diploma or equivalent for *choreographers* and *self-enrichment teachers*[^]. However, the national-level educational attainment data indicates 29% of workers in the middle-skill occupation, *choreographers*, have completed some college or an associate degree as their highest level of education. Between 26% and 27% of workers in the below middle-skill occupations have completed some college or an associate degree. Exhibit 13 shows the educational attainment for each occupation, sorted by highest community college educational attainment to lowest.

Exhibit 13: National-level Educational Attainment for Occupations



Of the 27% of the cumulative job postings for the middle-skill occupation, *choreographers*, that listed a minimum education requirement in Los Angeles/Orange County, 50% (4) requested a bachelor's degree and 38% (3) requested a high school diploma or an associate degree.

Conversely, of the 39% of the postings for the three below middle-skill commercial dance occupations that listed a minimum education requirement, 56% (132) requested a high school diploma or an associate degree and 43% (101) requested a bachelor's degree.

Educational Supply

Community College Supply:

Exhibit 14 shows the three-year average number of awards conferred by community colleges in the related TOP codes: Commercial Music (1005.00), Technical Theater (1006.00), and Commercial Dance (1008.10). The colleges with the most completions in the region are Saddleback, LA City, and Citrus. Over the past 12 months, there were three other related program recommendation requests from regional community colleges.

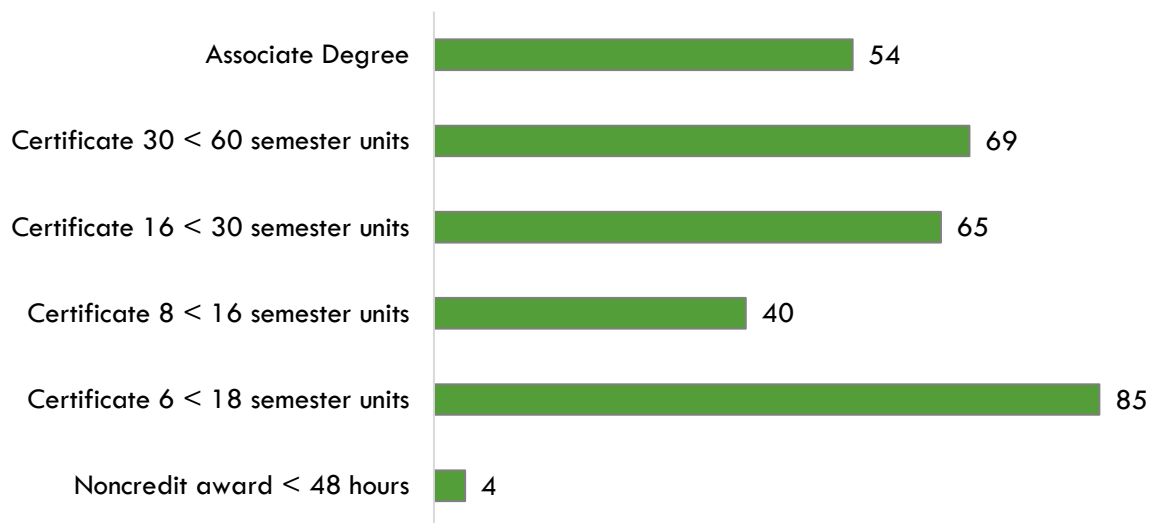
Exhibit 14: Regional Community College Awards (Certificates and Degrees), 2019-2022

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
1005.00	Commercial Music	Cerritos	5	8	13	9
		Citrus	51	51	26	43
		Compton	1	1	0	1
		East LA	0	2	0	1
		Glendale	0	2	0	1
		LA City	129	12	25	55
		LA Harbor	4	0	7	4
		LA Valley	10	6	18	11
		Long Beach	0	1	0	0
		Pasadena	0	2	0	1
		Rio Hondo	0	0	1	0
		LA Subtotal	200	85	90	125
		Cypress	17	10	12	13
		Fullerton	10	8	7	8
		Irvine	1	0	0	0
		Orange Coast	8	1	1	3
		Saddleback	9	61	95	55
		Santa Ana	4	7	7	6
		OC Subtotal	49	87	122	86
		Supply Subtotal/Average			249	172
1006.00	Technical Theatre	Citrus	8	7	5	7
		East LA	15	6	32	18
		Glendale	1	0	2	1
		LA City	1	2	4	2
		LA Pierce	13	7	3	8
		LA Valley	2	1	1	1
		Pasadena	2	2	1	2
		Santa Monica	17	6	16	13

TOP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2021-2022 Awards	3-Year Award Average
		LA Subtotal	59	31	64	51
		Cypress	3	7	6	5
		Fullerton	4	33	0	12
		Golden West	1	0	0	0
		Irvine	3	4	3	3
		Saddleback	2	4	3	3
		Santa Ana	3	6	2	4
		OC Subtotal	16	54	14	28
Supply Subtotal/Average			75	85	78	79
1008.10	Commercial Dance	Cerritos	0	1	1	1
		Citrus	3	0	1	1
		Glendale	10	8	3	7
		Mt San Antonio	0	3	1	1
		LA Subtotal	13	12	6	10
		Irvine	1	4	3	3
		Orange Coast	18	10	12	13
		OC Subtotal	19	14	15	16
Supply Subtotal/Average			32	26	21	26
Supply Total/Average			356	283	311	317

Exhibit 15 shows the annual average community college awards by type from 2019-20 through 2021-22. The plurality of the awards are for certificates between 6 and less than 18 semester units, followed by certificates between 30 and less than 60 semester units and certificates between 16 and less than 30 semester units.

Exhibit 35: Annual Average Community College Awards by Type, 2019-2022



Community College Student Outcomes:

Exhibit 16 shows the Strong Workforce Program (SWP) metrics for commercial dance programs in Rancho Santiago Community College District (RSCCD), the Orange County Region, and California. Of the 967 commercial dance students in Orange County, 3% (29) attended an RSCCD college.

Orange County students that exited commercial dance programs in the 2020-21 academic year had higher median annual earnings (\$28,856 or \$13.87 per hour) compared to all commercial dance students in the state (\$28,640 or \$13.77 per hour). A lower percentage of Orange County commercial dance students attained the living wage (29%) when compared to all commercial dance students in California (32%).

Exhibit 46: Commercial Dance (1008.10) Strong Workforce Program Metrics, 2020-21³

SWP Metric	RSCCD	OC Region	California
SWP Students	29	967	2,040
SWP Students Who Earned 9 or More Career Education Units in the District in a Single Year	Insufficient Data	16%	17%
SWP Students Who Completed a Noncredit CTE or Workforce Preparation Course	Insufficient Data	Insufficient Data	Insufficient Data
SWP Students Who Earned a Degree or Certificate or Attained Apprenticeship Journey Status	Insufficient Data	Insufficient Data	20
SWP Students Who Transferred to a Four-Year Postsecondary Institution (2019-20)	Insufficient Data	148	242
SWP Students with a Job Closely Related to Their Field of Study (2019-20)	Insufficient Data	75%	70%
Median Annual Earnings for SWP Exiting Students	Insufficient Data	\$28,856 (\$13.87)	\$28,640 (\$13.77)
Median Change in Earnings for SWP Exiting Students	Insufficient Data	13%	27%
SWP Exiting Students Who Attained the Living Wage	Insufficient Data	29%	32%

Non-Community College Supply:

To comprehensively analyze the regional supply, it is crucial to include data from other institutions offering commercial dance training programs. Exhibit 17 displays the annual and two-year average awards granted by these institutions under the related Classification of Instructional Programs (CIP) Codes:

- Recording Arts Technology/Technician (10.0203)
- Elementary Education and Teaching (13.1202)
- Directing and Theatrical Production (50.0507)
- Music Technology (50.0913)

No awards were conferred for the following related CIP codes:

- Online Educator/Online Teaching (13.1211)
- Audio Engineering Technology/Technician (15.0307)

³ All SWP metrics are for 2020-21 unless otherwise noted.

- Contemplative Studies/Inquiry (30.2502)

- Dance, Other (50.0399)
- Theatre and Dance (50.0512)

The available data covers 2019 to 2021. During this period, non-community college institutions in the region conferred an average of 892 awards annually in related training programs.

Exhibit 57: Regional Non-Community College Awards, 2019-2021

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2-Year Award Average
10.0203	Recording Arts Technology / Technician	California State University-Dominguez Hills	0	2	1
		Columbia College Hollywood	0	21	11
		Loyola Marymount University	13	12	13
		Mount Saint Mary's University	0	0	0
		Musicians Institute	73	48	61
Supply Subtotal/Average			86	83	85
13.1202	Elementary Education and Teaching	Biola University	31	27	29
		Chapman University	12	21	17
		Concordia University-Irvine	2	10	6
		Hope International University	0	0	0
		Loyola Marymount University	42	29	36
		Mount Saint Mary's University	0	0	0
		University of La Verne	34	58	46
		University of Massachusetts Global	104	191	148
		University of Southern California	0	0	0
Supply Subtotal/Average			225	336	281
50.0507	Directing and Theatrical Production	California Institute of the Arts	3	2	3
		Pepperdine University	0	1	1

CIP Code	Program	College	2019-2020 Awards	2020-2021 Awards	2-Year Award Average
		University of Southern California	0	0	0
		Vanguard University of Southern California	3	4	4
Supply Subtotal/Average			6	7	7
50.0913	Music Technology	California College of Music	0	3	2
		Los Angeles College of Music	21	19	20
		Los Angeles Film School	474	524	499
		The Master's University and Seminary	0	0	0
Supply Subtotal/Average			495	546	521
Supply Total/Average			812	972	892

Regional Demographics

This section examines demographic data for Orange County community college students in commercial dance programs compared to the OC population, along with occupational data, to identify potential diversity and equity issues addressable by community college programs.

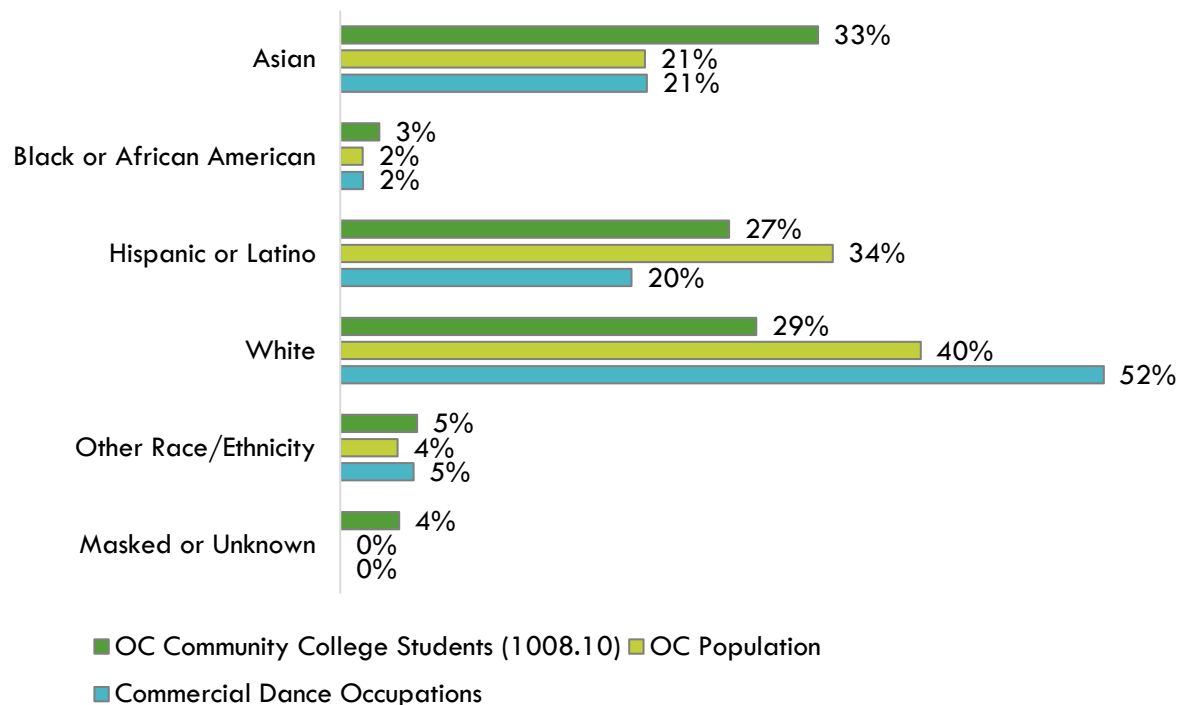
Examining disaggregated data for each occupation (not shown), demographic data for *choreographers* and *dancers*[^] are identical.

Ethnicity:

Exhibit 18 compares the ethnicity of Orange County community college students enrolled in commercial dance programs compared to the overall Orange County population, and occupation-specific data for the four commercial dance occupations included in this report. More than half of all workers employed in these commercial dance occupations are white, which is higher than the population (40%) and significantly higher than community college commercial dance students (29%). Conversely, the plurality (33%) of community college commercial dance students are Asian, which is higher than the Orange County population (21%) and workers in these commercial dance occupations (21%), both of which proportionately align. Furthermore, though composing more than a third of the county population, Hispanic or Latino individuals account for only 27% of the community college commercial dance student body and 20% of workers in the field.

Examining disaggregated data for each occupation (not shown), white individuals account for the plurality and/or majority of workers in all occupations. *Choreographers* and *dancers*[^] have the highest percentages of Asian (26%) and Black or African American (28%) workers. Though *dancers*[^] has the second lowest entry-level wages and ties the lowest entry-level education requirements of the four commercial dance occupations, *choreographers* has the highest wages and has the highest entry-level education requirements. The occupation with the highest percentage of Hispanic or Latino workers is *self-enrichment teachers*[^], which has the lowest typical education requirements among the four commercial dance occupations but has the lowest entry level wages (\$15.25).

Exhibit 68: Program and County Demographics by Ethnicity



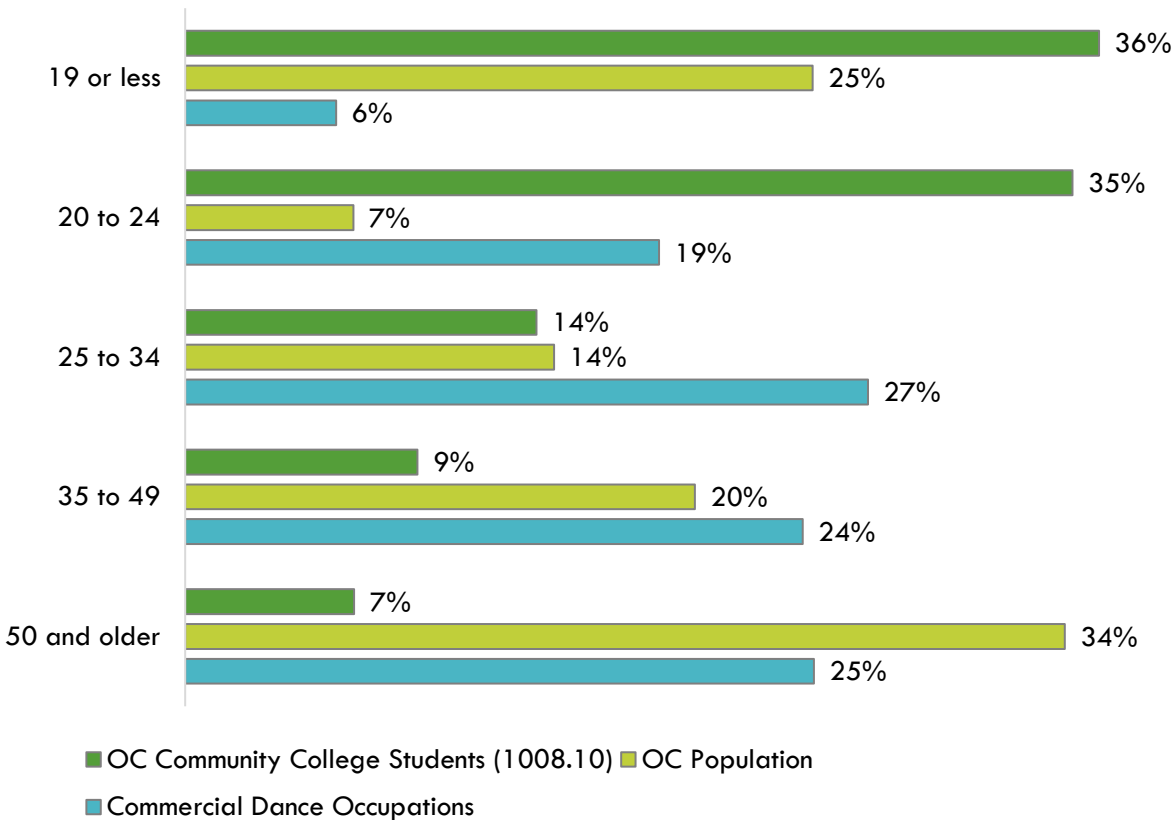
Age:

Exhibit 19 compares the age of Orange County community college students enrolled in commercial dance programs compared to the overall Orange County population, and occupation-specific data for the four commercial dance occupations included in this report.

The majority of workers in these commercial dance occupations are age 25 to 34 or 50 and older (52%), which is just above the population (48%) but more than double the community college commercial dance students (21%). Alternatively, though only 25% of workers in these occupations are 24 or less, this age group accounts for the majority of community college commercial dance students (71%) and nearly a third of the county population (32%).

Examining disaggregated data for each occupation (not shown), individuals 20 to 34 represent the majority of workers in *entertainers and performers, sports and related workers, all other*[^] and this age group accounts for all workers (100%) in *choreographers and dancers*[^]. The majority (53%) of *self-enrichment teachers*[^] 35 or older. This occupation has the highest education requirements among the four commercial dance occupations but has the lowest entry level wages (\$15.25).

Exhibit 79: Program and County Demographics by Age

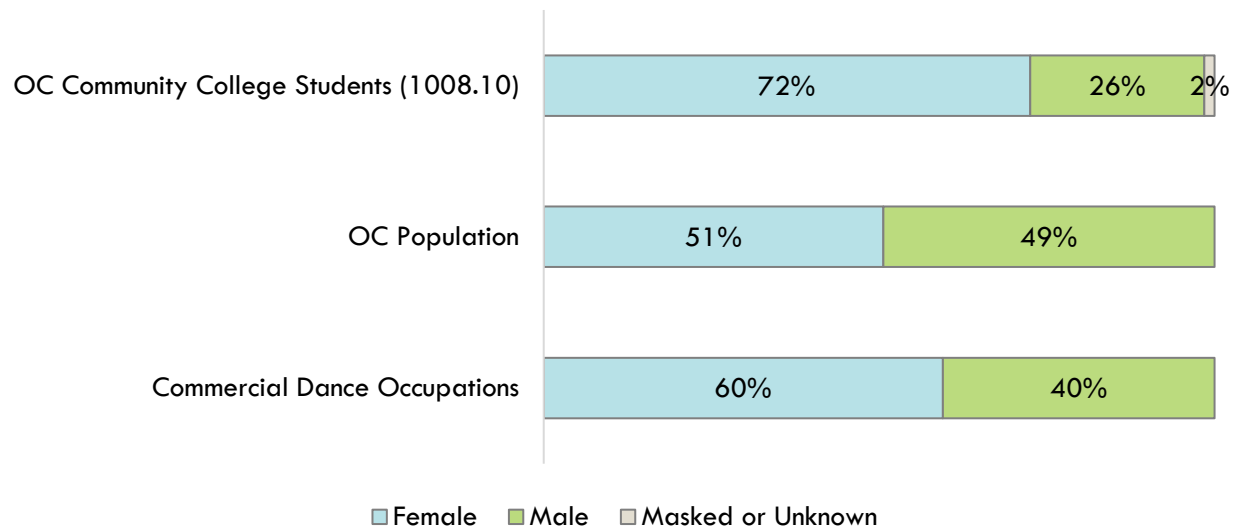


Sex:

Exhibit 20 compares the sex of Orange County community college students enrolled in commercial dance programs compared to the overall Orange County population and occupation-specific data for the four commercial dance occupations included in this report.

Though the population is nearly split evenly between men and women, only 40% of workers in the field and 26% of community college commercial dance students are men. Examining disaggregated data for each occupation (not shown), the majority of workers across all four occupations are women. *Entertainers and performers, sports and related workers, all other*[^] has the highest percentage of men (45%). Though this occupation ties has the lowest education requirements among all four commercial dance occupations, it has the second highest entry-level wages behind *choreographers*.

Exhibit 8: Program and County Demographics by Sex



Appendix A: Methodology

The OC COE prepared this report by analyzing data from occupations and education programs. Occupational data is derived from Lightcast, a labor market analytics firm that consolidates data from the California Employment Development Department (EDD), U.S. Bureau of Labor Statistics (BLS) and other government agencies. Program supply data is drawn from two systems: Taxonomy of Programs (TOP) and Classification of Instructional Programs (CIP).

Using a TOP-SOC crosswalk, the OC COE identified middle-skill jobs for which programs within these TOP codes train. Middle-skill jobs include:

- All occupations that require an educational requirement of some college, associate degree or apprenticeship;
- All occupations that require a bachelor's degree, but also have more than one-third of their existing labor force with an educational attainment of some college or associate degree; or
- All occupations that require a high school diploma or equivalent or no formal education, but also require short- to long-term on-the-job training where multiple community colleges have existing programs.

The OC COE determined labor market supply for an occupation or SOC code by analyzing the number of program completers or awards in a related TOP or CIP code. The COE developed a “supply table” with this information, which is the source of the program supply data for this report. TOP code data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP code data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data), also known as IPEDS. TOP is a system of numerical codes used at the state level to collect and report information on California community college programs and courses throughout the state that have similar outcomes. CIP codes are a taxonomy of academic disciplines at institutions of higher education in the United States and Canada. Institutions outside of the California Community College system do not use TOP codes in their reporting systems.

Data included in this analysis represent the labor market demand for relevant positions most closely related to the proposed program as expressed by the requesting college in consultation with the OC COE. Traditional labor market information was used to show current and projected employment based on data trends, as well as annual average awards granted by regional community colleges. Real-time labor market information captures job post advertisements for occupations relevant to the field of study which can signal demand and show what employers are looking for in potential employees, but is not a perfect measure of the quantity of open positions.

All representations have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. The most recent data available at the time of the analysis was examined; however, data sets are updated regularly and may not be consistent with previous reports. Efforts have been made to qualify and validate the accuracy of the data and findings; however, neither the Centers of Excellence for Labor Market Research (COE), COE host district, nor California Community Colleges Chancellor's Office are responsible for the applications or decisions made by individuals and/or organizations based on this study or its recommendations.

Appendix B: Data Sources

Data Type	Source
Occupational Projections, Wages, and Job Postings	<p>Traditional labor market information data is sourced from Lightcast, a labor market analytics firm. Lightcast occupational employment data are based on final Lightcast industry data and final Lightcast staffing patterns. Wage estimates are based on Occupational Employment Statistics and the American Community Survey. For more information, see https://lightcast.io/</p>
Living Wage	<p>The living wage is derived from the Insight Center’s California Family Needs Calculator, which measures the income necessary for an individual of family to afford basic expenses. The data assesses the cost of housing, food, child care, health care, transportation, and taxes. For more information, see: https://insightccd.org/family-needs-calculator/</p> <p>The living wage for one adult in Orange County is \$20.63 per hour (\$42,910.40 annually). This figure is used by the CCCCCO to calculate the percentage of students that attained the regional living wage.</p>
Typical Education and Training Requirements, and Educational Attainment	<p>The Bureau of Labor Statistics (BLS) provides information about education and training requirements for hundreds of occupations. BLS uses a system to assign categories for entry-level education, work experience in a related occupation, and typical on-the-job training to each occupation for which BLS publishes projections data. For more information, see https://www.bls.gov/emp/documentation/education/tech.htm</p>
Emerging Occupation Descriptions, Additional Education Requirements, and Employer Preferences	<p>The O*NET database includes information on skills, abilities, knowledges, work activities, and interests associated with occupations. For more information, see https://www.onetonline.org/help/online/</p>
Educational Supply	<p>The CCCCCO Data Mart provides information about students, courses, student services, outcomes and faculty and staff. For more information, see: https://datamart.cccco.edu</p> <p>The National Center for Education Statistics (NCES) Integrated Postsecondary Integrated Data System (IPEDS) collects data on the number of postsecondary awards earned (completions). For more information, see https://nces.ed.gov/ipeds/use-the-data/survey-components/7/completions</p>
Student Metrics and Demographics	<p>LaunchBoard, a statewide data system supported by the California Community Colleges Chancellor's Office and hosted by Cal-PASS Plus, provides data on progress, success, employment, and earnings outcomes for California community college students. For more information, see: https://www.calpassplus.org/LaunchBoard/Home.aspx</p>

Data Type	Source
Population and Occupation Demographics	<p>The Census Bureau's American Community Survey (ACS) is the premier source for detailed population and housing information. For more information, see: https://www.census.gov/programs-surveys/acs</p> <p>Data is sourced from IPUMS USA, a database providing access to ACS and other Census Bureau data products. For more information, see: https://usa.ipums.org/usa/about.shtml</p>

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