

Program Endorsement Brief: 0614.50/Desktop Publishing

Adobe Applications for Business

Adobe Web Projects for Business

Digital Graphic Design for Business

Orange County Center of Excellence, September 2020

Summary Analysis

Program Endorsement:	Endorsed: All Criteria Met	<input type="checkbox"/>	Endorsed: Some Criteria Met	<input checked="" type="checkbox"/>	Not Endorsed	<input type="checkbox"/>
Program Endorsement Criteria						
Supply Gap:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>		
Meets Living Wage: (Entry-Level, 25th)	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>		
Educational Attainment:	HS Diploma or Less	<input type="checkbox"/>	Some College/ Cert./AA	<input type="checkbox"/>	Bachelor's Degree	<input checked="" type="checkbox"/>
		<input type="checkbox"/>		<input type="checkbox"/>	Graduate Degree	<input type="checkbox"/>
Emerging Occupation(s)						
Yes <input type="checkbox"/>			No <input checked="" type="checkbox"/>			

The Orange County Center of Excellence for Labor Market Research (COE) prepared this report to provide Los Angeles/Orange County regional labor market supply and demand data related to three middle-skill occupations: Graphic Designers (27-1024), Desktop Publishers (43-9031), and Prepress Technicians and Workers (51-5111). Middle-skill occupations typically require some postsecondary education, but less than a bachelor's degree.¹ Although Graphic Designers (27-1024) typically require a bachelor's degree, they are considered middle-skill because approximately one-third of workers in the field have completed some college or an associate degree. This report is intended to help determine whether there is demand in the local labor market that is not being met by the supply from community college programs that align with the relevant occupations.

Based on the available data, there appears to be a supply gap for middle-skill desktop publishing occupations in the region. However, the majority of annual openings for the occupations in this report have typical entry-level wages below the living wage in Orange County and the majority of job openings in the county typically require a bachelor's degree. **Therefore, due to some of the criteria being met, the COE endorses this proposed program. Detailed** reasons include:

¹ The COE classifies middle-skill jobs as the following:

- 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.

Demand:

- Over the next five years, there is projected to be **2,126 jobs available annually** in the LA/OC region due to retirements and workers leaving the field, **which is more than the 560 awards conferred annually** by educational institutions in the region.
- Within the LA/OC region, **89% of the annual job openings** for middle-skill desktop publishing occupations **typically require a bachelor's degree**.
 - However, the national-level educational attainment data indicates **between 29% and 41.7% of workers in the field have completed some college or an associate degree**.
- Within Orange County, **97% of the annual job openings** for these middle-skill desktop publishing occupations have **entry-level wages below the county's living wage** (\$17.36).²

Supply:

- There are **10 community colleges** in the region that issue awards related to digital media and/or desktop publishing, conferring an average of **39 awards annually** between 2016 and 2019.
- Between 2014 and 2017, there was an average of **521 awards conferred annually** in related training programs by **18 non-community college institutions** throughout the region.

Occupational Demand

Exhibit 1, on the following page, shows the five-year occupational demand projections for these middle-skill desktop publishing occupations. In Los Angeles/Orange County, the number of jobs related to these occupations is projected to decrease by less than 1% through 2024. However, there will be more than 2,100 job openings per year through 2024 due to retirements and workers leaving the field.

This report includes employment projection data by Emsi which uses EDD information. Emsi's projections are modeled on recorded (historical) employment figures and incorporate several underlying assumptions, including the assumption that the economy, during the projection period, will be at approximately full employment. To the extent that a recession or labor shock, such as the economic effects of COVID-19, can cause long-term structural change, it may impact the projections. At this time, it is not possible to quantify the impact of COVID-19 on projections of industry and occupational employment. Therefore, the projections included in this report do not take the impacts of COVID-19 into account.

² Living wage data was pulled from California Family Needs Calculator on 9/16/2020. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

Exhibit 1: Occupational demand in Los Angeles and Orange Counties³

Geography	2019 Jobs	2024 Jobs	2019-2024 Change	2019-2024 % Change	Annual Openings
Los Angeles	15,332	15,298	(34)	(0%)	1,601
Orange	4,999	4,980	(19)	(0%)	525
Total	20,331	20,278	(53)	(0%)	2,126

Wages

The labor market endorsement in this report considers the entry-level hourly wages for these middle-skill desktop publishing 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. Detailed wage information, by county, is included in Appendix A.

Orange County—The majority (97%) of annual openings for these middle-skill desktop publishing occupations have entry-level wages below the California Family Needs Calculator hourly wage (living wage) for one adult (\$17.36 in Orange County).⁴ Typical entry-level hourly wages are in a range between \$14.68 and \$19.90. Entry-level wages for one of these occupations (Desktop Publishers) are higher than the living wage for one adult in Orange County, while Graphic Designers and Prepress Technicians and Workers earn entry-level hourly wages of \$17.09 and \$14.68, respectively, and are below the county's living wage. Experienced workers can expect to earn wages between \$25.15 and \$39.82, which are higher than the living wage estimate. Orange County's average wages are below the average statewide wage of \$29.56 for these occupations.

Los Angeles County—The majority (93%) of annual openings for these middle-skill desktop publishing occupations have entry-level wages above the living wage for one adult (\$15.04 in Los Angeles County). Typical entry-level hourly wages are in a range between \$14.34 and \$20.41. Entry-level wages for two of these occupations (Graphic Designers and Desktop Publishers) are higher than the living wage for one adult in Los Angeles County, while Prepress Technicians and Workers earn entry-level hourly wages of \$14.34, which is below the county's living wage. Experienced workers can expect to earn wages between \$24.57 and \$40.97, which are higher than the living wage estimate. Los Angeles County's average wages are below the average statewide wage of \$29.56 for these occupations.

Job Postings

There were 3,538 online job postings related to middle-skill desktop publishing occupations listed in the past 12 months. The job titles with the most postings were graphic designers, junior graphic designers, production artists, freelance graphic designers, and senior graphic designers. The top skills were: graphic design, Adobe Photoshop, Adobe InDesign, Adobe Illustrator, and Adobe Acrobat. The top three employers, by number of job postings, in the region were: Kalo, FullDeck, and Syndicatebleu.

³ Five-year change represents new job additions to the workforce. Annual openings include new jobs and replacement jobs that result from retirements and separations.

⁴ Living wage data was pulled from California Family Needs Calculator on 9/16/2020. For more information, visit the California Family Needs Calculator website: <https://insightcced.org/2018-family-needs-calculator/>.

It is important to note that the job postings data included in this section reflects online job postings listed in the past 12 months and does not yet demonstrate the impact of COVID-19. While employers have generally posted fewer online job postings since the beginning of the pandemic, the long-term effects are currently unknown.

Educational Attainment

The Bureau of Labor Statistics (BLS) lists a bachelor's degree as the typical entry-level education for graphic designers, an associate degree as the typical entry-level education for desktop publishers, and a postsecondary non-degree award as the typical entry-level education for prepress technicians and workers. Within the LA/OC region, 89% of the annual job openings for these middle-skill desktop publishing occupations typically a bachelor's degree. However, the national-level educational attainment data indicates between 29% and 41.7% of workers in the field have completed some college or an associate degree. Of the 11% of middle-skill desktop publishing job postings listing a minimum education requirement in Los Angeles/Orange County, 64% (242) requested a high school diploma and 36% (138) requested an associate degree.

Educational Supply

Community College Supply—Exhibit 2, on the following page, shows the three-year average number of awards conferred by community colleges in the related TOP codes: Digital Media (0614.00), and Desktop Publishing (0614.50). The colleges with the most completions in the region are: Golden West, Irvine, and LA Trade-Tech. Over the past 12 months, there was one other related program recommendation request from a regional community college.

Exhibit 2: Regional community college awards (certificates and degrees), 2016-2019

TOP Code	Program	College	2016-2017 Awards	2017-2018 Awards	2018-2019 Awards	3-Year Award Average
0614.00	Digital Media	East LA	1	-	-	0
		LA Mission	-	-	1	0
		LA Trade-Tech	-	7	19	9
		Long Beach	-	1	-	0
		LA Subtotal	1	8	20	10
		Coastline	-	-	3	1
		Golden West	13	9	10	11
		Irvine	8	15	9	11
		OC Subtotal	21	24	22	22
Supply Subtotal/Average			22	32	42	32
0614.50	Desktop Publishing	East LA	1	-	1	1
		LA Pierce	1	-	-	0
		LA Subtotal	2	0	1	1
		Fullerton	-	-	1	0
		Santa Ana	4	6	7	6
		OC Subtotal	4	6	8	6
Supply Subtotal/Average			6	6	9	7
Supply Total/Average			28	38	51	39

Non-Community College Supply—It is important to consider the supply from four-year and other institutions in the region that provide training programs for these desktop publishing occupations. Exhibit 3 shows the annual and three-year average number of awards conferred by these institutions in the related Classification of Instructional Programs (CIP) Codes: Digital Communication and Media/Multimedia (09.0702), Digital Arts (50.0102), and Design and Visual Communications, General (50.0401). Due to different data collection periods, the most recent three-year period of available data is from 2014 to 2017. Between 2014 and 2017, other educational institutions in the region conferred an average of 521 awards annually in related training programs.

Exhibit 3: Regional non-community college awards, 2014-2017

CIP Code	Program	College	2014-2015 Awards	2015-2016 Awards	2016-2017 Awards	3-Year Award Average		
09.0702	Digital Communication and Media/Multimedia	California State University-Dominguez Hills	51	53	50	51		
		Fremont College	-	-	1	0		
		Los Angeles ORT College-Los Angeles Campus	8	12	15	12		
		Los Angeles ORT College-Van Nuys Campus	4	5	6	5		
		Marymount California University	10	14	-	8		
		Vanguard University of Southern California	18	25	12	18		
		Los Angeles ORT College-Los Angeles Campus	22	5	26	18		
		Los Angeles ORT College-Van Nuys Campus	10	6	6	7		
		Los Angeles Academy of Figurative Art	-	-	3	1		
50.0102	Digital Arts	Marymount California University	-	-	12	4		
		Otis College of Art and Design	71	71	63	68		
		University of Southern California	20	15	22	19		
		Woodbury University	-	4	3	2		
		Bethesda University	4	3	3	3		
		Biola University	-	3	3	2		
		California State Polytechnic University-Pomona	-	1	-	0		
50.0401	Design and Visual Communications, General	FIDM-Fashion Institute of Design & Merchandising-Los Angeles	307	266	181	251		
		Gnomon School of Visual Effects	24	41	28	31		
		Otis College of Art and Design	41	46	37	41		
		Platt College-Los Angeles	3	2	-	2		
		University of California-Los Angeles	-	1	-	0		
		University of La Verne	-	-	1	0		
		Supply Total/Average			561	562	440	521

Appendix A: Occupational demand and wage data by county
Exhibit 5. Orange County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Graphic Designers (27-1024)	4,369	4,430	61	1%	454	\$17.09	\$25.31	\$35.30
Desktop Publishers (43-9031)	121	109	(12)	(10%)	13	\$19.90	\$27.19	\$39.82
Prepress Technicians and Workers (51-5111)	509	440	(69)	(14%)	58	\$14.68	\$20.59	\$25.15
Total	4,999	4,980	(19)	(0%)	525			

Exhibit 6. Los Angeles County

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings	Entry-Level Hourly Earnings (25 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (75 th Percentile)
Graphic Designers (27-1024)	13,966	14,133	167	1%	1,448	\$17.38	\$25.87	\$36.18
Desktop Publishers (43-9031)	349	322	(27)	(8%)	39	\$20.41	\$27.93	\$40.97
Prepress Technicians and Workers (51-5111)	1,017	843	(174)	(17%)	114	\$14.34	\$20.11	\$24.57
Total	15,332	15,298	(34)	(0%)	1,601			

Exhibit 7. Los Angeles and Orange Counties

Occupation (SOC)	2019 Jobs	2024 Jobs	5-Yr Change	5-Yr % Change	Annual Openings
Graphic Designers (27-1024)	18,336	18,563	227	1%	1,901
Desktop Publishers (43-9031)	470	432	(38)	(8%)	52
Prepress Technicians and Workers (51-5111)	1,526	1,283	(243)	(16%)	173
Total	20,331	20,278	(53)	(0%)	2,126

Appendix B: Sources

- O*NET Online
- Labor Insight/Jobs (Burning Glass)
- Economic Modeling Specialists, International (Emsi)
- Bureau of Labor Statistics (BLS)
- Employment Development Department, Labor Market Information Division, OES
- California Community Colleges Chancellor's Office Management Information Systems (MIS)
- California Family Needs Calculator, Insight Center for Community Economic Development
- Chancellor's Office Curriculum Inventory (COCI 2.0)

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