

Microsoft (MS) Office Applications Occupations Labor Market Analysis: Imperial County

December 2018

Summary

According to available labor market information, there is a demand for occupations that require the use of *Microsoft Office Suite Applications*. For the purpose of this report, these occupations are referred to as “MS Office Applications Occupations.” *MS Office Applications Occupations* have a labor market demand of 99 annual job openings. Imperial Valley College (IVC) supplies 70 awards and CET-El Centro supplies 45 awards in related training programs, suggesting that there is an oversupply for these occupations. However, between 2010 and 2017, employers posted an average of 163 online job postings per year with Microsoft Excel, Word, PowerPoint, or Outlook, suggesting that there is demand for skills in *MS Office Applications* beyond the five occupations analyzed in this report. There is also a significant number of *MS Office Applications* training programs offered online for free. If a new program were to be offered in Imperial County, it would need to differentiate itself from its competition.

The following list summarizes findings from the labor market analysis for *MS Office Applications Occupations*:

- Between 2017 and 2022, *MS Office Applications Occupations* are projected to decrease by 14 jobs or two percent.
- Employers in Imperial County will need to hire 99 workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.
- Between 2010 and 2017, there was an average of 30 online job postings per year for *MS Office Applications Occupations* in Imperial County. Of the online postings in Imperial County during the same period, there was an average of four online job postings per year that included “Microsoft Office” or “MS Office.”
- Between 2013 and 2017, the most prevalent skill from the *MS Office Suite* in online job postings was Excel, followed by Word, PowerPoint, and Outlook.
- On average, the median hourly earnings for *MS Office Applications Occupations* is \$24.46; this is more than the Self-Sufficiency Standard for two adults and two children (school-age) in Imperial County, which is \$13.20 per hour.
- There are 13 TOP codes and 26 CIP codes related to the *MS Office Applications Occupations*.

- According to TOP and CIP data, Imperial Valley College and CET El Centro are the only educational institutions that supply the region with awards.
- Comparing labor demand (annual openings) with labor supply suggests that there is an oversupply for these occupations in Imperial County, with 99 annual openings and 115 awards. Comparatively, there are 39,996 annual openings in California and 27,206 awards.
- Between January 1, 2015 and December 31, 2017, the top five employers in Imperial County for these occupations were Imperial County, Apollo Group/University of Phoenix, Imperial Irrigation District, California Division of Correctional Rehabilitation, and Imperial County Office of Education.
- Based on online job postings between January 1, 2015 and December 31, 2017, the top listed educational requirement for *MS Office Applications Occupations* is high school diploma or equivalent.

Introduction

This report analyzes five occupations that work with *MS Office Applications* software in Imperial County.

The occupations are:

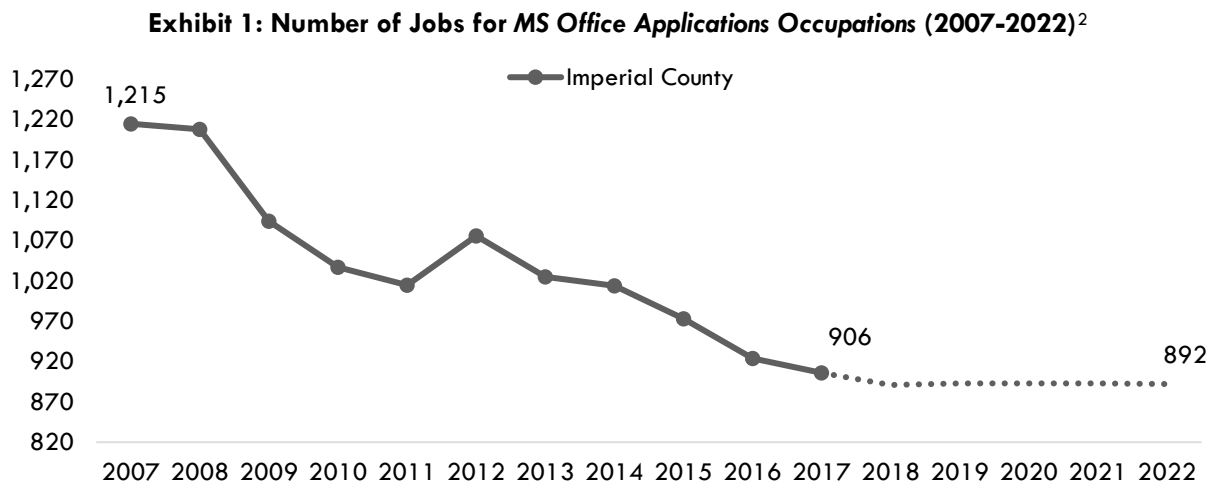
- **Bookkeeping, Accounting, and Auditing Clerks** (SOC¹ 43-3031): Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.
- **Industrial Production Managers** (SOC 11-3051): Plan, direct, or coordinate the work activities and resources necessary for manufacturing products in accordance with cost, quality, and quantity specifications.
- **Data Entry Keyers** (SOC 43-9021): Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing.
- **Executive Secretaries and Executive Administrative Assistants** (SOC 43-6011): Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.

¹ The Standard Occupational Classification (SOC) system is used by federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating or disseminating data. bls.gov/soc.

- **Legal Secretaries** (SOC 43-6012): Perform secretarial duties using legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.

Projected Occupational Demand

Between 2017 and 2022, *MS Office Applications Occupations* are projected to decrease by 14 jobs or two percent (Exhibit 1). Employers in Imperial County will need to hire 99 workers annually to fill new jobs and backfill jobs due to attrition such as retirement or turnover.

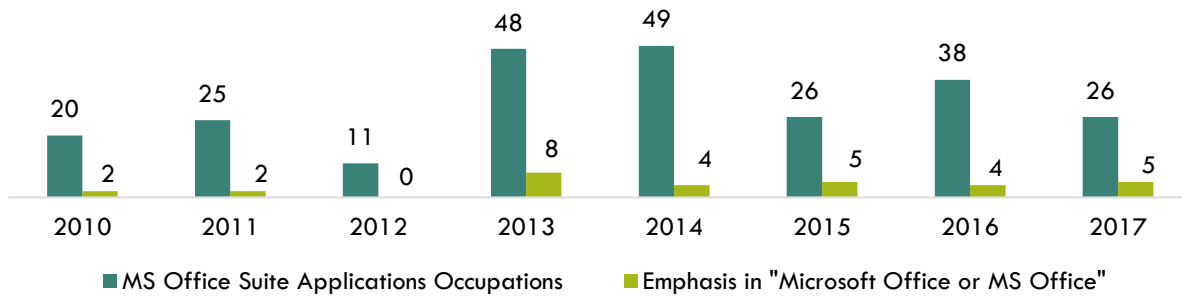


Online Job Postings

Between 2010 and 2017, there was an average of 30 online job postings per year for *MS Office Applications Occupations* in Imperial County. Of the online postings in Imperial County during the same period, there was an average of four online job postings per year that included “Microsoft Office” or “MS Office” (Exhibit 2a).

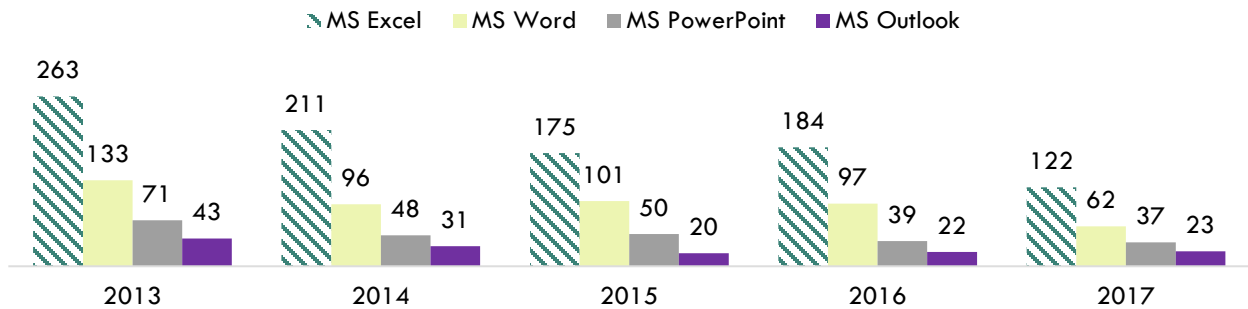
² Economic Modeling Specialists, Int'l. (EMSI). Imperial (6025). 2018.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2007-2022.

**Exhibit 2a: Number of Online Job Postings for MS Office Applications Occupations
Imperial County (2010-2017)³**



Between 2013 and 2017, the most prevalent skill from the MS Office Suite in online job postings was Excel, followed by Word, PowerPoint, and Outlook (Exhibit 2b). Please note: Job postings are not independently exclusive; one job posting may list more than one MS Office Suite skill.

**Exhibit 2b: Number of Online Job Postings with MS Excel, Word, PowerPoint or Outlook Skills
Imperial County (2013-2017)⁴**



Earnings

The median hourly earnings of *MS Office Applications Occupations* range from \$13.29 to \$42.37 (Exhibit 3b). On average, the median hourly earnings for *MS Office Applications Occupations* is **\$24.46**; this is more than the Self-Sufficiency Standard for two adults and two children (school-age) in Imperial County, which is **\$13.20** per hour (Exhibit 3b).⁵

³ Labor Insight Jobs. Burning Glass Technologies. Imperial, CA. Full years 2010-2017.

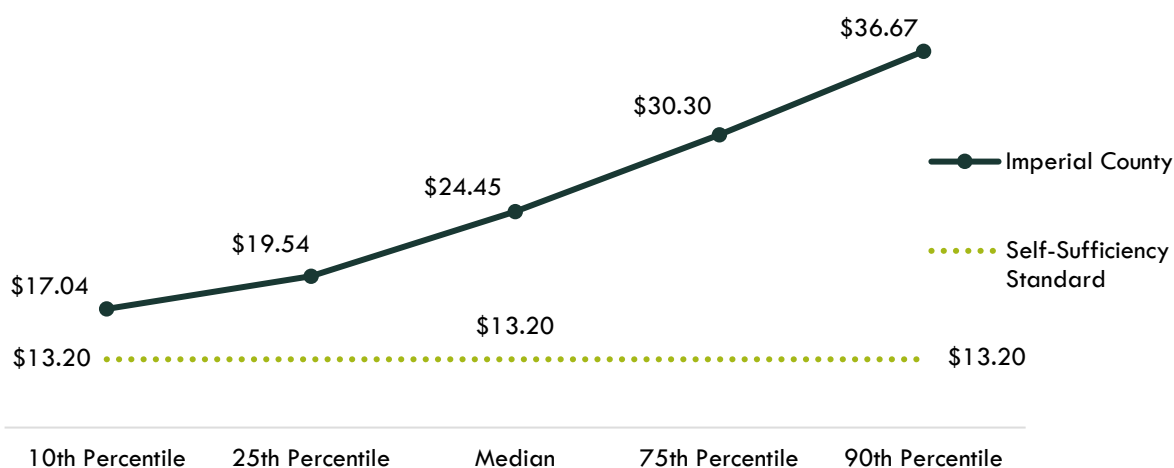
⁴ Labor Insight Jobs. Burning Glass Technologies. Imperial, CA. Full years 2010-2017.

⁵ The standard for two adults and two children was chosen due to the 3.68 persons per household (2012-2016) as determined by the U.S. Census for Imperial County (insightccd.org/2018-self-sufficiency-standard).

Exhibit 3a: Hourly Earnings for MS Office Applications Occupations in Imperial County

Occupational Title	Entry-Level Hourly Earnings (10 th Percentile)	Median Hourly Earnings	Experienced Hourly Earnings (90 th Percentile)
Industrial Production Managers	\$27.65	\$42.37	\$60.30
Executive Secretaries and Executive Administrative Assistants	\$21.67	\$28.31	\$37.95
Legal Secretaries	\$14.27	\$21.65	\$36.72
Bookkeeping, Accounting, and Auditing Clerks	\$11.10	\$16.66	\$26.95
Data Entry Keyers	\$10.50	\$13.29	\$21.44

Exhibit 3b: Hourly Earnings for MS Office Applications Occupations in Imperial County⁶



Educational Supply

Educational supply for an occupation can be estimated by analyzing the number of awards in related Taxonomy of Programs (TOP) or Classification of Instructional Programs (CIP) codes.⁷ There are 9 TOP codes 17 CIP codes related to the MS Office Applications Occupations (Exhibit 4).

⁶ EMSI. Imperial (6025). 2018.04 Class of Worker. QCEW + Non-QCEW + Self-Employed. 2017-2022.

⁷ TOP data comes from the California Community Colleges Chancellor's Office MIS Data Mart (datamart.cccco.edu) and CIP data comes from the Integrated Postsecondary Education Data System (nces.ed.gov/ipeds/use-the-data).

Exhibit 4: Related TOP and CIP Codes for MS Office Applications Occupations

MS Office Applications Occupations

TOP 050100: Business and Commerce, General

TOP 050200: Accounting

TOP 050500: Business Administration

TOP 050600: Business Management

TOP 051000: Logistics and Materials Transportation

TOP 051400: Office Technology/Office Computer Applications

TOP 051410: Legal Office Technology

TOP 070210: Software Applications

TOP 140200: Paralegal

CIP 11.0601: Data Entry/Microcomputer Applications, General

CIP 11.0602: Word Processing

CIP 11.0899: Computer Software and Media Applications, Other

CIP 22.0301: Legal Administrative Assistant/Secretary

CIP 22.0302: Legal Assistant/Paralegal

CIP 49.9999: Transportation and Materials Moving, Other

CIP 52.0101: Business/Commerce, General

CIP 52.0201: Business Administration and Management, General

CIP 52.0203: Logistics, Materials, and Supply Chain Management

CIP 52.0211: Project Management

CIP 52.0301: Accounting

CIP 52.0302: Accounting Technology/Technician and Bookkeeping

CIP 52.0401: Administrative Assistant and Secretarial Science, General

CIP 52.0407: Business/Office Automation/Technology/Data Entry

CIP 52.0408: General Office Occupations and Clerical Services

CIP 52.0410: Traffic, Customs, and Transportation Clerk/Technician

CIP 52.1001: Human Resources Management/Personnel Administration, General

According to TOP and CIP data, Imperial Valley College and CET El Centro are the only educational institutions that supply the region with awards (Exhibit 5).

Exhibit 5: Number of Awards (Certificates and Degrees) Conferred by Postsecondary Institutions (Program Year 2013-14 through PY2016-17 Average)

TOP6	TOP6 Title	3-Yr Annual Average CC Awards (PY14-15 to PY16-17)	Other Educational Institutions 3-Yr Annual Average Awards (PY13-14 to PY15-16)	3-Yr Total Average Supply (PY13-14 to PY16-17)
050200	Accounting	0	45	45
	• CET El Centro	0	45	
050500	Business Administration	53	0	53
	• Imperial	53	0	
050600	Business Management	13	0	13
	• Imperial	13	0	
051410	Legal Office Technology	4	0	4
	• Imperial	4	0	
			Total	115

Demand vs. Supply

Comparing labor demand (annual openings) with labor supply⁸ suggests that there is an **oversupply** for these occupations in Imperial County, with **99** annual openings and **115** awards. Comparatively, there are **39,996** annual openings in California and **27,206** awards⁹ (Exhibit 6).

Exhibit 6: Labor Demand (Annual Openings) Compared to Labor Supply (Average Annual Awards)

Community Colleges and Other Postsecondary Educational Institutions	Demand (Annual Openings)	Supply (Total Annual Average Supply)	Supply Gap or Oversupply
Imperial	99	115	16
California	39,996	27,206	11,672

⁸ Labor supply can be found from two different sources: EMSI or the California Community Colleges Chancellor's Office MIS Data Mart. EMSI uses CIP codes while MIS uses TOP codes. Different coding systems result in differences in the supply numbers.

⁹ Centers of Excellence Student Outcomes supply table. (coecc.net/Supply-and-Demand.aspx).

Please note: This is a basic analysis of supply and demand of labor. This data should be used to discuss the potential gaps or oversupply of workers; however, it should not be the only basis for determining whether or not a program should be developed. Additionally, the data does not include workers who are currently in the labor force who could fill these positions or workers who are not captured by publicly available data.

Student Outcomes

Based on the information available in the CTE LaunchBoard, students who took courses in the related TOP codes exhibited the following outcomes (Exhibit 7).

**Exhibit 7: Strong Workforce Program Metrics for TOP 070210: Software Applications
Imperial Valley College vs. California (PY2015-16)**

Metric	Imperial Valley	California
Number of course enrollments ¹⁰	527	34,786
Completed 12+ CTE Units in One Year ¹¹	50	4,480
Completed 48+ CTE Contact Hours in One Year ¹²	0	1,448
Number of students who got a degree or certificate ¹³	N/A	230
Number of students who transferred ¹⁴	20	2,377
Employed in the second fiscal quarter after exit ¹⁵	N/A	64%
Employed in the fourth fiscal quarter after exit ¹⁶	N/A	65%
Job closely related to field of study ¹⁷	N/A	N/A
Median earnings in the second fiscal quarter after exit ¹⁸	N/A	\$7,844
Median change in earnings ¹⁹	N/A	36%
Attained a living wage ²⁰	N/A	55%

¹⁰ The number of enrollments in courses assigned to the TOP code in the selected year.

¹¹ The number of students who completed 12 or more credit CTE units.

¹² The number of students who completed 48 or more noncredit CTE instructional contact hours.

¹³ The number of unduplicated students who earned a locally-issued certificate, Chancellor's Office approved certificate, associate degree, and/or California Community Colleges bachelor's degree in the selected TOP code.

¹⁴ Students who took non-introductory courses or completed a California Community Colleges Chancellor's Office award in the selected TOP code in selected year who subsequently enrolled for the first time in a four-year institution the following year.

¹⁵ Among all exiters with a valid SSN, the percentage who were employed two quarters after exiting California Community Colleges.

¹⁶ Among exiting students with a valid SSN, the percentage who were employed four quarters after exiting California Community Colleges.

¹⁷ Among students who responded to the CTEOS, the percentage reporting employment in the same or similar field as their program of study.

¹⁸ Among exiting students, the median second-quarter earnings one year after the year in which they exited California Community Colleges.

¹⁹ Among exiting students with a valid SSN, the percentage change in earnings one year before and one year after exiting California Community Colleges.

²⁰ Among completers and skills builders who exited, the proportion of students who attained a living wage.

Top Employers and Work Locations

Between January 1, 2015 and December 31, 2017, the top five employers in Imperial County for these occupations were [Imperial County](#), [Apollo Group/University of Phoenix](#), [Imperial Irrigation District](#), [California Division of Correctional Rehabilitation](#), and [Imperial County Office of Education](#) (Exhibit 8).

Exhibit 8: Top Employers in Imperial County for MS Office Applications Occupations²¹

Top Employers	
<ul style="list-style-type: none"> Imperial County Apollo Group/University of Phoenix Imperial Irrigation District California Division of Correctional Rehabilitation Imperial County Office of Education 	<ul style="list-style-type: none"> CS Manufacturing & Industrial El Centro Elementary School District FCi Federal SymphonyIRI Group Barbachano International

Skills, Education, and Certifications

MS Office Applications Occupations have varying educational requirements; however, they range from a high school diploma or equivalent to a bachelor degree (Exhibit 9a).

Exhibit 9a: Educational Requirements for MS Office Applications Occupations

Occupational Title	Typical Entry-Level Education
Industrial Production Managers	Bachelor degree
Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree
Executive Secretaries and Executive Administrative Assistants	High school diploma or equivalent
Legal Secretaries	High school diploma or equivalent
Data Entry Keyers	High school diploma or equivalent

Based on online job postings between January 1, 2015 and December 31, 2017, the top listed educational requirement for the five MS Office Applications Occupations is a [high school diploma or equivalent](#) (Exhibit 9b).²²

²¹ Labor Insight Jobs. Burning Glass Technologies. Imperial, CA. Full years 2015-2017.

²² Labor Insight Jobs. Burning Glass Technologies. Imperial, CA. Full years 2015-2017.

Exhibit 9b: Educational Requirements for MS Office Applications Occupations in Imperial County²³

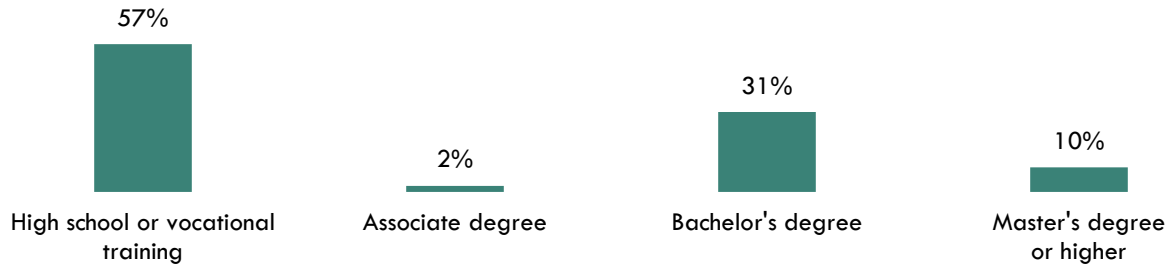


Exhibit 10 lists the top specialized, soft, and software skills that appeared in online job postings between January 1, 2015 and December 31, 2017.

Exhibit 10: Top Skills for MS Office Applications Occupations in Imperial County²⁴

Specialized Skills	Soft Skills	Software Skills
<ul style="list-style-type: none"> Accounting Data Entry Scheduling Record Keeping Bookkeeping 	<ul style="list-style-type: none"> Communication Skills English Organizational Skills Typing Writing 	<ul style="list-style-type: none"> Microsoft Excel Microsoft Word SAP Microsoft PowerPoint Customer Relationship Management

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²³ Bureau of Labor Statistics, Educational attainment for workers 25 years and older by detailed occupation. bls.gov/emp/ep_table_111.htm.
²⁴ Labor Insight Jobs. Burning Glass Technologies. Imperial, CA. Full years 2015-2017.

Important Disclaimers

All representations included in this report have been produced from primary research and/or secondary review of publicly and/or privately available data and/or research reports. This study examines the most recent data available at the time of the analysis; 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 the report 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.