Informatics Nurse Specialists

Inland Empire/Desert Region (Riverside and San Bernardino counties combined)

Introduction

Driven primarily by the Health Information Technology for Economic and Clinical Health (HITECH) Act of 2009, nursing informatics aims to improve the quality of patient care while simultaneously reduce healthcare costs through the thoughtful design and management of health information systems. With this increasing implementation of electronic health records, nursing informatics is expected to grow. According to the Healthcare Information and Management Systems Society, "Nursing informatics is the specialty that integrates nursing science with multiple information management and analytical sciences to identify, define, manage, and communicate data, information, knowledge, and wisdom in nursing practice" (HIMSS, 2019). O*Net embeds the emerging occupation, informatics nurse specialists (SOC 15-1121.01), within the broader Standard Occupational Classification (SOC) occupation computer systems analysts (SOC 15-1121). To measure demand for this occupation, this report utilizes data collected by Burning Glass, a real-time job posting search engine to provide a snapshot of demand for this occupation over the last five years, 2014 to 2018. The occupational description and sample job titles for informatics nurse specialists are displayed below, along with occupational information for the broader occupation.

Informatics Nurse Specialists (15-1121.01)

Apply knowledge of nursing and informatics to assist in the design, development, and ongoing modification of computerized health care systems. May educate staff and assist in problem-solving to promote the implementation of the health care system.

Sample of reported job titles: Business Consultant, Clinical Informatics; Clinical Applications Specialist; Clinical Coordinator; Clinical Informatics Director; Clinical Informatics Specialist; Clinical Informatics Strategist; Clinical Information Systems Director; Consultant; Director Clinical Information Services; Health Informatics Specialist; Nurse Informatics Specialist; Nursing Informatics Specialist; Nursing Information Systems Coordinator

Job Postings, Employers, Skills, Education, Certifications, and Salary

Exhibit 1 displays the number of job ads posted over the last five years with the regional average time to fill for informatics nurse specialists in the Inland Empire/Desert region (IEDR) and California. A five-year timeframe is utilized in this report as it provides a richer data set for this emerging occupation. On average, employers in the IEDR fill online job postings for informatics nurse specialists within 34 days. This regional average is the same as the statewide average, indicating that local employers fill open positions

within a similar timeframe as other California employers. The 19 job ads from the IEDR account for 5% of all job postings for informatics nurse specialists in California.

Exhibit 1: Five-year total job ads and time to fill for informatics nurse specialists, 2014 – 2018

Region	2014-18 Total Job Ads	Regional Average Time to Fill (Days)
IEDR	19	34
California	363	34

Source: Burning Glass – Labor Insights

Since the IEDR accounts for 5% of statewide postings for informatics nurse specialists over the past five years, it is useful to know which regions in California have experienced the most significant demand for this specialty occupation. Exhibit 2 displays the number of job ads by county for informatics nurse specialists. The LA/OC region accounts for 36% of all California job ads.

*Exhibit 2: Five-year job ads by county for informatics nurse specialists, 2014 – 2018*

County	Job Ads
Los Angeles	77
Orange	53
San Francisco	34
Santa Clara	33
San Mateo	28
Santa Cruz	22
Alameda	19
San Bernardino	19
San Diego	19
Sacramento	14
Other counties	*45*
Total	**363**

Source: Burning Glass – Labor Insights

Over the last five years, employer demand for informatics nurse specialists has increased three job ads per year to six per year in the IEDR. California overall has also seen a sizeable increase in job postings during the same period, increasing by 72%. Demand for nursing informatics specialist positions in IEDR

appears to have decreased slightly between 2015 and 2017. Exhibit 3 displays the number of job postings for informatics nurse specialists for each area between 2014 and 2018.

Exhibit 3: Annual informatics nurse specialists job ads over the last five years, IEDR & CA
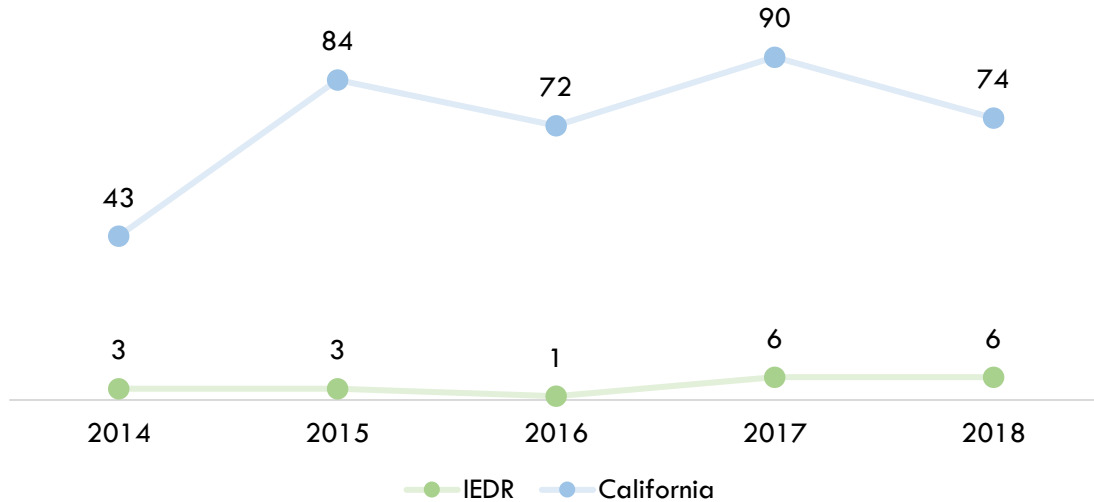
Source: Burning Glass – Labor Insights

Exhibit 4 displays the employers posting the most job ads for informatics nurse specialists during the last five years in the IEDR and in the other areas in California.

Exhibit 4: Five-year, employers posting the most job ads, 2014 – 2018

Region	Occupation	Employers
IEDR	Informatics Nurse Specialists *(n=9)*	• Kaiser Permanente • Inland Empire Health Plan • Loma Linda University Hospital
California	Informatics Nurse Specialists *(n=267)*	• City of Hope • St. Joseph Health System • Health Plan of San Mateo

Source: Burning Glass – Labor Insights

Exhibit 5 displays a sample of specialized, employability, and software and programming skills that employers are seeking when looking for workers to fill informatics nurse specialist positions. Specialized skills are occupation-specific skills that employers are requesting for industry or job competency. Employability skills are foundational skills that transcend industries and occupations; this category is commonly referred to as "soft skills." The skills requested in job postings may be utilized as a helpful guide for curriculum development.

Exhibit 5: Five-year, a sample of in-demand skills from employer job ads, 2014 – 2018

Region	Occupation	Specialized Skills	Employability Skills	Software and Programming Skills
IEDR	Informatics Nurse Specialists *(n=17)*	• Data Analysis • Data Mining • Medical Terminology • Statistical Methods	• Communication Skills • Problem Solving • Detail-Oriented	• SQL • Microsoft Office • SPSS • ArcGIS
California	Informatics Nurse Specialists *(n=332)*	• Project Management • Quality Assurance and Control • Data Analysis • Medical Coding	• Communication Skills • Teamwork/ Collaboration • Problem Solving	• Microsoft Office • SQL • Crystal Reports • ICD-10 (International Statistical Classification of Diseases and Related Health Problems)

Source: Burning Glass – Labor Insights

Exhibit 6 displays the minimum advertised education requirement from employer job ads. More than three-quarters of employer job ads in the IEDR are seeking candidates with a bachelor's degree or higher. Employers in the IEDR requiring high school or vocational training in job postings also specify a need for two years of related work experience.

Exhibit 6: Five-year, minimum advertised education requirements, 2014 – 2018

Region	Occupation	Minimum Advertised Education Requirement from Job Ads			
		Number of Job Ads (n=)	High school diploma or vocational training	Associate degree	Bachelor's degree or higher
IEDR	Informatics Nurse Specialists	*14*	14%	-	86%
California	Informatics Nurse Specialists	*270*	18%	7%	75%

Source: Burning Glass – Labor Insights

Exhibit 7 displays the certifications most frequently requested or required by employers posting job ads for informatics nurse specialists in California. There were too few postings for informatics nurse specialists in the IEDR to obtain accurate certification information. The Registered Health Information Technician (RHIT) and Registered Health Information Administrator (RHIA) were the two most frequently requested certifications for informatics nurse specialists in California. RHIT and RHIA certifications are issued by the

American Health Information Management Association (AHIMA). For more information regarding RHIT and RHIA certifications and requirements, visit the AHIMA website (CCHIM, 2019). Additionally, Epic certification was frequently requested in job postings for informatics nurse specialists. Epic certification ensures that electronic health records (EHR) system consultants are proficient on Epic systems. For more information regarding Epic certifications, visit The HCI Group website (HCIgroup, 2016).

Exhibit 7: Five-year, certification requirements from employer job ads, 2014 – 2018

Region	Occupation	Certifications
IEDR	Informatics Nurse Specialists *(n=2)*	• N/A
California	Informatics Nurse Specialists *(n=119)*	• Registered Health Information Technician (RHIT) • Registered Health Information Administrator (RHIA) • Epic Certification

Source: Burning Glass – Labor Insights

Exhibit 8 displays advertised salary data from real-time job postings over the last five years. The median real-time salary for informatics nurse specialists is $90,000 in California. This information should be viewed with caution as 80% of the statewide postings have been excluded because they did not contain salary information. Please note that salary figures are prorated to reflect full-time, annual wage status. For reference, the MIT Living Wage estimate for a single adult living in the IEDR is $12.39 per hour, or $25,775 annually (Glasmeier, 2019).

Exhibit 8: Five-year, advertised salary information for informatics nurse specialists, 2014 – 2018

Region	Occupation	Real-Time Salary Information				
		Number of job postings	Less than $35,000	$35,000 to $49,999	$50,000 to $74,999	More than $75,000
IEDR	Informatics Nurse Specialists	*3*	-	-	67%	33%
California	Informatics Nurse Specialists	*71*	-	3%	10%	87%

Source: Burning Glass – Labor Insights

Informatics Training Programs

While there are a handful of health information technology programs throughout the state, programs that provide training specifically for informatics nurse specialists are limited. Coastline Community College,

located in Fountain Valley, is the only community college in California that currently offers an informatics program. While Coastline offers a certificate of achievement and an associate degree in informatics, there are currently no reported completions for this program. Coastline's informatics program is not specialized for informatics nurse specialists, but the program may be helpful as a guide for curriculum development. Coastline's informatics program description is displayed below:

Informatics is uniquely focused on computers and people. This program is designed for students interested in the design and implementation of software and information systems that help users work more effectively. It has a strong emphasis on the technical design and implementation of software and information systems. Students will learn how to design, build, and analyze actual systems that are used in industry (2018-2019 Catalog, 2019, p. 94).

Is it also worth noting that Foothill College (Bay Area) offered an informatics program (Foothill College, 2019). Based on their website, their program was last available during the 2011-12 academic year.

Nursing Informatics Workforce Survey

Since 2004, HIMSS has conducted a workforce survey to understand the characteristics of individuals working within a nursing informatics capacity. For the most recent survey results, please visit the link below or view the infographic summarizing the results in the references section (HIMSS, 2019a).

- [HIMSS 2017 Nursing Informatics Workforce Survey](#)

Recommendation

Nursing informatics is a specialty job that integrates nursing science and multiple information management and analytical sciences. Traditional labor market information does not provide job counts or wages for this emerging occupation. According to employer job posting data, employer demand for this job appears to be minimal in the Inland Empire/Desert region. Only 19 job postings were found over the last five years (2014-2018) in the region; six of these jobs postings were in 2018. Employers are seeking nursing informatics specialist through job ads more frequently in other areas in California.

Job posting data provides great 'real-time' insight on the employers seeking workers and the certifications, licensing, and education requirement for jobs. True employer demand is challenging to gauge through job postings because employers may post one job ad to hire many workers or post job ads to collect information on potential candidates without intent to hire. It is recommended that college reach out to relevant employers to better understand the demand for nursing informatics jobs and the knowledge, skills, and abilities that will lead to gainful employment before starting a new program.

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Contact

Michael Goss, Director
Center of Excellence, Inland Empire/Desert Region
michael.goss@chaffey.edu
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