

## Department of Health Care Access and Information

### Duty Statement

Proposed

<b>Employee Name</b> Vacant	<b>Organization</b> Office of Health Workforce Development Research and Evaluation Branch Workforce Research and Analytics Section Modeling and Research Unit	
<b>Position Number</b> 441-224-5758-XXX	<b>Location</b> Sacramento	<b>Telework Option</b> Hybrid
<b>Classification</b> Research Data Specialist II	<b>Working Title</b> Workforce Research Specialist	

#### General Description

The Workforce Research Specialist is a highly skilled practitioner and advisor responsible for developing, maintaining, and enhancing workforce supply and demand models that support the Department of Healthcare Access and Information's (HCAI) strategic planning and policy decisions. This position leads the design and implementation of advanced forecasting models using Python and related libraries such as pandas, scikit-learn, matplotlib, and YAML. The specialist applies machine learning techniques—including regression, classification, and unsupervised modeling methods—to improve projection accuracy and identify emerging workforce trends. They lead complex research projects focused on assessing workforce gaps, evaluating the impact of program interventions, and supporting equitable access to healthcare providers. The specialist also develops dynamic dashboards and public-facing datasets in Tableau, collaborates with IT to automate data pipelines, and ensures data quality through rigorous validation and documentation. They work closely with internal teams and external partners to refine methodologies, validate assumptions, and communicate findings through reports, visualizations, and presentations tailored to decision-makers and the public.

<b>Supervision Received</b>	Will report to Research Data Supervisor II
<b>Supervision Exercised</b>	N/A
<b>Physical Demands</b>	Must possess and maintain sufficient strength, agility, endurance, and sensory ability to perform the duties contained in this duty statement with or without reasonable accommodation.
<b>Typical Working Conditions</b>	Required prolonged sitting and use of telephone and video data terminals, and frequent contact with employees and the public.

#### Job Duties

E = Essential, M = Marginal

40% E	<b>Workforce Supply and Demand Modeling</b> Design, maintain, and continuously enhance advanced workforce supply and demand models to inform HCAI's strategic priorities. Use Python and related libraries (e.g., pandas, scikit-learn, matplotlib, YAML) to build, revise, and document robust, scalable forecasting models. Apply machine learning techniques—including regression, classification, and unsupervised modeling techniques—to improve model accuracy, capture emerging trends, and support scenario-based planning. Refactor and optimize existing codebases for clarity, modularity, and performance; maintain detailed
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documentation to support code reproducibility and cross-team collaboration. Partner with internal and external stakeholders to test model assumptions, validate outcomes, and ensure alignment with policy goals. Work with IT and data engineering teams to develop automated data pipelines and integrate modeling outputs into HCAI's analytics infrastructure.

25% E

#### **Health Workforce Research**

Plans and implements research protocol to study healthcare workforce trends, identify opportunities to increase the number of providers in areas of unmet need, and/or support the inclusion of under-represented minorities in the healthcare workforce through new programs or changes to existing programs. Collaborates with OHWD's Policy Team and/or subject matter experts to define and plan research projects and identify appropriate research protocol and methods. The protocol includes the assessment of research methods, identification of appropriate data and/or data collection tools, and development of a research project plan. Research methods may include forecasting, statistics, survey, and focus group techniques. Act in a lead capacity, directing the work of others in completing the research. Develop reports and presentations summarizing findings for decision makers.

20% E

#### **Development of Data Visualizations and Public Facing Datasets**

Develops original data visualizations that will be displayed to the public which inform stakeholders on the supply, demand, and educational capacity of the health workforce in California. Gathers stakeholder input and use it as a key input in determining how to create informative data visualizations. Utilizes Tableau, SAS, ArcGIS, Qualtrics, PowerPoint, and Excel for data analyses, data visualizations, tables, maps, flyers, and dashboards to display workforce data. Develop dynamic dashboards which will be displayed on OSHPD's website. Develop subject matter expertise on de-identification guidelines and create a schedule for refreshing and displaying key public facing datasets. Respond to public inquiries for health workforce data and create products to satisfy data requests that adhere to California's Health and Human Services De-Identification Guidelines.

10% E

#### **Data Validation and Provisioning**

Liaise with various state organizations to identify, collect, analyze, and report on healthcare workforce data. Create data models to guide data collection activities. Apply research methods to normalize data. Develop logic checks to ensure data accuracy. Liaise with HCAI's Information Technology Services Division to ensure data models, normalization, and logic checks are appropriately automated.

5% M

Performs other duties as assigned.

#### **Other Expectations**

- Demonstrate a commitment to building an inclusive work environment that promotes HCAI's diversity, equity and belonging where employees are appreciated and comfortable as their authentic selves.
- Demonstrate a commitment to maintaining a work environment free from workplace violence, discrimination, and sexual harassment.
- Demonstrate a commitment to HCAI's mission, vision, and goals.

- Demonstrate a commitment to HCAI's Core Values.
- Maintain good work habits and adhere to all HCAI policies and procedures.

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**To Be Signed by the Employee and Immediate Supervisor**

I have read and understand the duties and expectations of this position

I have discussed the duties and expectations of this position with the employee.

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Employee Signature/Date

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Supervisor Signature/Date