

POSITION DUTY STATEMENT

PM-0924 (REV 01/2022)

CLASSIFICATION TITLE Research Data Specialist II	OFFICE/BRANCH/SECTION DOTP, OSFP, Freight Program Support Branch	
WORKING TITLE Freight Data and Modeling Technical Lead	POSITION NUMBER 900-074-5758-921	REVISION DATE 06/01/2022

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Under the general supervision of the Chief, Freight Program Support Branch, the incumbent will be responsible for providing freight data and technical support to the Division of Transportation Planning. The incumbent will research and evaluate freight data and tools to advance Freight Planning activities and meet the goals and objective of the Department and the Investment Infrastructure Jobs and Housing Act (IIJA). Incumbent will work closely with Freight Planning, Statewide Modeling, and the California Transportation Commission to ensure that freight and goods movement data and tools selected, meet the criteria for transportation analysis. Incumbent will work with various software programs such as ArcGIS, Cube, Smartsheet, and Excel.

CORE COMPETENCIES:

As a Research Data Specialist II, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Enhance and Connect the Multimodal Transportation Network, Strengthen Stewardship and Drive Efficiency - Equity, Innovation)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Enhance and Connect the Multimodal Transportation Network - Innovation, Integrity)
- **Initiative:** Ability to identify what needs to be done and doing it before being asked or required by the situation. Seeks out others involved in a situation to learn their perspectives. (Enhance and Connect the Multimodal Transportation Network - Innovation, Integrity)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Strengthen Stewardship and Drive Efficiency - Equity, Innovation)
- **Teamwork and Collaboration:** Sets team structure. Organizes, leads, and facilitates team activities. Promotes team cooperation and encourages participation. Capable of cross functionality and working well with others on a team to achieve personal goals, team goals, and organizational goals. Takes responsibility for individual actions in order to achieve consistent results. (Enhance and Connect the Multimodal Transportation Network - Integrity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Lead Climate Action - Pride)
- **Interpersonal Effectiveness :** Effectively and appropriately interacts and communicates with others to build positive, constructive, professional relationships. Tailors communication style based on the audience. Provides and is receptive to feedback. (Enhance and Connect the Multimodal Transportation Network - Equity)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Enhance and Connect the Multimodal Transportation Network - Innovation, Integrity)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Enhance and Connect the Multimodal Transportation Network - Innovation)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	

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35%	E	Serves as the technical lead for researching and conducting a variety freight-related transportation analysis and reporting. Establishes and maintains relationships with freight data experts, such as academics, industry leaders, and data specialists. Evaluate various sources of freight and goods movement data associated with all modes of freight, such as trucks, cargo vessels, and containers. Identify new freight research projects and topics with cutting edge technology that may improve freight data. Obtain freight data tools, such as location data, customs data, federal freight data, and other datasets to improve statewide freight modeling. Utilizes data and tools from a variety of federal, state, and local sources including the Bureau of Transportation Statistics, Federal Highway Administration, Federal Railroad Administration, USDOT Maritime Administration, Federal Motor Carrier Safety Administration, Caltrans Truck Census, Weigh-in-Motion, and oversize/overweight permits for transportation decision-making purposes. Responsible for utilizing Freight Analysis Framework 5 (FAF5) platform for freight analysis purposes.
25%	E	Responsible for performing advanced freight technical analysis for data-driven decision-making and meeting freight performance measures. Work with Statewide Modeling travel demand modelers to develop scenarios relevant to the California Freight Mobility Plan (CFMP), Sustainable Freight, and other Freight Planning efforts. The technical analysis will include looking at various alternative strategies proposed in the CFMP and how proposed improvements enhance the multi-modal state highway and freight systems as well as developing new strategies, performance metrics and policies.
25%	E	Work with a multi-disciplinary team on learning and running the California Statewide Freight Forecasting Travel Demand Model (CSF2TDM). This will include working with technical staff from other programs and the local and state partner agencies. Work with the Freight Data and Performance Program Manager to incorporate new freight and goods movement data as part of our CSF2TDM update process. Participate on CSF2TDM technical advisory committee and California Transportation Plan technical advisory committee to ensure that freight and good movement scenario components are built into the transportation analysis process.
5%	E	Coordinate with various Caltrans offices, divisions, and districts to support freight data analysis. This includes, but not limited to, collaboration efforts with the other offices within the Division of Transportation Planning; Divisions of Research, Innovation and System Information; Rail and Mass Transportation; Traffic Operations; Sustainability; and Programming.
5%	M	Provide support to Freight Data and Performance Program Manager for freight engagement efforts including California Freight Advisory Committee, regional forums, public workshop and community events as requested.
5%	M	Provide contract management and project management support and regular reporting on freight data and technical analysis activities.

¹ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

This position does not supervise other employees.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of:

Goods movement in California including trends, commodity and volume flows; industry strengths and weaknesses; freight data availability and analysis tools; system performance reporting requirements; federal and state legislation as it affects transportation and related areas; contract management; state/Department personnel goals and practices, and the Department policies programs.

Ability and Analytics Requirement to:

Understand how freight data and analytical tools are used for multimodal and freight decision-making as they relate to all modes of transportation.

ADA Notice

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To utilize technical freight logistics and freight analysis of the transportation system as applied to our various planning efforts. Use spreadsheet, database and graphics software to evaluate freight data. Eagerly learn and use freight and travel demand modeling software. Establish and maintain friendly and cooperative relations with those contacted in the course of the work, and to communicate effectively. Conduct and evaluate relevant research for freight data and analysis. Conduct forecasting and statistical methodology used in transportation modeling. Provide technical presentations and model run results to professional peers, public and elected officials.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

The Research Data Specialist II is responsible for the technical analytical work in the Office of Strategic Freight Planning related to multi-modal freight and commodity flow analysis. Incomplete staff work could result in the branch being unable to carry out some of its functional and management responsibilities. Inaccurate freight modeling and analysis may result in incorrect project selection (alternatives analysis) to be brought forward to the planning and programming process.

PUBLIC AND INTERNAL CONTACTS

Public – The incumbent will have contact with the Federal Highway Administration, Universities, consultants, Metropolitan Planning Organizations, and Regional Transportation Planning Agencies. The incumbent will have some contact with other external agencies, including the California Air Resources Board, California Transportation Commission staff, California High-Speed Rail Authority staff, other State agencies and private agencies. Contact will routinely happen on an on-going basis, by phone, mail, e-mail, and in person.

Internal – The incumbent will coordinate with the Freight Data and Performance Program Manager, districts, and headquarters as needed to perform duties in this position. The incumbent will collaborate with the planning and modal divisions (Research Innovation and System Information, Transportation Planning, Rail and Mass Transportation, Aeronautics), as well as the districts and other units in Caltrans (Traffic Operations, Programming, Environmental, Sustainability). Contact will be on a daily, on-going basis, by phone, mail, e-mail, and in person. Contact will routinely happen on an on-going basis, by phone, mail, e-mail, and in person.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Develop and maintain cooperative working relationships. Must deal effectively with pressure; maintain focus and intensity yet remain optimistic and persistent, even under adversity. Embrace a large, organizational culture, be innovative and creative, and recommend new ideas. Considerate, tactful, and treats others with respect.

WORK ENVIRONMENT

Employee will work in a hybrid telework environment with 2 in office days per week but will be required to travel in state and out-of-state, to meet with customers, or attend meetings and conferences.

The incumbent works in front of a dual-monitor computer system under artificial light in an office setting with long periods of working in a sitting or standing position.

This position may be eligible for telework. The amount of telework is at the discretion of the Department and based on Caltrans's evolving telework policy. Caltrans supports telework, recognizing that in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksites with minimum notification if an urgent need arises. The selected candidate will be required to commute to the headquartered location as needed to meet operational needs. Business travel may be required, and reimbursement considers an employee's designated headquartered location, primary residence, and may be subject to CalHR regulations or applicable bargaining unit contract provisions. All commute expenses to the headquartered location will be the responsibility of the selected candidate.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE