

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Research Data Specialist II	OFFICE/BRANCH/SECTION OSFP, Freight Program Support Branch	
WORKING TITLE Freight Data and Modeling Technical Lead	POSITION NUMBER 900-074-5758-921	REVISION DATE 04/14/2026

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Under general direction of the Chief, Freight Program Support Branch, a Senior Transportation Planner, the Research Data Specialist II will be responsible for providing freight data and technical support to the Division of Transportation Planning. The incumbent will conduct research and evaluate freight data and tools to advance Freight Planning activities and to meet the goals and objectives of the Department and the Investment Infrastructure Jobs and Housing Act (IIJA). The incumbent will perform complex research and analysis to resolve complex data needs and identify new strategies to make the data processing more efficient at all levels. Working closely with Freight Planning, Statewide Modeling, and the California Transportation Commission, the incumbent will ensure the selected freight and goods movement data and tools meet the criteria for transportation analysis.

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. (Equity - Innovation)
- **Decision Making:** Makes critical and timely decisions. Takes charge. Supports appropriate risk. Makes challenging and appropriate decisions. (Employee Excellence - 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. (Employee Excellence - 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. (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. (Employee Excellence - Integrity)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Prosperity, Employee Excellence - 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. (Equity, Employee Excellence - Equity)
- **Analytical Skills:** Approaches problems using a logical, systematic, and sequential approach. Weighs priorities and recognizes underlying issues. (Equity, Employee Excellence - Integrity)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Employee Excellence - Innovation)

TYPICAL DUTIES:

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

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35%	E	Serve as the technical lead for researching and conducting a variety of freight-related transportation data analysis and reporting. Establish and maintain relationships with freight data experts, such as academics, industry leaders, and data specialists. Identify and assess key performance indicators and develop technical and analytical tools to ensure freight performance measures are met. 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. Utilize 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. Conduct freight data analysis by utilizing the Freight Analysis Framework 5 (FAF5) platform. Develop and maintain the Supply Chain Dashboard.
25%	E	Independently perform advanced freight technical research and analysis for data-driven decision-making and to ensure freight performance measures are met. Work with the Statewide Modeling travel demand modelers to develop scenarios relevant to the California Freight Mobility Plan (CFMP), Sustainable Freight, and other Freight Planning efforts. Conduct technical analysis which includes evaluating various alternative strategies proposed in the CFMP, in how proposed improvements enhance the multi-modal state highway and freight systems, and in designing and developing new strategies, performance metrics and policies. Conduct forecasting and statistical methodology used in transportation modeling. Work with various software programs such as ArcGIS, Cube, Smartsheet, and Excel.
25%	E	Work with a multi-disciplinary team on learning and running the California Statewide Freight Forecasting Travel Demand Model (CSF2TDM). Work in a collaborative effort with other division leads, local and state partner agencies and respond to requests for practical solutions. Work with the Freight Data and Performance Program Manager to incorporate new freight and goods movement data as part of the CSF2TDM update process. Participate on the CSF2TDM technical advisory committee and California Transportation Plan technical advisory committee to ensure freight and good movement scenario components are built into the transportation analysis process. Provide contract management and project management support and regular reporting on freight data and technical analysis activities.
10%	E	Coordinate and collaborate with various Caltrans offices, divisions, and districts in supporting freight data analysis. Provide data analysis and research support to the 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	Perform other job-related duties within the scope of the classification as assigned

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.

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

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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.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

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

WORK ENVIRONMENT

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 current telework policy. While Caltrans supports telework, in-person attendance may be required based on operational needs. Employees are expected to be able to report to their worksite with minimal notification if an urgent need arises. The selected candidate may be required to conduct business travel on behalf of the Department or commute to the headquartered location. Business travel reimbursements considers an employee's designated Headquarters 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.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

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
