



Data Science and Analytics

As a premier multi-modal planning and project implementation agency, SANDAG relies on the quality and capacity of our Data Science and Analytics, and Economic programs. To help SANDAG achieve its agency objectives, the Data Science and Analytics Department was tasked to formulate actionable and transparent business intelligence strategies and implement valuable initiatives related to big data, open data, data analytics, and economic research.

The Data Science and Analytics Department delivers data services that enhance the San Diego regional economy using descriptive and predictive data to help make informed policy decisions, while using an open data platform to improve transparency and share information with others.

First Review of Applications: October 15, 2021 – opened until filled

Expected Start Date: November 2021

Data Science and Analytics Department Job Openings:

Lead Economist:

This position will lead the development of technical analysis and implement strategies for the solution of highly complex regional economic and fiscal issues. The Lead Economist will directly support the Chief Economist and Data Science and Analytics Department.

This position may be filled at either the Principal or Senior level.

- **Principal \$92,073 - \$142,714/year**
- **Senior \$79,537 - \$123,282/year**

Senior Economist:

This position will support one of the agency’s top priority projects: The State Route 11/Otay Mesa East Port of Entry Project (OME).

The Senior Economist will conduct and coordinate complex professional level research; design, implement, and track various studies; statistical and financial analyses, forecasting, cost benefit analyses, and economic impact analyses.

- **Senior \$79,537 - \$123,282/year**

This position is a three year Limited-Term employment opportunity. Limited-Term Employees are “at-will” and receive many of the benefits as Regular employees.

Economic Research Analyst:

This position will perform professional level economic research and analysis on regional economic and fiscal issues. This position will support the Data Science and Analytics Department, and also will provide support for The State Route 11/Otay Mesa East Port of Entry Project.

This position may be filled at the Analyst I, Analyst II, or Associate Analyst level.

- **Associate \$65,435 - \$101,424/year**
- **Analyst II \$59,351 - \$91,995/year**
- **Analyst I \$53,833 - \$83,442/year**

This position is a three year Limited-Term employment opportunity. Limited-Term Employees are “at-will” and receive many of the benefits as Regular employees.



Principal/Senior Economist- Job Responsibilities and Experience & Qualifications

The Principal/Senior Economist will lead programs and serve as project manager for economic research and fiscal impact studies for public and private organizations. This position coordinates region-wide fiscal and economic strategies designed to proactively leverage new opportunities and drive the agency toward reaching its strategic goals.

Job Responsibilities:

- Design and implement economic research methodologies and fiscal analyses in support of regional policies, plans, and programs including the Regional Plan, and *TransNet*; analyze, interpret, and report on the results of economic research projects of broad scope and complexity.
- Perform econometric analyses such as describing the relationships between economic activity, job growth, and demographic characteristics towards land/use development and changes in the transportation network.
- Mathematically describe the relationships between changes in national and state economic activity and their impact on the region and within the various industry and geographic sectors within the region.
- Evaluate the economic impact and perform risk assessments of alternative actions; analyze various demographic and socioeconomic factors and public policies to recommend specific actions to improve the region's economy.
- Design and conduct quantitative research and non-routine data analysis to evaluate and monitor current economic conditions, forecast future trends, and analyze the impact of proposed projects/programs/ policies on the region's economy.
- Prepare written technical, analytical, and policy reports and present findings and recommendations to technical and policy committees, the SANDAG Board of Directors, other elected and appointed officials, SANDAG clients and partner agencies.
- Develop successful long-term networks and business relationships with private and public sector organizations; engage in business development activities that lead to greater awareness of the agency's economic programs, services, and resources throughout the region.
- Coordinate and/or participate on inter-departmental and inter-agency teams assembled for modeling, analyses, and planning related projects; foster collaborative working relationships with local jurisdictions, Caltrans, and other public agencies.
- Apply for and respond to grants, develop Requests for Proposals (RFP's), evaluate competitive project proposals and make recommendations for consultant selection; manage project consultants and ensure projects are completed on schedule, within the prescribed budget, and with a high-level of effectiveness.
- Participate on a variety of committees and task forces; attend and participate in professional group meetings; keep current with new trends in the field of regional and national economics.

Qualifications:

- Bachelor's degree with course work in regional economics, public finance, mathematics, statistics, or a related field, and five years (Senior) to seven years (Principal) of recent experience in applied economics or a related field, an advanced degree is desirable. Equivalencies will be considered.
- Demonstrated knowledge of the principles of economic theory and their application to transportation, regional planning, employment, public facilities, government finance, and related fields.
- Demonstrated knowledge of the principles of economic research methods, including input-output models and econometric methods; experience conducting/managing primary and secondary economic research studies, and using big data in econometric analysis.
- Demonstrated ability to analyze and evaluate complex economic and financial issues, develop and evaluate solutions and provide sound advice and actionable recommendations on strategic, policy, and organizational management issues.
- Experience using multidimensionality economic analysis to estimate the effects of proposed projects or programs and to facilitate informed decision-making.
- Experience supervising and evaluating the work of professional and technical personnel; experience providing administrative and professional leadership and direction for assigned programs.
- Ability to prepare reports that document research procedures; experience effectively presenting, analyzing, and interpreting research findings in a compelling and easily understandable way and making conclusions and recommendations for consideration by elected officials and other decision makers.
- Experience preparing and delivering public presentations to Boards, community groups, and others; ability to effectively communicate technical information to non-technical audiences.
- Successful project management experience, including development of RFPs, scopes of work, budgets, and schedules, consultant selection, and contract management for plans and analyses.
- Demonstrated ability to foster strategic business partnerships and alliances with regional economic development agencies.
- Ability to exercise discretion and political acumen in dealing with complex, sensitive, and confidential issues regarding conflicting agendas and positions.

Senior Economist (OME) - Job Responsibilities and Experience & Qualifications

The State Route 11/Otay Mesa East Port of Entry Project is a joint effort between SANDAG and Caltrans, in collaboration with state and federal partners in the U.S. and Mexican governments, to create a 21st century border crossing for the San Diego-Baja California region. The project provides a unique opportunity to develop a new multimodal land port of entry, in close coordination with Mexico's future Mesa de Otay II Port of Entry.

The Senior Economist will conduct and coordinate complex professional level research; design, implement, and track various studies; statistical and financial analyses, forecasting, cost benefit analyses, and economic impact analyses that support the Otay Mesa East Port of Entry Project.

This position is a three year Limited-Term "at-will" employment opportunity.

Job Responsibilities:

- Design and implement economic research methodologies and fiscal analyses in support of the OME; interpret, and report on the results of complex economic research projects.
- Conduct economic research and lead the development of studies that advance the development of the OME; conduct data analysis and prepare technical and forecasting reports; provide recommendations on alternatives, assess trade-offs, benefit-cost and/or economic impact analysis.
- Evaluate the economic impact and perform risk assessments of alternative actions; analyze various demographic and socioeconomic factors and public policies to recommend specific actions to support the OME.
- Design and conduct quantitative research and data analysis to evaluate and monitor current economic conditions, forecast future trends, and analyze the impacts related to the OME.
- Prepare written technical, analytical, and policy reports and present findings and recommendations to technical and policy committees, the SANDAG Board of Directors, other elected and appointed officials, and SANDAG partners.
- Coordinate and/or participate on inter-departmental and inter-agency teams assembled for modeling, analyses, and planning related projects; foster collaborative working relationships with local jurisdictions, Caltrans, and other public agencies.

Qualifications:

- Bachelor's degree with course work in regional economics, public finance, mathematics, statistics, or a related field, and five years of recent experience in applied economics or a related field, an advanced degree is desirable. Equivalencies will be considered.
- Demonstrated knowledge of the principles of economic theory and their application to transportation, regional planning, public facilities, or government finance.
- Ability to analyze and evaluate complex economic and financial issues, develop solutions and prepare recommendations.
- Ability to perform complex mathematical and statistical calculations to identify and forecast trends; analyze and interpret fiscal, economic, demographic, and other related data.
- Experience conducting technical research, studies, and cost-benefit analyses for programs.
- Ability to communicate effectively, both orally and in writing; ability to prepare and deliver presentations to Boards, community groups, and others, including the ability to effectively communicate technical information to non-technical audiences.
- Demonstrated knowledge of project management and administration; ability to plan, coordinate, and manage concurrent major projects to ensure they are completed on time, within budget, and at a consistently high level of quality.

Economic Research Analyst (I, II, Associate)- Job Responsibilities and Experience & Qualifications

This position will support the Data Science and Analytics Department Chief Economist and Principal/Senior Economist, as well as direct support for The State Route 11/Otay Mesa East Port of Entry Project.

This position is a three year Limited-Term "at-will" employment opportunity.

Job Responsibilities:

- Conduct complex professional research and statistical analysis for various agency and departments including reports and presentations.
- Assist with coordination of various project activities with other departments and external organizations.
- Conduct research, collection, and compilation of project and program data; ensure the accuracy of information; maintain databases and documentation; assist in the collection and processing of data; and participate in QA/QC processes.
- Assist with the design, implementation, tracking, and analysis of various studies and efforts that support a broad range of regional projects, programs, and policy initiatives.

Qualifications:

- Bachelor's degree with course work in regional economics, public finance, mathematics, statistics, or a related field, and one to three years of recent experience in applied economics or a related field.
- Ability to perform professional and analytical work.
- Knowledge of economic research methods.
- Ability to perform mathematical and statistical calculations including descriptive and inferential statistics, to interpret data and to identify and forecast trends in fiscal, economic, demographic and other technical data.
- Experience conducting technical research.

How to Apply

We encourage interested candidates to apply for this position by submitting a Resume and a recent econometric work sample, which may include reports, analyses, presentations, etc. (limit of five pages), to HR@sandag.org.

In compliance with the Americans with Disabilities Act (ADA), SANDAG will accommodate persons who require assistance in order to apply for a position at SANDAG. Applicants requiring an accommodation due to a disability during any stage of the recruitment and selection process, including requesting this document and related application materials in an alternative format, should make their needs known by contacting Human Resources at hr@sandag.org, (619) 699-1900, (619) 699-1904 (TTY), or fax (619) 699-6905.

Benefits and Salary

Our benefits include health, dental, and vision insurance as well as employee assistance, wellness, and work/life balance programs. Retirement and financial security benefits are provided through a pension plan and contribution to the SANDAG deferred compensation program. SANDAG offers flexible work schedules and employees are provided with paid time off and paid holidays. The candidate selected for this position will be expected to work in-person in the San Diego office.

The candidates selected for these positions will be expected to work in-person in the downtown San Diego office.

The selected candidates can anticipate a driving record check upon hire, and approximately annually thereafter. The results of the check may determine whether the selected candidate will be permitted to drive for SANDAG business.

Further Information

In compliance with the Immigration Reform and Control Act of 1986, applicants hired by SANDAG must show acceptable proof of identity and evidence of authorization to work in the United States.

The selected candidate can anticipate a driving record check upon hire, and approximately annually thereafter. The results of the check may determine whether the selected candidate will be permitted to drive for SANDAG business.

Contact Us



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About SANDAG

The San Diego region is entering a new era of innovation, driven by exciting advances in technology, biotechnology, renewable energy, cybersecurity, and automation that will change the way people live. Our region's future prosperity depends on mobility – the ability of people in all communities to connect quickly and easily to centers of innovation and opportunity. As a hub for innovation, the San Diego region will continue to attract innovators and investors. The region is a point of convergence for personal mobility, affordability, and widely shared opportunities for advancement that support a high quality of life for more than three million residents.

SANDAG provides local governments in the San Diego region with a forum to plan and execute projects that promote economic growth, sustainable communities, personal mobility, and equity for the region's residents. We build consensus; make strategic plans; obtain and allocate resources; plan, engineer, and build public transportation projects; analyze and disseminate data; and publish information on a broad range of topics related to the region's quality of life. SANDAG is responsible for responding to most state and federal mandates that apply to the region, and to many locally generated mandates that are handled regionally.

SANDAG is a leader in integrating Big Data into its decision-making, by providing member agencies, partner agencies, and members of the public with the data and analysis they need to improve their communities and the quality of life for all residents of the region. For example, real-time transportation data can be used to reduce peak hour traffic congestion, and limit delays during traffic incidents. Data pertaining to major corridors of travel and high-use areas can be used to help decision-makers maximize investments in infrastructure – promoting more efficient travel connections, improved economic growth, and a higher quality of life for a broader segment of the overall population.