Estimates & Forecasts
The Estimates & Forecasts group ensures that the land use, demographic, and economic models are up-to-date and reflect the current and future needs of the region. The team designs, builds, and maintains a suite of small-area, land-use simulation models, and produce population estimates, and demographic and economic growth forecasts for the region. SANDAG population estimates, and growth forecasts are used by policymakers and the general public, as well as by public and private agencies throughout the region.

Application Due Date: July 22, 2022
Expected Start Date: August 2022

Estimates & Forecasts Job Openings:

Senior Demographer:
The Senior Demographer is SANDAG’s subject matter expert on all aspects of the demographic data used and released by the agency. This role will provide ongoing maintenance, enhancement, and production of the SANDAG annual population estimates and regional demographic and economic forecasts. The Senior Demographer will also be the primary point of contact for the Regional Census Data Center.

Annual Salary: $104,049 to $161,276

Data Scientist/Researcher and Modeler (I/II/Associate):
The Data Scientist/Researcher and Modeler will provide ongoing maintenance, enhancement, and production for the SANDAG annual population estimates and regional demographic and economic forecasts. This role will also provide ad-hoc demographic analysis.

Annual Salary:
I: $67,071 to $103,960
II: $73,945 to $114,616
Associate: $85,601 to $132,682

Benefits
SANDAG offers comprehensive benefits, to include health, dental, and vision insurance as well as employee assistance, wellness, and work/life balance programs. Additionally, SANDAG offers the following:

- 9/80 flexible work schedule
- Pay-for-performance merit increases
- CalPERS pension plan with employer and employee contributions
- Excellent health insurance options for employees and their families
- Education Assistance of up to $5,250 a year for regular employees
- A transit pass for use on the bus, express bus, Trolley, and Coaster at no cost to the employee
- Paid time off including 12 paid holidays, 2 floating holiday days, and 18 paid time off (PTO) days per year
Senior Demographer – Job Responsibilities and Experience & Qualifications

The position will manage a small team of demographers and data scientists and will provide advanced analytical guidance for planning and implementation of SANDAG suite of demographic, land use, and economic models.

Job Responsibilities:

- Lead efforts to produce SANDAG annual population estimates and develop and deploy demographic modeling, small area population projections, and forecasting techniques to support SANDAG Regional Growth Forecast.
- Coordinate with local jurisdictions regarding Census-related data collection and serve as the primary point of contact for the Regional Census Data Center.
- Manage the preparation and maintenance of comprehensive technical documentation of databases and programs used in the Estimates and Forecasts program.
- Gather and compile various types of small area demographic, economic, social, geographic, and other quantitative data from various local, state, and federal agencies, the internet, surveys, government publications, and other sources.
- Manage quality assurance/quality control, accuracy, and monitoring of detailed GIS data systems used in land use, demographic, and econometric modeling.
- Prepare written technical, analytical, and policy reports; present demographic insights, trends, and recommendations to technical and policy committees, the SANDAG Board of Directors, member agencies, community groups, private organizations, and members of the public.
- Collaborate with other Metropolitan Planning Organizations, state agencies, and consultants on developing the land use and transportation models; develop productive working relationships with other agencies and collaborate with employees of outside agencies to coordinate tasks.
- Supervise, mentor, train, and provide career development opportunities for junior staff.
- Manage the administration and processing of existing and new contracts and procurements for the Estimates & Forecasts team. Develop project plans, Requests for Proposals (RFPs), scopes of work, project deliverables, budgets, and schedules; participate in the selection of consultants and vendors; administer contracts and ensure projects progress on schedule, within the approved budget and in adherence to funding requirements.
- Respond to requests and provide assistance to users, both within and outside the agency, with accessing data sets, understanding, and interpreting information, and analysis.

Experience & Qualifications:

- A bachelor’s degree with major coursework in demography, sociology, social science, statistics, mathematics, geography, urban economics, regional economics, urban planning, or a related field. An advanced degree is desirable. A combination of education and recent work experience may be considered in lieu of a degree.
- Five years of experience in a professional research environment; lead or supervisory experience.
- Demonstrated knowledge of the research principles and practices of demographic, land use and econometric forecasting, knowledge of long-range transportation and land use planning issues.
- Demonstrated experience developing and applying small area population projection models.
- Demonstrated experience analyzing data from the Census Bureau, including decennial census, American Community Survey (ACS), and Public Use Microdata Sample (PUMS) file.
- Demonstrated knowledge of small area and parcel level data sources (land use and transportation planning).
- Knowledge of design principles for relational database management systems; experience creating SQL queries, stored procedures, and data views; familiarity with MS SQL Server or other enterprise relational database systems.
- Ability to perform complex mathematical and statistical calculations, including descriptive and inferential statistics, to analyze data and identify and forecast trends; experience analyzing data using advanced statistical methods such as regression, factor analysis, and/or multilevel modeling.
- Demonstrated experience with GIS software to create, edit, document, analyze, and map data in an urban planning or economic development context.
- Experience preparing reports that document research procedures and present research results including the preparation, analysis, and interpretation of maps, charts, and tables.
- Successful project and contract management experience including preparing budgets and schedules; developing grant proposals, RFPs, scopes of work, and contracts; experience evaluating proposals and managing consultants.
- Experience with Python, Java, or other object-oriented programming languages are highly desirable.
- Strong computer skills and proficiency with the Windows operating system and Microsoft Office applications especially Word and Excel; experience with relational database management (Access), statistical analysis (SPSS, SAS, or R), and presentation software.
Data Scientist/Modeler I/II/Associate - Job Responsibilities and Experience & Qualifications

This position will provide ongoing maintenance, enhancement, and production of the SANDAG annual population estimates and sub-regional demographic and economic forecasts. This role will assist with the development of a suite of demographic-economic forecasting and sub-regional allocation models.

Job Responsibilities:

- Assist with efforts to produce SANDAG annual population estimates.
- Assist with efforts to develop and deploy demographic modeling, small area population projections, and forecasting techniques to support SANDAG Regional Growth Forecast.
- Maintain a demographic and socioeconomic database by working with other SANDAG departments and outside agencies to ensure accurate and up-to-date information on current land use, planned development, and other demographic trends.
- Perform scenario testing using the integrated land use and transportation models.
- Prepare and maintain comprehensive technical documentation of databases and programs used in modeling.
- Gather and compile various types of small area or parcel level demographic, economic, social, geographic, and other quantitative data from various local, state, and federal agencies, surveys, government publications, and other sources.
- Ensure quality assurance/quality control, accuracy, and monitoring of detailed GIS data systems used in land use, demographic, and econometric modeling.
- Assist with the preparation of written technical, analytical, and policy reports, including tables, charts, and maps to present findings and recommendations to technical and policy committees, the SANDAG Board of Directors, member agencies, community groups, private organizations, and members of the public.
- Interact with other Metropolitan Planning Organizations, state agencies, and consultants on developing the land use and transportation models; develop productive working relationships with other agencies and collaborate with employees of outside agencies to coordinate tasks.
- Participate on project teams to provide technical expertise regarding data needs for projects.
- Respond to requests and provide assistance to users, both within and outside the agency, with accessing data sets, understanding, and interpreting information, and analysis.

Experience & Qualifications

- A bachelor’s degree with major coursework in urban economics, regional economics, urban planning, demography, social science, geography, regional science, statistics, mathematics, or a related field. A combination of education and recent work experience may be considered in lieu of a degree.
- One to three years of experience in a professional research environment. An advanced degree is desirable.
- Demonstrated knowledge of the research principles and practices of land use, demographic, and econometric forecasting, knowledge of long-range transportation and land use planning issues.
- Experience in the development, application, and explanation of land use, demographic, and econometric models within a regional transportation and land use planning context.
- Demonstrated knowledge of small area and parcel level data sources, preferably those related to regional land use and transportation planning.
- Knowledge of design principles for relational database management systems; experience creating SQL queries, stored procedures, and data views; familiarity with MS SQL Server or other enterprise relational database systems.
- Ability to perform complex mathematical and statistical calculations, including descriptive and inferential statistics, to analyze data and identify and forecast trends; experience analyzing data using advanced statistical methods such as regression, factor analysis, and/or multilevel modeling.
- Experience with GIS software to create, edit, document, analyze, and map data in an urban planning or economic development context.
- Experience updating and maintaining project databases, files, and records, including data documentation.
- Ability to draft/prepare reports that document research procedures and present research results including the preparation, analysis, and interpretation of maps, charts, and tables.
- Strong written and oral communication skills, including the ability to respond to requests for information, and effectively communicate technical information to non-technical users.
- Experience with Microsoft Office applications (Word, Excel, Access), statistical analysis (SPSS, SAS, or R), and presentation software; Python, Java, or other object-oriented programming languages are desirable.
How to Apply

Interested candidates may apply for this position by completing a SANDAG Employment Application at sandag.org/careers.

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.

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.

SANDAG requires all new employees to be fully vaccinated for COVID-19 within 45 days of hire; reasonable accommodation requests will be considered.

SANDAG employees are expected to work in-person in our San Diego office.

Contact Us

401 B Street, Suite 800, San Diego, CA 92101-4231

(619) 699-1900 | TTY/TDD: (888) 722-4889

sandag.org

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