

Working Title Senior Data Analyst	Name Vacant
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Position Number	Reports to Position No., Class & Level Manager, Strategic Models and Analysis	Division, Branch/Unit Strategic Services Division, Strategic Data, Analytics and Business Services Branch	Ministry Assisted Living and Social Services
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Present Classification	Requested Classification
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Dept ID	Program Code	Project Code (if applicable)
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PURPOSE: Give a brief summary of the job, covering the main responsibilities; the framework within which the job has to operate and the main contribution to the organization (see [Section 2.3](#)).

The Strategic Data and Analytics unit within the Strategic Data, Analytics and Business Services Branch is accountable for: providing statistical methodological services; undertaking applied analysis including developing statistical, economic and financial models; and developing management information and making it accessible across the Department of Assisted Living and Social Services (ALSS) and the Government of Alberta (GoA).

This position reports to the Manager, Strategic Models and Analysis and produces results that are high profile and of significant importance to executives in policy development and operational improvement. The Senior Data Analyst investigates and identifies ALSS's needs for economic, statistical models/analysis/reporting to support, inform and guide policies, programs/services delivery and strategic initiatives. S/he leads the development of advanced economic/statistical models, policy scenario testing and statistical analysis, etc., thereby ensuring that accurate, timely, relevant information is available for decision-making.

The incumbent must have an advanced knowledge of, and extensive experience with developing statistical and economic models. The work is highly complex, relying on integrative, analytical judgment and precision despite multiple divergent needs, sensitivity and ambiguity. Developing these statistical and economic approaches requires considerable innovative thinking for first-time or way-finding initiatives in provincial and national arenas.

The incumbent works extensively with ALSS staff and stakeholders, represent ALSS on inter-governmental and interdepartmental committees, provides economic, methodological and statistical expertise, consultation and information. S/he leads or participates on multiple projects simultaneously, working with minimal supervision and proactively keeping management apprised of any potential issues or deviations from expectation or plans. A strong emphasis is placed on effectively and efficiently assessing and addressing client needs to ensure concurrence with the department business plan objectives and all applicable legislations.

RESPONSIBILITIES AND ACTIVITIES: The purpose of the job can be broken down in different responsibilities and end results. Each end result shows what the job is accountable for, within what framework and what the added value is. Normally a job has 4-8 core end results. For each end result, approximately 3 major activities should be described (see [Sections 2.1](#) and [2.2](#)).

- Investigates and identifies ALSS needs for economic, statistical models/analysis/reporting to support, inform and guide policy development, programs/services delivery and initiatives.**

Activities:
 - Consults with internal and external stakeholders, undertakes research and leads collaborative reviews of relevant program information, secondary data, performance and evaluation literature, environmental scans and any other relevant information to analyze available information to support decision-making.
 - Identifies the contributions of other staff and stakeholders to the work and then determines remaining

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unmet needs and demands.

- Analyze economic trends and undertakes econometric analysis to underpin deviations from trends.
- Collaboratively prioritizes unmet information needs. Develops options/solutions to address these, along with associated implications for the Department and stakeholders (e.g., accuracy, timeliness, resource requirements, etc.).
- Analyzes approaches and prepares well-substantiated solutions and recommendations for management and stakeholders, as appropriate.
- Negotiates solutions with stakeholders to best address unmet needs in a cost-effective way.
- Modifies, develops, implements, documents and/or monitors solutions as appropriate.
- Work with stakeholders to develop approaches that can be used for unmet needs.

2. Develops statistical/economic models, policy scenario tests and statistical analysis to support departmental, cross-ministry, inter-governmental initiatives.

Activities:

- Develops statistical/economic models, policy scenario tests and statistical analysis to support departmental, cross-ministry, and inter-governmental initiatives. Approaches must consider feasibility, relevance, reliability, validity, timeliness, audience acceptance (e.g., senior management), etc.
- Analyzes alternative solutions and makes recommendations on methodological and statistical approaches to management and stakeholders. Solutions vary widely and may pertain to developing program-related data; establishing credible performance measures; mining data sources; conducting in-depth analyses to ascertain possible influences/reasons for results obtained; and so on.
- Documents methodologies used or presented (e.g., source, rationale, derivation, limitations, frequency, timeliness), ensuring they meet accepted standards for data analysis, Auditor General reporting, and relevant legislations and formal agreements (e.g., intergovernmental funding agreements).
- Collects, analyzes and reports on statistical and other information, ensuring that methodology and data sources are reliable and well documented.
- Partner with fellow experts (managers, other technical staff) to provide analytical support to support policy analysis and decision making.
- Monitors and reports on trends, issues or factors that have implications for the Department, cross-ministry or inter-governmental initiatives. Informs management of related issues and gaps and makes recommendations for addressing these.
- Maintains thorough knowledge of current and emerging economic, analytical and methodological approaches.
- Presents information on own and related work to senior managers, staff and others regarding key (significant) findings, recommendations and lessons learned.
- Ensures that accurate, timely, relevant information for decision-making is available.
- Prepares information and briefing materials to allow management to make informed decisions
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3. Leads/manages multiple projects simultaneously, typically to identify outcomes of policies, programs and strategic initiative. Directs the work of external contractors.

Activities:

- Undertakes special economic analysis on current and future impacts of policy initiatives.
- Uses sound project management techniques to lead or support the development and implementation of multiple projects. Defines scope, develops project plans to achieve quality results, identifies and allocates resources, develops timelines, schedules work, monitors progress, and trouble-shoots as required. Supervises and directs the work of junior research staff assigned to project work.
- Sets out work to be undertaken by contractors (e.g., Requests for Proposals) as approved by management, identifies deliverables, resources required, timelines, legislative requirements, risks, problems or issues (e.g., work exceeds resources).
- Monitors contract progress and provides ongoing direction to contractors. Determines when deliverables achieve quality standards, identifies and trouble-shoots problems, and takes remedial action as required.

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Makes contract amendments if needed.

- Ensures adherence to approved GoA contract management policy and procedures.
- Defines research project parameters and oversees the project progress and completion of work by contractors.

4. Represents the Department on inter-governmental and interdepartmental committees; to provide methodological and statistical expertise and consultation, and share information.

Activities:

- Represents the Department on various inter-governmental and inter-departmental working groups and committees, presenting ALSS' position in such a way as to achieve Department objectives and satisfy those of its stakeholders.
- Assist and guide stakeholders and staff in the identification and use of appropriate statistical/economic information.
- Maintains a working knowledge of analytical activities and cross-ministry networks. Co-chairs/leads such committees as appropriate.
- Identifies implications of the plans and efforts of others (e.g., federal colleagues) for ALSS. Notifies and engages appropriate staff and develops responses as appropriate.
- Develops and delivers presentations, seminars, workshops, et cetera, and proactively shares analysis information with department staff, managers, external partners and stakeholders.
- Seeks and takes advantage of opportunities to build analytical capacity among staff and present key findings on policy and program implications to senior managers, staff and others through various media (e.g., print, electronic, websites, etc.,)
- Works with communications staff to develop communications plans, release schedules and distribution processes for documents that are publically released.

SCOPE: List specific information that illustrates what internal or external areas the job impacts, and the diversity, complexity, and creativity of the job.

The breadth of this position is considerable as the incumbent must be knowledgeable of all areas of ministry, cross-ministry and inter-governmental business to provide expert advice and leadership for statistical, economic information and analysis to support policy making.

In addition, the Senior Data Analyst must have a good understanding of cross-ministry, inter-governmental and stakeholder relations. The incumbent works with considerable independence in dealing with highly technical, innovative, leading edge and complex work, with numerous ambiguities (e.g., statistical/economic forecasting, development of scenarios.)

The position requires depth of knowledge with respect to model development and forecasting, advanced data analysis techniques, survey design, advanced statistical methodologies and socio-economic research, project management/leadership, statistically valid and balance interpretation of quantitative/qualitative information/data. The position may be asked to make public presentations concerning analysis of a wide variety of activities related to the Department's programs and services.

The role complexity and diversity include:

- Leading the development of innovative econometric, statistical and methodological approaches.
- Managing multiple contracts and projects simultaneously.
- Chairing and leading work teams.
- Representing the Department at cross-ministry and inter-jurisdictional project committees.
- Contributing technical/statistical analysis, forecasting and modeling expertise on cross sector and cross jurisdictional initiatives.
- Having a great deal of creativity and innovations to meet the Department's analytical needs.
- Investigating and assisting other staff in the Department with designing innovative, complex statistical, econometric and socio-economic models.

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- Using and analysing large databases (both internal and external) such as Statistics Canada Labour Force Survey (LFS) and Canada Census to support policy development.

The work of the Senior Data Analyst impacts on the following:

- Client and stakeholder groups – Client groups of ALSS and other Departments, not-for-profit organizations, private sector and other stakeholders are impacted by availability/accessibility of information and analysis to make better decisions for policies and programs and delivery.
- Minister, Deputy Minister, Executive Managers and Government MLA's - Ensures strategic information is available and accessible.
- Ministry Staff – Develops information and analysis that supports policy capacity, program reviews and evidence-based decision-making.

KNOWLEDGE, SKILLS & ABILITIES: Provide a list of the most important knowledge factors, skills and abilities including knowledge about practical procedures, specialized techniques, etc.; analytical and conceptual skills and abilities; and skills needed for direct interaction with others not only diplomas and degrees. Specific training if it is an occupational certification/registration required for the job.

Knowledge

- University graduation (advanced degree such as MS, MA, and PhD) in a related field with significant course work in economics, socio-economic methodologies and statistics.
- Strong knowledge in economic theory and experience in the development of macro/micro economic models is an asset.
- Knowledge of relevant legislations and regulations, policies, business plans and strategic initiatives, programs and practices of the Department, other Departments and other governments.
- A strong understanding of the Department's research and information needs.
- Expert knowledge related to research methods, the collection and analysis of qualitative and quantitative data, forecasting/projection techniques, statistical/economic modeling, data visualization and reporting techniques.
- Expert knowledge of computer software to undertake complex analysis of large databases, word processing, development and delivery of presentations and work in a web-enabled environment.
- Considerable knowledge of project management methodology and practices.

Skills and Abilities

- Excellent consultative, advisory and interpersonal skills are required to define and represent a broad range of internal and external stakeholders needs. Demonstrated ability to work in teams and establish effective working relationships with peers and senior management.
- Excellent conceptual and strategic skills to identify and define issues and problems clearly.
- Superior critical thinking and problem-solving skills to fully assess unique and vaguely defined situations, develop effective reliable solutions, draw valid conclusions and make recommendations.
- Strong planning, organizational and project management skills - ability to manage multiple complex projects simultaneously to successful conclusion, supervise project staff and manage contracts.
- Strong human relation skills required to interact with internal/external stakeholders.
- Ability to manage complex and competing interests and priorities.
- Ability to work effectively with different functional areas (e.g. across organizations in GoA)
- Superior quantitative and analytical skills. Proven success in developing advanced methodologies, statistical analysis and using statistical/analytic software (SAS and/or R software preferred) to manipulate big data.
- Strong skills to review, synthesize and summarize applied and academic literature; and to prepare comparative and statistical analyses, and reports for both professional and non-professional audiences.
- Excellent written and oral communication skills and presentation skills to communicate effectively in technical and lay terms, and engage, advise and inform various groups.

Experience:

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- Considerable experience in research methodology, policy/program analysis, issue resolution and project management.
- Minimum four years' experience in statistical/economic environment involving legislations, regulations, policies, projects, and initiatives.
- Project Management - experience in leading data/information projects, developing project charters and work plans and implementing application solutions.
- Demonstrated experience with econometrics, statistical techniques, quantitative and qualitative research design, especially as related to Department policies, programs and services.

CONTACTS: The main contacts of this position and the purpose of those contacts.

This position actively communicates with experts, peers, management, stakeholders, contractors and junior staff through a variety of written and verbal means. The purpose of this communication varies widely, e.g., to assess client needs, consult/advise on or lead projects, formally present information/findings to large groups, negotiate to resolve differences and achieve consensus with stakeholders on objectives and approaches, monitor work progress, persuade and motivate action, collaborate to prepare well-substantiated recommendations to aid in planning and/or changing policies, programs and objectives.

Clients	Frequency	Nature and Purpose of Contact
Internal Deputy Minister	As required	Provide support towards the attainment of Department's goals.
Assistant Deputy Minister	As required	Provide advice on specific program and policy areas. Provide support towards the attainment of Division's goals.
Executive Director	Daily	Achieve objectives and operational plans. Lead projects. Provide information/recommendations.
Other Department Management and Staff	Daily	Lead/participate on projects and teams. Share knowledge and provide advice and expertise. Negotiate statistical solutions.
Branch and Unit staff	Daily	Provide advice/share experiences and information. Lead projects.
External Ministry Stakeholders Cross-Government Other Jurisdictions	As required	Lead/participate in projects and teams. Share knowledge and provide advice and expertise. Present the Department's position and negotiate statistical solutions.
Contractors, Consultants	As required	Manage contracts.

SUPERVISION EXERCISED: List position numbers, class titles, and working titles of positions directly supervised.
Supervises the work of junior staff, project staff, contractors and consultants.
CHANGES SINCE LAST CLASSIFICATION REVIEW: This section is not required to be completed if the job description is being written for the conversion to PREP. It should be completed for any subsequent classification requests under PREP.