

New

Ministry

Education and Childcare

Describe: Basic Job Details

Position

Position ID

Position Name (200 character maximum)

Senior Data Analyst

Requested Class

Job Focus

Supervisory Level

Agency (ministry) code

Cost Centre

Program Code: (enter if required)

Employee

Employee Name (or Vacant)

Organizational Structure

Division, Branch/Unit

☐ Current organizational chart attached?

Supervisor's Position ID

Supervisor's Position Name (30 characters)

Supervisor's Current Class

Design: Identify Job Duties and Value

Job Purpose and Organizational Context

Why the job exists:

The Program Information, Evaluation and Performance Measurement (PEIPM) Unit provides data and information analysis and support for child care, including data analytics, performance standards, internal audits and program reviews and strategic evaluation activities, all designed to improve program quality and outcomes for children and families.

Reporting to the Manager, Research Evaluation and Reporting, the Senior Data Analyst will support the Early Learning and Child Care (ELCC) Initiatives and will collect, analyze and prepare reports to measure outcomes and indicators. This position is key to supporting the evaluation of the ELCC initiative's effectiveness in increasing the accessibility, affordability and quality of early learning and child care in Alberta, providing analysis on licensing, grants, spaces, enrollment, fees, subsidy, etc., in conjunction with external demographic data. The position will also collect and analyze data to the outcomes and indicators identified in ELCC evaluation and measurement activities and the Federal/ Provincial Child Care Agreements.

Responsibilities

Job outcomes (4-6 core results), and for each outcome, 4-6 corresponding activities:

The PIEPM Unit is responsible for the development and dissemination of statistics, information and data products and applications that provide a range of information about the licensed child care system in Alberta including trends, issues and opportunities. These products are used by multiple stakeholders to inform program design, policy development initiatives and program decision making.

This position is 100% Data Management/Analysis and Research: Reporting to the Manager, Research Evaluation and Reporting, this position is accountable for data collection, extraction, analysis, presentation, and information management related to all aspects of Early Childhood Development.

Activities

- Engage in complex data collection, extraction, analysis and reporting/presentation for the ELCC Initiatives.
- Track data results, analyze trends, and prepare monthly, quarterly, and annual reports, as well as other reports as required.
- Engage in reviews of internal and external data sources to ensure the integrity of the system used, the data and information provided. These reviews may involve seeking input from individuals internal and external to the Ministry. Verify and evaluate adequacy of data sources, rationale, limitations, and references, alerting PIEPM Management and the Director of any issues identified.
- Specialize in data management for cross-ministry outcome measurement and reporting, including development of a reporting strategy to collect data for approved indicators/measures and prepare monthly, quarterly and annual reports on results as well as other reports as required.
- Coordinate responses to ad hoc data requests within the Branch.
- Support intra-ministry and cross-ministry initiatives by developing innovative methods of data collection and analysis, ensuring proper data standards and research methods are employed, and by contributing to the design and data-maintenance of web-applications, including leading the identification and creation of new datasets for both external applications and internal analysis.
- Shape the delivery of ELCC analysis and reporting.
- Apply methodologies and analysis in accordance with rapidly changing industry standards.
- Provide expertise and advice on ELCC analysis and industry data considerations for effective decision making.
- Lead the design, production, automation and maintenance of statistical publications and reports that address ELCC information needs.
- Develop mechanisms to enhance the understanding of and the exchange of ELCC information and inter-jurisdictional insights to support evidence-based planning and decision-making.
- Lead the development of forecasting and economic modeling, scenario planning and gap analysis.

Problem Solving

Typical problems solved:

The Senior Data Analyst will work within a team environment in the Program Information, Evaluation and Performance Measurement Unit and within the parameters of established government, Ministry and Branch policies, and quality assurance and standards program processes.

Creativity is exercised in: defining problems and problem-solving; analyzing large data bases of information; identifying information and issues in service delivery by the regions; sharing findings and recommendations; understanding findings; and, ensuring compliance with audit recommendations.

The position requires a very strong understanding of outcomes and performance measurement, data collection, data analysis and reporting.

The position will learn the business operations and systems of the Child Care Strategy & Policy Division and Child Care Delivery Division, as well as its programs and services.

Complexity includes: issue identification and resolution; policy recommendations; and identification of practical resolutions to identified issues.

Types of guidance available for problem solving:

The incumbent is responsible for maintaining mandatory GoA training, as well as proactively participate in optional GoA training related to the role

University graduation in a related field is required to ensure the incumbent has the appropriate educational background

This position should solve problems independently, using professional judgment, educational background, knowledge on the subject matter, and industry benchmarks, knowledge on relevant policy, legislation and guidelines and other independent research.

This position requires an understanding and knowledge of legislation, policy and regulations under which the Ministry and GoA operates.

Solutions that require other subject matter experts will be solved by identifying and liaising with the appropriate individual.

If further guidance is needed the position would collaborate with the Manager and Director.

Direct or indirect impacts of decisions:

This position has an impact on the branch, division and Ministry. It impacts programs, policies and initiatives within the Ministry including the delivery regions and stakeholders involved in the provision of child care services.

The Senior Data Analyst is a strong monitoring and recommendation role with province-wide impact of service delivery and provides significant input into policies and procedure governing the provision of quality child care services.

Key Relationships

Major stakeholders and purpose of interactions:

Director, Program Information, Evaluation and Performance Measurement - supervision and consultation on Branch priorities.

Manager, Research Evaluation and Reporting - consultation on performance measurement supports

Manager, Child Care Data Analysis and Reporting - consultation on information available to support evaluation activities.

On a daily basis, this position will also interact with Child Care Strategy & Policy and CCD divisional unit members and internal Ministry clients who are receiving evaluation and performance management support.

The position is a key contact with stakeholders and liaises with staff within Ministry of Education and Childcare and Ministry partners at all levels as well as external community stakeholders.

Required Education, Experience and Technical Competencies

Education Level

Focus/Major

2nd Major/Minor if applicable

Designation

Bachelor's Degree (4 year)

If other, specify:

Data Science, Economics, Statistics, Mathematics or related

Job-specific experience, technical competencies, certification and/or training:

- A Master's degree in a related field (e.g., Data Science, Economics, Statistics, Mathematics) is preferred
- Proven experience with SQL — ability to write complex queries for data extraction, transformation, and validation.
- Demonstrated proficiency in Power BI, including data modeling and transformation (Power Query and DAX) and designing interactive dashboards and reports.
- Hands-on experience with Databricks, including performing data transformations, and integrating with SQL and Power BI for advanced analytics and reporting.
- Strong experience with Microsoft Excel, including advanced formulas, Power Query, Pivot Tables and data manipulation techniques.

- Hands-on experience with SharePoint data integration, including building and maintaining connections to SharePoint lists and libraries.
- Hands-on experience with ArcGIS mapping and reporting, including creating spatial visualizations, analyzing geospatial data, and integrating GIS outputs with Power BI or Excel for enhanced data insights.
- Experience working with large and complex datasets from multiple sources.
- Experience in automating and optimizing data workflows (e.g., through Power Query or Python)
- Strong knowledge of statistical analysis and quantitative research methods, including the ability to apply statistical techniques to interpret data and support evidence-based decision-making.
- experience with stakeholder engagement and leading projects to identify data and information needs of stakeholders.
- Strong analytical and problem-solving skills, with the ability to interpret data and translate insights into actionable recommendations.
- Excellent attention to detail, data accuracy, and quality assurance practices.
- Knowledge of evaluation and research practices.
- Excellent verbal and written communication skills.
- Ability to create clear and concise written reports and briefings, executive summaries, action requests, etc.
- Ability to prioritize and work with several competing priorities.

Behavioral Competencies

Pick 4-5 representative behavioral competencies and their level.

Competency	Level					Level Definition	Examples of how this level best represents the job
	A	B	C	D	E		
Systems Thinking	☐	☐	☒	☐	☐	Takes a long-term view towards organization's objectives and how to achieve them: • Takes holistic long-term view of challenges and opportunities • Anticipates outcomes and potential impacts, seeks stakeholder perspectives • Works towards actions and plans aligned with APS values • Works with others to identify areas for collaboration	Maintains an awareness of current events and government priorities that may provide challenges and/or opportunities. Leads collaborative efforts within the unit to reduce duplication and raise efficiency.
Creative Problem Solving	☐	☐	☒	☐	☐	Engages the community and resources at hand to address issues: • Engages perspective to seek root causes • Finds ways to improve complex systems • Employs resources from other areas to solve problems • Engages others and encourages debate and idea generation to solve problems while addressing risks	Expertly considers, develops and weighs implications of complex and technical compensation situations before proposing solutions. Continuously observes data quality issues that could confound regular reporting.

Agility	○ ○ ● ○ ○	Identifies and manages required change and the associated risks: • Identifies alternative approaches and supports others to do the same • Proactively explains impact of changes • Anticipates and mitigates emotions of others • Anticipates obstacles and stays focused on goals • Makes decisions and takes action in uncertain situations and creates a backup plan	Maintains an open perspective to changing priorities, timelines and unexpected and unplanned ad hoc requests from either internal or external partners.
Build Collaborative Environments	○ ○ ● ○ ○	Collaborates across functional areas and proactively addresses conflict: • Encourages broad thinking on projects, and works to eliminate barriers to progress • Facilitates communication and collaboration • Anticipates and reduces conflict at the outset • Credits others and gets talent recognized • Promotes collaboration and commitment	Strong interpersonal and facilitation skills to build capacity and develop effective working relationships with stakeholders internal and external to the ministry.