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| Principal Analyst |

## About us

Our agency’s purpose is to shift the system using data and evidence, so that the system invests earlier and more effectively to improve the lives of New Zealanders.

### Our values – how we do things around here



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| **Tāngata** We’re about people | **Manawa Māui** We are a catalyst  for change | **Taunakitanga** We influence through evidence | **Puaretanga** We’re transparent by nature |
| It’s about people. They will do better, sooner and for longer, when we partner with others to develop and deliver services. | We challenge  the status quo constructively and seek better ways  of doing things. | We use evidence  to influence  positive change for New Zealanders. | We will share what we’re doing, how we’re doing it, and what we learn |

## About working in the Public Service

Ka mahitahi mātou o te ratonga tūmatanui kia hei painga mō ngā tāngata o Aotearoa   
i āianei, ā, hei ngā rā ki tua hoki. He kawenga tino whaitake tā mātou hei tautoko i te Karauna i runga i āna hononga ki a ngāi Māori i raro i te Tiriti o Waitangi. Ka tautoko mātou i te kāwanatanga manapori. Ka whakakotahingia mātou e te wairua whakarato ki ō mātou hapori, ā, e arahina ana mātou e ngā mātāpono me ngā tikanga matua o te ratonga tūmatanui i roto i ā mātou mahi.

In the public service we work collectively to make a meaningful difference for New Zealanders now and in the future. We have an important role in supporting the Crown in its relationships with Māori under the Treaty of Waitangi.  We support democratic government. We are unified by a spirit of service to our communities and guided by the core principles and values of the public service in our work.

## About the position

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| The purpose of this position | |
| The Principal Analyst serves as a bridge between raw data and strategic business value, transforming complex information into clear, actionable insights that drive informed decision-making across SIA. This role exists to unlock the potential of data by identifying patterns, trends, and opportunities, enabling stakeholders to optimise operations, mitigate risks, and capitalise on emerging opportunities. The Principal analyst drives thought leadership and a data-driven culture by making sophisticated analytical capabilities accessible to the SIA business, ensuring that every major decision is supported by robust evidence and sound methodology. The Principal Analyst is responsible for transforming complex data into actionable insights that drive strategic business decisions and optimise technology performance. | |
| Team and location | Wellington |
| Reporting to | Manager – Data & Evidence |
| Salary band | Band 19: $148,878 - $210,180  Starting salaries are negotiated based on relevant skills and experience, with offers generally made between $148,878 - $175,150 |

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| What you will do to contribute |
| **Principal Analyst** Discovery and Requirements Gathering  * Partner with stakeholders to understand SIA business challenges and opportunities * Partner with business units to develop key performance indicators and success metrics * Translate high-level business objectives into specific analytical questions and hypotheses * Document project scope, timelines, and deliverable expectations and analytical priorities * Draft requirements documentation * Review feasibility of analytical requests given available resources and data   **Data Collection and Assessment**   * Identify and catalogue relevant internal and external data sources * Evaluate data quality, completeness, and reliability across multiple systems * Conduct data profiling and impact assessments for new data sources * Document data lineage, definitions, and business rules * Establish data pipelines * Assess any gaps between available data and analytical requirements * Research and recommend third-party data sources when/if needed * Maintain inventory of data and their business applications   **Data Preparation and Cleaning**   * Extract data from various sources including databases, APIs, and flat files * Implement data validation and quality assurance procedures * Clean and standardise data formats, resolve inconsistencies and duplicates * Create derived variables and calculated fields to support analysis * Design and maintain ETL processes for recurring analytical workflows * Document data transformation logic and maintain version control * Perform statistical tests to validate data integrity * Develop reusable data preprocessing scripts and templates   **Analysis and Modelling**   * Apply statistical methods including regression, clustering, and hypothesis testing * Build predictive models using machine learning techniques * Conduct exploratory data analysis to identify patterns and trends * Perform A/B testing and experimental design for business initiatives * Analyse system performance metrics and identify optimisation opportunities * Create segmentation models for customer or user behaviour analysis * Develop forecasting models for capacity planning and resource allocation * Validate model performance and implement continuous improvement processes   **Interpretation and Insight Generation**   * Contextualise analytical findings within broader business and industry trends * Identify actionable recommendations based on data-driven insights * Assess statistical significance and practical importance of results * Conduct sensitivity analysis and scenario planning * Document assumptions, limitations, and confidence intervals * Synthesise findings from multiple analyses into cohesive narratives * Benchmark performance against industry standards and competitors * Translate technical results into business language and implications   **Communication and Reporting**   * Create compelling data visualizations using tools like Tableau, Power BI, or Python/R * Develop executive dashboards and self-service reporting solutions * Write clear, concise analytical reports with actionable recommendations * Present findings to technical and non-technical audiences * Facilitate data-driven decision-making sessions with leadership teams * Maintain regular reporting cadences for key business metrics * Create documentation and user guides for analytical tools and processes * Train stakeholders on interpreting and using analytical outputs   **Project Leadership and Team Management**   * Lead cross-functional analytical projects from initiation through delivery and evaluation * Define project scope, objectives, timelines, and resource requirements for analytical initiatives * Assign tasks and responsibilities to Analysts, senior Analysts, and others project team members * Provide technical guidance and mentorship to junior staff on analytical methodologies and best practices * Conduct regular project status reviews and manage stakeholder communications throughout project lifecycle * Ensure quality standards and deliverable expectations are met across all team outputs * Facilitate project planning sessions and coordinate dependencies with other teams * Manage project risks, issues, and changes while maintaining alignment with business objectives * Oversee resource allocation and workload distribution across team members * Conduct performance reviews and provide development feedback to junior staff * Build and maintain high-performing analytical teams through effective delegation and team development * Establish project governance frameworks and reporting structures for complex analytical initiatives   **Implementation Support and Monitoring**   * Collaborate with implementation teams to ensure recommendations are executed correctly * Design tracking mechanisms to measure the impact of implemented changes * Create monitoring dashboards to track key performance indicators post-implementation * Conduct post-implementation reviews to assess actual vs. predicted outcomes * Provide ongoing analytical support during project rollouts * Troubleshoot data-related issues that arise during implementation * Refine models and recommendations based on real-world performance data * Document lessons learned and best practices for future projects   **Iteration and Continuous Improvement**   * Review and update existing analytical models and reports * Incorporate new data sources and variables to enhance analytical capabilities * Refine methodologies based on stakeholder feedback and changing SIA business needs * Stay current with industry trends and emerging analytical techniques * Participate in peer reviews and knowledge sharing sessions * Maintain and optimise analytical tools and infrastructure * Develop standardised processes and templates for common analytical tasks * Mentor junior team members and contribute to team skill development |
| COMMON CAPABILITIES – expected in all SIA roles |
| Risk management   * Actively identify and manage role or practice level risks, including escalation of risks and issues when necessary. * Ensure that analysis, data and information supplied is accurate and verified. |
| Health and safety  Take responsibility for meeting SIA’s obligations for workplace health and safety. |

## About you – what you will bring specifically

### Qualifications

* Relevant tertiary qualification e.g. Data Science, Statistics, Computer Science, or related quantitative field

### Experience, knowledge & skills

* Relevant experience in data analysis, business intelligence, or technology analytics
* Requires expert-level analytical competence, typically developed through progressive leadership experience in data analysis, business intelligence, or related fields. This role should demonstrate proven ability to shape organizational analytical strategy, lead cross-functional initiatives, and drive transformational business outcomes through advanced analytical insights.
* Proficiency in SQL, Python/R, and data visualisation tools
* Strong understanding of statistical methods and analytical techniques
* Experience with database systems and data warehousing concepts
* Excellent written and verbal communication skills
* Proven ability to manage multiple projects and priorities simultaneously
* Experience with cloud platforms (AWS, Azure, GCP)
* Knowledge of machine learning frameworks and techniques
* Previous experience in business consulting or stakeholder management
* Industry certifications in relevant analytical tools or methodologies

### COMMON CAPABILITIES – expected in all SIA roles

### Characteristics

* Engaging others – connects with others, listens, reads people and situations, communicates tactfully.
* Achieving ambitious goals – committed and tenacious, ambitious.
* Curious – thinks analytically and critically, displays curiosity, mitigates analytical and decision-making biases.
* Honest and courageous – shows courage, shows decisiveness, leads with integrity.
* Resilient – displays resilience, demonstrates composure.
* Comfortable with ambiguity and ‘grey area’s with the ability to navigate complex situations, adapt to change
* Self-aware and agile – encourages feedback on own performance, can self-assess, adapts approach, shows commitment to development.
* Knowledge and understanding of Mātauranga Māori and tikanga.

### Capabilities

* Communicates clearly – tailors messages so they are clear, succinct, and resonate with their different audiences.
* Supports organisational performance – suggests and acts on opportunities to do things differently and improves processes to achieve gains in effectiveness and efficiency.
* Builds relationships – builds internal relationships by contributing to their team, working collaboratively with others across the organisation and taking an organisation-wide view. Builds external relationships and interacts effectively with customers and other external stakeholders.
* Inclusive – welcomes and values diversity and contributes to an inclusive working environment where differences are acknowledged and respected.
* Shows political awareness – displays an understanding of the essentials of how the government and the public sector work and ensures that written documentation and verbal presentations reflect relevant political sensitivities.
* Manages and delivers on work priorities – plans and organises self to deliver work commitments to required timeframes and quality standards.
* Develops others – shares own experiences and learning and demonstrates and teaches specific technical skills.

### Other requirements

* Willing to take on responsibilities (within limits) outside the prescribed position description.

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| Competency level for a Principal Analyst |
| Experience-Based Description:  A Principal Analyst level role requires senior-level analytical competence, typically developed through years of progressive experience in data analysis, business intelligence, or related fields. Candidates should demonstrate proven ability to lead complex analytical initiatives, mentor others, and drive strategic decision-making through data insights. |
| Skills Proficiency Framework:   * Technical Skills: Expert level (able to design solutions and lead technical decisions) * Business Skills: Advanced level (can shape business strategy and drive organisational change) * Communication Skills: Expert level (can influence senior leadership and build organisational capability) * Domain Knowledge: Advanced level (deep understanding of industry trends and competitive dynamics) |
| Competency Maturity Levels:  Requires competence at the 'Subject Matter Expert' level - someone who can lead analytical strategy, solve novel problems, and set standards for analytical excellence within the organization. Should be recognised as a go-to resource for complex analytical challenges and capable of mentoring junior team members. |
| Outcome-Based Description:  Must demonstrate ability to lead high-impact analytical initiatives that shape business strategy and drive significant organisational value. Should have a proven track record of building analytical capabilities, influencing senior leadership decisions, and delivering transformational insights that create competitive advantage. |
| Complexity and Autonomy Indicators:  Requires someone who can operate as a strategic advisor on the most complex, enterprise-wide analytical challenges. Should be comfortable leading cross-functional initiatives, defining analytical approaches for novel problems, and serving as a trusted advisor to senior leadership on data-driven decision making.  This positions the role as requiring a senior practitioner who not only executes independently but also leads, influences, and shapes analytical strategy within the organisation. |

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| Competency level for a Senior Analyst |
| Experience-Based Description:  A Senior Analyst level role requires mature analytical competence, typically developed through progressive experience in data analysis, business intelligence, or related fields. Candidates should demonstrate proven ability to lead complex analytical projects end-to-end, mentor developing analysts, and serve as a trusted advisor to business stakeholders on data-driven initiatives. |
| Skills Proficiency Framework:   * Technical Skills: Advanced to expert level (can design analytical solutions and drive technical best practices) * Business Skills: Advanced level (can shape analytical strategy and influence business planning) * Communication Skills: Advanced level (can engage confidently with senior leadership and drive organisational adoption) * Domain Knowledge: Advanced level (deep understanding of business dynamics and industry context) |
| Competency Maturity Levels:  Requires competence at the 'Expert Practitioner' level - someone who can tackle the most challenging analytical problems, establish methodological standards, and serve as a subject matter expert within the organisation. Should be recognised as a technical leader capable of guiding analytical strategy and developing team capabilities. |
| Outcome-Based Description:  Must demonstrate ability to drive strategic analytical initiatives that create significant business impact. Should have a proven track record of building analytical frameworks, influencing organisational direction, and developing insights that lead to competitive advantages and operational excellence. |
| Complexity and Autonomy Indicators:  Requires someone who can operate as the analytical lead on enterprise-wide initiatives, defining approaches for unprecedented challenges and serving as the primary analytical consultant to senior business leaders. Should be comfortable setting analytical vision, managing complex stakeholder relationships, and driving organizational capability building.  This reflects a seasoned professional who has developed deep expertise and is ready to take on significant leadership responsibilities within the analytical function. |

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| Competency level for an Analyst |
| Experience-Based Description:  An Analyst level role requires analytical competence, typically developed through focused experience in data analysis, business intelligence, or related fields. Candidates should demonstrate proven ability to independently lead analytical projects, provide guidance to junior team members, and deliver insights that influence key business decisions. |
| Skills Proficiency Framework:   * Technical Skills: Advanced level (can work independently and provide technical guidance to others) * Business Skills: Intermediate to advanced level (can influence decisions and contribute to strategic discussions) * Communication Skills: Advanced level (can present confidently to senior stakeholders and facilitate training) * Domain Knowledge: Intermediate to advanced level (solid understanding of business context and emerging trends) |
| Competency Maturity Levels:  Requires competence at the 'Senior Practitioner' level - someone who can work autonomously on complex problems, take ownership of project outcomes, and serve as a technical resource for the team. Should be developing expertise in specialised areas while maintaining strong foundational skills across all analytical domains. |
| Outcome-Based Description:  Must demonstrate ability to independently deliver high-quality analytical projects that generate measurable business value. Should have a track record of solving complex problems, building stakeholder trust, and contributing insights that drive operational improvements and strategic initiatives. |
| Complexity and Autonomy Indicators:  Requires someone who can handle sophisticated analytical challenges with minimal supervision while beginning to take on leadership responsibilities. Should be comfortable working directly with business stakeholders, managing project timelines, and making technical decisions that impact broader analytical workflows.  This reflects someone who has moved beyond junior level but isn't yet at the most senior expert tier - they're experienced practitioners ready to take on greater responsibility and technical leadership. |

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| Competency level for a Graduate Analyst |
| Experience-Based Description:  A Graduate Analyst level role requires developing analytical competence, typically gained through relevant experience in data analysis, business intelligence, or related fields. Candidates should demonstrate foundational skills with growing independence and ability to handle moderately complex analytical tasks with appropriate guidance and support. |
| Skills Proficiency Framework:   * Technical Skills: Intermediate level (can execute standard analyses with some guidance on complex tasks) * Business Skills: Foundational to intermediate level (understands business context with developing stakeholder management skills) * Communication Skills: Intermediate level (can present findings clearly to immediate team and business users) * Domain Knowledge: Foundational level (basic understanding of business operations with eagerness to learn) |
| Competency Maturity Levels:  Requires competence at the 'Developing Practitioner' level - someone who can execute established analytical processes independently while requiring guidance on novel or complex problems. Should demonstrate strong foundational skills with clear potential for growth and increasing responsibility. |
| Outcome-Based Description:  Must demonstrate ability to complete well-defined analytical projects that support business decisions. Should show evidence of learning from experience, contributing to team objectives, and developing the judgment needed to progress to more complex analytical challenges. |
| Complexity and Autonomy Indicators:  Requires someone who can work independently on routine analytical tasks while knowing when to seek guidance on complex issues. Should be comfortable with standard analytical workflows, eager to learn new techniques, and beginning to build relationships with business stakeholders under senior guidance."  This reflects someone who has moved beyond entry-level but still needs structured support and mentorship to develop into a fully independent analyst. |