

New Zealand

Geospatial Industry Profile Survey

Results

2023 Report



Presented by the GISS Committee
December 2023

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INTRODUCTION

The purpose of the 2023 New Zealand Geospatial Industry Profile Survey is to gain demographic and employment information about the geospatial industry in New Zealand. The goal is to build a baseline profile of the industry and have a recurring biennial survey, tracking industry changes over time. The results can help industry people and groups plan for future initiatives/projects. To our knowledge, this is the first time a survey such as this has been undertaken in New Zealand.

ABOUT THE GISS COMMITTEE

The survey was developed by the GIS Survey Committee (GISS Committee) that included representatives from the following groups and organisations:

- [Emerging Spatial Professionals](#)
- [Geospatial Capability Committee](#)
- [LocationTech](#)
- [New Zealand Esri User Group](#)
- [Survey & Spatial NZ - Spatial Stream](#)
- [Women in Spatial + Survey](#)

Feedback on a draft version of the survey was sought and received from Local Government Geospatial Alliance (transitioning to a new Geospatial Special Interest Group under a regional and unitary council network called Te Ura Kahika), Te Kahui Manu Hokai/Māori GIS Association and the tertiary GIS sector.

ABOUT THE SURVEY

The survey was run online from the 23rd of March to the 15th of May 2023. There were 523 responses collected from the survey. A response rate for the survey is unavailable as respondents were recruited through a variety of promotional communication means - LinkedIn, NZ GIS social media channels, NZ geospatial group/organisation emails/newsletters and NZEUG regional conferences.

This report provides a summary of high-level results from the survey, then analysis and discussion of responses to each survey question in turn. A copy of the survey questions is provided as Appendix B.

The survey consisted of 20 questions in total that took an estimated time of 5 - 10 minutes to complete. Topics that the survey covered included demographics, education qualifications, employment status and location, salary range, and geospatial group membership.

ABOUT THE AUDIENCE

Information for people who followed the survey link made it clear that it was intended only for those who identify as part of the Geospatial Industry in New Zealand e.g. someone who does any of the following:

- Captures, analyses, manages, presents and/or distributes geospatial data.
- Develops related equipment, software and/or services.
- Manages geospatial people, projects, systems and/or organisations.
- Works in geospatial related education and/or research.

This criteria was adapted from the Spatial Occupation Description in [ANZSCO](#) - Australian and New Zealand Standard Classification of Occupations.

ABOUT THE ANALYSIS

The individual responses to the survey are confidential and have been analysed and summarised in aggregated form in this report. The following members of the GISS Committee contributed to the analysis and final report:

- Kaz McGregor (Emerging Spatial Professionals)
- Geoff O'Malley (Geospatial Capability Committee)
- Elaine McAlister (Women in Spatial and Survey)
- Megan Walker (Women in Spatial and Survey)

Data cleansing tasks were undertaken as part of the analysis, specifically on free-text responses, so that the results remained anonymous, and analysis made easier. If any assumptions or exclusions were made during the analysis or data clean, these will be addressed in the results section.

Thanks very much to everyone who filled in the survey. If you have any queries or feedback, you can email us at gisscommittee@gmail.com.

DETAILED RESULTS

The next section of the report will review the results of all 20 questions in the survey. Some results will be cross analysed with other questions to identify trends or correlations. All questions were required for submission unless stated otherwise.

For any cross-analysis performed in this report using salary responses, the responses have been filtered out to only include salaries for full-time employees or fixed-term/contract employees.

The full list of survey questions can be found in Appendix B.

1. AGE

Question: What is your age?

Question Type: Single Choice

Options:

- 20 or younger
- 21-30
- 31-40
- 41-50
- 51-60
- 61 or over
- Prefer not to say

AGE RESULTS

More than half the respondents are under the age of 40, with the **largest representation in the 21–30 year-old category.**

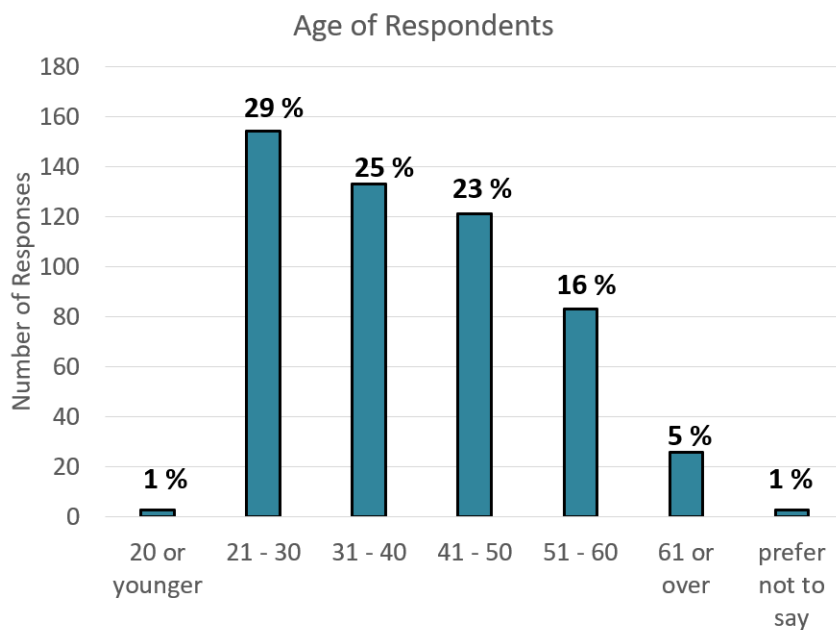


Figure 1.1 Age of respondents.

2. GENDER

Question: What is your gender? (Groupings referenced from Stats NZ)

Question Type: Single Choice

Options:

- Male
- Female
- Another gender
- Prefer not to say

GENDER RESULTS

Of the 523 responses, 59% identify as male, 40% female, and 1% another gender/prefer not to say. The 2 categories **Another gender** and **Prefer not to say** had a low response rate and were aggregated to ensure anonymity.



Figure 2.1 Gender responses.

3. ETHNICITY

Question: What major ethnic group do you primarily identify with? (Groupings referenced from Stats NZ)

Question Type: Single Choice

Options:

- New Zealand European
- Māori
- Pacific Peoples
- Asian
- Middle Eastern
- Latin American
- African
- North American
- Other...(free text)

Notes:

- Groupings were referenced from Stats New Zealand (Stats NZ) to enable cross-analysis with the national census data.
- For future surveys, enable this question to support multiple selections, as some people identify with multiple ethnic groups.

ETHNICITY RESULTS

Figure 3.1 shows the results for each ethnic group in the survey. Compared to the national average, **the geospatial industry has a proportionally higher representation of Europeans in the industry, and very low representation of Māori and Pacific Peoples.** This is demonstrated in Figure 3.2.

| Ethnicity | Respondents |
|----------------------|-------------|
| African | 0.4% |
| Asian | 10.3% |
| European/NZ European | 79.9% |
| Hispanic | 1.3% |
| Maori | 3.1% |
| Middle Eastern | 0.8% |
| Other | 0.2% |
| Pasifika | 1.1% |
| South Asian | 2.9% |

Figure 3.1 Ethnicity Responses.

ETHNICITY RESULTS COMPARED TO STATS NEW ZEALAND.

To compare the results to Stats NZ, the groupings were adjusted to match the Stats NZ data.

- **Middle Eastern, Hispanic** and **African** responses were combined to match the Stats NZ group **MELAA** (Middle Eastern, Latin American and African).
- **Asian** and **South Asian** responses were combined to match the Stats NZ group **Asian**.

The survey uses similar groupings to Stats NZ, which allows a cross analysis to see how the geospatial industry compares to the national breakdown of demographics. Figure 3.2 shows how the GIS industry results compare to the NZ Population based on the 2018 Census.

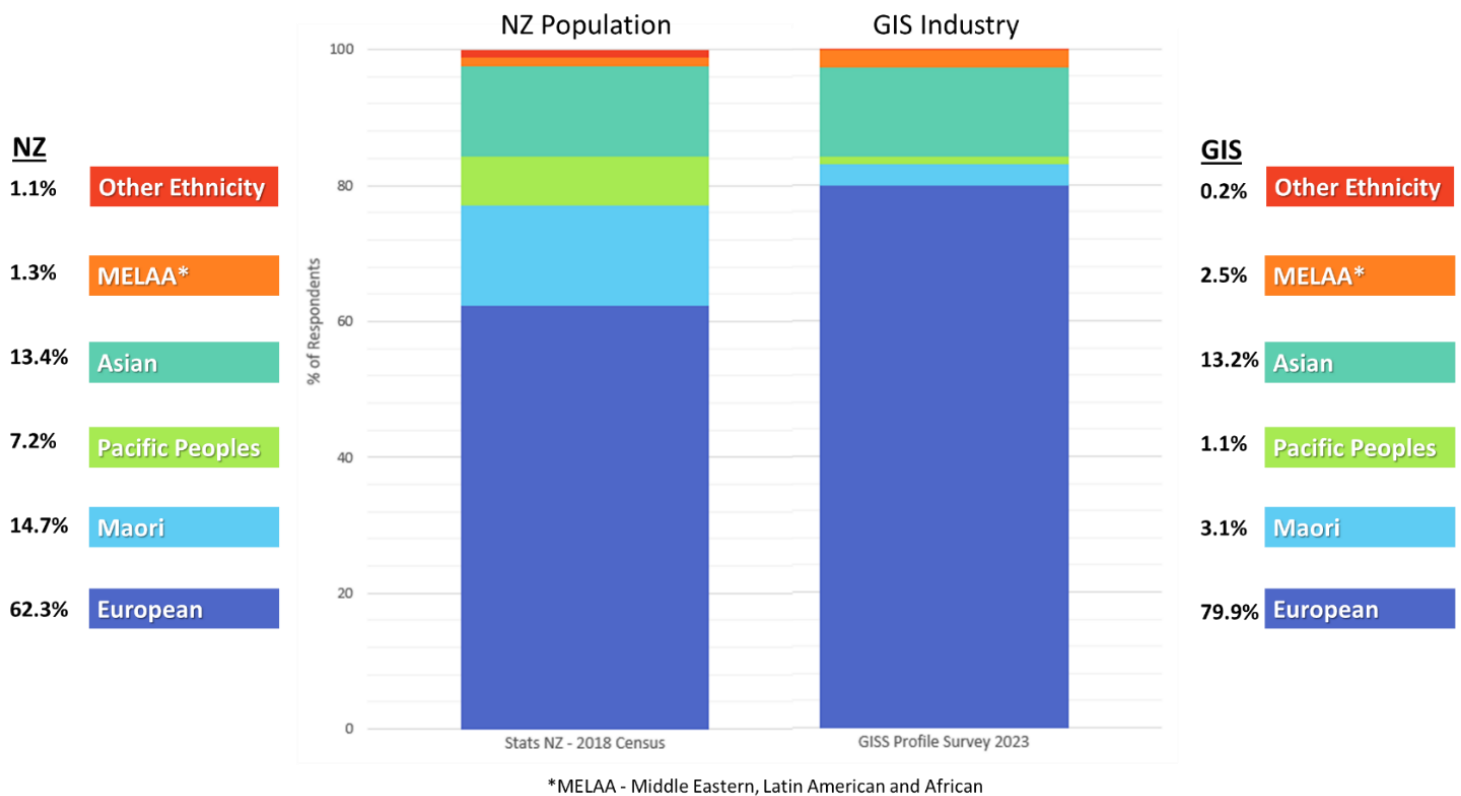


Figure 3.2 Ethnicity Results compared to Stats NZ Census Data.

4. COUNTRY/REGION OF ORIGIN

Question: Where is your country/region of origin? (Groupings referenced from Stats NZ)

Question Type: Single Choice

Options:

- New Zealand
- Australia
- Pacific Islands
- United Kingdom and Ireland
- Europe (excluding UK and Ireland)
- North America
- Asia
- Middle East
- Africa
- Other

COUNTRY/REGION OF ORIGIN RESULTS

Figures 4.1 and 4.2 show the percentage of respondents from each region. **Most respondents are from New Zealand (about 65%).**

| Region of Origin | Respondents |
|------------------------------|-------------|
| New Zealand | 64.6% |
| UK and Ireland | 9.9% |
| Asia | 8.8% |
| Europe (excl UK and Ireland) | 4.4% |
| North America | 4.4% |
| Other | 2.9% |
| Africa | 2.3% |
| Australia | 1.7% |
| Middle East | 0.6% |
| Pacific Islands | 0.4% |

Figure 4.1 Country/Region of Origin Responses.

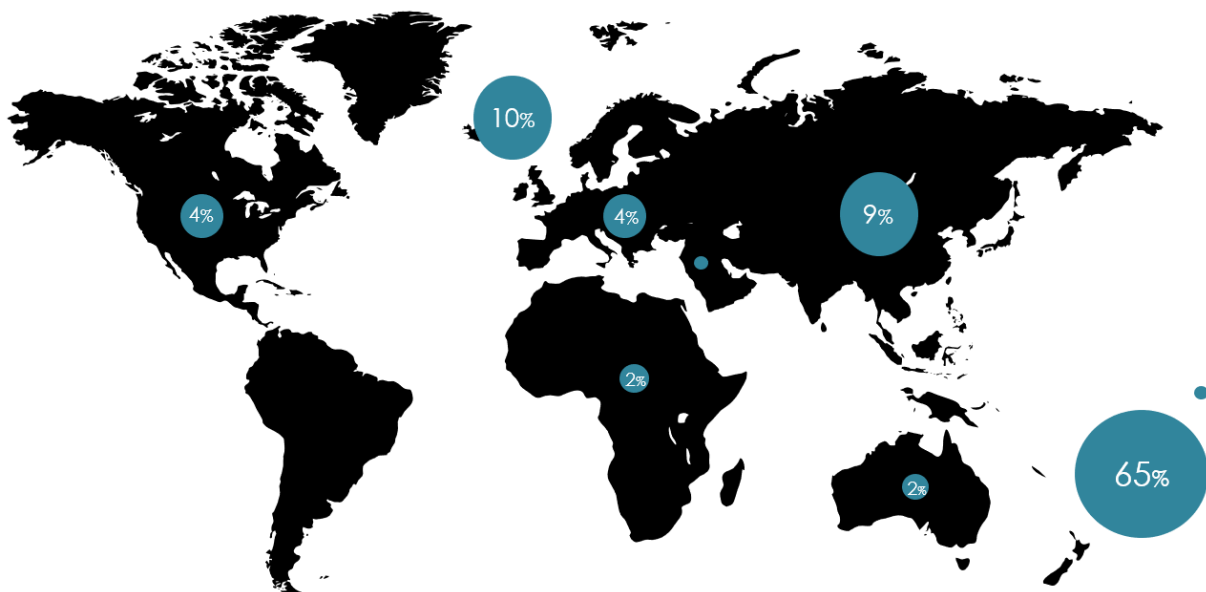


Figure 4.2 Map showing the distribution of country of origin.

5. REGION OF WORK

Question: In what region do you primarily work?

Question Type: Single Choice

Options:

- Northland
- Auckland
- Waikato
- Bay of Plenty
- Gisborne
- Hawkes Bay
- Taranaki
- Manawatu-Whanganui
- Wellington
- Tasman
- Nelson
- Marlborough
- West Coast
- Canterbury
- Otago
- Southland
- Overseas

REGION OF WORK RESULTS

Figure 5.1 shows the results for each region, sorted from highest to lowest respondents. Figure 5.2 shows the distribution of survey respondents across the country, with darker regions representing a higher response rate. **The Wellington Region had the highest response rate.**

| Region of Work | Respondents |
|--------------------|-------------|
| Wellington | 32.1% |
| Auckland | 22.9% |
| Canterbury | 16.1% |
| Bay of Plenty | 6.1% |
| Waikato | 4.4% |
| Nelson | 3.3% |
| Manawatu-Whanganui | 2.9% |
| Otago | 2.5% |
| Taranaki | 2.1% |
| Marlborough | 1.7% |
| Northland | 1.5% |
| Southland | 1.3% |
| Hawkes Bay | 1.1% |
| Tasman | 1.0% |
| Overseas | 0.8% |
| Gisborne | 0.2% |
| West Coast | 0% |

Figure 5.1 Region of Work Responses.

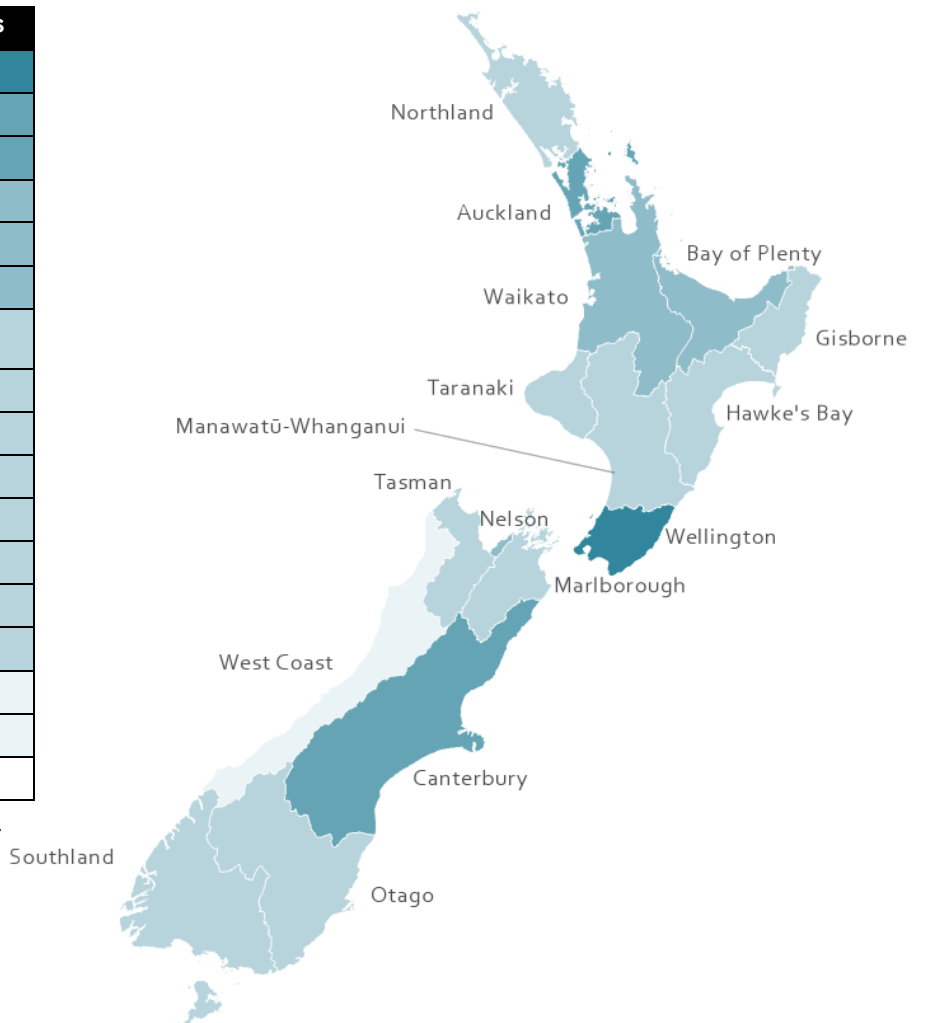


Figure 5.2 Map showing the distribution of survey responses.

6. EDUCATION

Question: What is your highest education qualification?

Question Type: Single Choice

Options:

- No formal qualifications
- High School/Tertiary
- Diploma/Certificate
- Bachelor's Degree
- Post-graduate/Honours Degree
- Master's Degree
- Doctorate Degree

Note:

- The High School/Tertiary category was intended for people who finished high school, and maybe took a few tertiary courses, but did not complete a degree or certificate. This may have caused confusion for respondents.
- For the next survey, High School/Tertiary will be split into separate categories.

EDUCATION RESULTS

Figure 6.1 shows the percent of responses for each level of education, and the average salary of respondents in that category. **Most respondents have a master's degree or post-graduate certificate.**

| Highest Level of Education | Respondents | Average Salary |
|---|-------------|----------------|
| PHD | 4% | \$ 111,944 |
| Master's Degree/ Post-Graduate Certificate | 52% | \$ 101,369 |
| Bachelor's Degree | 31% | \$ 97,876 |
| Diploma/Certificate | 7% | \$110,735 |
| High School/Tertiary | 5% | \$ 98,522 |
| No Formal Qualifications | 1% | \$ 102,000 |

Figure 6.1 Highest Level of Education responses compared to Average Salary.

7. QUALIFICATIONS – BY DISCIPLINE

Question: What discipline(s) are you qualified in? Select all that apply.

Question Type: Multi Choice

Options:

- GIS (Geographic Information Science or Systems)
- Surveying
- Geography
- Earth Sciences
- Computer Science/ICT
- Cartography
- Planning
- Project Management
- Other... (free text)

DISCIPLINE RESULTS

Due to the nature of the multi-choice question, there were 49 unique disciplines submitted. Figure 7.1 shows the top 10 disciplines that respondents are qualified in. **The most common qualifications are in GIS and Geography.**

| Discipline | Qualified Respondents |
|------------------------------|-----------------------|
| GIS | 70% |
| Geography | 41% |
| Earth Sciences | 26% |
| Computer Science/ICT | 16% |
| Cartography | 11% |
| Project Management | 10% |
| Surveying | 9% |
| Planning | 5% |
| Environmental Science | 1% |
| Geology | 1% |

Figure 7.1 Top 10 disciplines that respondents are qualified in.

8. HIGHEST GEOSPATIAL QUALIFICATION

Question: What is your highest geospatial qualification?

Question Type: Single Choice

Options:

- No qualification
- High School Courses (i.e. NCEA)
- Tertiary Courses (i.e. Intro to GIS, Spatial Analysis..)
- Diploma/Certificate
- Bachelor's Degree
- Post-Graduate/Honours Degree
- Master's Degree
- Doctorate Degree
- Other... (free text)

HIGHEST GEOSPATIAL QUALIFICATION RESULTS

Figure 8.1 displays the results. **The most common geospatial qualifications are Bachelor's Degree or Post-Graduate/Honours Degree.**

| Highest Geospatial Qualification | Respondents |
|--|-------------|
| No qualification | 19% |
| High School Courses (i.e. NCEA) | 1% |
| Tertiary Courses (i.e. Intro to GIS, Spatial Analysis..) | 17% |
| Diploma/Certificate | 5% |
| Bachelor's Degree | 20% |
| Post-Graduate/Honours Degree | 20% |
| Master's Degree | 15% |
| Doctorate Degree | 3% |
| Other | 2% |

Figure 8.1 Highest geospatial qualification responses.

9. YEARS OF EXPERIENCE

Question: In total, how many years of geospatial work experience do you have?

Question Type: Single Choice

Options:

- None
- Less than 2 years
- 2 – 5 years
- 6 – 10 years
- 11 – 20 years
- Over 20 years

EXPERIENCE RESULTS

Figures 9.1 and 9.2 show the results for Years of Experience compared to the average salary of full-time employees. **Most respondents (55%) have less than 10 years of geospatial work experience.**

| Years of Experience | Respondents | Average Salary |
|--------------------------|-------------|----------------|
| None | 1% | \$ 78,333 |
| Less than 2 years | 13% | \$ 74,286 |
| 2 - 5 years | 18% | \$ 85,172 |
| 6 to 10 years | 23% | \$ 105,143 |
| 11 - 20 years | 22% | \$ 120,714 |
| Over 20 years | 23% | \$ 117,067 |

Figure 9.1 Years of experience compared to average salary.

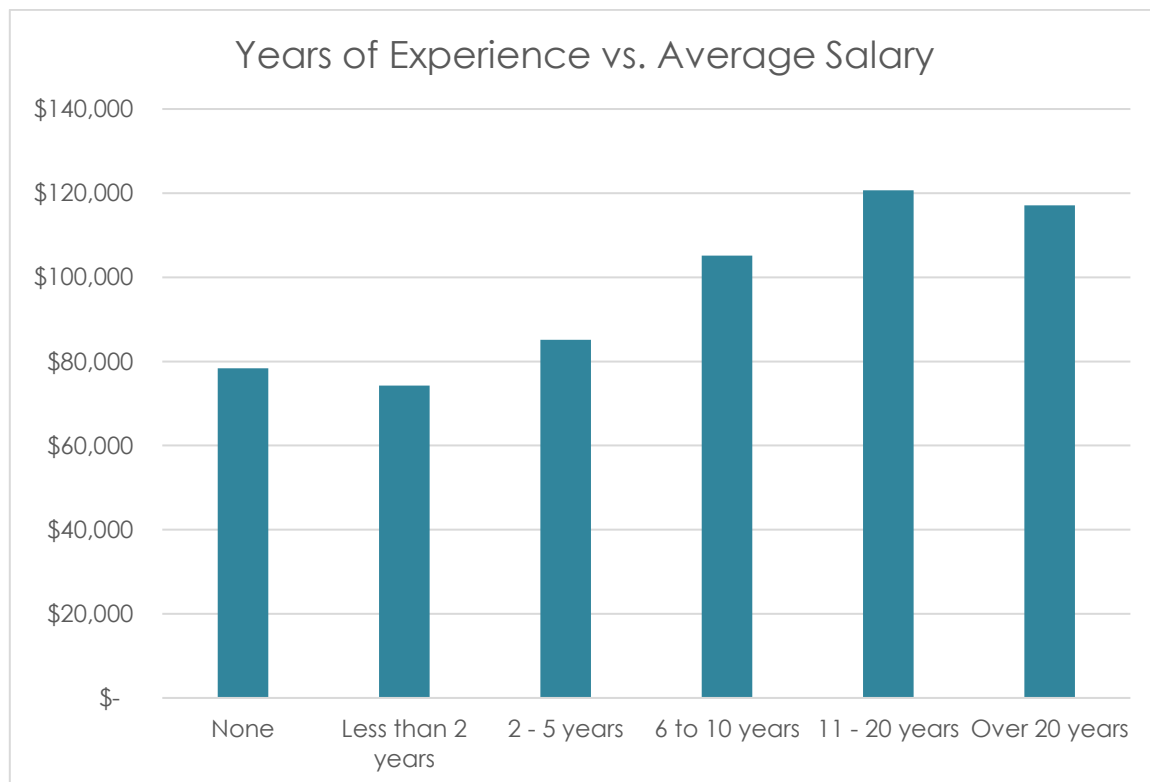


Figure 9.2 Chart comparing years of experience vs. average salary.

10. EMPLOYMENT STATUS

Question: What is your employment status? Select all that apply.

Question Type: Multi Choice

Options:

- Full-time
- Part-time
- Fixed Term/Contract
- Parental/Carer Leave
- Studying
- Unemployed
- Other... (free text)

EMPLOYMENT STATUS RESULTS

Due to the nature of the multi-choice question, respondents may have selected multiple employment statuses. The results in Figure 10.1 represent the percent of respondents that selected each category, so the total exceeds 100%. **Most respondents (87%) work full-time.**

| Employment Status | Respondents |
|----------------------|-------------|
| Full-time | 87% |
| Part-time | 6% |
| Fixed Term/Contract | 7% |
| Parental/Carer Leave | 0% |
| Studying | 4% |
| Unemployed | 1% |
| Other | 1% |

Figure 10.1 Employment status responses.

11. EMPLOYMENT SECTOR

Question: Which sector are you currently employed in?

Question Type: Single Choice

Options:

- Local Government (including Council-controlled organisations)
- Central Government
- Crown Research Institute/ State Owned Enterprise (SEO)
- Private Sector – employed by a company
- Private Sector – self employed
- Academia
- Not for Profit
- Other... (free text)

EMPLOYMENT SECTOR RESULTS

Figure 11.1 shows the results of respondents in each employment sector, as well as the average full-time salary for each sector. **About half of respondents work for either local or central government.**

| Employment Sector | Respondents | Average Salary |
|--|-------------|----------------|
| Local Government | 28% | \$ 88,750 |
| Central Government | 24% | \$ 108,178 |
| Crown Research Institute/ SEO | 3% | \$ 132,500 |
| Private Sector – employed by a company | 36% | \$ 102,857 |
| Private Sector – self employed | 4% | \$ 90,698 |
| Academia | 4% | \$ 70,000 |
| Not for Profit | 1% | \$ 108,418 |
| Other | 1% | \$ 90,000 |

Figure 11.1 Employment sector responses compared to average salary.

12. EMPLOYMENT CHANGE

Question: Have you changed employers in the geospatial industry in the last 12 months?

Question Type: Single Choice

Options:

- Yes
- No

Note:

- The survey ran from March – May 2023, so the date range refers to any employer changes between March 2022 and May 2023.

EMPLOYMENT CHANGE RESULTS

Most of the respondents (82%) did not change employers between March 2022 and May 2023.

EMPLOYMENT CHANGE: 2022 - 2023

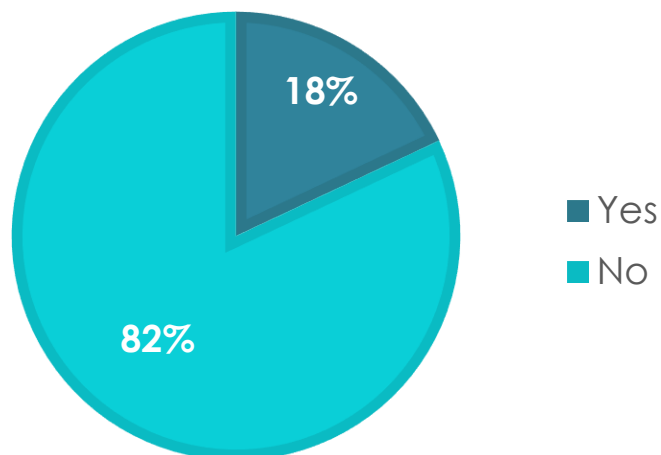


Figure 12.1 Employment Change between 2022 and 2023.

13. CAREER LEVEL

Question: Which of the following best describes your level within your organisation?

Question Type: Single Choice

Options:

- Student
- Graduate
- Junior
- Intermediate
- Senior
- Team Leader/Manager
- Executive

CAREER LEVEL RESULTS

Career level responses showed the **strongest trend** when compared to average salaries; **as career level increases, salary increases**. In Figure 13.1, years of experience are included for each career level; this is a rough guideline based on the survey responses.

| Career Level Years of Experience | Respondents | Average Salary |
|--|-------------|----------------|
| Student 0 – 2 years | 1% | \$ 49,000 |
| Graduate 0 – 2 years | 4% | \$ 67,000 |
| Junior 1 – 5 years | 9% | \$ 72,857 |
| Intermediate 3 – 10 years | 28% | \$ 87,143 |
| Senior 8 – 20 years | 33% | \$ 110,795 |
| Team Leader/Manager 8 – 20 years | 21% | \$ 128,158 |
| Executive Over 15 years | 4% | \$ 151,471 |

Figure 13.1 Career level, years of experience, and average salaries.

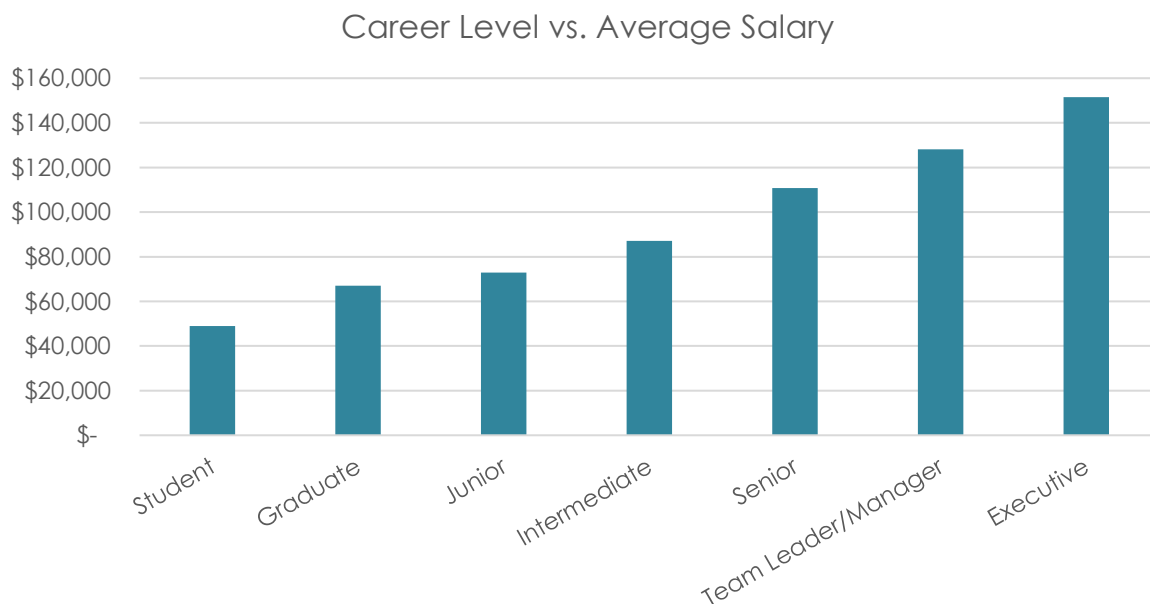


Figure 13.2 Chart showing career level compared to average salary.

14. ROLE TITLE

Question: What is the title of your current role?

Question Type: Single Choice

Options:

- GIS Analyst
- GIS Consultant
- GIS Developer
- Surveyor
- Lecturer
- Scientist
- Project Manager
- Cartographer
- Prefer not to say
- Other... (free text)

ROLE TITLE RESULTS

Out of the 523 responses, there were 167 unique responses for role titles. Figure 14.1 shows the results for the **top 20 role titles**. A full list of the responses can be found in Appendix A, which lists each role title from most common to least common.

Most role titles contain GIS/Geospatial, with GIS Analyst being the most common role title.

| Role Title | Respondents |
|------------------------------|-------------|
| GIS Analyst | 26% |
| GIS Consultant | 11% |
| Prefer not to say | 6% |
| GIS Developer | 3% |
| GIS Specialist | 2% |
| Project Manager | 2% |
| GIS Technician | 2% |
| GIS Manager | 2% |
| Geospatial Manager | 1% |
| Surveyor | 1% |
| Scientist | 1% |
| Senior Geospatial Analyst | 1% |
| Spatial Intelligence Analyst | 1% |
| Cartographer | 1% |
| Geospatial Advisor | 1% |
| Geospatial Specialist | 1% |
| Lecturer | 1% |
| Manager | 1% |
| Student | 1% |
| Developer | 1% |
| Other | 36% |

Figure 14.1 The 20 most common role titles submitted in the survey.

15. MANAGEMENT

Question: In your current role, do you manage other people?

Question Type: Single Choice

Options:

- Yes
- No

MANAGEMENT RESULTS

Most respondents (72.7%) do not manage other people in their current role.

DO YOU MANAGE PEOPLE?

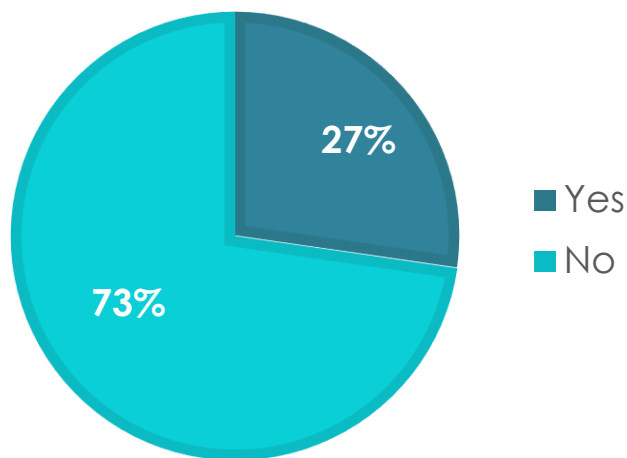


Figure 15.1 Management responses.

16. SALARY RANGE

Question: What is your current salary range (in NZD) including anticipated bonuses?

Question Type: Single Choice

Options:

- Less than \$40,000
- \$40,000 - \$60,000
- \$60,000 - \$80,000
- \$80,000 - \$100,000
- \$100,000 - \$120,000
- \$120,000 - \$140,000
- \$140,000 - \$160,000
- More than \$160,000
- Prefer not to say

DATA CLEANSING METHOD

To determine the average salaries in cross-analyses, the median salary was taken from each bracket. For example, the \$40,000 - \$60,000 bracket used a median salary of \$50,000 for analysis purposes. Median salaries were only used in analyses if the respondent indicated their employment status was "Full-Time" or "Fixed-Term/Contractor."

The GISS Committee recognises that the salary brackets are not perfect (should be \$40,000 – \$59,999, \$60,000 - \$79,999 etc.) and for future surveys, salary information may be captured differently to improve analysis results. For example, respondents could enter their gross salary instead of choosing a bracket, which covers a wide range of salaries.

SALARY RANGE RAW RESULTS

Figure 16.1 shows both the raw results and the filtered results. The filtered results only show responses for full-time or contractor employment statuses (480 responses out of 523).

The most common salary bracket is \$80,000 - \$100,000 NZD.

| Raw Results | | Full-Time and Contractors | |
|-----------------------|-------------|---------------------------|-------------|
| Salary Bracket | Respondents | Salary Bracket | Respondents |
| Less than \$40,000 | 2% | Less than \$40,000 | 1% |
| \$40,000 - \$60,000 | 3% | \$40,000 - \$60,000 | 3% |
| \$60,000 - \$80,000 | 17% | \$60,000 - \$80,000 | 18% |
| \$80,000 - \$100,000 | 31% | \$80,000 - \$100,000 | 30% |
| \$100,000 - \$120,000 | 19% | \$100,000 - \$120,000 | 20% |
| \$120,000 - \$140,000 | 10% | \$120,000 - \$140,000 | 11% |
| \$140,000 - \$160,000 | 7% | \$140,000 - \$160,000 | 8% |
| More than \$160,000 | 6% | More than \$160,000 | 6% |
| Prefer not to say | 5% | Prefer not to say | 4% |

Figure 16.1 Raw survey results (left) and filtered survey results (right) for full-time employees and contractors.

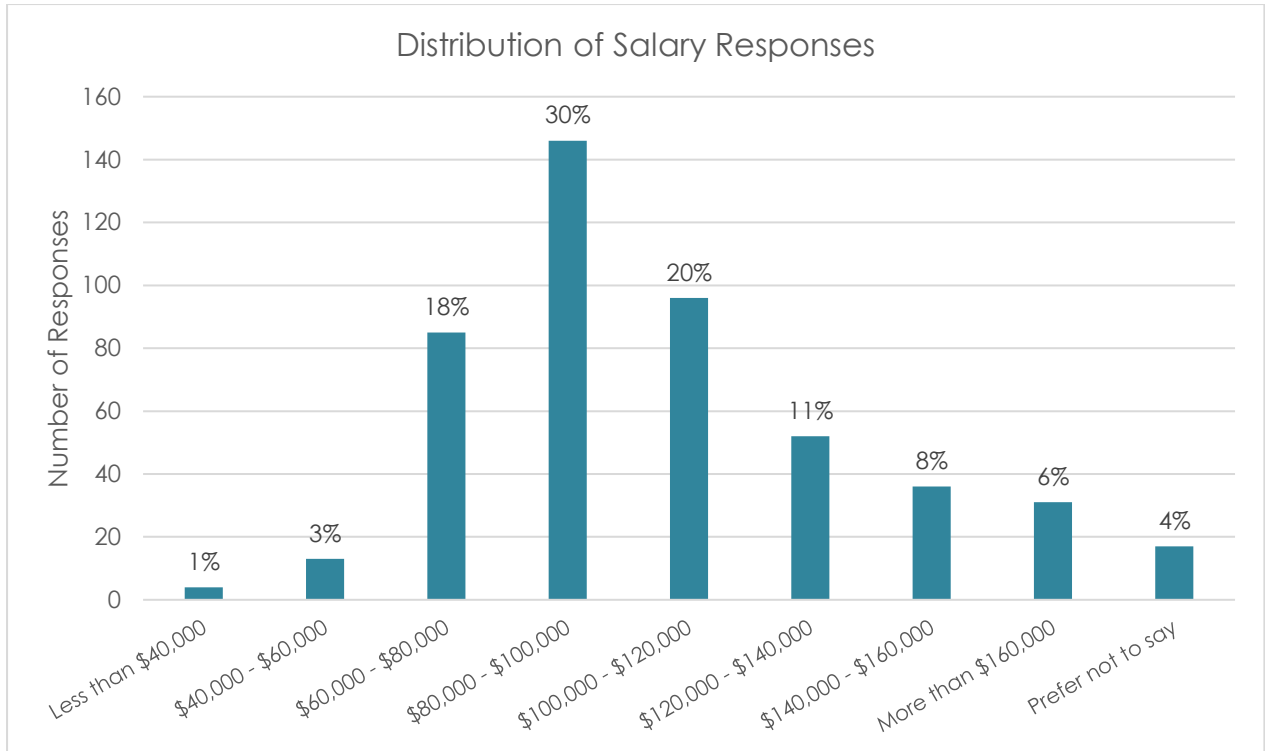


Figure 16.2 Distribution of salary responses (full-time and contractor only)

CAREER LEVEL, GENDER, AND AVERAGE SALARY

One of the strongest correlations from the results is that as career level increases, so does salary. Figure 16.3 compares career level, gender, and average salary. This baseline can be referenced in future surveys.

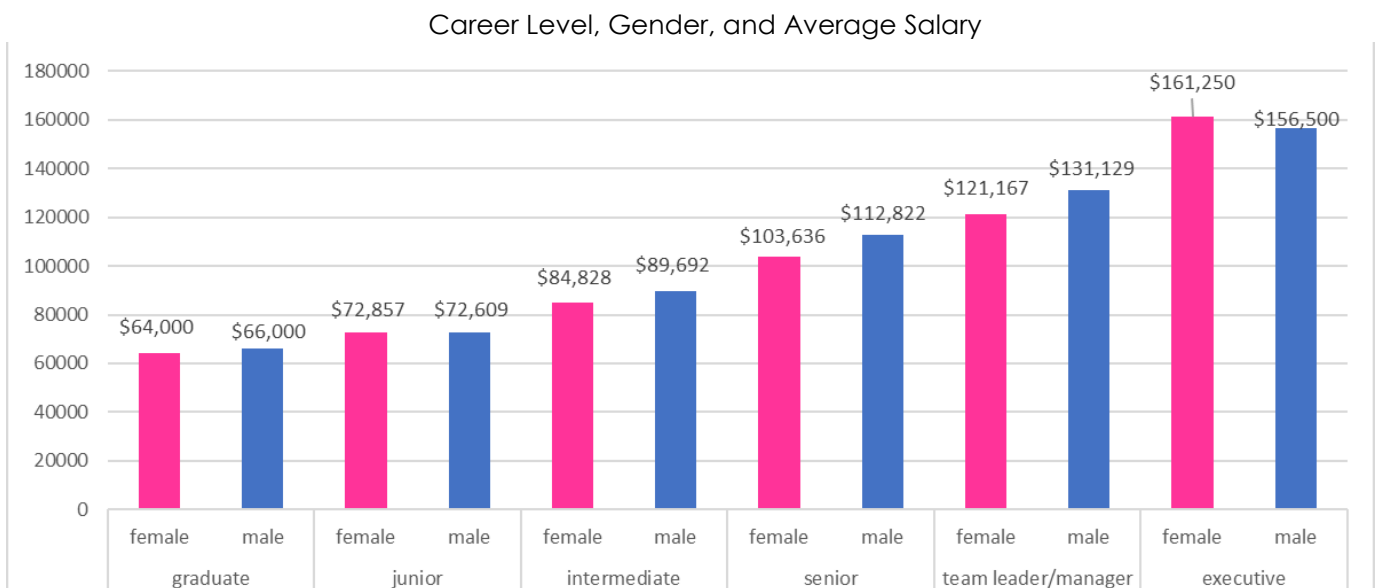


Figure 16.3 Comparison between career level, gender, and average salaries.

17. INDUSTRY CONTINUITY

Question: Do you see yourself in the geospatial industry in 5 years?

Question Type: Single Choice

Options:

- Yes
- No
- Maybe

INDUSTRY CONTINUITY RESULTS

Most respondents (73%) plan to still be in the industry in 5 years. Figure 17.1 shows the distribution of responses.

DO YOU SEE YOURSELF IN THE INDUSTRY IN 5 YEARS?

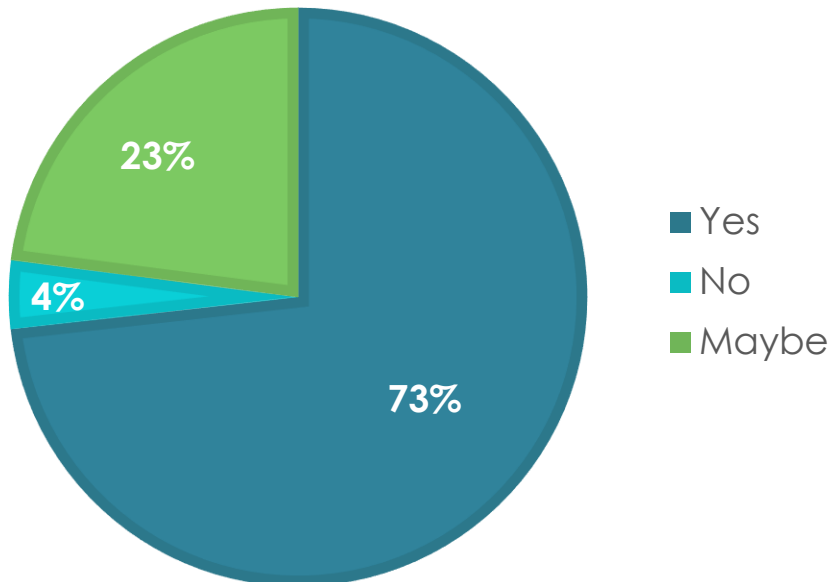


Figure 17.1 Industry continuity results.

18. COMMUNITY INVOLVEMENT

Question: Are you a member of any of the following geospatial societies or groups? Select all that apply. *(Optional Question)*

Question Type: Multi Choice

Options:

- Emerging Spatial Professionals (ESP)
- GIS in Conservation
- Local Government Geospatial Alliance
- LocationTech
- MapTime
- NZ Cartographic Society
- NZ Esri User Group
- NZ Survey & Spatial
- OSGeo Oceania
- Te Kahui Manu Hokai/Māori GIS Association
- Women in Spatial & Survey
- Other...(free text)

COMMUNITY INVOLVEMENT RESULTS

Due to the nature of the multi-choice question, respondents may have selected multiple groups. The results represent the percent of respondents that selected each category, so the total exceeds 100%.

Figure 18.1 displays the results sorted from most common responses to least common. **The top 4 groups** are **NZ Esri User Group**, **Women in Spatial & Survey**, **Emerging Spatial Professionals**, and **GIS in Conservation**.

| Group Name | Respondents |
|--|-------------|
| NZ Esri User Group | 66.5% |
| Women in Spatial & Survey | 29.1% |
| Emerging Spatial Professionals (ESP) | 23.2% |
| GIS in Conservation | 13.4% |
| NZ Survey & Spatial | 9.8% |
| NZ Cartographic Society | 9.3% |
| MapTime | 8.0% |
| Local Government Geospatial Alliance | 5.2% |
| OSGeo Oceania | 4.1% |
| LocationTech | 2.8% |
| Te Kahui Manu Hokai/Māori GIS Association | 0.8% |

Figure 18.1 Community involvement results.

19. VOLUNTEERING

Question: Have you ever volunteered your industry skills outside of work? i.e. GIS in Conservation, Education in Schools etc.

Question Type: Single Choice

Options:

- Yes
- No

VOLUNTEERING RESULTS

About **42% of respondents volunteer their skills outside of work.**



Figure 19.1 Volunteering results.

20. COMMENTS

Question: Are there any further comments you'd like to share? *(Optional Question)*

Question Type: Free Text

There were 54 comments left by respondents. Many of these comments contained feedback or additional information to support their responses, and these were considered when creating the report.

CLOSING

FINAL REMARKS

The purpose of the 2023 New Zealand Geospatial Industry Profile Survey was to gain demographic and employment information about the geospatial industry in New Zealand. **The goal is to build a baseline profile of the industry and have a recurring biennial survey, tracking industry changes over time, that will help industry people and groups plan future initiatives/projects.**

During the process of capturing/analysing the data and creating this document, many improvements have been noted and will be implemented in the subsequent survey in 2025. **A main goal is to get a higher response rate in the next survey.** A higher response rate would provide more statistically significant results, and increased participation numbers will be a priority.

If you would like to get involved with the GISS Committee or submit feedback, email us at gisscommittee@gmail.com to get in touch.

Follow us on LinkedIn so you don't miss the next survey!

<https://www.linkedin.com/company/gis-survey-committee-nz/about/>

SPECIAL THANKS

Thank you to everyone who filled out the survey and contributed to this report.

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- [Emerging Spatial Professionals](#)
- [Geospatial Capability Committee](#)
- [LocationTech](#)
- [New Zealand Esri User Group](#)
- [Survey & Spatial NZ - Spatial Stream](#)
- [Women in Spatial + Survey](#)



APPENDIX

APPENDIX A – ROLE TITLES

Below are all 167 role titles that were submitted in the survey, sorted from most common to least common.

Most Common

| | | |
|---------------------------------|--|--|
| GIS Analyst | Applications Specialist | Intelligence Analyst |
| GIS Consultant | Architect | Land Analyst |
| Prefer Not To Say | Asset Data Analyst | Lidar Technician |
| GIS Developer | Asset Engineer | Location Intelligence Programme Manager, Senior GIS Specialist |
| GIS Specialist | Asset Information Coordinator | Manager - Topographic Products |
| Project Manager | Consultant | Manager / Consultant |
| GIS Technician | Contracts Manager | Manager Hydrographic Survey |
| GIS Manager | Data Infrastructure Manager | National Team Lead |
| Geospatial Manager | Data Management Analyst | Network Information Manager |
| Surveyor | Data Management Officer | Network Information Specialist |
| Scientist | Data Scientist | Nothing |
| Senior Geospatial Analyst | Deputy Chief Executive | Practice Lead |
| Spatial Intelligence Analyst | E-Commerce Network Capacity Specialist | Principal Advisor Urban Ngahere (Forest) |
| Cartographer | Engineer | Principal Analyst |
| Geospatial Advisor | Engineering Analyst | Principal Geospatial Specialist |
| Geospatial Specialist | Engineering Geologist | Principal Geospatial And Geospatial Consultant |
| Lecturer | Enterprise Solutions Manager | Professional Casual Researcher |
| Manager | Enterprise Systems Manager | Programme Leader |
| Student | Exposure Data Modeller | Property Nar Administrator |
| Developer | Fme/GIS Administrator | Retired |
| Geospatial Data Engineer | Forest Information Manager | Sail |
| Geospatial Intelligence Analyst | Forest Manager | Senior Advisor |
| GIS Graduate | Founder & Principal Geospatial Analyst | Senior Consultant |
| GIS Officer | Geospatial & Data Consultant | Senior Digital Specialist |
| Location Data Analyst | Geospatial Business Analyst | Senior Geospatial Intelligence Analyst |
| Senior Geospatial Specialist | Geospatial Coordinator | Senior Lecturer |
| Team Leader | | Senior Regional Asset Information Advisor |

Less Common

| | | |
|----------------------------------|--------------------------------|--|
| Advisor | Geospatial Data Manager | Senior Regional Sourcing Specialist |
| Bio Information Analyst | Geospatial Graduate | Senior Research Fellow |
| Business Intelligence Specialist | Support | Senior Resource Forester And GIS Analyst |
| CEO | Geospatial Information Analyst | Senior Spatial Architect |
| Geospatial Analyst | Geospatial Lead | Senior Spatial Intelligence Analyst |
| Geospatial Systems Specialist | Geospatial Research Assistant | Senior Urban Designer |
| | Geospatial Team Lead | |
| | Geospatial Team Leader | |

| | | |
|--|--------------------------------------|--|
| GIS Administrator | Geospatial Technician | Service Delivery Manager - GIS |
| GIS Advisor | Geotechnical Hazards Data Specialist | Socio-Spatial Researcher |
| GIS And Data Analyst | GIS / Asset Management Technician | Software Engineer |
| GIS Lead | GIS Analyst Intern | Solution Engineer |
| GIS Team Lead | GIS Assistant | Solution Manager |
| GIS Team Leader | GIS Data Assistant | Spatial (GIS) Team Leader |
| Manager Geospatial Intelligence | GIS Developer/Analyst | Spatial Adviser |
| Practice Manager | GIS Engineer | Spatial Advisor |
| Principal | GIS Officers | Spatial Analyst |
| Principal Advisor Geospatial Capability | GIS Product Owner | Spatial Consultant |
| Product Manager | GIS Service Delivery Manager | Spatial Intelligence Support Officer |
| Research Assistant | GIS Services Lead | Spatial Services Manager |
| Senior Analyst | GIS Software Engineer | Specialist |
| Senior Design Analyst | GIS Technical Advisor | Specialist Sampler |
| Senior Spatial Analyst | GIS Technical Lead | Summer Student Geospatial Services |
| Senior Tutor | GIS Technical Support | Systems Analyst |
| Solution Architect | GIS, Carbon And Technical Forester | Team Leader Business Intelligence |
| Team Lead | GIS/Amis Technician | Team Leader Geospatial Services |
| Three Waters Planner | Group Manager | Team Leader Spatial Analysis & Modelling |
| Aeronautical Information Management Specialist | Head Of Spatial | Technical Lead - Asset Systems |
| Analyst | Hydrographic Surveyor | Technical Specialist |
| Application Developer | Information Manager | Technical Writer |
| | | Technician |
| | | Transport Planner |

APPENDIX B – SURVEY QUESTIONS

1. What is your age?

Question Type: Single Choice

Options:

- 20 or younger
- 21-30
- 31-40
- 41-50
- 51-60
- 61 or over
- Prefer not to say

2. What is your gender? (*Groupings referenced from Stats NZ*)

Question Type: Single Choice

Options:

- Male
- Female
- Another gender
- Prefer not to say

3. What major ethnic group do you primarily identify with? (*Groupings referenced from Stats NZ*)

Question Type: Single Choice

Options:

- New Zealand European
- Māori
- Pacific Peoples
- Asian
- Middle Eastern
- Latin American
- African
- North American
- Other...(free text)

4. Where is your country/region of origin? (*Groupings referenced from Stats NZ*)

Question Type: Single Choice

Options:

- New Zealand
- Australia
- Pacific Islands
- United Kingdom and Ireland
- Europe (excluding UK and Ireland)
- North America
- Asia
- Middle East
- Africa
- Other

5. In what region do you primarily work?

Question Type: Single Choice

Options:

- Northland
- Auckland
- Waikato
- Bay of Plenty
- Gisborne
- Hawkes Bay
- Taranaki
- Manawatu-Whanganui
- Wellington
- Tasman
- Nelson
- Marlborough
- West Coast
- Canterbury
- Otago
- Southland
- Overseas

6. What is your highest education qualification?

Question Type: Single Choice

Options:

- No formal qualifications
- High School/Tertiary
- Diploma/Certificate
- Bachelor's Degree
- Post-graduate/Honours Degree
- Master's Degree
- Doctorate Degree

7. What discipline(s) are you qualified in? Select all that apply.

Question Type: Multi Choice

Options:

- GIS (Geographic Information Science or Systems)
- Surveying
- Geography
- Earth Sciences
- Computer Science/ICT
- Cartography
- Planning
- Project Management
- Other... (free text)

8. What is your highest geospatial qualification?

Question Type: Single Choice

Options:

- No qualification
- High School Courses (i.e. NCEA)
- Tertiary Courses (i.e. Intro to GIS, Spatial Analysis..)
- Diploma/Certificate
- Bachelor's Degree
- Post-Graduate/Honours Degree
- Master's Degree
- Doctorate Degree
- Other... (free text)

9. In total, how many years of geospatial work experience do you have?

Question Type: Single Choice

Options:

- None
- Less than 2 years
- 2 – 5 years
- 6 – 10 years
- 11 – 20 years
- Over 20 years

10. What is your employment status? Select all that apply.

Question Type: Multi Choice

Options:

- Full-time
- Part-time
- Fixed Term/Contract
- Parental/Career Leave
- Studying
- Unemployed
- Other... (free text)

11. Which sector are you currently employed in?

Question Type: Single Choice

Options:

- Local Government (including council-controlled organisations)
- Central Government
- Crown Research Institute/ State Owned Enterprise (SEO)
- Private Sector – employed by a company
- Private Sector – self employed
- Academia
- Not for Profit
- Other... (free text)

12. Have you changed employers in the geospatial industry in the last 12 months?

Question Type: Single Choice

Options:

- Yes
- No

13. Which of the following best describes your level within your organisation?

Question Type: Single Choice

Options:

- Student
- Graduate
- Junior
- Intermediate
- Senior
- Team Leader/Manager
- Executive

14. What is the title of your current role?

Question Type: Single Choice

Options:

- GIS Analyst
- GIS Consultant
- GIS Developer
- Surveyor
- Lecturer
- Scientist
- Project Manager
- Cartographer
- Prefer not to say
- Other... (free text)

15. In your current role, do you manage other people?

Question Type: Single Choice

Options:

- Yes
- No

16. What is your current salary range (in NZD) including anticipated bonuses?

Question Type: Single Choice

Options:

- Less than \$40,000
- \$40,000 - \$60,000
- \$60,000 - \$80,000
- \$80,000 - \$100,000
- \$100,000 - \$120,000
- \$120,000 - \$140,000
- \$140,000 - \$160,000
- More than \$160,000
- Prefer not to say

17. Do you see yourself in the geospatial industry in 5 years?

Question Type: Single Choice

Options:

- Yes
- No
- Maybe

18. Are you a member of any of the following geospatial societies or groups? Select all that apply. *(Optional Question)*

Question Type: Multi Choice

Options:

- Emerging Spatial Professionals (ESP)
- GIS in Conservation
- Local Government Geospatial Alliance
- LocationTech
- MapTime

- NZ Cartographic Society
- NZ Esri User Group
- NZ Survey & Spatial
- OSGeo Oceania
- Te Kahui Manu Hokai/Māori GIS Association
- Women in Spatial & Survey
- Other...(free text)

19. Have you ever volunteered your industry skills outside of work? i.e. GIS in Conservation, Education in Schools etc.

Question Type: Single Choice

Options:

- Yes
- No

20. Are there any further comments you'd like to share? (*Optional Question*)

Question Type: Free Text