Waipapa Taumata Rau | University of Auckland

2024 Gender Pay Gap Report

Vice-Chancellor's message

Tēnā koutou katoa

Thank you for your interest in this 2024 Gender Pay Gap Report. It is the second annual assessment of the Waipapa Taumata Rau, University of Auckland, continuing our commitment to obtaining quality data to inform future decision-making.

Trends take time to unfold. It is disappointing that the overall 2024 gender pay gap for all women is 11.9 percent, up from 10.8 percent in our first 2023 milestone report.

As this data set is developed, it will provide greater insights and enable precise actions to be identified to respond to the gender pay gap in our institution.

This report provides more detailed analyses to understand the drivers of the University's gender pay gap, including ethnic gender pay gaps. This data shows gaps of between 16.1 percent and 24.8 percent for women of colour. This is clearly not acceptable.

The gender pay gap is a global concern. Yet, it is only with compelling data that the momentum to act will fully take hold, fuelling efforts to address structural and systemic sexism, racism, and other forms of discrimination.

There is momentum at Waipapa Taumata Rau. The University recognises that the gender pay gap can only be closed with deliberate actions. We are dedicated to making significant progress against those actions.

Again, I sincerely thank and congratulate our Pro Vice-Chancellor Equity and HR Director for this report and the institutional commitment they lead to closing the gender pay gap.

Nāku iti noa, nā

Professor Dawn Freshwater

Professor Dawn Freshwater
Vice-Chancellor
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1. Executive Summary

Gender pay gaps are broad indicators of workplace culture and conditions.

The 2024 gender pay gap (GPG) for Waipapa Taumata Rau | University of Auckland is 11.9%. This means that across all staff the median hourly rate for women is 11.9% less than for men.

Women are under-represented at senior levels in both Academic and Professional staff. This is particularly true for women who are Māori, Pacific, or belong to Asian, Middle Eastern, Latin American and African ethnic groups.

Academic Staff

The GPG for Academic staff is 14.1% and is largest for women who belong to an Asian ethnic group, at 33.5%.

Unequal pay[1] and uneven distribution of genders are likely to contribute to Academic GPGs. Among Professors, pay is unequal in favour of men. Women are under-represented at Associate Professor and Professor level. The combined effects of under-representation and unequal pay in senior Academic roles are likely to contribute to the Academic GPG of 14.1%.

Professional Staff

The GPG for Professional staff is -0.2% and is largest for women who belong to a Pacific ethnic group, at 13.1%.

Unequal pay and uneven distribution of genders are likely to contribute to Professional GPGs. However, the situation is more complex for Professional staff. Pay is unequal in favour of women for staff in Bands B – E, and in favour of men for staff in Bands F – I. Women are over-represented in Bands B – E and under-represented in Bands J – Q. These effects likely interact to produce a near-zero GPG of -0.2%.

Next Steps

This report informs our roadmap towards gender equity at Waipapa Taumata Rau. It highlights key areas that may be driving our pay gaps. Next steps include investigating:

- The representation of different ethnic groups across different types of roles, and at senior levels within roles
- Possible gender and ethnic disparities in the level of appointment for Academic and Professional staff
- Distribution of leadership roles across genders and ethnic groups

The results of these investigations will allow us to select evidence-based interventions designed to address the sources of disparities.

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[1] Pay is equal if people of all genders are paid the same for doing the same work in the same organisation.

2. Introduction

An organisation can have equal pay, and pay equity, and still have a Gender Pay Gap (GPG). This is because several other factors can contribute to a GPG.

Gender effects on appointments and promotions can result in more men at higher levels and more women at lower levels of an organisation. Similarly, women being over-represented in part-time, casual, or fixed-term roles can contribute to GPGs, as these roles typically pay less on average than permanent full-time roles. Gender effects on the distribution of leadership roles and performance pay can also contribute to pay gaps.

In 2023 we published our first GPG Report. It focused on gender, employee group, and permanence, as a useful starting point. Our overall GPG was 10.8%.

In this, our second GPG Report, we are including an analysis of gender pay gaps by ethnic group. We are also examining whether unequal pay plays a role in our gender pay gaps and investigating the distribution of genders across roles and within roles.

The 2025 GPG Report will be our third, and we plan to report on trends over time as we will have three years' worth of data to evaluate.

2.1 Key Definitions

There are three key terms used to describe differences in pay between people of different genders.

Equal Pay
If pay is equal it means that people of all genders are paid the same for doing the same work in the same organisation.

Pay Equity
If pay is equitable it means that people of all genders are paid the same for work that is different but of equal value.

Gender Pay Gap
Gender Pay Gaps are broad indicators of gender equity in workplace culture and conditions.

2.2 Overview of our approach

We first calculated our gender pay gap for all staff. We then calculated separate gender pay gaps for Academic and Professional staff because of key differences between these groups of employees, including:

- Remuneration scales
- Mechanisms of career progression
- Staff mobility and rates of turnover

We then calculated the gender pay gaps for women in different ethnic groups for all staff, Academic staff and Professional staff.

We evaluated whether pay was equal within levels of the Academic and Professional salary scales. We used statistical tests to detect evidence of unequal pay. We also used statistical tests to see whether women are under- or over-represented across different types of roles and at different levels within Academic and Professional salary scales.

Finally, we used statistical modelling to understand how the following variables affect hourly rates of pay, separately for Academic and Professional staff:
- Gender
- Ethnicity
- Permanent or Casual/Fixed-Term role
- Service Length

Details of our definitions, formulae, data, and statistical modelling can be found in the Appendix, which also summarises common misconceptions about GPGs.

3.   How we calculated our Gender Pay Gaps

We have used the methods published by Stats NZ and Te Kawa Mataaho | Public Service Commission to calculate our pay gaps.[2] The Appendices of this document provide further information about:
- Definitions
- Formulae
- Data characteristics
- Statistical modelling
- Common misconceptions

3.1   How was pay calculated?

Total remuneration was calculated for each employee by combining base salary with any allowances, administration loadings, and superannuation. This was converted to hourly pay for each employee using the typical number of hours worked per week. The median hourly pay was then calculated for each group of employees.

3.2   How did we define ethnic groups?

The Total Response method is used by Stats NZ to capture data about ethnic identity. This method allows individuals to identify with multiple ethnic groups, reflecting the complex and multifaceted nature of ethnic identity. For example, a person might identify as both Māori and Pākehā. Each selected ethnicity is recorded and counted separately. This provides a more inclusive and comprehensive view of the ethnic composition of our staff, which helps in identifying specific needs and concerns of diverse groups.

The ethnic groups included in this analysis are, in alphabetical order:
- Asian ethnic groups
- Māori
- Middle Eastern, Latin American and African ethnic groups
- Pacific ethnic groups
- Pākehā and European ethnic groups

These groups reflect Stats NZ practices. Staff whose profile has no response or 'prefer not to say' for ethnicity were not included in ethnic GPG analyses.

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[2] Stats NZ (2020). Organisational gender pay gaps: Measurement and analysis guidelines (second edition). Retrieved from www.stats.govt.nz. Te Kawa Mataaho | Public Service Commission (2022). Guidance measuring and beginning to address Māori and ethnic pay gaps in the public service.

4.   Our Gender Pay Gaps

4.1   Gender Pay Gaps

The GPGs for all staff, Academic staff and Professional staff are provided in Tables 1 and 2.

Table 1. The Gender Pay Gaps for women.

Staff group	GPG
All staff	11.9%
Academic staff	14.1%
Professional staff	-0.2%

Table 2. The Gender Pay Gaps for women with Permanent and Casual and Fixed Term roles.

Staff group	Permanent staff GPG	Casual and Fixed Term staff GPG
Academic staff	9.4%	4.8%
Professional staff	11.0%	-4.4%

4.2   Ethnic Gender Pay Gaps

The GPGs for women in ethnic groups are provided in Table 3 and show the same overall pattern as for all women. In general, GPGs are larger for academic than professional staff.

Table 3. The Gender Pay Gaps for women analysed by ethnic groups.

Ethnic group	All staff GPG	Academic GPG	Professional GPG
All women	11.9%	14.1%	-0.2%
Asian ethnic groups	20.1%	33.5%	8.8%
Māori	16.1%	19.0%	7.5%
Middle Eastern, Latin American and African groups	19.6%	24.3%	8.7%
Pacific ethnic groups	24.8%	21.7%	13.1%
Pākehā and European ethnic groups	-2.3%	5.8%	-10.5%

GPGs for women differ between ethnic groups, which indicates that women may be experiencing different workplace cultures depending on their ethnicity.

4.3 Factors contributing to our gender pay gaps

Factors that may be contributing to our GPGs include:

- Unequal pay, which is when people of different genders and ethnicities are paid differently for doing the same work. We investigated whether unequal pay for different genders by comparing the median hourly rates between women and men in the same academic roles or professional roles. This is described in Section 5.
- The distribution of genders and ethnic groups across roles with different salaries, as people of one gender or ethnicity might be under-represented in roles that have higher salaries. This can be thought of as the 'horizontal' distribution of people across roles in the organisation and an analysis by gender is described in Section 6.
- The distribution of genders and ethnic groups at different levels within a role, as people of one gender or ethnicity might be under-represented at senior levels within a role. This can be thought of as the 'vertical' distribution of people within roles in the organisation and an analysis by gender is described in Section 7.

Finally, we used statistical modelling to understand whether gender and ethnicity are independent factors affecting hourly rate, when other factors such as ethnicity, length of service, and the type of role are taken into account. This is described in Section 8.

5.   Does unequal pay contribute to our gender pay gaps?

Pay is unequal if people of different genders are paid differently for doing the same work. We looked for evidence of unequal pay by comparing hourly rates between women and men in the same academic roles or professional roles.

We used statistical tests[3] to see whether there is an effect of gender on hourly rates. Unequal pay was defined as a statistically significant effect of gender on both the median and distribution of hourly rates within an academic or professional role.

5.1   Academic Equal Pay

Academic staff were categorised as Traditional, Teaching, or Research Academics according to their type of role. The definitions for these categories are provided in the Appendix, section 10.1.

We found evidence of unequal pay for staff in the Traditional Academic[4] group but not the Teaching or Research Academic groups.

Further analysis of the Teaching Academic group found that Professors have unequal pay in favour of men.

There was no evidence of unequal pay for other roles in the Traditional Academic group.

5.2   Professional Equal Pay

Professional staff were grouped according to their band or role, as follows:
- Bands B – E
- Bands F – I
- Bands J – Q
- Early Childhood Education (ECE) staff
- Exam Supervisors
- Security and Grounds staff

We found evidence of unequal pay for staff in Bands B – E in favour of women.

We also found evidence of unequal pay for staff in Bands F – I in favour of men.

There was no evidence of unequal pay for staff in Bands J – Q, or for staff in roles without bands.

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[3] Non-parametric Median and Mann-Whitney U Tests for independent samples were used with significance set at $p < 0.05$ for both tests.
[4] Traditional Academic staff include Lecturers, Senior Lecturers, Associate Professors and Professors. See Section 10.1 Definitions for more information.

5.3   Unequal pay summary

We have found evidence of unequal pay:
- In favour of men for Professors and for Professional staff in Bands F – I
- In favour of women for Professional staff in Bands B – E

Unequal pay for Professors is likely to contribute to the GPG of 14.1% for Academic staff. Potential contributors to unequal pay for Professors include gender effects on decisions regarding discretionary performance pay and Variable Supplementary Payments, as well salary negotiations on appointment. This is an area for further investigation.

Professional staff have an overall GPG of -0.2%. Unequal pay in favour of women in Bands B – E, and in favour of men in Bands F – I, may balance out to some extent and have little net effect on the overall gender pay gap for Professional staff. However, it is still important to consider the drivers of unequal pay in these two groups. These could include the distribution of genders in different functions, such as technical and administrative roles that have differing salary scales, and this is an area for further investigation.

6. Gender distribution across roles

Under-representation of women in roles with higher salaries can contribute to GPGs. We used statistical tests[5] to see whether the percentage of women in different types of roles was similar to the overall percentage of women employed by the University. If the percentages are similar this means that women are evenly distributed 'horizontally' across different types of roles. If the percentages are different this means that women are over-represented or under-represented in some types of roles. We carried out these analyses separately for Academic and Professional staff at Waipapa Taumata Rau.

6.1 Academic staff

The overall percentage of Academic staff who are women is 56%. We tested whether the percentage of women in different types of roles was similar or different to this value. The results are shown in Figure 1.

Figure 1. Women as a percentage of staff in each type of Academic role.
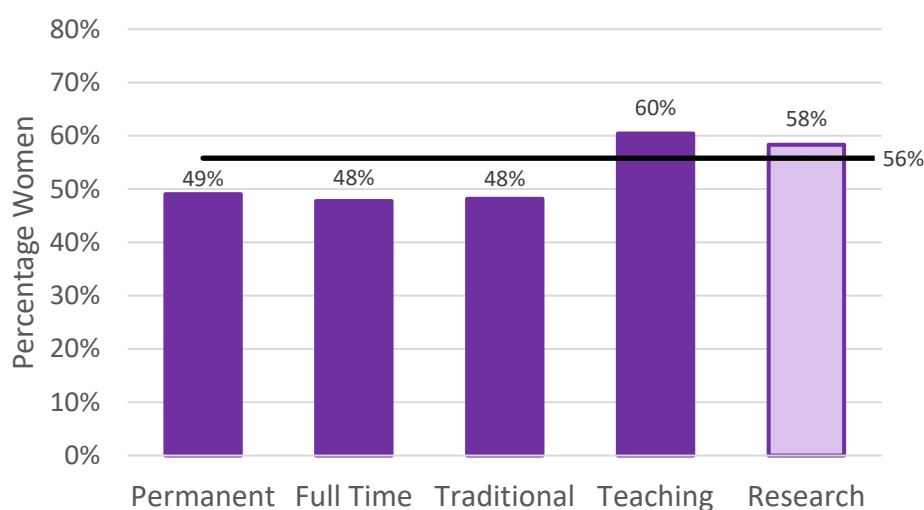
The horizontal black line shows the overall percentage of Academic staff who are women, which is 56%. Dark bars indicate that the percentage of women in that role is significantly lower or higher than the overall percentage. Light bars indicate that the percentage of women in that role is similar to the overall percentage of Academic staff who are women.

The uneven distribution of women across Academic roles is likely contributing to our GPGs. Women are under-represented in:
- Permanent roles, which have a higher median hourly rate than Casual or Fixed-Term Academic roles
- Full-Time roles, which have a higher median hourly rate than Part-Time roles
- Traditional roles, which have a higher median hourly rate than Teaching or Research roles

Women are over-represented in Teaching roles, which have a lower median hourly rate than Traditional or Research roles.

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[5] A two-sided one-sample proportion test was used with significance set at $p < 0.05$.

6.2   Professional staff

The overall percentage of Professional staff who are women is 66%. We tested whether the percentage of women in different types of roles was similar or different to this value. The results are shown in Figure 2.

Figure 2. Women as a percentage of staff in each type of Professional role.
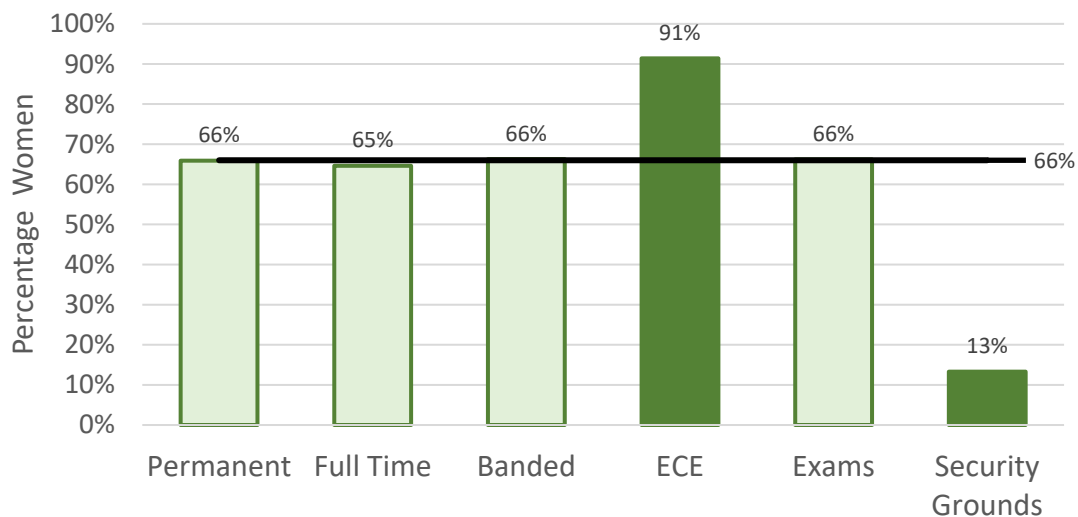
The horizontal black line shows the overall percentage of Professional staff who are women, which is 66%. Dark bars indicate that the percentage of women in that role is significantly lower or higher than the overall percentage. Light bars indicate that the percentage of women in that role is similar to the overall percentage of Professional staff who are women. ECE = Early Childhood Education, Exams = Exam Supervisors.

Women are over-represented in Early Childhood Education roles and under-represented in Security and Grounds roles. Staff in ECE, Security and Grounds roles make up less than 10% of Professional staff. Therefore, the uneven distribution of women across these roles is unlikely to make a meaningful contribution to the overall Professional staff GPG.

6.3   Horizontal distribution summary

The 'horizontal' distribution of women across roles at Waipapa Taumata Rau is uneven for Academic staff and mostly even for Professional staff.

Women are unevenly distributed across Academic roles, and this is likely to contribute to the Academic GPG of 14.1%. Women are under-represented in roles with higher salaries: Permanent, Full-Time, and Traditional Academic roles. Women are over-represented in Teaching Academic roles.

Women are evenly distributed across the majority of Professional roles, with some expected unevenness amongst Early Childhood Education, Security and Grounds roles.

7. Gender distribution within roles

Under-representation of women at more senior levels within roles can contribute to GPGs. We used statistical tests[6] to see whether the percentage of women at different levels within roles was similar to the overall percentage of women employed by the University. If the percentages are similar this means that women are evenly distributed 'vertically' within a role. If the percentages are different this means that women are over- or under-represented at different levels within a role. We carried out these analyses separately for Academic and Professional staff.
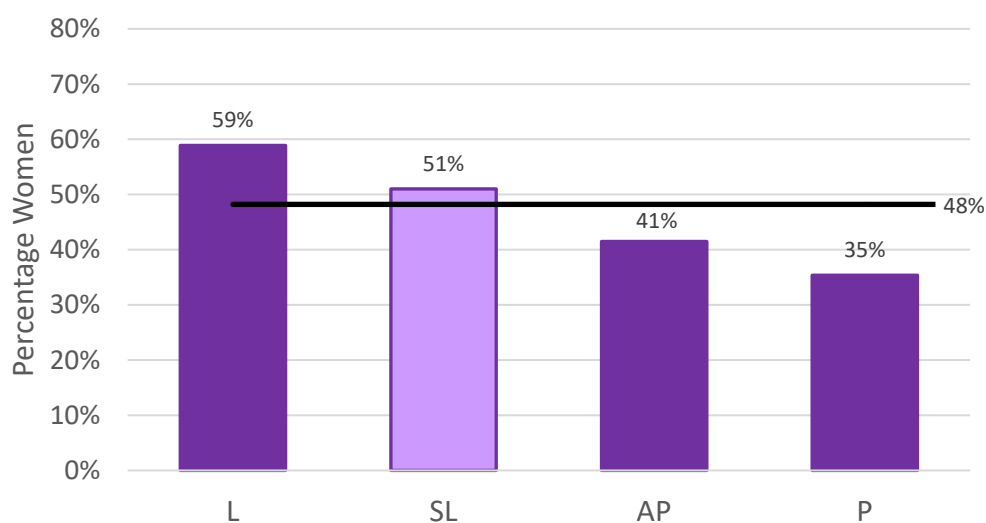
7.2 Academic Staff

The overall percentage of Academic staff who are women is 56%.

Traditional Academic roles

Women are relatively under-represented in Traditional Academic[7] roles, at 48%. Within these Traditional roles, women are not evenly distributed as seen in Figure 3.

Women are over-represented in Lecturer roles, and under-represented in Associate Professor and Professor roles.

Figure 3. Women as a percentage of staff in Traditional Academic roles.

The horizontal black line shows the overall percentage of Traditional Academic staff who are women, which is 48%. Dark bars indicate that the percentage of women in that role is significantly lower or higher than the overall percentage. Light bars indicate that the percentage of women in that role is similar to the overall percentage. L = Lecturer, SL = Senior Lecturer, AP = Associate Professor, P = Professor.

[6] A two-sided one-sample proportion test was used with significance set at $p < 0.05$.
[7] Traditional Academic staff include Lecturers, Senior Lecturers, Associate Professors and Professors. See Section 10.1 Definitions for more information.

Teaching Academic roles

Women are relatively over-represented in Teaching Academic roles, at 60%. Within these Traditional roles, women are not evenly distributed as seen in Figure 4.

Women are under-represented in Graduate Teaching Assistant roles, and over-represented in Tutor roles.

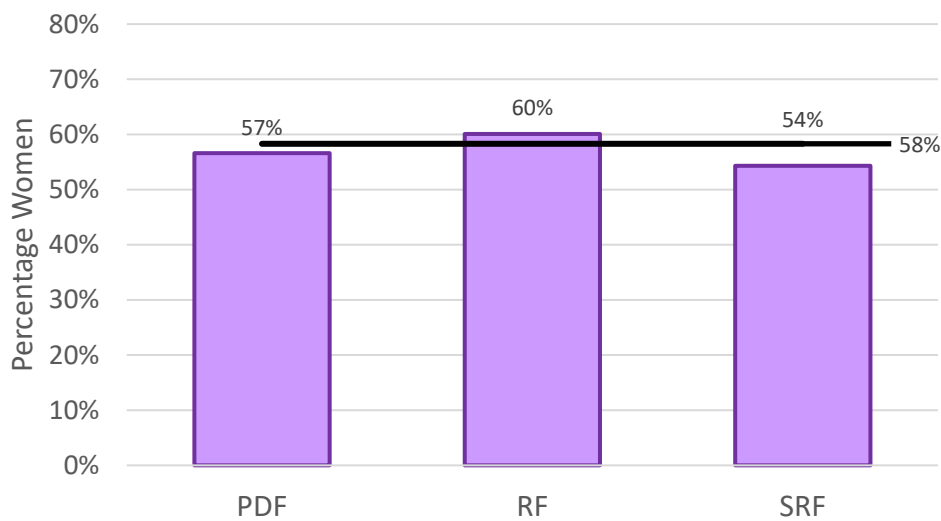Figure 4. Women as a percentage of staff in Teaching Academic roles.
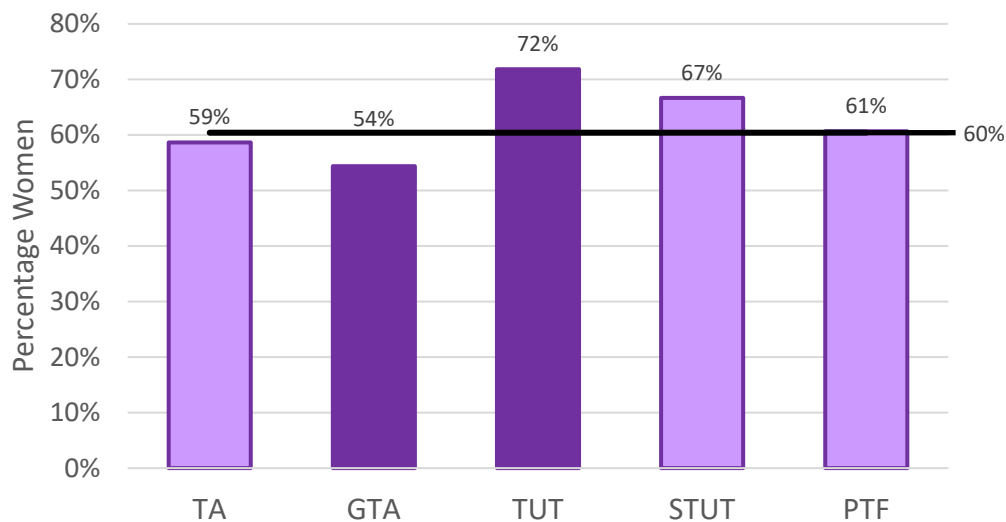
The horizontal black line shows the overall percentage of Teaching Academic staff who are women, which is 60%. Dark bars indicate that the percentage of women in that role is significantly lower or higher than the overall percentage. Light bars indicate that the percentage of women in that role is similar to the overall percentage of Teaching Academic staff who are women. TA = Teaching Assistant, GTA = Graduate Teaching Assistant, TUT = Tutor, STUT = Senior Tutor, PTF = Professional Teaching Fellow.

Research Academic roles

Women are proportionally represented in Research Academic roles, at 58%. Within these Research roles, women are evenly distributed as seen in Figure 5 overleaf.

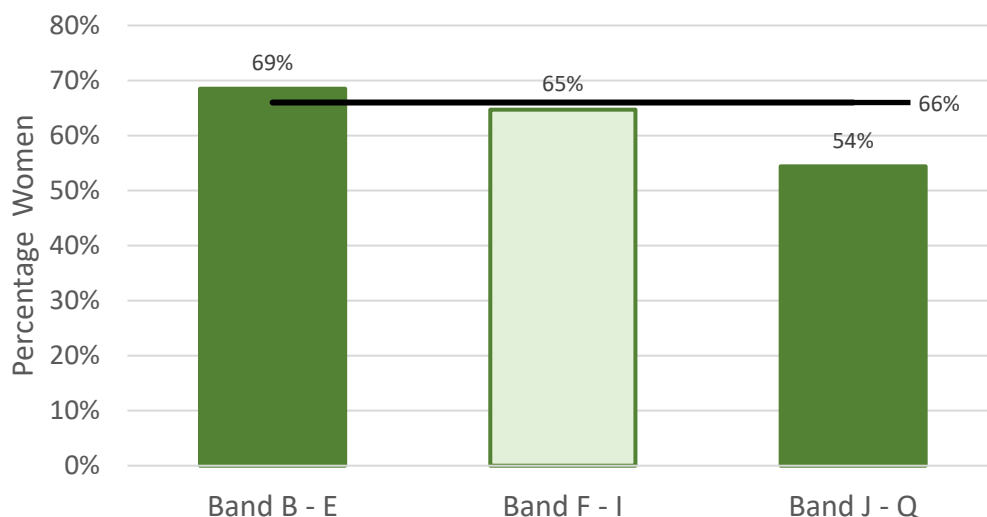Figure 5. Women as a percentage of staff in Research Academic roles.

The horizontal black line shows the overall percentage of Research Academic staff who are women, which is 58%. Light bars indicate that the percentage of women in that role is similar to the overall percentage of Research Academic staff who are women. PDF = Post Doctoral Fellow, RF = Research Fellow, SRF = Senior Research Fellow.

7.2   Professional Staff

The overall percentage of Professional staff who are women is 66%. Women are not evenly distributed in Banded roles, as seen in Figure 6 below.

Women are over-represented in Bands B - E, and under-represented in Bands J - Q.

Figure 6. Women as a percentage of staff in Banded Professional roles.

The horizontal black line shows the overall percentage of Professional staff in Banded roles who are women, which is 66%. Dark bars indicate that the percentage of women in that role is significantly lower or higher than the overall percentage. Light bars indicate that the percentage of women in that role is similar to the overall percentage of Professional staff who are women.

7.3   Vertical distribution summary

The 'vertical' distribution of women within roles at Waipapa Taumata Rau is uneven for Academic staff and for Professional staff.

Women are unevenly distributed within Traditional Academic roles. Women are over-represented in Lecturer roles, and under-represented in Associate Professor and Professor roles. The combined effects of under-representation and unequal pay in senior Academic roles are likely to contribute to the Academic GPG of 14.1%.

Women are unevenly distributed within Teaching Academic roles. Women are under-represented in Graduate Teaching Assistant roles and over-represented in Tutor roles. However, this is unlikely to contribute to the Academic GPG, as the median hourly rate is lower for Graduate Teaching Assistants than for Tutors.

Women are evenly distributed within Research Academic roles.

Women are unevenly distributed across Banded Professional roles. Women are over-represented in Bands B – E, and under-represented in Bands J – Q. As described in Section 6, we have evidence of unequal pay in favour of women in Bands B – E. The opposing effects of unequal pay and uneven vertical distribution may combine to help produce the small Professional staff GPG of -0.2%.

8. Statistical Modelling

The GPG formulae provided by Te Kawa Mataaho | Public Service Commission consider just one factor at a time. For instance, they allow us to calculate and compare the GPGs for women in permanent versus casual or fixed-term employment, or for women in different ethnic groups. But they don't enable us to consider the effects of multiple factors at the same time. For example, having a permanent role might affect hourly rate for women in some ethnic groups but not others. We can overcome this limitation by using statistical modelling, and details of our method and results are provided in the Appendix, Section 10.4.

We modelled hourly rates for all staff. The model included several factors that can affect hourly rates of pay:

- Gender – categorised as woman or man
- Ethnicity – categorised as Pākehā/European or any other ethnic group
- Permanence – categorised as Permanent, or Casual/Fixed-Term
- Service Length – defined as the number of years since first employed by the University

The model also included the interactions between Gender and the other three factors. There was a strong relationship between whether roles were Permanent, and whether they were Full-Time or Part-Time. Therefore, we didn't include Full-Time/Part-time in the model.

We found that each of the four factors listed above independently influence hourly rate. These results indicate that on average the hourly rate is higher for people who:
- Are men
- Are Pākehā/European
- Have a Permanent role
- Have a longer Service Length

This means that the gender pay gaps are not simply a product of women being more likely to work in Casual/Fixed-Term roles or having shorter Service Lengths. Being a woman is an independent predictor of lower hourly rates when these other factors are controlled for. Ethnicity is also an independent predictor of hourly rates for both women and men when other factors are controlled for.

Further analysis of the interactions showed that for Academic staff, the beneficial effect of longer Service Length on hourly rate is stronger for men than for women.

Overall, this analysis indicates that addressing the retention and progression of women is likely to be helpful in reducing our gender pay gaps. Further investigation is needed to understand how ethnicity is affecting recruitment, appointment, retention and progression, across all genders.

9.   Where to from here?

9.1   Current and Future Initiatives

Waipapa Taumata Rau has in recent years implemented several key initiatives to support gender equity. These include:

- Supporting the creation and development of the Women of Colour Staff Network.
- Improved policies and procedures for Parental Leave and Flexible Work.
- Revised Academic Standards that provide a more equitable framework for valuing the achievements and contributions of Academic staff. The 2024 promotions cycle will be the first to use these revised standards, and this may influence the 2025 gender pay gaps.
- Compilation of gender equity initiatives into a coherent Gender Equity Plan, which integrates different HR functions to provide a coordinated approach.

Relevant work in progress includes:

- Implementation of the Māori Staffing Plan and the Pacific Staffing Plan. These plans aim to support and increase the representation of Māori and Pacific staff, ensuring that their contributions are valued, and inequities are addressed, with effective and culturally distinctive approaches.
- Improvements to the Achievement Relative to Opportunity Policy and Procedures. These are designed to promote fairer evaluation of promotion applications by accounting for people's personal circumstances.
- Developing and refining opportunities for professional growth and development to help women advance in their careers, ensuring they have access to the necessary resources and support.

In light of this year's GPG Report, additional areas of work will be undertaken, including:

- Investigating the distribution of ethnic groups both across roles and within roles. If a given ethnic group is under-represented in roles with higher pay, or at more senior levels, this will identify focus areas for improvements to recruitment and/or progression.
- Investigating the level of appointment and progression for women and men to see whether they are similar or different, in Academic and Professional roles. If women are typically appointed at lower levels, progress more slowly, or leave the University sooner, then these factors might contribute to the under-representation of women in senior roles in both Academic and Professional staff.
- Investigating the gender distribution of academic leadership roles that attract Variable Supplementary Payments (VSPs). If women are under-represented in academic leadership roles that attract VSPs, or receive VSPs of lower value, these factors might contribute to both unequal pay for Professors and under-representation of women at Associate Professor and Professor levels.
- Investigating any gender and ethnicity effects on the allocation of performance pay.
- Work alongside gender and ethnicity-related groups and networks in our diverse communities to investigate and co-create suitable interventions.

The results of these investigations will help us to select evidence-based interventions that can effectively address any gender and ethnic disparities uncovered. These interventions will be incorporated in the HR Gender Equity Plan.

9.2   The next GPG Report

The next GPG Report will report on trends over time, as we will have data from three consecutive years. This will put us in a position to understand areas where gaps are closing or widening, and to select evidence-based interventions.

The next census date will be 8 March 2025 – International Women's Day. Everyone employed by Waipapa Taumata Rau on this date will be included in the next GPG Report, which will be released on 18 September 2025 – International Equal Pay Day. Calculating and publishing our gender pay gaps every year will hold us accountable and add momentum to our efforts to close them.

10. Appendix

10.1 Definitions

Who is an employee?

All permanent, fixed-term, and casual staff employed at Waipapa Taumata Rau on 8 March 2024, which is International Women's Day.

Gender

All employees can identify their gender in their employee record. The options are female, male, or gender diverse. The data for people who have indicated they are female or male are included in this report. The number of people indicating they are gender diverse is relatively small. This prevents a meaningful pay gap analysis for this group at this time.

There are three key terms used to describe differences in pay between people of different genders.

Equal Pay

If pay is equal it means that people of all genders are paid the same for doing the same work in the same organisation.

Figure 7. Equal pay example.
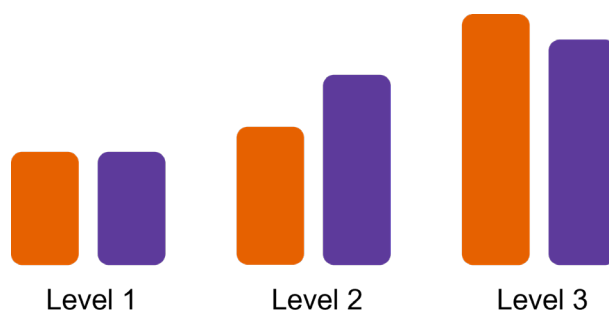
Vertical bars represent median pay for staff at three different levels within a role. Overall, median pay is higher at higher levels within this role. Orange bars represent the median pay for women. Purple bars represent the median pay for men. Pay is equal at Level 1. Pay is unequal in favour of men at Level 2. Pay is unequal in favour of women at Level 3.

Pay Equity

If pay is equitable it means that people of all genders are paid the same for work that is different but of equal value.

Gender Pay Gap

Gender Pay Gaps are based on the differences in median hourly pay rates between genders in an organisation. They are broad indicators of gender equity in workplace culture and conditions.

Academic Staff Groups

Academic staff were grouped according to their type of role.

The Traditional Academic group was comprised of:
- Assistant Lecturers
- Adjunct Academics
- Lecturers
- Senior Lecturers
- Associate Professors
- Professors

The Teaching Academic group was comprised of:
- Teaching Assistants
- Graduate Teaching Assistants
- Tutors
- Senior Tutors
- Professional Teaching Fellows

The Research Academic group was comprised of:
- Postdoctoral Fellows
- Research Fellows
- Adjunct Senior Research Fellows
- Senior Research Fellows

10.2 Formulae

The overall gender pay gap for women was calculated as follows:

GPG = 100 x [Median hourly pay for all men – Median hourly pay for all women]
Median hourly pay for all men

The gender pay gaps for Academic and Professional staff were calculated as follows:

Academic GPG =
100 x [Median hourly pay for all Academic men – Median hourly pay for all Academic women]
Median hourly pay for all Academic men

Professional GPG =
100 x [Median hourly pay for all Professional men – Median hourly pay for all Professional women]
Median hourly pay for all Professional men

The effects of ethnic group were explored by calculating the following for each ethnic group:

Ethnic GPG = 100 x [Median hourly pay for all men – Median hourly pay for Ethnic women]
Median hourly pay for all men

Ethnic Academic GPG =
100 x [Median hourly pay for all Acad men – Median hourly pay for Ethnic Acad women]
Median hourly pay for all Academic men

Ethnic Professional GPG =
100 x [Median hourly pay for all Profess men – Median hourly pay for Ethnic Profess women]
Median hourly pay for all Professional men

10.3 Data Characteristics

The numbers of people included in analyses are provided in the tables below.

Table 4. The number of people included in GPG calculations for Academic and Professional staff.

Gender	Academic	Professional	Total
Women	2,809	4,195	7,004
Men	2,225	2,171	4,396
Total	5,034	6,366	11,400

Table 5. The number of people included in GPG calculations for Permanent staff, and Casual and Fixed-Term staff.

Gender	Academic		Professional		Total
	Permanent	Fixed-Term and Casual	Permanent	Fixed-Term and Casual	
Women	844	1,965	1,826	2,369	7,004
Men	877	1,348	945	1,226	4,396
Total	1,721	3,313	2,771	3,595	11,400

Table 6. The number of people included in GPG calculations by ethnic group for Academic and Professional staff. Note that we have used Total Response method which means that people can identify with multiple ethnic groups. Also note that the groups who selected 'Other ethnic group' or have provided no information about their ethnicity could not be included in analyses.

Ethnic Group	Academic		Professional	
	Women	Men	Women	Men
Asian ethnic groups	782	670	1,556	826
Māori	273	142	377	160
Middle Eastern, Latin American and African ethnic groups	132	140	193	124
Pacific ethnic groups	177	82	402	198
Pākehā and European ethnic groups	1,638	1,271	1,991	990
Other ethnic groups	389	327	622	265
No response	26	45	31	22

10.4 Statistical Modelling

We used Generalised Linear Modelling to understand the effects and interactions of several factors in the same analysis. Hourly rate was modelled separately for Academic and Professional staff, using the following settings:

- Generalised Linear Model with a Gamma probability distribution and Identity link function to manage the long rightward tail on hourly rate.
- All models included an intercept.
- Parameter estimation used the Hybrid method, with Maximum likelihood estimation of scale parameters.
- Wald Chi-Square statistics were used with a Type III analysis.

The dependent variable being modelled was hourly rate.

The predictor variables in the model were:

- Gender – categorised as woman or man
- Ethnicity – categorised as Pākehā/European or any other ethnic group
- Permanence – categorised as Permanent, or Casual/Fixed-Term
- Service Length – defined as the number of years since first employed by the University

Whether roles were Full-Time or Part-Time was not included as a predictor in the model due to its covariance with Permanence.

We included the following effects and interactions in the model:

- Gender
- Ethnicity
- Permanence
- Service Length
- Gender * Ethnicity
- Gender * Permanence
- Gender * Service Length

Significant interactions were explored with Bonferroni-adjusted pair-wise comparisons. The results for Academic and Professional staff are provided below.

Academic Staff

Table 7. Effects and interactions for Academic Staff.

Source	Type III Wald Chi-Square	df	Sig.
Intercept	8112.377	1	< 0.001
Gender	4.876	1	0.027
Ethnicity	101.918	1	< 0.001
Permanence	297.006	1	< 0.001
Service Length	556.899	1	< 0.001
Gender * Ethnicity	0.037	1	0.847
Gender * Permanence	7.275	1	0.007
Gender * Service Length	4.548	1	0.033
Dependent Variable: Hourly Rate			

These results indicate that on average across all Academic staff, each of these characteristics has a positive effect on hourly rate:
- Being a man
- Being Pākehā/European
- Having a Permanent role
- Having a longer Service Length

The interactions indicate that:
- The effect of Ethnicity is similar for women and men
- The effect of Permanence is different for women and men
- The effect of Service Length is different for women and men

As expected, people in Permanent roles have higher hourly rates than those in Fixed-Term or Casual roles. There was no effect of Gender on hourly rates for people in Fixed-Term or Casual roles (p = 0.186). There was an effect of Gender on hourly rates for people in Permanent roles, as the hourly rate for men is higher than the hourly rate for women (p < 0.001).

As expected, there is a positive relationship between Service Length and hourly rate, because hourly rates tend to be higher for people who have worked at the University for longer. However, the beneficial effect of longer Service Length is stronger for men than for women.

Table 8. Effects and interactions for Professional Staff.

Source	Type III Wald Chi-Square	df	Sig.
Intercept	19754.929	1	< 0.001
Gender	24.240	1	< 0.001
Ethnicity	411.053	1	< 0.001
Permanence	974.274	1	< 0.001
Service Length	177.484	1	< 0.001
Gender * Ethnicity	0.098	1	0.754
Gender * Permanence	62.220	1	< 0.001
Gender * Service Length	1.452	1	0.228
Dependent Variable: Hourly Rate			

These results indicate that on average across all Professional staff, each of these characteristics has a positive effect on hourly rate:
- Being a man
- Being Pākehā/European
- Having a Permanent role
- Having a longer Service Length

The interactions indicate that:
- The effect of Ethnicity is similar for women and men
- The effect of Permanence is different for women and men
- The effect of Service Length is similar for women and men

As expected, people in Permanent roles have higher hourly rates than those in Fixed-Term or Casual roles. There was an effect of Gender on hourly rates for people in Fixed-Term or Casual roles, as the hourly rate for women is higher than the hourly rate for men ($p = 0.046$). There was an effect of Gender on hourly rates for people in Permanent roles, as the hourly rate for men is higher than the hourly rate for women ($p < 0.001$).

10.5   Common Misconceptions

Here are some common gender pay gap misconceptions illustrated with hypothetical examples.

If the gender pay gap for women is 10% then we should make it fair by giving women a 10% pay rise or men a 10% pay cut.

A gender pay gap of 10% doesn't mean that every woman is being paid 10% less than their male counterparts. As described above, the gender pay gap is a broad indicator calculated across the whole organisation. Some women are paid more than most men in the organisation. Simply giving a pay rise to all women might close the gap on paper, but it wouldn't address the underlying factors that drive the gaps, and so the gap would re-emerge over time.

If the gender pay gap for women is 15%, then as a man my pay is 15% more than my female peers.

The gender pay gap is calculated using the median hourly rate for all staff of a given gender. The gender pay gap is a broad indicator calculated across all staff, who are employed at a wide range of levels across a wide range of roles. It doesn't tell us anything about how similar or different the pay is for two individuals with different genders.

If two people of different genders are doing the same work and there is a 15% difference in their pay, then this might mean there is a problem with equal pay. Unequal pay can contribute to the overall gender pay gap for an organisation. But a gender pay gap of 15% across an organisation doesn't necessarily mean that men in a given role are paid 15% more than women in the same role.

If the gender pay gap for women is 20% then women are working one day a week for free.

A gender pay gap of 20% doesn't mean that all women in full-time roles are working one day a week "for free". As described above, the gender pay gap is a broad indicator calculated across the whole organisation. Gender pay gaps can emerge when women are over-represented in lower paying roles, and under-represented in higher paying roles. Gender pay gaps don't necessarily mean women are being paid unfairly in their roles, but they can indicate the presence of systemic, structural, and social factors that lead to women being over-represented in lower paying roles.

Gender pay gaps are because of the individual choices people make about their jobs and careers.

Individual salaries are affected by individual choices. However, the gender pay gap is calculated for large groups, not individuals. When a gender pay gap exists, it reflects factors affecting the choices of an entire group of people who are a specific gender. These factors are typically systemic and structural factors within the organisation, as well as social and cultural factors. Understanding our gender pay gap will help us identify the factors that differentially affect gender groups within our university. Addressing these factors is expected

to enable people to make different choices about their jobs and careers, which in turn can contribute to closing gender pay gaps over time.

We can identify all of the factors that create a gender pay gap.

Research on gender pay gaps has concentrated on variables such as age, education, industry, and parental status. While these variables do contribute, most of the factors behind the gender pay gap remain unexplained. Factors such as job preferences, discrimination and unconscious bias are likely to contribute, but difficult to quantify. Therefore, it's not possible to evaluate all of the factors that create a gender pay gap. However, tracking gender pay gaps over time does give us valuable information about whether changes to our policies and practices are moving the university towards, or away from, gender equity.

The aim is to achieve a zero percent gender pay gap.

We aim to track the gender pay gap over time and reduce it towards zero. However, we also need to acknowledge that the gender pay gap is a broad indicator and it doesn't reflect the individual experiences of our richly diverse communities. Achieving a zero gap wouldn't mean that we've achieved a state of optimal gender equity. We aspire to keeping our gender pay gap as close to zero as possible.

Gender pay gaps are inevitable so there's nothing we can do about them.

Gender pay gaps result from complex interactions between social and cultural factors in the environment as well as systemic and structural factors within the organisation. This doesn't mean that it's too hard to address them. Understanding our gender pay gaps and the main factors that drive them will allow us to apply evidence-based approaches to closing the gaps.

I can't help to fix this problem.

Everyone can influence the gender pay gap, first by acknowledging that closing gender pay gaps is good for everyone. We can all speak openly about the gender pay gap, engage in unconscious bias training, be mindful of key drivers, and remember that closing the gaps doesn't make anyone worse off.