

Post-study Outcomes

Food and Fibre findings from the Tertiary Education
Commission Study | 2025



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Background

This report compares graduates with food and fibre related certificates and diplomas—those in Agriculture, Environmental, and Related Studies—with those in other fields of study and provides insights into the key trends shaping the careers of graduates and the nature of the workforce within our sector. Information for this report is taken from the Tertiary Education Commission's Post-Study Outcomes research¹.

The Post-Study Outcomes research provides insights into employment trends, further study pathways, income, and reliance on benefits among graduates over time. Information is available by level of study², field of study³, and selected demographics.

More specifically the Post-study Outcomes research provides information on cohorts of graduates in specific years (1, 3, 5, 7, and 9) following their graduation, including whether they:

- are in employment
- are in further study - by full-time or part-time study, and whether they are studying at a higher level or the same/lower level
- are on a jobseeker benefit (for more than 180 days of the outcome year)
- are overseas (for more than 180 days of the outcome year)
- have changed their employment or jobseeker status over a period between two years prior to their graduation and the outcome year

The research also shows the median earnings for those cohorts of graduates who are in employment in the outcome years and compares this with their median earnings two years prior to graduation.

Further information on the Post-Study Outcomes [research](#) and [data](#) is available on the Tertiary Education Commission website.

¹ The TEC obtained data from Statistics NZ's integrated data infrastructure (IDI)

² As the qualification or programme is classified on the New Zealand Qualifications and Credentials Framework (NZQCF)

³ New Zealand Standard Classification of Education (NZSCED) three levels of study: Broad Fields, Narrow Fields and Detailed Fields.

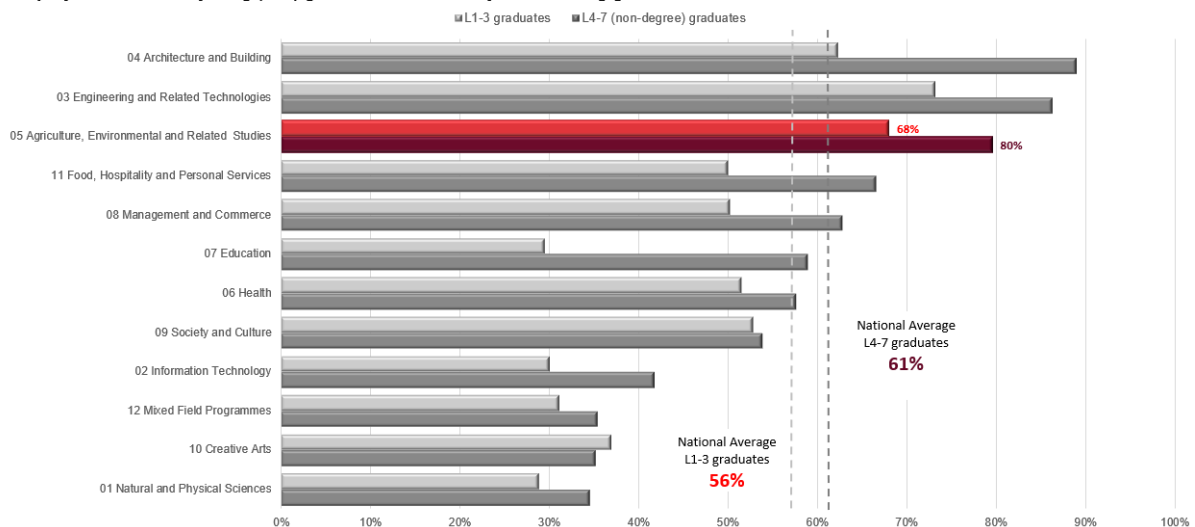
Snapshot of the key highlights

Graduates with NZSCED 05 Agriculture, Environmental, and Related Studies qualifications perform well when comparing employment outcomes and income levels with graduates from other broad fields of study. Forestry graduates stand out when comparing graduate outcomes among the different fields of study within Agriculture, Environmental, and Related Studies.

Agriculture, Environmental, and Related Studies graduates perform well in employment and income outcomes compared to other fields of studies.

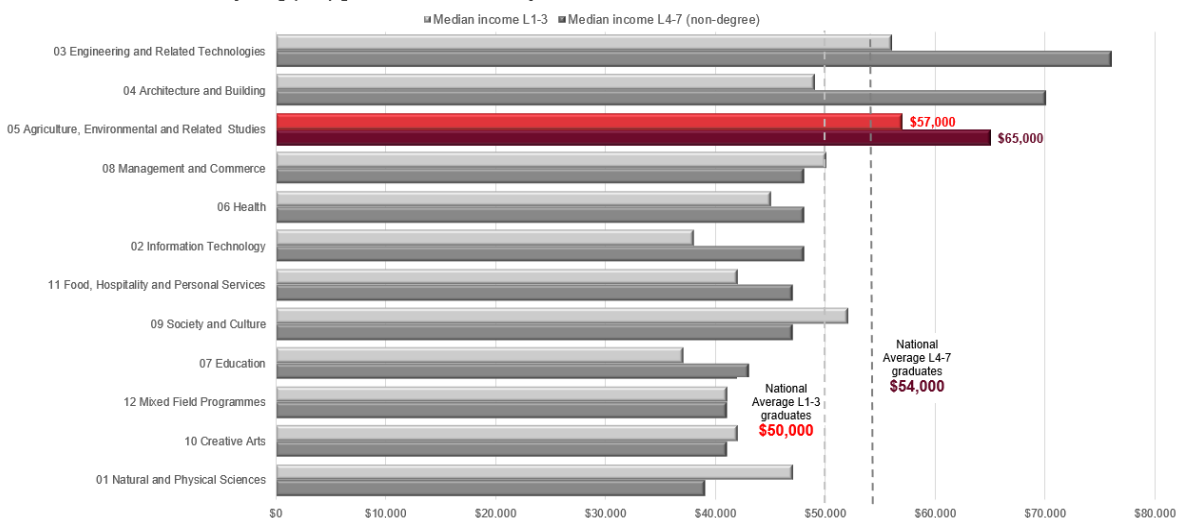
- **Strong employment outcomes for young graduates:** Employment rates (i.e. those in employment) for young (<25) graduates with certificates and diplomas in Agriculture, Environmental, and Related Studies are well above the national average, consistently ranking in the top three compared to other fields of study.

Employment rates for young (<25) graduates in the first year following graduation



- **Median earnings for graduates were also above the national average:** Median earnings for graduates aged under 40, also sat above the national average across all outcome years.

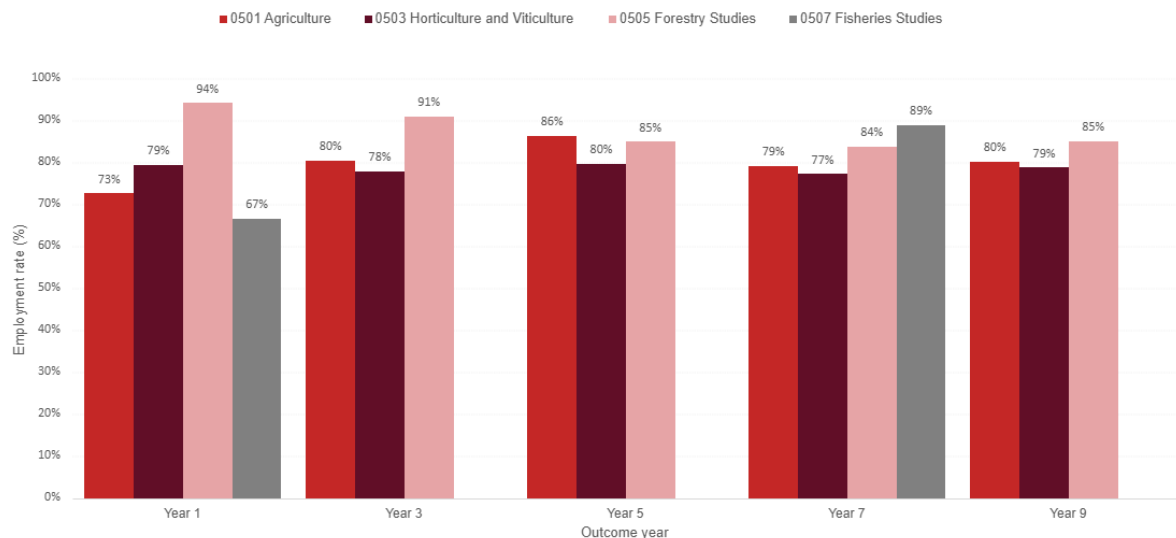
Median annual income for young (<25) graduates in outcome year one



Strong employment outcomes across specific fields with Agriculture, Environmental, and Related Studies

- **Forestry graduates lead in employment outcomes:** Employment rates for 0505 Forestry graduates were among the highest across nearly all age groups and outcome years, particularly for those with a Level 4-7 (non-degree) qualification.
- **Young Agriculture and Horticulture graduates saw consistently high employment rates over time:** Employment rates for young (<25) Level 4-7 (non-degree) graduates in 0501 Agriculture and 0503 Horticulture and Viticulture remained high (~80%) over all the outcome years, despite a slow start for Agriculture graduates in their first outcome year (73%).

Employment rates of young (<25 years) graduates with certificates (L4+) and diplomas

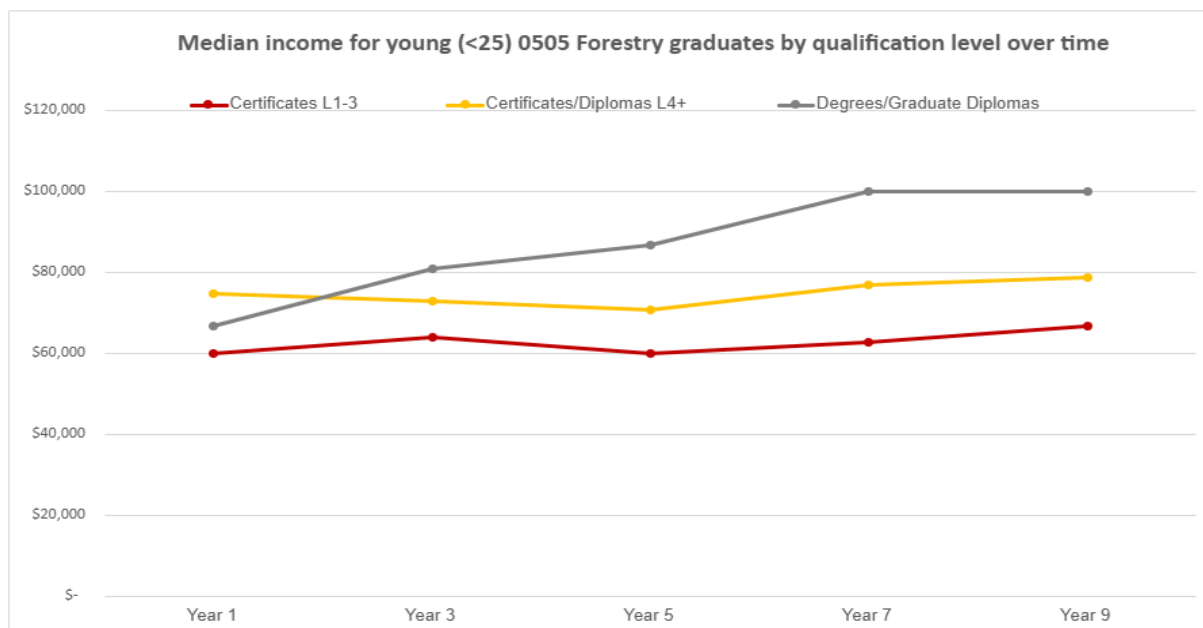


Younger graduates experienced the largest income gains over time

- **Greatest income growth for younger graduates:** While young (<25) graduates started with lower median incomes than older graduates, they experienced the greatest income growth over time. Incomes for older graduates remained relatively stable from outcome year 3 onwards.

Higher qualifications are linked to higher earnings

- **Higher qualifications lead to higher earnings:** Across the Agriculture, Environmental and Related Studies, median incomes for graduates with Level 4-7 (non-degree) qualifications were generally consistently higher than those with Level 1-3 qualifications. The largest income gap was found in 0505 Forestry.



- **Earnings rise further with degree-level or higher qualifications:** Graduates of all ages with Level 7 degrees or higher qualifications within Agriculture, Environmental and Related Studies, had higher median incomes than those with non-degree qualifications. This was particularly so Forestry graduates.

Older graduates have distinct employment and income trends

- **Lower employment rates but strong earnings for older graduates:** Employment rates for graduates aged 40+ across Agriculture, Environmental and Related Studies fields of study were generally at or below the national average. However, their median incomes were consistently at or above the national median, suggesting strong earning potential despite lower employment rates.
- **Higher incomes more likely after completing higher level qualifications:** Older graduates who completed Level 4–7 (non-degree) qualifications saw income growth compared to two years prior to graduation. Those who completed Level 1–3 certificates, however, often earned less.
- **Modest employment transitions for older graduates previously not in work:** Older graduates with Level 4–7 (non-degree) Agriculture, Environmental and Related Studies qualifications moved into employment at rates below the national average across all outcome years. In contrast, those with Level 1–3 qualifications were more likely to be above the national average from outcome year 5 onwards.

Trends in further study differ by age, field of study and qualification level

- **Few graduates pursue full-time study.** Most graduates across the Agriculture, Environmental and Related Studies fields of study did not enter full-time study, and the percentage fell significantly after their first year of graduation.
- **Higher level study is more common among Level 1-3 graduates:** Across all age groups and fields, Level 1-3 graduates were more likely to enter higher study in their first outcome year than non-higher-level study. Of particular note, over half (55%) of young (<25) 503 Horticulture and Viticulture graduates were in higher study in outcome year 1.

- **Few Level 4-7 (non-degree) graduates pursue higher study.** Across all age groups few graduates with Level 4-7 (non-degree) qualifications went into higher study compared to Level 1-3 graduates.
- **Older graduates more likely to study further qualifications at the same or lower level:** Around 25% of older (40+) graduates with Level 4–7 qualifications in 0501 Agriculture and 0503 Horticulture and Viticulture pursued non-higher study, compared to 13–16% of young graduates in these fields.
- **Forestry graduates are well represented in study at the same (or lower) level across all outcome years:** Graduates with 0505 Forestry certificates and diplomas had the highest proportion of graduates pursue non-higher study in the first outcome year compared to other Agriculture, Environmental and Related Studies fields of study. They also maintained higher participation rates in non-higher level study over time, particularly among Level 4-7 (non-degree) graduates.



Diving deeper into the data

Compared to other NZSCED broad fields of study, graduates with L1-7 (non-degree) qualifications in NZSCED 05 Agriculture, Environmental and Related studies had high employment rates and earning outcomes

- Employment rates and median income for younger (< 25) graduates with L1-7 (non-degree) NZSCED 05 Agriculture, Environmental and Related qualifications were consistently among the top three NZSCEDs, and well above the national average across all outcome years, for this young cohort.
 - In their first year following graduation, young (<25) L1-3 graduates had an employment rate of 65% (national average of 55%) and median income of \$54k (national median of \$48k), and L4-7 (non-degree) graduates had an employment rate of 69% (national average of 56%) and median income of \$55k (national average of \$47k).
 - Across the outcome years 1-9, young (<25) NZSCED 05 graduates continued to have good employment rates; at least 64% for those with L1-3 certificates and at least 67% for those with L4-7 (non-degree) certificates and diplomas.
- Employment rates for older (25-39 and 40+) NZSCED 05 graduates with a L1-3 certificate was generally lower than the national average, although their income remained close to the national median.
- NZSCED 05 graduates aged 25-39 with a L4-7 (non-degree) qualification also consistently sat within the top three NZSCEDs with their employment rate and median income higher than the national average across all outcome years.
- Employment rates for older (40+) NZSCED 05 graduates with a L4-7 (non-degree) sat either at or below the national average, although their income was generally slightly higher than the national median.

Employment rates overall were high (over two thirds) in outcome year one for graduates across NZSCED 05 Agriculture, Environmental and Related studies, particularly for younger (under 40) graduates with a L4-7 (non-degree) qualification

L1-3 Certificates

- Young (<25) graduates with L1-3 0501 Agriculture, 0505 Forestry, and 0507 Fisheries qualifications maintained employment rates of between 64-76% over time (with the exception that only half (51%) 0507 Fisheries graduates were employed in outcome year 9).
- Graduates aged 25-39 with L1-3 0501 Agriculture and 0505 Forestry qualifications had the highest employment rate (80%+) in the early outcome years, dipping slightly in later years (outcome years 7 and 9).
- Older (aged 40+) 0505 Forestry graduates had the highest employment rate (90%) for those with L1-3 qualifications in outcome year 1 although this gradually fell over time (to 65% in outcome year 9).
- While younger (<25 and 25-39) L1-3 0503 Horticulture and Viticulture graduates had employment rates of at least two thirds (67%) over time, employment outcomes for older (40+) graduates were not so favourable dropping from 59% in outcome year 1 to 45% by outcome year 9.

Certificates and Diplomas L4-7 (non-degree)



- Employment rates for younger (< 25) L4-7 (non-degree) 0501 Agriculture and 0503 Horticulture and Viticulture graduates was high (around 80%) over the years, with the exception of 0501 Agriculture graduates in outcome year 1 where employment was lower (73%).
- L4-7 (non-degree) 0505 Forestry graduates had the strongest employment rates across all age groups, with 90% or higher in employment in outcome year 1. This remained high (80% or higher) across the outcome years, except for older graduates (40+) where those in employment dropped to 70% in outcome year 9.
- 0509 Environmental Studies L4-7 (non-degree) graduates had the lowest employment rates across all age groups. Those aged 25-39 had the highest employment rates (61% in outcome year 1 increasing to 72% by outcome year 9). However, less than half of the younger (<25) and older (40+) graduates were in employment in outcome year 1, increasing slightly over the remaining outcome years.

Transition into employment was higher for young (<25) graduates and lowest for the oldest (40+) graduates

Transition into employment refers to the percentage of graduates who were in employment after graduation, compared to their employment status two years prior to graduation.

- Transition into employment was much higher in young (<25) L1-3 and L4-7 (non-degree) graduates across all 05 narrow fields where it generally tended to increase over time. Whereas among older (40+) graduates, far fewer (<16%) moved into employment post-study across the fields in any given outcome years.
 - among L1-3 young (<25) graduates this fluctuated between 28% and 46% across the years.
 - among L4-7 (non-degree) young (<25) graduates the percentage moving into employment generally increased over the years (up to 60% for 0501 Agriculture graduates in outcome year 9).

Overall, few graduates across NZSCED 05 Agriculture, Environmental and Related studies went on to pursue full-time study, and the percentage fell significantly after outcome year 1

- Among L1-3 graduates, young (<25) 0501 Agriculture and 0503 Horticulture and Viticulture graduates had the highest proportion (12% and 10% respectively) in full-time study, and this was in outcome year 1.
- Among L4-7 (non-degree) graduates, few were in full-time study with the notable exceptions of young (<25) 0507 Fisheries (44%) and 0509 Environmental Studies (23%) graduates in outcome year one. No older (40+) graduates were in full-time study across the 05 fields over time.

Graduates with L1-3 qualifications were more likely to pursue higher study than those graduating with L4-7 (non-degree) qualifications

- More L1-3 graduates across all ages and outcome years were in higher study than non-higher study.
- The percentage of L1-3 graduates going into higher study was generally much higher in outcome year one across the age groups and fields, although the percentage was overall much lower for older (40+) graduates than for younger graduates.
 - young (<25) 0503 Horticulture and Viticulture L1-3 graduates had the highest percentage (55%) in higher study in outcome year one, followed by 0501 Agriculture (42%).

- 0501 Agriculture and 0503 Horticulture and Viticulture also had the highest percentage (45-48%) of L1-3 graduates going into higher study in outcome year one for those aged 25-39.
- Among older (40+) graduates, 0501 Agriculture and 0505 Fisheries had the highest percentage pursue higher study (27% and 30% respectively) in outcome year one.
- 0505 Forestry graduates consistently had a high percentage of graduates in higher study over outcome years 3-9 (22-26%).
- Very few L4-7 (non-degree) graduates across all age groups went into higher study, with the exception of 0509 Environmental Studies graduates where nearly one third of young (<25) graduates were in higher study in outcome year 1.

Graduates with L4-7 (non-degree) qualifications were generally more likely to pursue non-higher study, particularly within Forestry across all age groups over time

- Fewer L1-3 graduates pursued non-higher study compared to higher study, especially in outcome year 1 across the 05 fields. For L4-7 (non-degree) graduates it varied between the fields of study and outcome years.
- Forestry had the highest percentage of graduates pursue non-higher study at both L1-3 and L4-7 (non-degree) in outcome year 1.
 - Between 22-28% of 0505 Forestry graduates at L1-3 across the age groups in outcome year 1 were in non-higher study. This was followed by 0501 Agriculture graduates (16-18%) and older (40+) 0503 Horticulture and Viticulture graduates (15%).
 - 82% of young (< 25) 0505 Forestry graduates at L4-7 (non-degree) were in non-higher study in outcome year 1, falling to 36% for older (40+) graduates. Across all age groups, Forestry continued to have the highest percentage of graduates in non-higher studies over outcome years 3-9, generally above 20% across the age groups.
- Older (40+) 0503 Horticulture and Viticulture and 0501 Agriculture L4-7 (non-degree) graduates were more likely to be non-higher study (around one quarter) compared to young (<25) graduates (13-16%).

Young (<25) graduates started on lower incomes than older graduates but experienced the highest percentage increase in earnings over time

- The median income of graduates, both L1-3 and L4-7 (non-degree), was higher following graduation than their median income from 2 years prior to qualification completion across all narrow fields. Young (<25) graduates had the greatest percentage increase over the outcome years.
- Young (<25) graduates, both L1-3 and L4-7 (non-degree), started on lower incomes but experienced the highest percentage increases over time.
- Older (25 and over) graduates started on a higher income which tended to remain relatively stable from outcome year 3 onwards. For example, the median income older (25 or over) 0501 Agriculture graduates at L4-7 (non-degree) fluctuated but remained between \$71-\$75k over all the outcome years, whereas young (<25) graduates started on \$54k in outcome year one reaching \$70k by outcome year 9.
- The median income for L4-7 (non-degree) graduates was generally higher than L1-3 graduates for each of the narrow fields across the outcome years, with the notable exception of 0501 Agriculture graduates aged 25 and over.

- For 0505 Forestry graduates, the median income difference was particularly significant for those in the 25-39 age group.
- The trend for 0501 Agriculture graduates was less clear over time. For young (<25) graduates the income difference was very small and both steadily increased over time. For older graduates (aged 25-39 and 40+), while L4-7 (non-degree) graduates started on much higher median incomes there was a lot of volatility with L1-3 graduates earning more over some outcome years.

Forestry graduates overall had the highest median income compared to other 05 fields

- 0505 Forestry graduates with a L4-7 (non-degree) qualification had the highest income across the 05 narrow fields. The median income for older (25 and over) graduates ranged between \$80-90k across the years, whereas young (<25) graduates had a lower median income of between \$71-79k.
- The median income for 0505 Forestry graduates at L1-3 was generally lower in comparison to graduates with L4-7 (non-degree) over all age groups. Older (40+) graduates had the highest starting median income (\$81k in outcome year 1) but this steadily decreased over time to \$72k in outcome year 9.

Significant variation exists in employment outcomes and incomes across the detail fields for NZSCED 05 Agriculture, Environmental and Related studies graduates, with some performing well above the national average for their cohort

- Across L1-3 detail fields, young (<25) 050105 Animal Husbandry graduates had the highest percentage (80%) in employment in outcome year one, well above the national average (55%) for this cohort. These graduates also had highest median income (\$63k), again much higher than the national average (\$48k). This was followed by 050501 Forestry and 059901 Pest and Weed Control graduates for both employment rates and median income.
- Across the L4-7 (non-degree) detail fields, young (<25) 050112 General Land Skills graduates had the highest percentage (94%) who were employed in outcome year one, well above the national average (58%). These graduates had the fifth highest median income (\$55k), which sat above the national median for this cohort (\$47k).
- Young (<25) 050108 Equine Trades graduates had the highest median income at \$98k compared to other L4-7 (non-degree) detailed field graduates in outcome year one. This was followed by 050501 Forestry graduates (\$75k) who had the highest median income across outcome years 3-9 which sat well above the national median.
- Across the L4-7 (non-degree) detail fields, older (25-39 and 40+) 050501 Forestry, 050105 Animal Husbandry and 050101 Agriculture Science graduates had the highest employment rates and median incomes, higher than the national median compared to others in their cohorts.



Caveats for interpreting the data

Key caveats to be aware of when interpreting the Post-study Outcome data include:

Graduates: only includes domestic students who graduated from providers who report to the TEC. Graduates who received a disability benefit or were in prison for any period during an outcome year were excluded.

Cohort grouping: graduates were grouped together into four-year cohorts to provide a large enough set of data across the variables.

Qualification: refers to the highest and latest (by outcome year) qualification, therefore, a graduate only appears once in labour market outcomes.

Graduate destination: graduates may appear multiple times if they meet the criteria for inclusion in a destination (e.g. employment, study, jobseeker). Refer to the TEC's guide for the criteria for each destination: [Post-study outcomes data – technical information | Tertiary Education Commission](#)

Outcome years: the same cohort of graduates were not followed for each of the outcome years (1,3,5,7 and 9) following graduation. Rather, where graduates went and how much they earned was taken from the 2019-2022 calendar years and the 2020-2023 tax years. The means that there were different graduate cohorts for each of the different outcome years:

Graduation years for each cohort	Outcome year (year after graduation)	Calendar year	Tax year
2018-2021	1	2019-2022	2020-2023
2016-2019	3	2019-2022	2020-2023
2014-2017	5	2019-2022	2020-2023
2012-2015	7	2019-2022	2020-2023
2010-2013	9	2019-2022	2020-2023

NB: a graduate will appear in both the calendar year (e.g. employment status) and tax year (for their income).

Age groups: under 25, 25-39 and 40 and over. Age is taken as at 1st July in the year of qualification. To help better understand whether older graduates have better outcomes from their studies, the following two outcome measures were included:

- change in employment or jobseeker status between 2 years prior to graduation and the outcome year, and
- income for employed graduates 2 years prior to graduation compared to the outcome year.

Earnings: gained from taxable earnings from wage, salary or self-employment, paid parental leave, ACC compensation. It does not take into account hours worked per week or whether the graduate was employed in the same field as their study. Earnings have been inflation adjusted and rounded to the nearest \$1,000.

Suppression and rounding of data:

- Median earnings: suppressed if less than 10 graduates
- Destination outcomes: suppressed if less than 20 graduates
- Graduate counts: suppressed if less than 5. Graduate numbers were rounded to the nearest multiple of 3