NZIER
NEW ZEALAND INSTITUTE OF ECONOMIC RESEARCH

Under-served learners

The economic and wellbeing benefits of improving education outcomes

NZIER report to UP Education

December 2021

About NZIER

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NZIER was established in 1958.

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Key points

The objectives of the research

- UP Education commissioned NZIER to investigate the social and economic benefits of improving education outcomes for under-served learners in New Zealand.
- NZIER investigated which communities experience disparities in educational outcomes and considered the potential benefits that could be realised if the disparities were resolved.

The framework for the research

- In this report, the benefits of education are framed as better economic outcomes, social outcomes, and cultural outcomes:
  - better economic outcomes that flow on to whānau and local communities
  - better social outcomes, healthier and longer lives on an individual level and inter-generational level
  - better cultural outcomes, greater cultural awareness, and participation.

Who are the under-served learners?

- The combined group of under-served learners is an estimated 66,290 people aged 25–49 years.
- Māori, Pacific people and people with disabilities are over-represented in under-served learners, and they are more likely to be male than female.

An opportunity for better economic outcomes

- International evidence shows a causal relationship between education and income, and that relationship is stronger among those from disadvantaged communities.
- Local evidence shows that qualifications are a gateway to better employment opportunities.
- In 2020, the employment of people with no qualification was 42%, compared to those with levels 1–3 (64%) and levels 4–6 (74%).
- On average, a person with a level 4–6 qualification will earn more than $500,000 compared to someone with no qualification during their working life.
- The level of income difference will materially expand the potential economic outcomes and consumption choices available to those with better education.
- The net present value of the increase in average earnings over working-age years due to improving the under-served learner from their current level of qualification to level 4–6 accreditation would be $10.9 billion over 30 years, after adjusting for labour force participation.

- The potential increase in aggregate income due to transitioning 66,290 under-served learners from their current level of qualification to a level 4–6 is $844 million annually based on the median age of 32 years old, putting aside the role of the labour market in employment outcomes.

An opportunity for better social outcomes

- Tertiary education is associated with more positive social outcomes and less adverse social outcomes.
- Improvements in education outcomes are associated with better self-esteem, better health literacy, health quality gains, and longer life expectancy.
- Improvements in paternal education outcomes are linked to better health and economic outcome among their children.
- Tertiary education is associated with lower smoking rates, lower obesity rates, lower crime rates and less welfare dependency.

An opportunity for better cultural outcomes

- Education improves social cohesion and civic participation among males.
- A sense of purpose is also higher among those with higher levels of qualification.

Education could be one of the most influential levers for improving wellbeing

There is a large body of literature showing the positive and multifaceted benefits of improving education outcomes. The links between education, the economy, health and social settings indicate that education is one of the more influential policy levers for improving the welfare of New Zealanders now and in the future.

Under-served learners are over-represented in the statistics about adverse economic, health and social outcomes. But there are opportunities to do things differently to address the needs and settings of those who are under-served. Education can be innovative, targeted and tailored for the needs and aspirations of an increasingly diverse population.

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1 Objectives and scope

UP Education commissioned NZIER to investigate the social and economic benefits of improving education outcomes for under-served learners in New Zealand. In this report, NZIER investigated which communities experience disparities in educational outcomes and considered the potential benefits that could be realised if the disparities were resolved.

Research objectives

The objectives of the research were to investigate the following research questions:

- What are the potential social and economic benefits to individuals, whānau and society if under-served learners are adequately served?
- What does this look like in practical terms of 2–3 stylised personas?
- What value does UP Education contribute to outcomes for under-served learners?

Research approach and scope

We took a top-down approach in the research. The assessment focused on identifying the broad categories of benefits from education and potential gain to resolve the disparities.

The benefits of education are multifaceted and pivotal for many outcomes. This report outlines the potential benefits that could be realised and introduces a critical area of ongoing research. A detailed assessment and quantification of all the benefits were beyond the scope of this research. The monetisation of the health benefits and the cost savings for the health system are additional benefits that have not been fully assessed in this report.

Assessing the costs of addressing the disparities of educational outcomes among the under-served learners was out of scope. That would be part of the next steps once an effective set of interventions has been researched and designed.

Structure of the report

The report structure includes the following parts:

- a discussion of who are the under-served learners
- an outline of the three-part framework for the benefits of education
- high-level assessments of the benefits associated with each of the three parts
- an investigation into the value of UP Education in reducing educational disparities.

Each part of the research sought to highlight the key themes and evidence succinctly rather than provide an in-depth discussion of the academic literature.

Research funding

NZIER was funded by UP Education to complete this research.

2 Who are the under-served learners?

New Zealand has a universal education system that is intended to develop skills, support participation, promote the wellbeing of New Zealander's and deliver on the equity principles of the Treaty of Waitangi (Education and Training Act 2020). While the education system is broadly successful in delivering those intentions, there is room for improvement in the equality of outcomes. Parts of the community currently experience disproportionately poorer educational outcomes than others – they are under-served learners.

The approach for estimating how many learners are under-served

Under-service was measured by comparing the rate of qualification by sex and ethnicity to the national average rate of highest qualification. Where a cohort had a qualification rate below the national average for a given level, the proportional difference between the cohort the national average was counted as the rate of under-service. Over-representation in the no qualification category was treated as under-service. Cohorts consistently achieving above the national rate, such as European females, are not underrepresented in under-served learners. This approach takes the perspective over average outcomes within a cohort to facilitate a level of generalisation demanded by the scope and resources of the research. The outcomes at an individual level are almost certainly more nuanced than at the average level.

The age range for the assessment of the under-served was limited to people aged 25–49 for the following reasons:

- To limit the potential for counting learning that may still be in the process of completing their first tertiary qualification at the time the data was collected.
- While it is possible that those aged 50 years and over could benefit from improved education outcomes during middle age, the likelihood of transitioning into a different sector or significantly different role at the age is reduced. Therefore the age was limited to be more conservative about the likely gain. This upper age limit was also influenced by the general trend of average incomes in New Zealand peaking in the early to mid-50s.

Under-served learners with no qualification

Māori, Pacific people, and people with disabilities are over-represented among the working-age population with no qualifications and/or only secondary school level qualifications. The proportion of Māori and Pacific people in their prime working years (25–49) without any qualification, including level 1, is twice as large as the national proportion. Similarly, the proportion of people with a disability with no qualification is twice that of those without a disability. We estimate that if the educational attainment were proportional by ethnicity and sex across the whole population, then the cohort of those aged 25–49 with no qualification would have been 34,830 fewer (see Table 1).

There are no European females in the table because the rate of European females with no qualifications is below the national average.

Table 1 Under-served learners with no qualification

The number of people aged 25–49 who were under-served compared to the national rate of achievement

	European	Māori	Pacific people	Total
Females	0	7,700	2,700	10,400
Males	4,800	13,040	6,590	24,430
Total	**4,800**	**20,740**	**9,290**	**34,830**

Source: NZIER

Under-served learners that completed secondary school but did not go further

There are also under-served learners who have achieved a level 1-3 qualification, who would have achieved tertiary level qualifications if they had achieved at the national average. It was estimated that 31,460 people aged between 25–49 whose qualification was at a secondary level when it should be at a tertiary level if they had achieved the national level of education. The composition of the under-served learner among those who ceased education at secondary level qualification is disproportionately Māori (49%) and male (57%). Māori males account for 26% of the under-served learners in this cohort. Data limitations prevent the identification of this category of under-served learners by ethnicity and disability status, but we know that people with disabilities are only half as likely to attain a tertiary qualification as people without a disability.

There are no European females in the table because the rate of European females who did not go on to tertiary qualifications is below the national average.

Table 2 Under-served learners that have not continued to tertiary education

The number of people aged 25–49 who were under-served compared to the national rate of achievement

	European	Māori	Pacific people	Total
Females	0	7,410	6,070	13,480
Males	3,460	8,130	6,390	17,980
Total	**3,460**	**15,540**	**12,460**	**31,460**

Source: NZIER

The combined group of under-served learners is an estimated 66,290 people aged 25–49.

People with disabilities are more likely to have unmet education needs

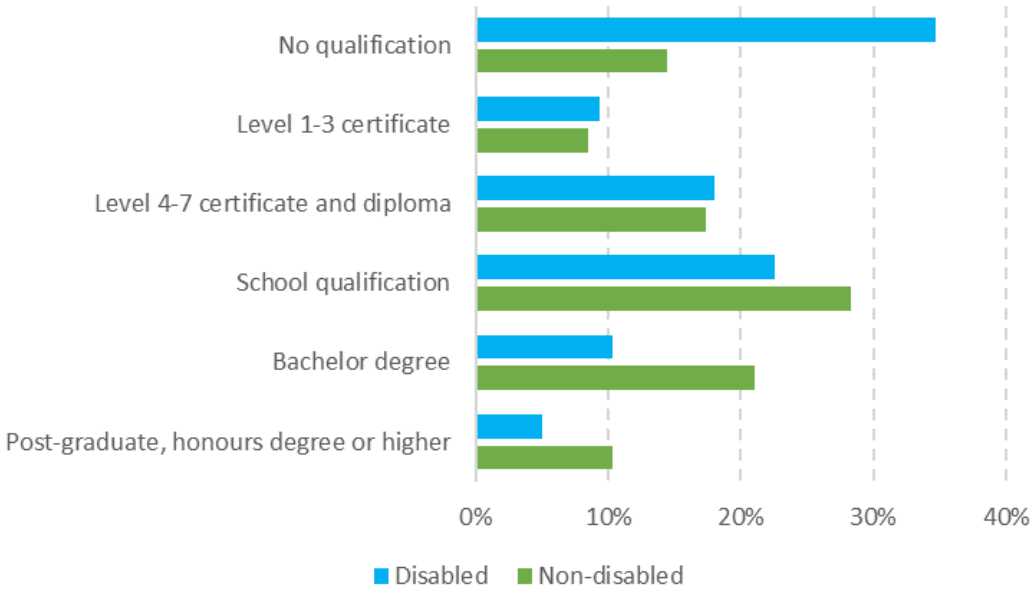
The 2013 Disability Survey revealed an unmet need for learning support for students, including 14% of students with disabilities reported that they would like more support with their study, rising to 38% of students with higher needs (Statistics NZ 2014b). Younger students with disabilities were also more likely to want more support. Institutions with lower student to staff ratios may be uniquely placed to address this need.

People with disabilities are likely to be over-represented among under-served learners. People with disabilities are over-represented in those with no qualification and under-

represented in those with a tertiary qualification. The challenge with disability statistics is the inability to control for the severity and nature of disability in the rate of educational attainment among those with a disability.

Figure 1 Highest qualification attained by disability status

By level, 2021 Q2, % of people aged 15-64



Source: NZIER based on Statistics NZ Household Labour force Survey

Youth not in education, employment, or training

The estimate of under-served learners aged 25–49 is a conservative estimate because it does not include youth outcomes among those aged 15–24 years and those aged 50 years or older. Māori, Pacific people and disability communities are also over-represented among those not in education, employment, or training (NEET). From 2017–2021, an average of 41% of the people with disabilities aged 15–24 were classified as NEET, compared to 10% of those without disabilities.

While disability is a broad church of impairments with a wide spectrum of severity within each impairment category, it is clear improving educational outcomes among those with a disability is vital for achieving equitable social and economic outcomes for people with a disability. Better educational outcomes are associated with higher earnings which are needed to fund the independence of people with disabilities as they seek to escape the tyranny and potential relative poverty a disability can place on individuals and their whānau.

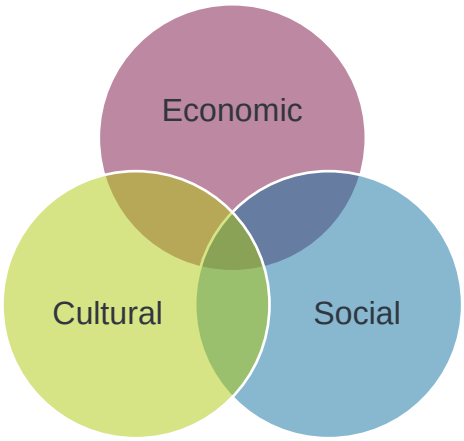
3 A framework for the benefits of education

Education provides opportunity, capability, and choice

Education develops human capital, increases knowledge, and expands skill sets. Education develops capabilities that widen individuals' economic potential, which expands the set of opportunities individuals can potentially pursue and, in doing so, increases the freedoms and resilience of individuals, households, and communities.

Education contributes to enhanced productivity through greater knowledge and more skills. Krugman argued that while productivity isn't everything in the short term, it is a major factor in long-term economic outcomes (Krugman 1994). Sen, another Nobel Prize-winning economist, proposed that the value of education should be conceptualised as enhancing human capital and human capability, where human capital comes from the acquisition of knowledge and skill. Improvements in human capital increase productivity which leads to higher wages. Education improves human capability by increasing the opportunity for people to learn new ideas and have the confidence to communicate them with others. Education does more than contribute to economic prosperity; it expands the possibilities and improves the quality of discourse that influences societal aims, norms and outcomes (Sen 1997). Thus, education has individual and collective benefits through the acquisition, development and communication of information and innovation.

Figure 1 The multifaceted benefits of education



Source: NZIER

Better educational outcomes contribute to the following flow-on effects:

- better economic outcomes that flow on to whānau and local communities
- better social outcomes, healthier and longer lives on an individual level and inter-generational level
- better cultural outcomes, greater cultural awareness, and appreciation for diversity.

In this report, the benefits of education are framed as better economic outcomes, social outcomes, and cultural outcomes.

4 Better educational outcomes contribute to better economic outcomes that flow on to whānau and local communities

Education plays a fundamental role in achieving meaningful employment and incomes, foundational to economic and social outcomes. In this section, we explore the economic benefits of education through two themes:

- Education as a pathway to expanded employment opportunities
- Education as a pathway to higher incomes.

Employment and income are inter-related economic outcomes of improving the education of under-served learners.

4.1 Education as a pathway to expanded employment opportunities

Education is as much about signalling as it is about the acquisition of skills and knowledge. Educational attainment is a signal to a prospective employer that people are accredited in the prerequisite skills and subject matter relevant to the role and industry. But educational attainment also demonstrates to employees that the applicants for a role have value characteristics such as:

- The willingness to invest in learning
- The ability to learn new skills and knowledge
- The motivation and tenacity to start and complete a learning journey
- The self-belief to engage in a challenge where the outcome is uncertain
- A resilient and disciplined attitude.

These characteristics are even more important with the great re-assessment of work since the turn of the millennium. Adaptability, attitude and learning on the go are more highly prized than ever. Educational attainment is a signalling device in society and the economic arena revolving around employment and employability. Education attainment is one factor in social status and the social network contributing to social mobility and life-course outcomes.

When employers have limited information about productivity or the personal attributes that determine productivity (such as knowledge, aptitude, and motivation), they will have an incentive to use education as a proxy for the potential value of prospective candidates (Altonji and Pierret 1998). The 'sorting' hypothesis attests that education also 'signals' or 'screens' intrinsic productivity of potential employees (Spence 1973; Stiglitz 1975; Johnes and Johnes 2007).

Local evidence of signalling effects of education in the labour market

There is evidence that achieving qualifications improve the probability of better employment than skill acquisition without qualification in New Zealand's labour market (Ministry of Education 2010b). This is a local example of the signalling role of formal qualifications changing the probability of employment success.

The wage returns specific to educational credentials rather than accumulated years of education are known as sheepskin effects. They can occur because credentials may signal

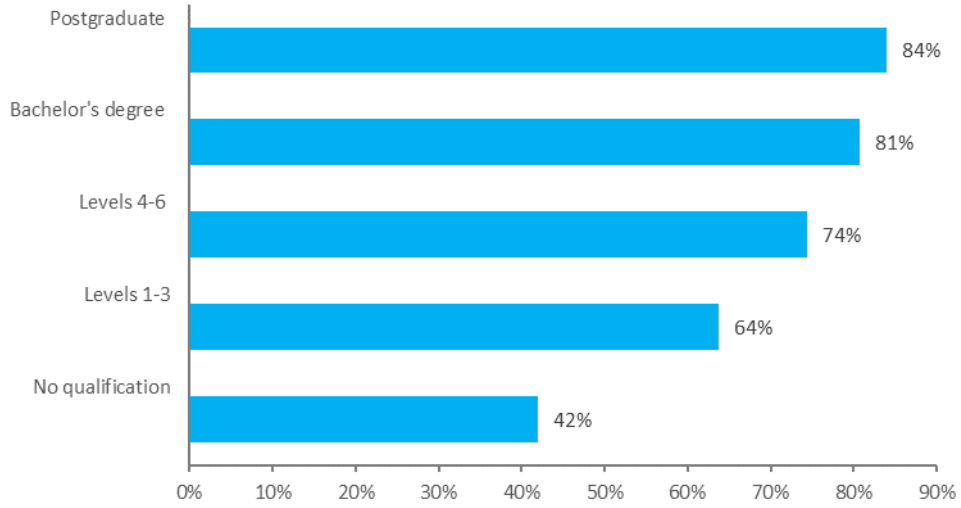
workers' productivity. In New Zealand, Gibson (2000) found that large sheepskin effects in our labour market and the returns to credentials exceeded the returns to years of education, especially for ethnic minorities.

More education is associated with higher employment rates

More education increases the rate of employment. Figure 2 shows that the employment rate is positively related to better educational outcomes in New Zealand. In 2020, the employment of people with no qualification was 42%, compared to those with levels 1–3, levels 4–6 and bachelor's degrees, which were 64%, 74% and 81%, respectively.

Figure 2 Employment rate by highest qualification

Employment rate by highest qualification, in 2020



Source: Statistics NZ (2021c) Household Labour Force Survey

Educational achievements have intergenerational effects. Childhood poverty, especially when severe and persistent, often leaves a long shadow in the form of lower educational achievement, frequent unemployment, reduced lifetime earnings and poorer health outcomes that have adverse societal effects (Boston 2014). This suggests that improving education outcomes among under-served learners also improve employment outcome disparities, including the consequences of paternal unemployment on child poverty and poor childhood outcomes among children in poverty in New Zealand (Boston 2014).

The economic returns from education

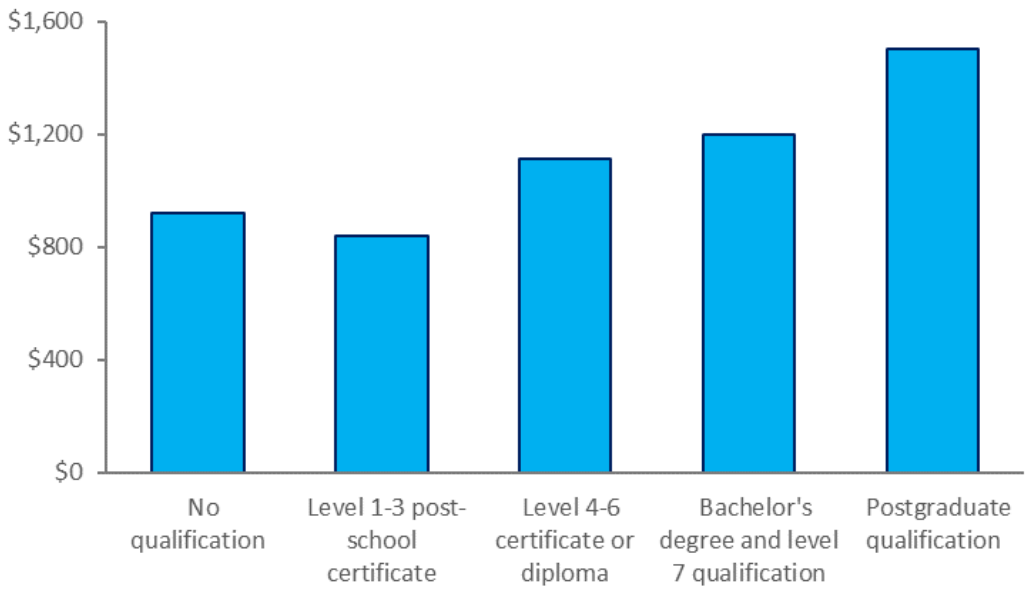
There are numerous papers showing a positive return on investment in education (Becker 1968, Becker 1975, Heckman 2007). Of particular interest is a study by David Card, who won the Nobel prize in Economics in 2021, showing a causal relationship between education and income and that this relationship is stronger among those from disadvantaged communities (Card 1999). The case for social investment to achieve equitable educational outcomes is hard to refute.

Greater educational attainment at the individual level is associated with higher incomes over the working life. Figure 3 shows median weekly earnings from wages or salaries in 2020. Weekly earnings increase with higher levels of educational attainment from level 1

qualifications. This indicates that there is an economic return from better education outcomes, from which disproportionately poorer educational outcomes exclude the under-served learners.

Figure 3 Median weekly earnings in the labour force by qualification

Median weekly earnings from wages and salaries by highest qualification, in 2020



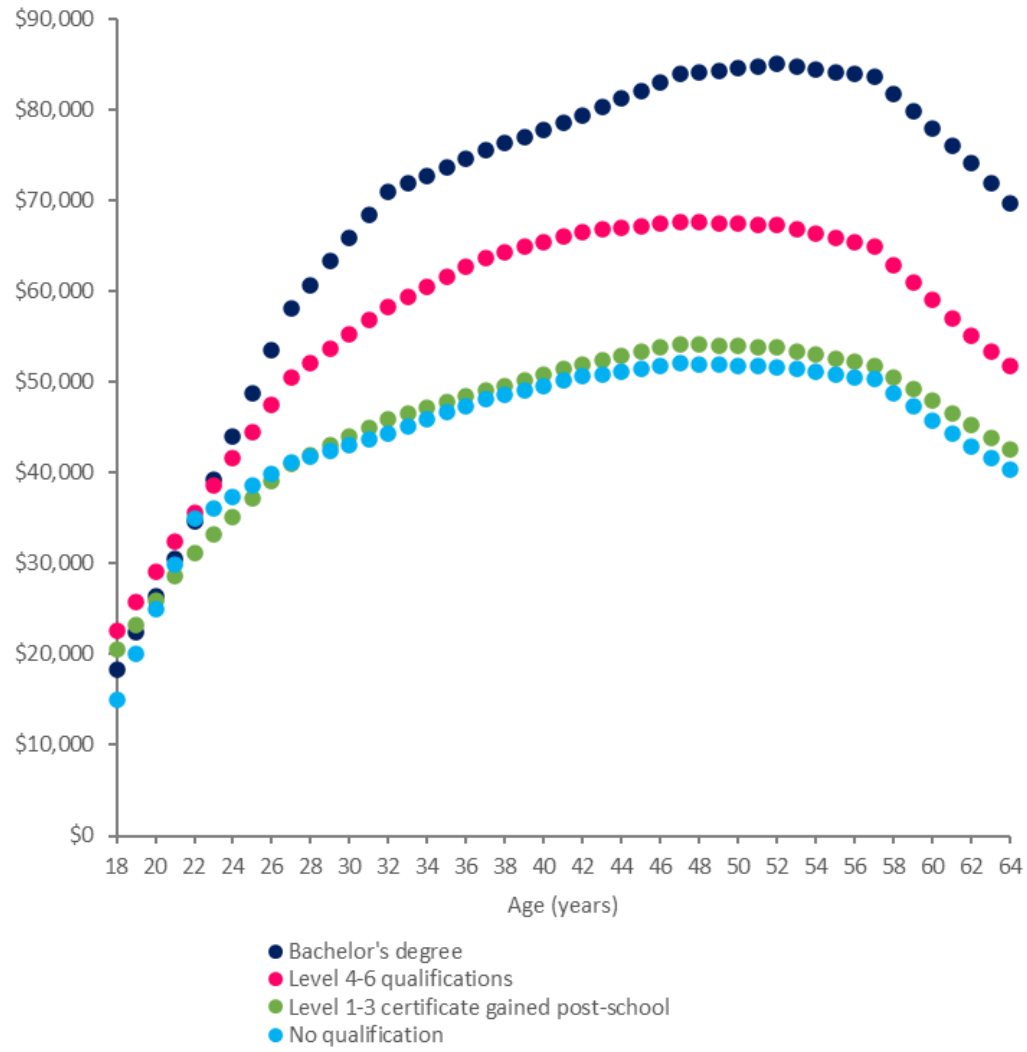
Source: Statistics NZ (2021c) Household Labour Force Survey

Higher incomes support increased ability to save for retirement or a rainy day, such that higher income influences the long-term prosperity of learners. Higher incomes increase the spending power of individuals and households, and greater consumption levels flow on to expand the level of economic activity. Higher consumption collectively increases aggregate demand macroeconomic measures such as output and gross domestic product.

Figure 4 shows the positive relationship between education and average earnings for those aged 18–64. It represents the effect of tertiary education on earnings potential over a person's working life. On average, education is a divergent pathway to high earnings over a lifetime. The potential average earnings range of someone with a bachelor's degree or a level 4–6 qualification are very different from those with no qualification or a level 1–3 qualification.

Figure 4 Average earnings by age and highest qualification

Average earnings, dollars



Source: NZIER analysis based on Statistics NZ (2021a; 2021b; 2021c)

These differences accumulate over time and mean that qualifications have a substantial effect on lifetime earnings potential. Table 3 shows the total average earnings for ages 18–64 with different levels of education. Level 1-3 qualifications increase lifetime earnings by almost $60,000 over the working life. The small difference between no qualification and level 1-3 seems to be related to increasing preferences for qualified employees and increases in the minimum wage closing the gap over time.

On average, someone with a bachelor's degree would earn more than $1.1 million more than someone with no qualification over their working life. Similarly, a person with level 4–6 qualifications will earn more than $500,000 compared to someone with no qualification. This level of income difference will materially expand the potential economic outcomes and consumptions choices available to those with better education.

Table 3 Earnings between 18–64 years, by highest qualification

Based on average earnings

Positive outcomes	Earnings from 18-64 years old	Compared to no qualification	Percentage increase
No qualification	$2,096,900		
Level 1-3 certificate gained post-school	$2,154,200	$57,300	3%
Level 4-6 qualification	$2,682,800	$585,900	28%
Bachelor's degree	$3,248,800	$1,151,900	55%

Source: NZIER

Education can provide support for social mobility, including providing an escape path from the burden of poverty. Poverty reduction is beneficial for individuals, households, communities, social services on a contemporary and inter-generational time horizon. Paternal and maternal education and socioeconomic status are linked to the educational and economic outcomes of their children.

The potential increase in aggregate income due to transitioning 66,290 under-served learners from their current level of qualification to a level 4–6 qualification is $844 million annually based on the median age of 32 years old, putting aside the role of the labour market in employment outcomes. The net present value of the increase in average earnings over working-age years due to improving the under-served learner from their current level of qualification to level 4-6 accreditation would be $10.9 billion over 30 years. This is based on a median age of 32 among under-served learners, a labour force participation rate of 70%, and a 5% discount rate as per Treasury guidelines for default discount rate for policy analysis (The Treasury 2020).

In the labour market context, it is an oversimplification to assume that better education outcomes immediately and directly lead to better employment and better incomes. There will be a lag between qualification and employment outcomes because there must be labour demand to match labour supply, then there are also the recruitment processes. The effects of labour demand on the ability for people to transition into better jobs will be more pronounced at the aggregate level than the individual level. This means that the labour market gains for the whole cohort of under-served may take some time to be realised for everyone. Nevertheless, the potential transformational power of education is evidential.

4.2 Significant economic benefits to society flow from individual benefits

The wider economic benefits of tertiary education for society include:

- tertiary education produces a stronger civic society
- improved the state of knowledge
- contributes to the preservation of cultural heritage
- building a skilled and productive workforce which, through spending and taxation, contributes to societal wellbeing (Boston 2014).

5 Better educational outcomes contribute to better social outcomes

There is clear evidence that better educational outcomes are associated with better social outcomes. Education influences health through three mechanisms (Feinstein et al. 2006):

- self-awareness/self-care, which is shaped by the health literacy benefit of education
- context, which includes the effects of economic outcomes such as healthy housing and healthy diet (better housing and diet choices are affected by income, affordability and budgetary constraints or trade-offs)
- behavioural patterns that are shaped by environmental factors, social norms, and exposure to new ideas during and after education through the role of education as a social mobility phenomenon.

Educational attainment is associated with better health outcomes even when controlling for the health effects of better economic outcomes. One additional year of schooling can improve self-reported health outcomes by 5% to 9% (Brunello et al. 2016).

The international literature suggests that increased education may cause a reduction in smoking, anxiety disorders, anti-social disorders, suicide, crime, teenage pregnancies, unemployment and reliance on welfare benefits (Johnston 2004). Educational attainment is linked to greater health literacy which drives healthier decisions and openness to learn more about being healthier.

Heckman, Humphries, and Veramendi (2017) showed that transitioning from a low level of educational attainment to a high level was linked to the probability of positive and negative outcomes such as those listed in Table 4. Heckman et al. found that the non-market benefits of improved educational attainment were greater for those with lower initial ability. University graduation lowers welfare dependency, reduces the rate of depression, and raises self-esteem. The body of evidence on the benefits of education supports a conclusion that better education contributes to better health outcomes, in general. The benefits of better parental education at every level are measured in the outcomes of their children (Currie and Moretti 2003). This is evidence of the transformational effects of education at an individual level and intergenerational level.

Table 4 Non-market benefits of better education outcomes

Transitioning from low to high levels of education increased positive outcomes and decreased negative outcomes

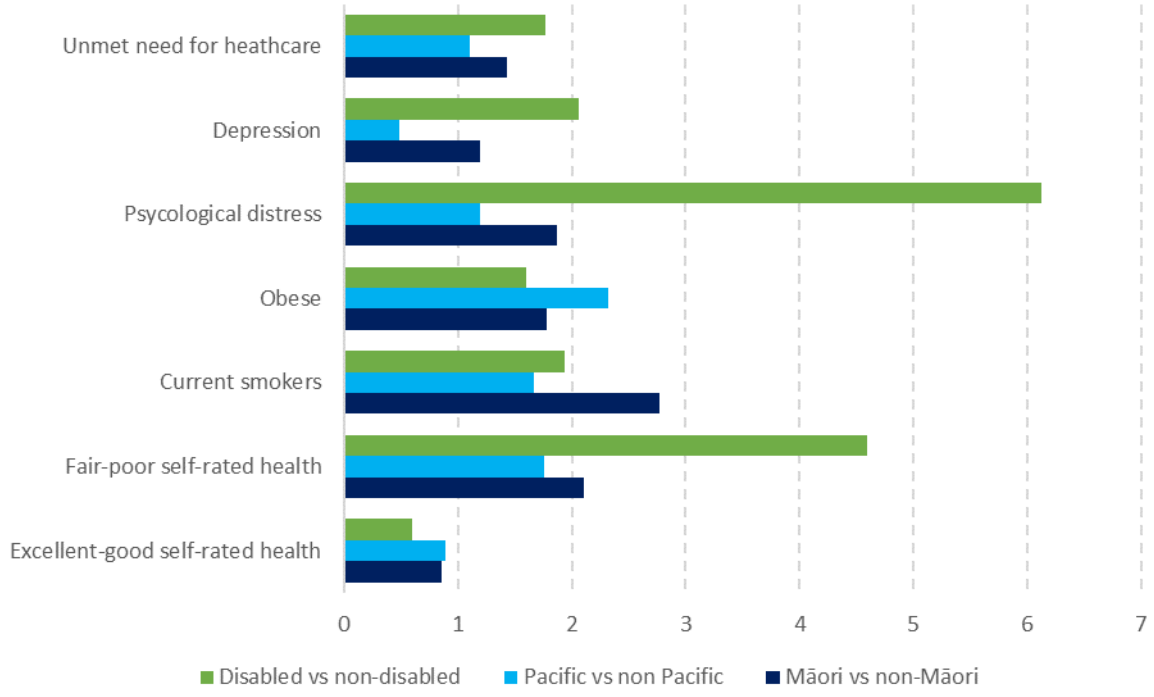
Positive outcomes	Negative outcomes
Improved self-esteem	Smoking
More civic participation	Depression
Health quality gains	Welfare dependency
	Imprisonment

Source: Heckman, Humphries, and Veramendi (2017)

In New Zealand, the higher rates of depression, welfare use, smoking and other poor social outcomes among our under-served learners are some of our more critical social concerns. Figure 5 shows the relative rates of health outcomes among the three cohorts that are over-represented among under-served learners. A relative rate of more than one for negative outcomes indicates that that cohort is worse off than the comparator. A relative rate of two indicates the cohort experiences the outcome at twice the rate of the comparator. Similarly, a relative rate less than one for a positive outcome such as excellent self-rated health indicates that a cohort is under-presented in positive outcomes.

Figure 5 Comparing health outcomes in 2019/2020

Relative rates to the comparator



Source: Ministry of Health (2020)

6 Better cultural outcomes, greater cultural awareness, and appreciation for cultural diversity

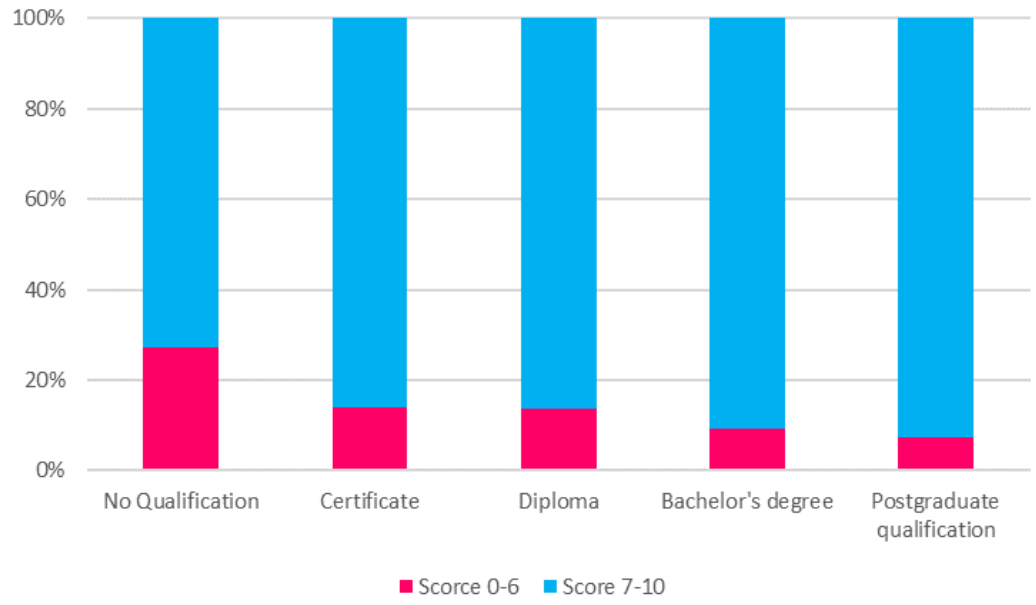
Education supports increased participation in society and social cohesion within a community by facilitating the socialisation of diverse ideas. Participation in tertiary education has contributed to greater social cohesion through the exposure to and acquisition of collective core values among students. Equitable participation is critical in achieving equal levels of social cohesion (Green, Preston, and Sabates 2003). Inequity in educational participation and attainment might otherwise reinforce social and cultural norms or perspectives that are socially counterproductive.

Education and a sense of purpose

While collation is not causation, there does seem to be a relationship between tertiary education and a greater sense of purpose. A self-rated sense of purpose was higher among those with diplomas than those without qualifications (see Figure 6).

Figure 6 Qualification and a sense of purpose, in 2014

Percentage of respondents by a self-reported sense of purpose. People who reported 0 felt their lives were not at all worthwhile, and those who reported a 10 felt their lives were completely worthwhile.



Source: Statistics NZ (2014a)

Voting and education

Ministry of Education (2010a) investigated statistical the relationship between education and voting in New Zealand. They found that:

- Among men, there was a statistically significant relationship between having a bachelor's degree and voting.
- Men with tertiary certificates and diplomas also appeared to be more likely to vote, although the difference is not quite statistically significant at the 95 per cent level.
- This indicates that qualifications positively influence civic participation among men.
- Among women, there is no statistically significant relationship between education and voting for women.

Krieble and Tavich (2017) concluded that better quality civics and citizenship education in New Zealand could address the distributional problems in civic knowledge that have led to the apparent development of a civic empowerment gap that reinforces many of the inequalities we see in society today.

7 What does this look like for individuals?

7.1 What it could mean for Māori men

Māori males are the largest sub-group among under-served learners. A Māori male is more likely to leave school without qualification or not go on to tertiary education. This could decrease their chances of employment by 12–33%. When they do achieve employment, their incomes will be up to $20,000 lower per year. They will have lower health literacy, be more likely to smoke, with an increased chance of obesity and poor health outcomes. They are more likely to experience mental health distress and depression. Their self-esteem will be lower, and their social and civic participation will also be lower than average.

This research has shown the more equitable educational outcomes would have positive causal effects that would improve a wide range of social and economic outcomes for Māori men. The benefits would flow on to improve outcomes for their whānau now and in the future due to the intergenerational benefits of better education. Responding to under-served among Māori would be a tangible and enduring way to honour the equity principles in the Treaty of Waitangi on an individual and intergenerational time horizon.

7.2 Education as a source of empowerment and self-determination for people with disabilities

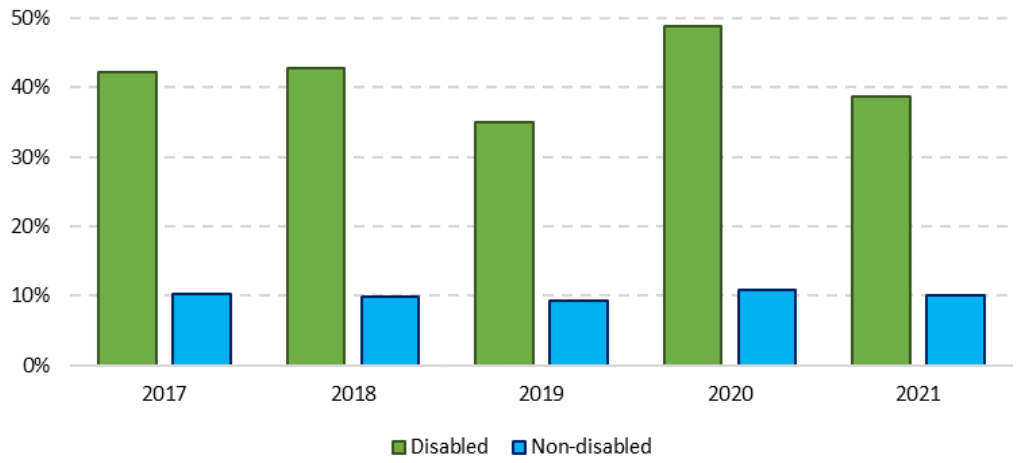
Understanding the potential of education for under-served learners with a disability is challenging because national statistics are not detailed enough to control for the severity of any cognitive impairment among this group of under-served learners. But it is clear that people with a disability are more likely to be under-served, and the pay-off of better education for those with a disability can be life-changing.

Education is a powerful tool for disabled people to succeed despite material physical, economic, and social barriers to full participation in society. For those with disabilities, education is a great source of empowerment that can level the playing field, offset the costs of mitigations, and underpin self-determination.

In 2019, 35% of disabled youth were not in education, employment, or training. That rate increased during the pandemic years and reached 49% during 2020. That means that half of the disabled youth are dependent on welfare, less able to afford their needs, and more likely to be excluded from society due to economic disadvantage. In general, disabled people in New Zealand have poor health outcomes and experience psychological distress at a rate that is six times higher than non-disabled people.

Figure 7 Comparison of youth NEET rates by disability status 2017–2021

Population aged 15–24 not in employment, education, or training – measured in the second quarter.



Source: Statistics NZ (2021c) Household Labour force Survey

Education can improve the probability of employment in an occupation where disability becomes relevant. What's more, in the information age, earnings can be higher in a profession that requires little physical labour, which means with the right education, a disabled person can earn more than the average person. This can mean education or the lack of it can have radical implications for economic prosperity and personal wellbeing for people with disabilities.

8 The value of UP Education for under-served learners

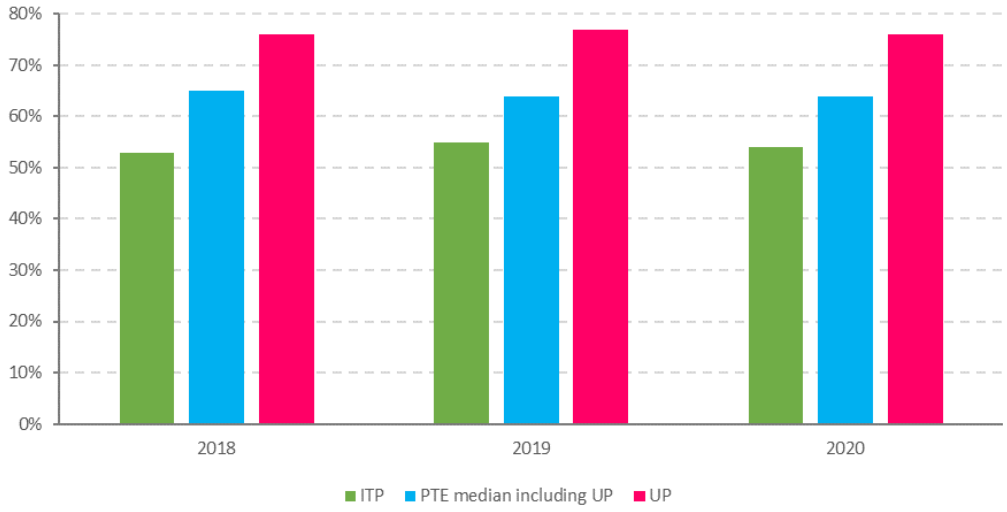
In this section of the report, the focus is on the role of UP in achieving better education outcomes for under-served learners. The details of why and how more equitable education outcomes might be achieved are important, unsurprisingly well beyond the scope of the research. Here we compare UP's performance based on completion rates and costs compared to other providers.

UP Education has facilitated the realisation of education benefits by achieving higher than average completion rates for all students (see Figure 8) and among Māori and Pacific people (see Figure 9).

UP Education delivers higher completion rates than other providers

Overall, completion rates are higher at UP Education than the median rate for Private Training Establishments (PTEs). Figure 8 shows completion rates for UP compared to the PTE median. In 2020, the percentage of learners completing a qualification at UP was 12% higher than the PTE median (including UP) and 22% higher than Industry Training Providers (ITPs). On a relative rate of completion basis, UP is 40% more than ITPs.

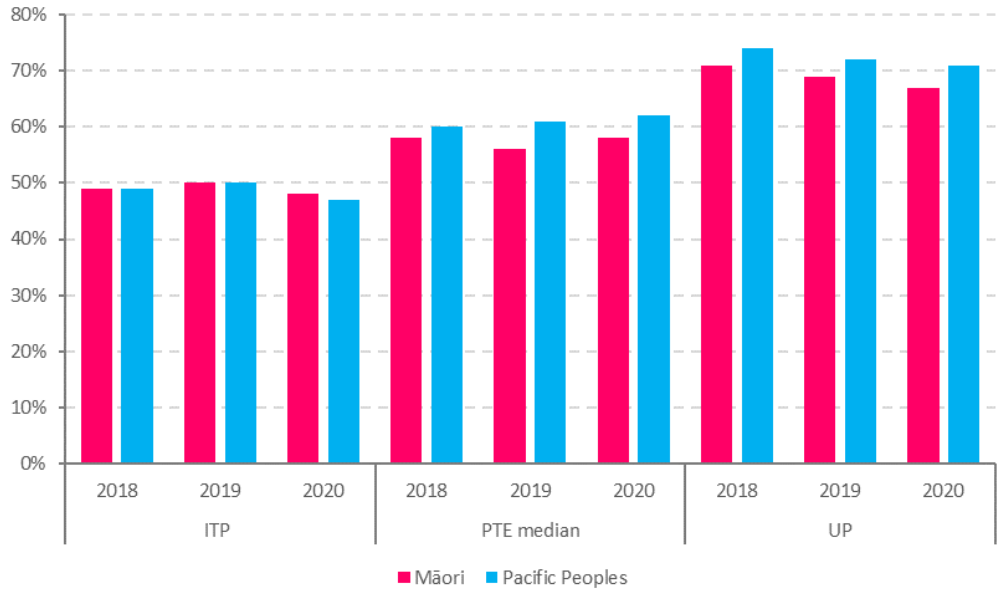
Figure 8 Qualification completion rates by provider



Source: Tertiary Education Commission, Nga Kete.

UP also does consistently better than the other providers for Māori and Pacific people. Figure 9 shows the qualification and course completion rates among Māori and Pacific people for 2018, 2019 and 2020. The results show that absolute completion rates among Māori and Pacific people are about 10% higher at UP than the PTE median. Understanding what leads to better outcomes by some providers will be crucial in addressing the gap in education outcomes among under-served learners. Further work is needed to investigate the opportunities from different policies and approaches.

Figure 9 Qualification and course completion rates among Māori and Pacific people

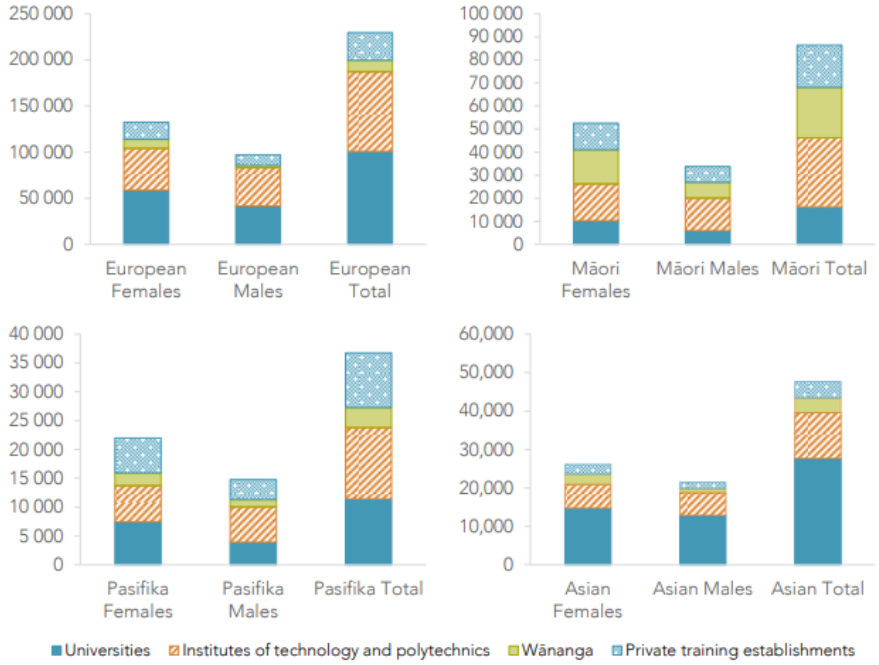


Source: Tertiary Education Commission, Nga Kete.

The scale of impact and opportunity is substantial

PTEs operate on a scale of enrolment close to that of universities (see Figure 10), and some individual PTEs are on a similar or equal scale to their public sector counterparts in their specialist area.

Figure 10 Domestic tertiary enrolments by ethnicity, gender, and subsector, 2015



Source: New Zealand Productivity Commission (2017)

Improving outcomes for Māori and Pacific learners and learners with disabilities is a major opportunity

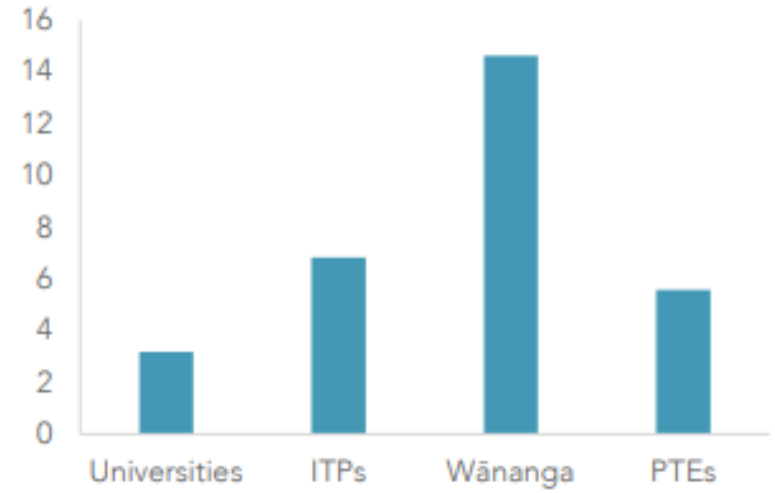
As shown in Figure 10, despite the strong presence of PTEs and wānanga in New Zealand, Māori and Pacific students are disadvantaged. Even after controlling for prior school achievement, Māori school leavers are less likely to enrol in higher-level tertiary education and those who do experience worse outcomes. Pacific school leavers are much less likely to successfully complete a degree than New Zealand Europeans.

Lifting outcomes for Māori and Pacific learners is critical to ensuring good socioeconomic outcomes for these groups and ultimately reaching New Zealand's economic potential. But to do this, the government must acknowledge and harness the important role that PTEs play. PTEs are more popular with Māori (and roughly as popular with Pacific learners) than universities.

A similar case can be made for learners with disabilities who are more heavily represented in wānanga, institutes of technology and polytechnics (ITPs) and PTEs than in universities (see Figure 11).

Figure 11 Percentage of students with a disability by education provider type

Percentage of students with a disability



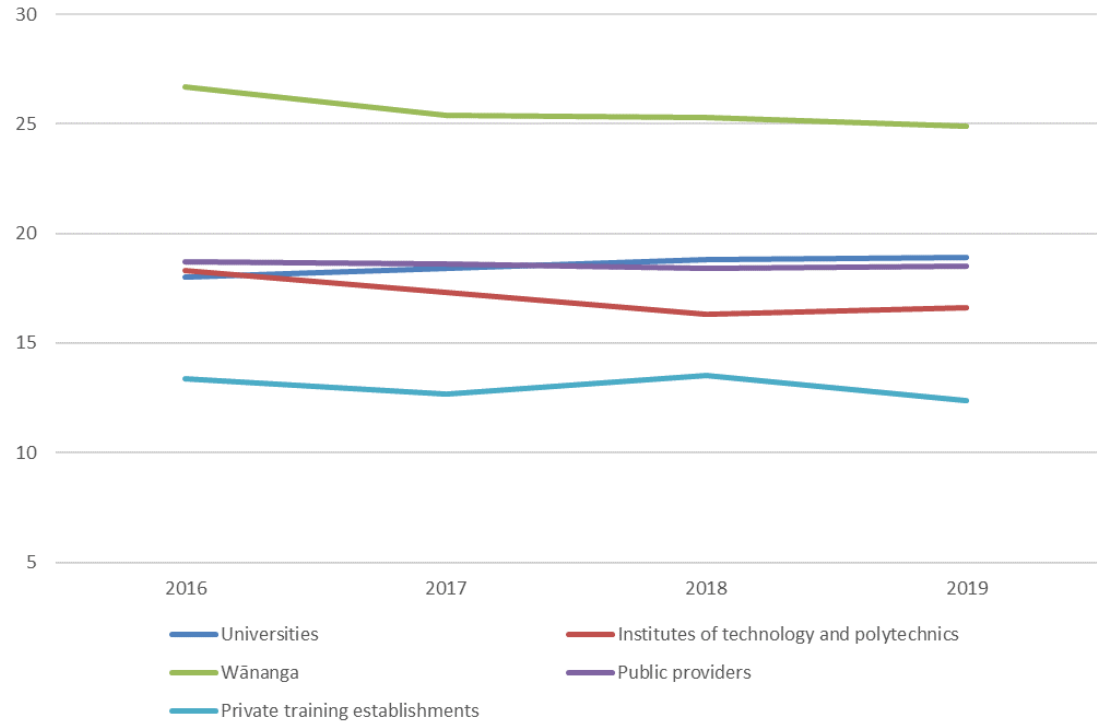
Source: New Zealand Productivity Commission (2017)

Higher staff to student ratios at PTEs offer the potential for a tailored service

Under-served learners may be better served in education systems that have the capacity for more tailored and student-orientated teaching. Rather than a one size fits all universal approach, a targeted approach may contribute to better outcomes. Ministry of Education data shows that PTEs consistently have higher staff ratios to students compared to other tertiary institutions (see Figure 12). This suggests that PTEs may be better able to serve students with diverse needs in the classroom.

Figure 12 Students per academic staff member

The average number of students per academic staff member



Source: NZIER, using Ministry of Education tertiary resourcing data Quality Tertiary Institutions, http://www.qti.org.nz/Our-Views/The-Role-of-Private-Tertiary-Education

One average UP delivers cost-effective outcomes

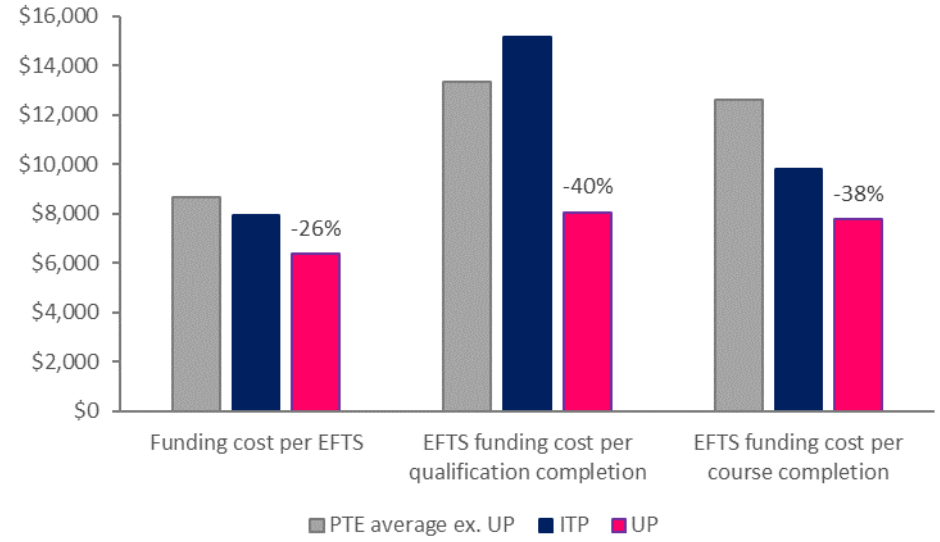
UP Education appears to be more cost-effective than other providers. Figure 13 compares the cost funding of education per student, qualification completion and course completion. Each measure was compared on an Effective Full-Time Student (EFTS) basis. An EFTS is a unit for counting tertiary student numbers on a comparable basis. An EFTS is equivalent to a student taking a normal year's full-time study counts as 1.0 EFTS units or the equivalent of 120 credits on the National Qualifications Framework.[1]

Figure 13 shows that on an EFTS basis, UP is 26% more cost-effective per student, 40% more cost-effective per completed qualification, and 38% more cost-effective course completion compared to the PTE median funding cost (excluding UP).

[1] https://www.educationcounts.govt.nz/site-info/glossary-filter

Figure 13 The cost-effectiveness of education outcomes

The cost per outcome, adjusted for EFTS. The data labels show the cost of UP versus the PTE cost median excluding UP.



Source: Tertiary Education Commission, Nga Kete.

9 Conclusion

Education could be one of the most influential levers for improving the wellbeing of people in New Zealand, including addressing disparities and inter-generational adverse outcomes.

There is a large body of literature showing the positive and multifaceted benefits of improving education outcomes. The links between education, the economy, health and social settings indicate that education is one of the more influential policy levers for improving the welfare of New Zealanders now and in the future.

Under-served learners are over-represented in the statistics about adverse economic, health and social outcomes. But there are opportunities to do things differently to address the needs and settings of those who are under-served. Education can be innovative, targeted and tailored for the needs and aspirations of an increasingly diverse population.

Further research is needed to investigate how greater innovation in education could improve educational outcomes for under-served learners and contribute to cost-saving in health and social policy spending. The link between better education outcomes and improvements in other areas is undoubted.

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