Building on strengths: Sciences

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July 2024

Document information

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Acknowledgements

This research was funded by Te Puni Kōkiri, the Ministry of Māori Development. The authors thank Roger Macky (Te Puni Kōkiri) and Richard Jefferies (Ngāti Tūkorehe, Ngāti Raukawa; Te Puni Kōkiri) for providing helpful discussion, feedback, and cultural context, and participants at the New Zealand Association of Economists annual conference 2022 for useful suggestions. They also thank Will Workman (Ngāti Kahungunu Ki Wairarapa), whose work helped inspire this research.

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The results are based in part on tax data supplied by Inland Revenue to Stats NZ under the Tax Administration Act 1994 for statistical purposes. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

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Abstract

This is one of 15 "specialty profiles" associated with the report "Building on strengths: Educational pathways that benefit Māori students" (2023). In this specialty profile we investigate the pathways through education associated with strong labour market outcomes for Māori men and women who showed an interest in and aptitude for Sciences at NCEA level 2.

We find these women tend to do well relative to other women in the specialty if they gain a qualification at level 7 or above, particularly if they study Health or Management and Commerce. Very few women study Engineering and Related Technologies at level 4 or above, but those who do have extremely strong outcomes. Possible reasons why few women take this pathway are discussed in the main report. Although higher study in Natural and Physical Sciences is a natural extension of Sciences at school, it tends not to lead to strong labour market outcomes. Nonetheless, there may be good non-financial reasons for students to take this route.

Men who specialised in Sciences at level 2 do comparatively well with level 4 to 6 qualifications, but qualifications at level 7 and above have a high opportunity cost, and don't necessarily offer high enough earnings to compensate for the delay in entering full-time work. Industry training qualifications at level 4 and above are associated with strong outcomes for men. Seventeen percent of men gain qualifications in Engineering and Related Technologies at level 4 or above, and, like women who take this route, they do extremely well in the labour market. Like women, men tend to do poorly from higher study in Natural and Physical Sciences, and well from qualifications in Health or Management and Commerce at level 7 or above.

Early work experience in Central Government is good for both genders, and experience in the Professional, Scientific, and Technical Services industry seems particularly beneficial for men. However, experience in the low-paying, female-dominated industries of Retail Trade and Accommodation and Food Services is associated with weak outcomes for men and women.

JEL codes

I20, I30, I23, I26, J15, J24

Keywords

education, Māori, tertiary study, New Zealand education system, employment, labour market, STEM

Contents

Tables and Figures

1. Introduction

This report details the pathways through education that are associated with strong labour market outcomes for Māori students in Aotearoa New Zealand who showed an interest and aptitude in Sciences at NCEA level 2. It is one of 15 "specialty profiles" associated with the main report "Building on strengths: Educational pathways that benefit Māori students" (2023). The goals of the overall project are to support the development of policy that improves Māori outcomes and inform advice that will help Māori students choose beneficial pathways through education. See the main report for a description of the project and detailed explanations of the study population, outcomes, and pathway variables.

The first measure of labour market success we consider is cumulative savings, which measures the financial resources the students could have accumulated since gaining NCEA level 2.[1] This captures the opportunity cost of higher education as well as any earnings benefit it provides within the 12-year window after NCEA level 2 that we study. However, students who gain higher qualifications may have low cumulative savings even 12 years after NCEA level 2, but high annual income. This would mean they have the potential to rapidly increase their cumulative savings in subsequent years. We thus also consider annual savings, which captures the rate at which students' financial resources could be increasing each year.

The remainder of this report proceeds as follows. Section 2 describes the backgrounds and labour market outcomes of students who specialised in Sciences. Section 3 shows the levels of highest qualification that are associated with strong outcomes. Section 4 shows the fields of study at each level of education that are associated with strong outcomes. Section 5 investigates the self-employment of these students and its relationship to savings. Section 6 shows the pathways outside education that are associated with strong outcomes. Finally, Section 7 summarises the pathways through education and life that look likely to lead to strong labour market outcomes for men and women who specialised in Sciences at school.

2. Overview of the students who specialised in Sciences

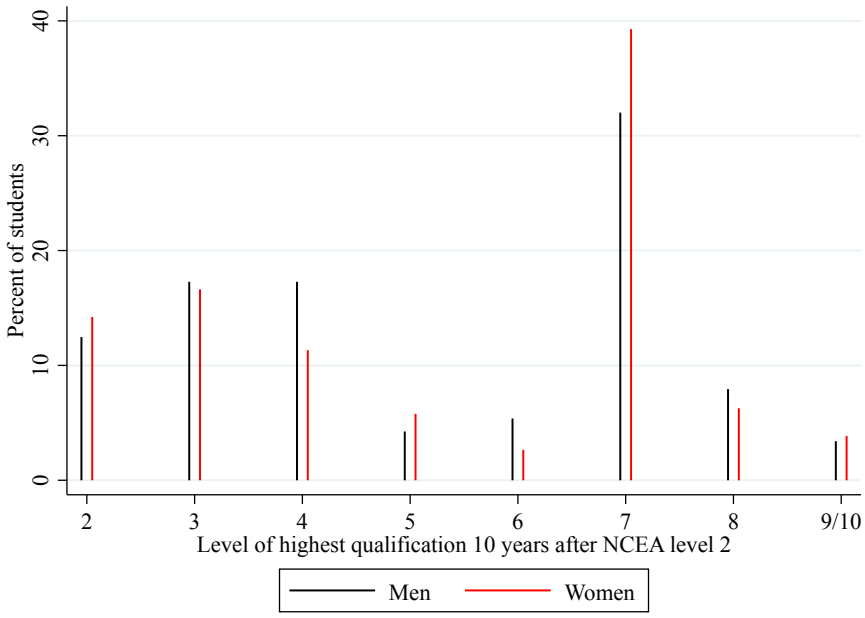
Māori students who specialised in Sciences are defined as students who showed strong results in NCEA level 2 standards in subjects such as mathematics, statistics and probability, and physical

[1] The overall magnitude of savings is sensitive to the assumptions we use to calculate it, so the dollar values should not be taken too seriously. However, differences between students are relatively robust, so more weight can be put on the comparisons between students with different characteristics.

sciences.[2] The sample is limited to those who achieved NCEA level 2 between 2004 and 2007 when aged 16 to 19, and who were not in the top 10% of their year academically. A total of 2,301 students specialised in Sciences, 54% of whom are female, and 13% of whom gained NCEA level 2 at a tertiary institute.

Figure 1 shows the highest level of qualification attained within 10 years of gaining NCEA level 2 by men and women who specialised in Sciences. On average, the women in the specialty attain higher qualifications than the men. In particular, women are more likely to gain level 7 qualifications (which includes bachelor's degrees and other qualifications at a similar level), whereas men are more likely to gain level 4 qualifications. The most common highest qualification level for both genders is level 7, which is attained by 32% of men and 39% of women. Around 10% of both men and women attain qualifications above level 7. Similar proportions of men and women gain level 2 and 3 qualifications, under 15% for level 2 and about 17% for level 3.

Figure 1: Distribution of level of highest qualification



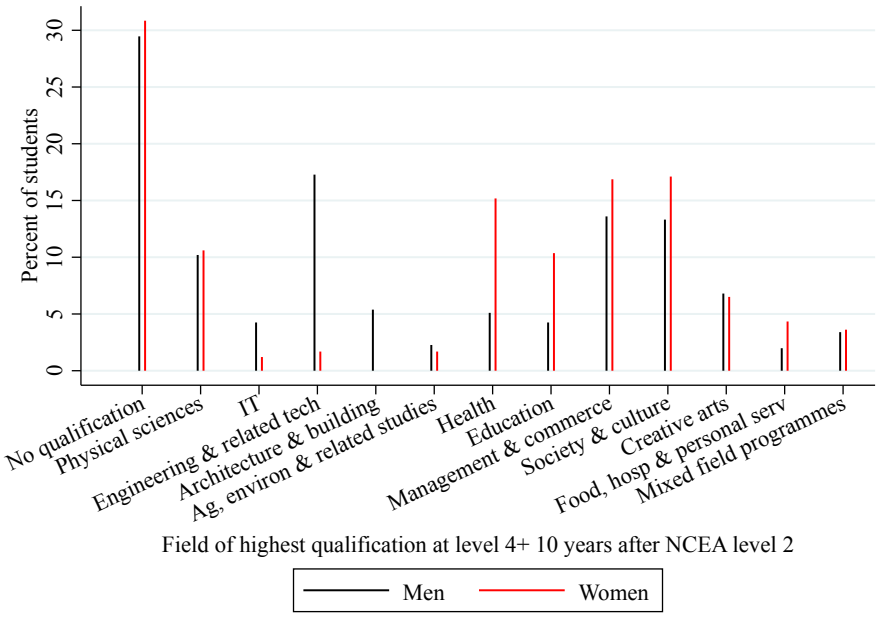
Notes: This figure shows the highest level of qualification gained by men and women who specialised in Sciences. To be counted, qualifications must have been gained within 10 years of achieving NCEA level 2.

Figure 2 shows the distribution across fields of study of the highest qualifications of men and women who specialised in Sciences at level 2. Around 30% of each gender does not gain any

[2] The full list of subjects included in the specialty Sciences is: mathematics; statistics and probability; science; home and life sciences; and environment. Not all of these subjects are necessarily available to study at level 2.

qualifications at level 4 or above. Among those who do, the most common field of qualification for men is Engineering and Related Technologies, in which 17% of men gain their highest qualification. For women, Management and Commerce and Society and Culture are equal most popular; each is also taken by a lower but still substantial proportion of men. Health and Education are both popular for women, though not men, and Physical Sciences are relatively popular for both genders, with about 10% of students gaining their highest qualification in this field.

Figure 2: Distribution of field of highest qualification

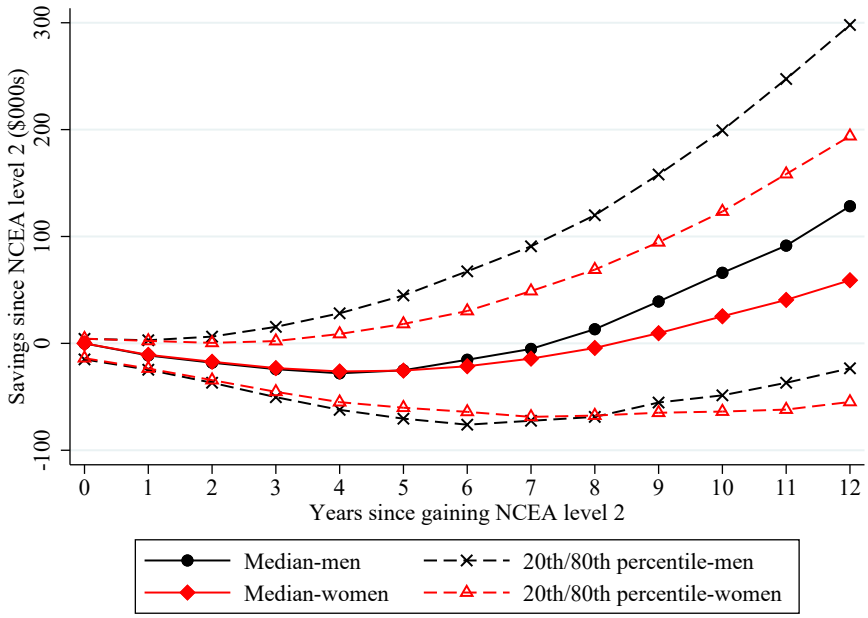


Notes: This figure shows the percentage of students whose highest qualification (at level 4 or above) is in each field among those who specialised in Sciences. Students may be included in more than one field if they have multiple highest qualifications at the same level. Those whose highest qualification is below level 4 are included in the "No qualification" category. To be counted, qualifications must have been gained within 10 years of achieving NCEA level 2. Small but non-zero values may be presented as zeros for confidentiality reasons.

Figure 3 shows the evolution over time of the distribution of cumulative savings for men and women who specialised in Sciences. Median cumulative savings for men and women are negative for the first seven years, indicating any earnings the median students have over these years are insufficient to cover their estimated living costs and tertiary fees. In year 8, men's median savings become positive, followed the next year by women's. A gap between the medians for the genders becomes evident in year 6 and grows quickly in subsequent years. By 12 years after NCEA level 2, median men's savings are around $130,000, approximately twice as

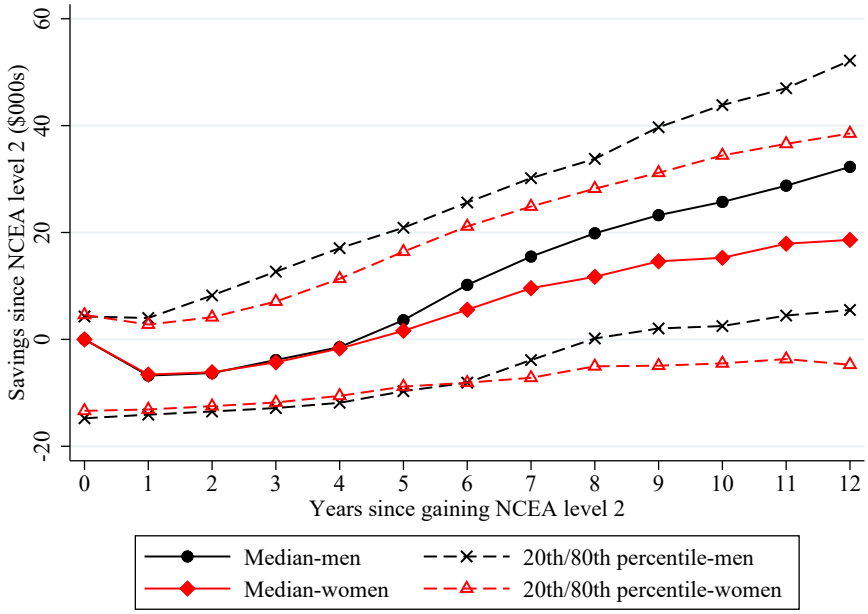
high as women's. Men at the upper end of the earnings distribution do even better relative to women in dollar terms, whereas men's and women's earnings at the lower end are more similar.

Figure 3: Cumulative savings over time by gender



Notes: This figure shows how the median, 20th percentile, and 80th percentile of cumulative savings since gaining NCEA level 2 change over time for men and women who specialised in Sciences.

Figure 4: Annual savings over time by gender



Notes: This figure shows how the median, 20th percentile, and 80th percentile of annual savings change over time for men and women who specialised in Sciences.

Figure 4 similarly shows how the distribution of annual savings changes over time for men and women who specialised in Sciences. It shows median men's annual savings begin to pull ahead of median women's 5 years after NCEA level 2, and in year 12 the gender gap is still growing rapidly. The large annual savings gap in year 12 (around $13,000) suggests men's cumulative savings in later years will continue to pull further ahead compared with women's.

3. How do savings vary with level of qualifications?

This section shows how the cumulative and annual savings of students who specialised in Sciences vary with their highest level of qualification.

3.1 Cumulative and annual savings by level of highest qualification

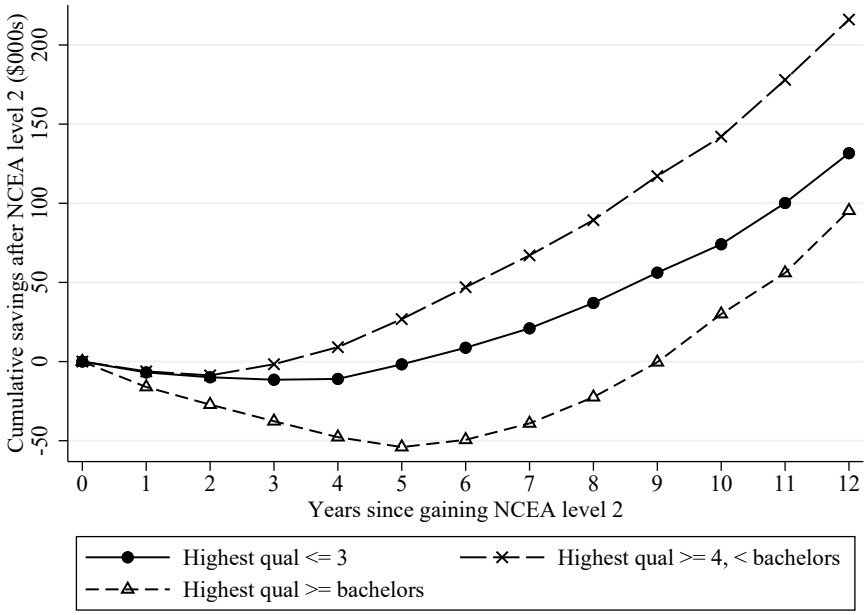
Figures 5 and 6 show how median cumulative and annual savings change over time after gaining NCEA level 2 for men and women who achieve different levels of highest qualification. Figure 5 shows men with intermediate qualifications (at least level 4 but below bachelor's level) have the highest annual savings from immediately after NCEA level 2, and this allows them to accumulate much higher cumulative savings over time. Men with low qualifications (level 2 or 3) have somewhat lower annual savings, and these annual savings grow more slowly over time. However, the annual savings of men with low qualifications remain above those of men with bachelor's degrees or above until year 7, when high-qualified men are completing their studies and entering the labour market. From this time the annual savings of high-qualified men grow quickly and catch up with those of intermediate-qualified men in year 9. However, by this time their cumulative savings are around $120,000 lower and are still below those of low-qualified men. Their annual savings don't pull ahead of those of intermediate-qualified men until year 12, and even then the difference is small. Although the cumulative savings of high-qualified men might catch up with those of intermediate-qualified men eventually, this is not guaranteed. The opportunity cost of not working while they gained higher qualifications appears challenging to compensate for.

Figure 6 reveals quite a different story for women to the story for men. Women with intermediate and low qualifications have similar annual and thus cumulative savings throughout the 12 years after NCEA level 2. Women who gain high qualifications have lower annual savings than less qualified women for five years, after which point their savings quickly grow as they finish study and enter the labour force. They rapidly overtake less qualified women in terms of annual savings. A few years later their cumulative savings overtake those of intermediate- and low-qualified women, and by year 12 they are $26,000 to $36,000 ahead and increasing their

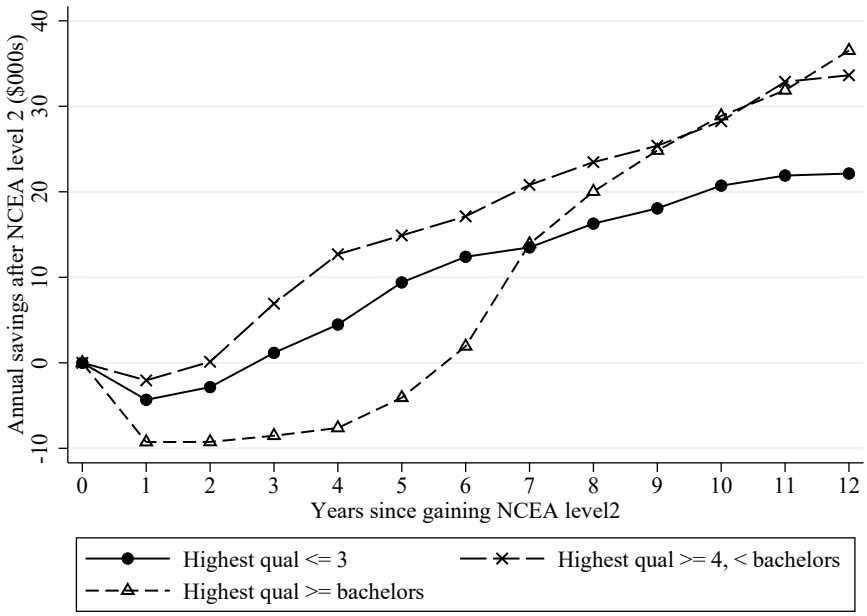
savings a lot more each year. In the long run, women with high qualifications are expected to do even better in relative terms.

Figure 5: Savings over time by level of highest qualification for men

Panel A: Cumulative savings



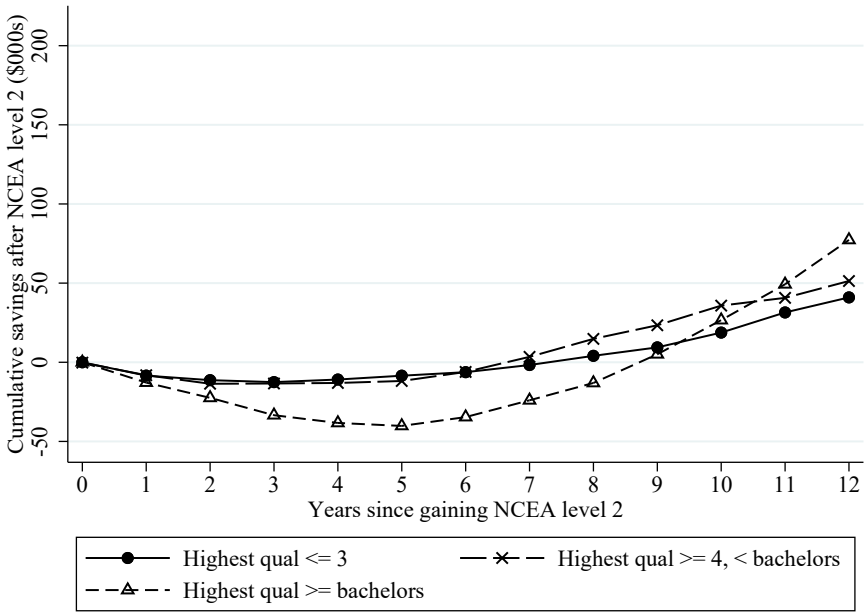
Panel B: Annual savings



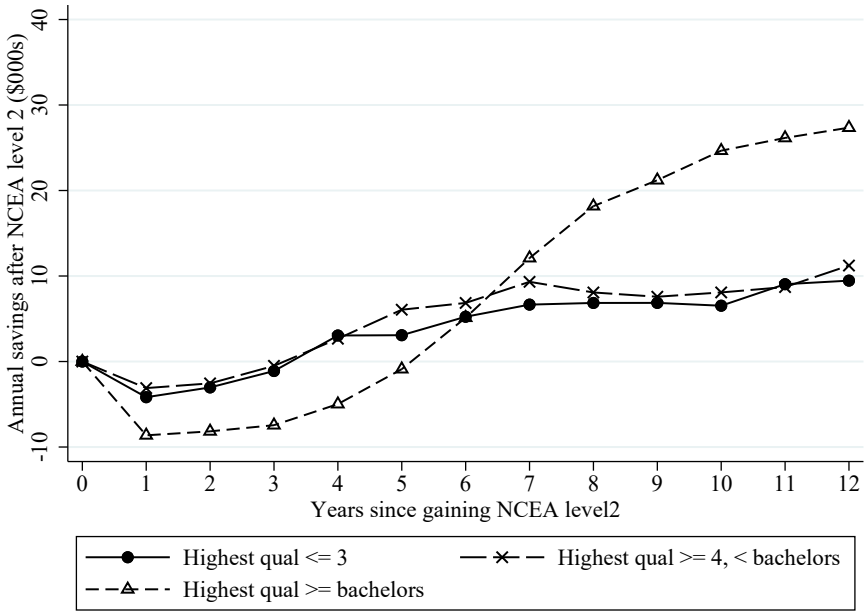
Notes: This figure shows changes over time in the median of cumulative savings since gaining NCEA level 2 (Panel A) and median of annual savings (Panel B) for men who specialised in Sciences and achieved different levels of highest qualification. Qualifications are included if they were gained within 10 years of NCEA level 2.

Figure 6: Savings over time by level of highest qualification for women

Panel A: Cumulative savings



Panel B: Annual savings



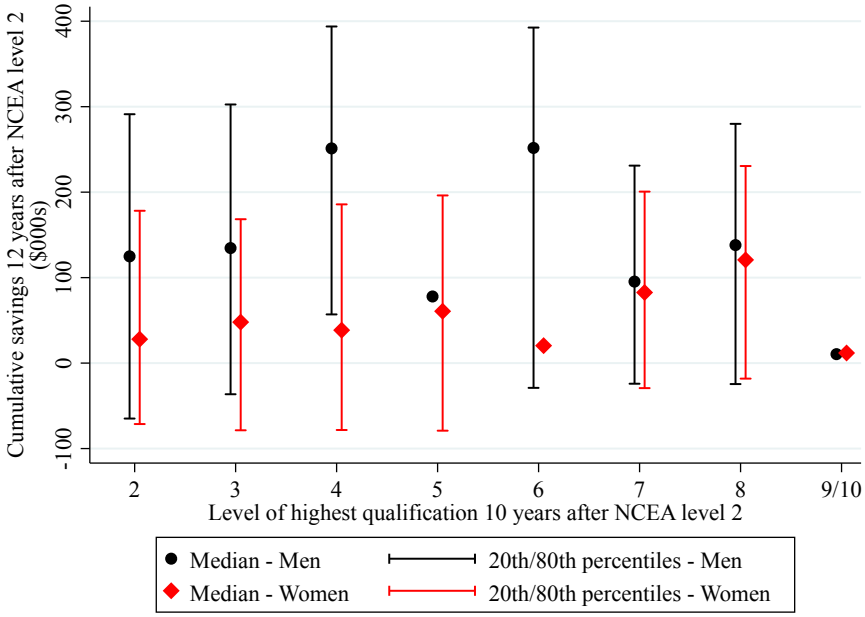
Notes: This figure shows changes over time in the median of cumulative savings since gaining NCEA level 2 (Panel A) and median of annual savings (Panel B) for women who specialised in Sciences and achieved different levels of highest qualification. Qualifications are included if they were gained within 10 years of NCEA level 2.

Taken together, these findings show men who specialised in Sciences pay a high opportunity cost of gaining a bachelor's or higher degree. Although their higher long run earnings may make this level of qualification worthwhile eventually, this is far from certain. In

contrast, women with a bachelor's degree do substantially better in the labour market than women without.

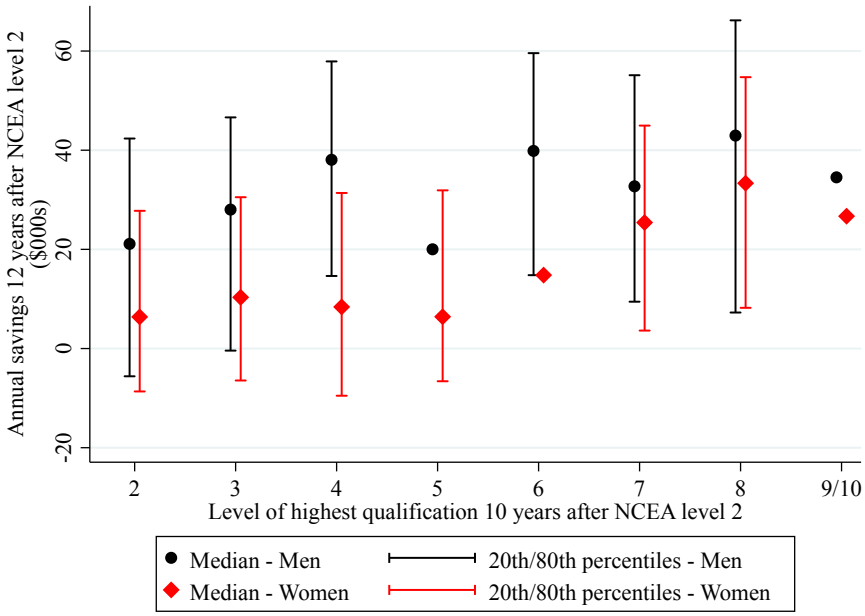
Figures 7 and 8 explore the distribution of cumulative and annual savings after 12 years for men and women by disaggregated level of highest qualification. They show men with level 4 or 6 qualifications have high cumulative and annual earnings, above those of men with bachelor's degrees. Men with honours degrees (level 8) have slightly higher annual savings, but much lower cumulative savings. Women's savings don't benefit much from higher qualifications below level 7, but women with level 7 qualifications have higher cumulative and annual savings than those with lower qualifications, and women with level 8 qualifications have savings that are higher again.

Figure 7: Cumulative savings 12 years after NCEA level 2 by gender and level of highest qualification



Notes: This figure shows the median and 20th and 80th percentiles of cumulative savings 12 years after NCEA level 2 of men and women who specialised in Sciences by the detailed level of their highest qualification. Qualifications are included if they were gained within 10 years of NCEA level 2. Note the median is plotted if the number of observations is 10 or larger, and the 20th and 80th percentiles are plotted if the number of observations is 50 or larger.

Figure 8: Annual savings 12 years after NCEA level 2 by gender and level of highest qualification



Notes: This figure shows the median and 20th and 80th percentiles of annual savings 12 years after NCEA level 2 of men and women who specialised in Sciences by the detailed level of their highest qualification. Qualifications are included if they were gained within 10 years of NCEA level 2. Note the median is plotted if the number of observations is 10 or larger, and the 20th and 80th percentiles are plotted if the number of observations is 50 or larger.

3.2 Qualification levels of top cumulative and annual savers

In this section we categorise men and women who specialised in Sciences by whether they are top cumulative savers or top annual savers, and show the level of qualifications and types of education providers attended that are associated with being a top saver. A student is considered a top cumulative (or annual) saver if their cumulative (annual) savings 12 years after NCEA level 2 are in the top 20% of cumulative (annual) savings for Māori students of their gender who specialised in Sciences. Note the comparisons in this section are all with other students of the same gender in the same specialty, so being a top saver means a student does well in the labour market compared with similar students. This can be but is not necessarily the same as doing well in absolute terms.

Appendix Tables 1 and 2 show for men and women respectively the characteristics associated with being a top cumulative saver or top annual saver. The left-hand side of each table describes each characteristic. Column (1) gives the percentage of students who are *not* top cumulative savers who have the characteristic, and column (2) gives the percentage of students who *are* top savers who have the characteristic. Column (3) is the odds ratio, defined as the proportion of students *with* the characteristic who are top cumulative savers divided by the proportion of students *without* the characteristic who are top savers. Thus an odds ratio of 1

means the probability of being a top cumulative saver is unrelated to whether a student has the characteristic, an odds ratio above 1 means a student is *more* likely to be a top cumulative saver if they have the characteristic, and an odds ratio below 1 means a student is *less* likely to be a top cumulative saver if they have the characteristic. Asterisks on the odds ratio indicate whether it is statistically significantly different to 1. Columns (4) to (6) replicate columns (1) to (3) but for annual instead of cumulative savings.

Appendix Tables 1 and 2 explore the characteristics top savers are more likely to have, but they consider only one characteristic at a time. Appendix Tables 3 and 4 use regressions to explore for men and women respectively the relationship between having various characteristics and being a top saver, controlling for students' backgrounds and a selection of other characteristics. The first four columns of each of Appendix Tables 3 and 4 investigate the correlates of being a top *cumulative* saver, while the last four columns look at being a top *annual* saver. On each side of the tables, the first column controls for background characteristics only, the second adds level of highest qualification of any type, and the third distinguishes highest qualifications by whether they are industry training qualifications or not. In the third column, the comparison group for all the level of qualification variables is students whose highest qualifications are at level 2 and are not industry training qualifications. To compare, for instance, the probability a student with a level 4 industry training qualification is a top saver with the probability a comparison group student is a top saver, the coefficients on "highest qualification is level 4" and "highest industry training qualification is level 4" are added together. The fourth column on each side of the tables does not explicitly distinguish industry training qualifications from other types of qualifications, but controls for level of highest qualification and the types of tertiary institute attended. Here the coefficients on type of tertiary institute attended should be interpreted as conditional on students' background characteristics and level of highest qualification. The remainder of this section discusses the results from Appendix Tables 1 to 4.

Around 60% of students who specialised in Sciences achieve a level 3 NCEA certificate within 1 year of NCEA level 2, and over 60% within 5 years. The proportion who achieve a level 3 NCEA certificate is very similar among women and men. The bivariate analysis shows women who achieve a level 3 NCEA certificate are significantly more likely than women who don't to be top cumulative savers, and nearly twice as likely to be top annual savers. However, men who do so are more than 20% less likely to be top cumulative savers, and only slightly and insignificantly more likely to be top annual savers.

In the regressions that control for students' backgrounds, men with level 4 highest qualifications are more likely to be top cumulative and annual savers than men with the same

background with any other level of highest qualification. Compared with them, the nearly third of men who gain level 7 qualifications are slightly less likely to be top annual savers and substantially less likely to be top cumulative savers. The less than 10% of men with level 8 to 10 qualifications are only slightly more likely than those with the same background with level 4 qualifications to be top annual savers, and are the least likely to be top cumulative savers. In the regressions for women, those with qualifications at level 7 or above, particularly at level 8 or above, are more likely to be top annual savers and similarly likely to be top cumulative savers than those with the same background with lower qualifications. This is also evident in the bivariate analysis.

Industry training is a relatively common pathway taken by men: a third of men complete some industry training credits. Both the bivariate analysis and regressions reveal this is highly beneficial for them in terms of cumulative savings, and also in terms of annual savings when it is at level 4 or above. The 14% of men who gain an industry training qualification at level 4 or above are over three times as likely to be top cumulative savers and more than twice as likely to be top annual savers when compared with men who do not gain such a qualification. This relationship is also present in the regression analysis, which shows men with level 4 or above industry training qualifications are substantially more likely to be top cumulative and annual savers than are similar men with level 2 non-industry training qualifications, and in fact are substantially more likely to be top savers of both types than are similar men with level 8 qualifications.

In contrast, only 18% of women gain any industry training credits and 7% gain an industry training qualification at level 3 or above. The bivariate analysis shows that women who gain an industry training qualification at level 3 or above are more likely than those who don't to be top cumulative and annual savers, though the relationship is not as strong as for men. The regressions show that women with industry training qualifications at level 3 to 6 are more likely than similar women with any other level or type of qualification to be top cumulative savers. However, they are not quite as likely as similar women with level 8 or higher qualifications to be top *annual* savers.

The regressions show that the completion of Gateway credits for men is associated with a higher probability of being a top annual saver compared with those who didn't complete the credits with the same background, level of highest qualification and tertiary institute attended. The same is not true for women. This could be because such men are more likely to gain

practical industry training qualifications rather than more academic qualifications at the same level.[3]

In terms of the types of tertiary institute attended, men who attend a university or wānanga are less likely to be top cumulative savers and weakly less likely to be top annual savers than are similar men with the same level of highest qualification who did not attend these institutes. In the bivariate analysis, attending a university (which two thirds of women do) is very strongly associated with being a top annual saver for women, but the regressions show this relationship is fully explained by the types of women who attend universities and the levels of qualifications they gain. The regressions also show that women who attend institutes of technology and polytechnics are less likely to be top savers than similar women who don't. Men and women who attend industry training organisations are both weakly more likely to be top savers than those who don't.

Finally, the bivariate analysis shows men who attend a school or tertiary institute in a rural area are somewhat more likely to be top cumulative savers than men who don't, whereas women who attend a school or tertiary institute in a minor urban area are less likely to be top cumulative or annual savers than other women.

In addition to controlling for students' pathways through education, the regressions in Appendix Tables 3 and 4, described at the start of this section, control for various student background characteristics (the first five controls presented at the top of the table). They show backgrounds characteristics are largely insignificantly correlated with being a top saver for men. The exception is age, with men who gained NCEA level 2 when they were older being more likely to be top cumulative savers, partly because they're more like to do industry training. In contrast, women who attend higher decile schools are more likely to be top cumulative and annual savers than those who attend lower decile schools, and more academically able women, measured by their percentile scores, are substantially more likely to be top annual savers, even after conditioning on the level of qualifications they gain.

4. How do savings vary with fields of study in higher education?

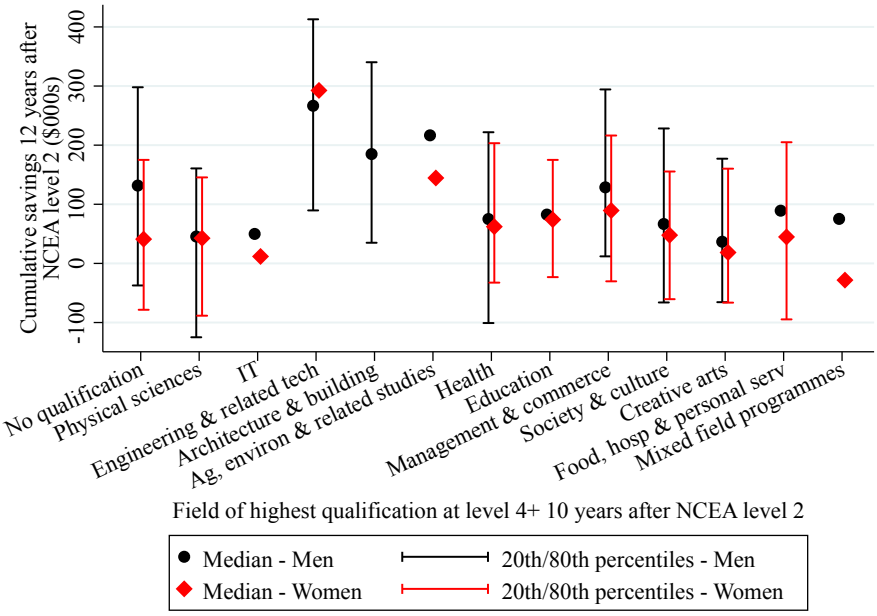
This section shows how the cumulative and annual savings of students who specialised in Sciences vary with the fields in which they study at various levels and gain qualifications.

[3] This is not controlled for in the regressions where Gateway credits appear.

4.1 Cumulative and annual savings by fields of study

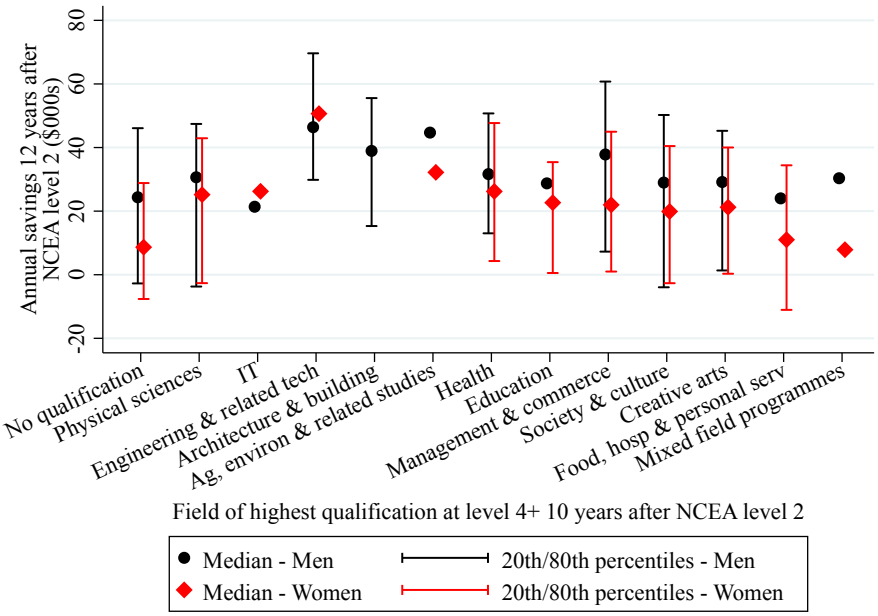
Figure 9 shows how the cumulative savings after 12 years differ for men and women whose highest qualifications at level 4 or above are in different fields. Figure 10 shows the same but for annual rather than cumulative savings. As Figure 2 showed, about 30% of men and women have no qualification at level 4 or above. Such men have moderate cumulative savings, around $130,000 at the median for men, compared with about $40,000 for women, but both genders have relatively low annual savings, $24,000 for men and $9,000 for women.

Figure 9: Cumulative savings 12 years after NCEA level 2 by gender and field of highest qualification



Notes: This figure shows the median and 20th and 80th percentiles of cumulative savings 12 years after NCEA level 2 of men and women who specialised in Sciences by the field of their highest qualification at level 4 or above gained within 10 years of NCEA level 2. “No qualification” includes qualifications at level 3 and below. The median is plotted if the number of observations is 10 or larger, and the 20th and 80th percentiles are plotted if the number of observations is 50 or larger.

Figure 10: Annual savings 12 years after NCEA level 2 by gender and field of highest qualification



Notes: This figure replicates Figure 9 but presents annual savings rather than cumulative savings.

Men's most common field for higher qualifications, Engineering and Related Technologies, offers them both the highest cumulative savings ($270,000) and the highest annual savings ($46,000). It is similarly lucrative for women, though very few women follow this pathway. The much less popular Architecture and Building and Agriculture, Environmental, and Related Studies also offer men high cumulative and annual savings; only a tiny number of women earn qualifications in the former, but the small number who earn qualifications in the latter also have high cumulative and annual savings. Women's three most popular fields of qualification, Health, Management and Commerce, and Society and Culture, all offer higher cumulative and annual savings than no qualifications at this level. Of the three, Management and Commerce is associated with the highest cumulative savings ($89,000 compared with $48,000 to $62,000), and Health the highest annual savings ($27,000 compared with $20,000 to $22,000). Management and Commerce and Society and Culture are also popular fields for men. Management and Commerce offers substantially higher savings of both types than does Society and Culture, but both are well behind Engineering and Related Technologies.

4.2 Fields of higher study of top cumulative and annual savers

In this section we again categorise men and women who specialised in Sciences by whether they are top cumulative savers or top annual savers, and show how the fields in which they study and gain qualifications are associated with being a top saver of either kind. As in Section 3.2, we

conduct both bivariate and regression analysis. Again, being a top saver means doing well compared with other students of the same gender in the same specialty, and is not a statement about how well the student is doing in absolute terms.

4.2.1 Fields of study at school level

We first consider fields of study at NCEA levels 2 and 3. This is school-level study, but may be done either at school or at a tertiary institute after the student leaves school. The bivariate analysis discussed in this section is presented in Appendix Tables 5 and 6, and the regressions are in Appendix Tables 11 and 12. The first three columns in each regression table explore the correlates of being a top cumulative saver, and the other three columns look at being a top annual saver. On each side of the table, the first column controls only for student background characteristics (high school decile, percentile score etc) and fields of study at level 3. Here the coefficient on passing 14 credits in a subject at level 3 compares students with the same background and who passed 14 credits in all the same level 3 subjects except for that one. The coefficient can be interpreted as the difference in probability of being a top saver related to that one field in which they differ.

In many cases, the subjects in which a student passes 14 credits at level 3 affect the student's subsequent pathway through education, such as their fields of study at higher levels, and these in turn affect their ability to save. In the first column, all such impacts are captured by the coefficients on the variables for passing credits in level 3 subjects. In subsequent columns, we add controls for either fields of higher study or fields of higher qualification. In these columns, the coefficients on level 3 subject credits can be interpreted as differences in the probability of being a top saver based on passing the level 3 credits in that field, given the field the student went on to study or gain qualifications in.

In simple bivariate comparisons, women who pass at least 14 credits at level 2 in any of English, Maths, Humanities, and Social Science are more likely than women who don't to be top cumulative and annual savers. These relationships are even stronger when limiting to achievement standard credits, which tend to be more academic. Level 2 achievement standards in Science are strongly associated with a higher probability of women being top savers.[4]

The relationship between level 2 credits in different fields and being a top saver is much weaker for men. Only men who pass credits in English or Humanities are more likely to be top annual savers. No fields are associated with a higher probability of being a top cumulative saver at the 5% level. However, English, Maths, and Humanities *achievement* standards are positively

[4] By construction, all these students who specialised in Sciences passed at least 14 credits of Science at level 2.

associated with men being top annual savers, and Humanities achievement standards with being top cumulative savers.

In bivariate analysis, Social Science and Engineering and Technology are the only fields in which level 3 credits are significantly positively associated with being a top annual saver for men. Engineering and Technology is also positively associated with being a top *cumulative* saver. Men who pass Service Sector or Manufacturing, Planning, and Construction credits are more likely to be top cumulative savers and (insignificantly) more likely to be top annual savers. Men who pass Science credits are less likely to be top cumulative savers, even in the regressions that compare men with the same background and other level 3 fields of study, potentially because these credits lead to more academic and less applied pathways.

In the bivariate analysis, women who achieve 14 level 3 credits in English, Maths, Humanities, Social Science, or Science are more likely to be top annual savers, and either similarly or more likely to be top cumulative savers. Maths and Social Science remain significantly associated with a higher probability of being a top annual saver in the regressions, which compare women with similar backgrounds and other fields of study. The benefit of Maths seems to operate through the fields of study it leads to at higher levels, but Social Science remains significant even when we control for fields of higher study.

4.2.2 Tertiary-level fields of study

In this subsection, we consider fields of study primarily at levels 4 and higher. Study at level 4 and above is tertiary-level study, which is not done at school. Level 7 qualifications include bachelor's degrees and other qualifications at the same level. The qualifications above level 7 are honours degrees, master's degrees, and doctorates, all of which generally involve original research. Note the field categorisations available in the data at this level differ from the categorisations used above for school-level study (levels 2 and 3) above. The bivariate analysis discussed in this section in presented in Appendix Tables 7 to 10, and the regressions are in Appendix Tables 11 and 12.

Columns (2) and (5) in the regression tables control for student background and level 3 fields of study, and also the common fields in which students pass at least 0.5 EFTS of courses at level 4 and above and separately at level 7 and above. The coefficient on each field of study at level 4 and above compares the probability of being a top saver for two students with the same earlier educational history, but one of whom left education after level 3, and the other of whom studied in that field at level 4 to 6. To compare the probability of being a top saver of a student who completed at least 0.5 EFTS of courses in a field at level 7 or above with that of a similar student who left education after level 3, the coefficients on "passed at least 0.5 EFTS at level 4+

in the field" and "passed at least 0.5 EFTS at level 7+ in the field" must be added together. Columns (3) and (6) in the table replace the EFTS controls with controls for qualifications gained. Here the comparison student is someone with the same background and level 3 fields of study, but who left education without gaining a qualification at level 4 or above. As before, to compare this student with a similar student who gained a qualification at bachelor's level or above in a particular field, the coefficients on "gained qualification at level 4+ in the field" and "gained bachelor's degree+ in the field" must be added together.

Out of the students who specialised in Science at level 2, only 22% of men and 19% of women pass 0.5 EFTS of Natural and Physical Science courses at level 4 or above and only 7% of each at level 7 or above. Only 10 or 11% of each gain a qualification in this field at level 4 or above; most who do gain it at level 7 or above. The regressions show students who pursue this field tend to be less likely to be top savers than students with the same background and level 3 fields, but who leave education after level 3. This result holds more strongly for men than for women and for those whose study is at levels 4 to 6 as opposed to level 7 or above. Tertiary study in Natural and Physical Science seems like a natural extension of Science study at school, but is often relatively academic. It can mean a long delay in entering the labour market and doesn't necessarily point to a clear career path. However, it may be a fascinating pathway for some students despite its generally low labour market returns, and should not be discounted as an option.

A more applied field that may build off the aptitudes of Science students is Engineering and Related Technologies. As discussed previously, this path is common for men but unusual for women. Men and women with EFTS or qualifications at level 4 or above in Engineering and Related Technologies tend to be substantially more likely to be top cumulative and annual savers than are similar students who are education leavers. In the regressions, men (but not women) who study Engineering and Related Technologies study at level 7 or above, compared with those who study it at levels 4 to 6, are less likely to be top cumulative savers (because of the high opportunity cost of studying for the length of time required), but more likely to be top annual savers.

Health is another natural extension of Science at school; it is studied by few men but a moderate proportion of women. In the regressions, men with EFTS or qualifications in Health below level 7 are less likely to be top annual and cumulative savers than similar education-leavers; at level 7 and above they are even less likely to be top cumulative savers but more likely to be top annual savers. The patterns for women are similar, except that women who study

Health are less likely to be top cumulative savers only if the level of study is below level 7 and no qualifications are completed.

Over 9% of men but less than 5% of women pass at least 0.5 EFTS of credits in Information Technology at level 4 or above. When controlling for students' backgrounds and other fields of study, these men are less likely to be top cumulative and annual savers if the study is at levels 4 to 6, but not if it is at higher levels. Women who study this field at levels 4 to 6 do similarly to education-leavers, but those who study it at level 7 or above are more likely to be top savers of both types.

Finally, substantial proportions of men and women study Management and Commerce at levels 4 and above. Below level 7, these students are not more or less likely to be top savers, but at levels 7 and above women are at least weakly more likely to be top cumulative savers and both genders are more likely to be top annual savers, particularly if the student completes a qualification.

5. How do savings vary with self-employment?

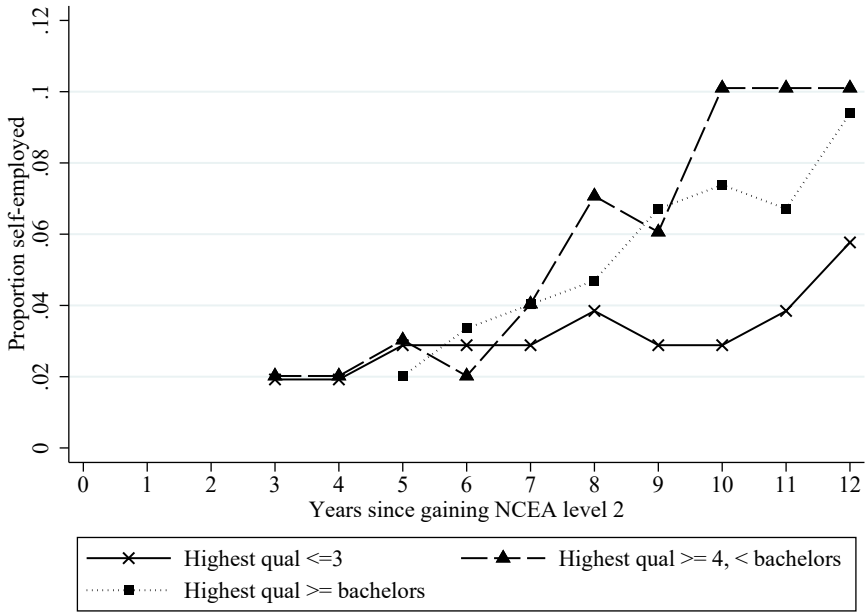
This section first shows how self-employment rates vary over time and by level of highest qualification for students who specialised in Sciences. It then shows how cumulative and annual savings differ for those who are ever self-employed.

5.1 Self-employment by level of highest qualification

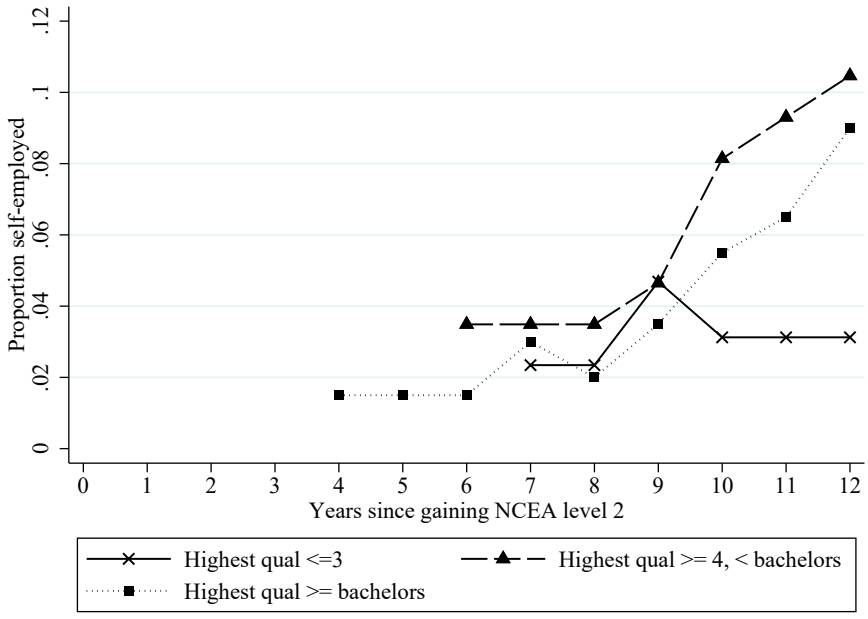
This section shows how the self-employment of students who specialised in Sciences varies over time for each level of highest qualification. Figure 11 shows self-employment is relatively comparable for men and women. For both genders, those with intermediate-level qualifications are more likely to be self-employed than are those with high qualifications, and those with low qualifications are least likely to be self-employed. However, the self-employment rates of high-qualified men and women are rising most rapidly at 12 years, and may overtake the rates of less qualified people after the end of the observable period.

Figure 11: Self-employment over time by highest qualification

Panel A: Men



Panel B: Women



Notes: This figure shows how the proportion of self-employed workers changes over time for men (Panel A) and women (Panel B) who specialised in Sciences and achieved different levels of highest qualification. Qualifications are included if they were gained within 10 years of NCEA level 2. Missing values denote self-employed counts so low they must be supressed under Statistics New Zealand's confidentiality rules.

5.2 Cumulative and annual savings by self-employment status

Figure 12 compares the cumulative savings of men and women who were ever self-employed in the first 12 years after NCEA level 2 with the savings of those who were never self-employed in this period. The savings of the two groups could differ for several reasons. First, self-employment could affect savings, for instance, if self-employed people give up wage income while establishing their businesses or earn profits that differ from what their wages would have been. Second, those who choose to become self-employed may not be representative of the population as a whole. They may have a history of higher or lower earnings, depending on the motivations that drive people to become self-employed.[5] Third, self-employment involves a change in the way income is recorded and reported, and for tax purposes self-employed individuals tend to have an incentive to make their income appear as low as possible. Thus the measurement error in income may differ for the self-employed relative to those not self-employed.

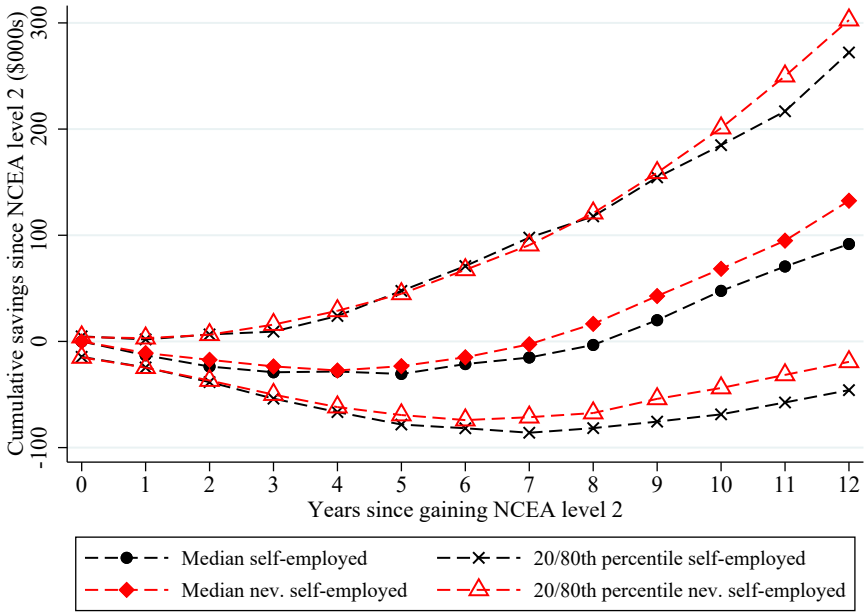
Figure 12 shows that among both men and women those who are ever self-employed tend to have lower cumulative savings than those who are never self-employed. After 12 years, this savings gap is evident and of similar dollar magnitude ($25,000 to $40,000) throughout the distribution of savings (at the median, 20th percentile, and 80th percentile). At the median, the savings gap emerges with similar timing for men and women, particularly growing in year 8 for men and year 9 for women.

One way to partially distinguish the reasons for the difference in savings between the two groups is to compare the timing of the growth of the difference with the timing of self-employment. Figure 11 showed how self-employment grows over time. The growth in the earnings gap in year 8 for men and 9 for women corresponds to the timing of considerable expansion in the proportion self-employed. Although not definitive, this does suggest becoming self-employed might result in lower earnings for men and women.

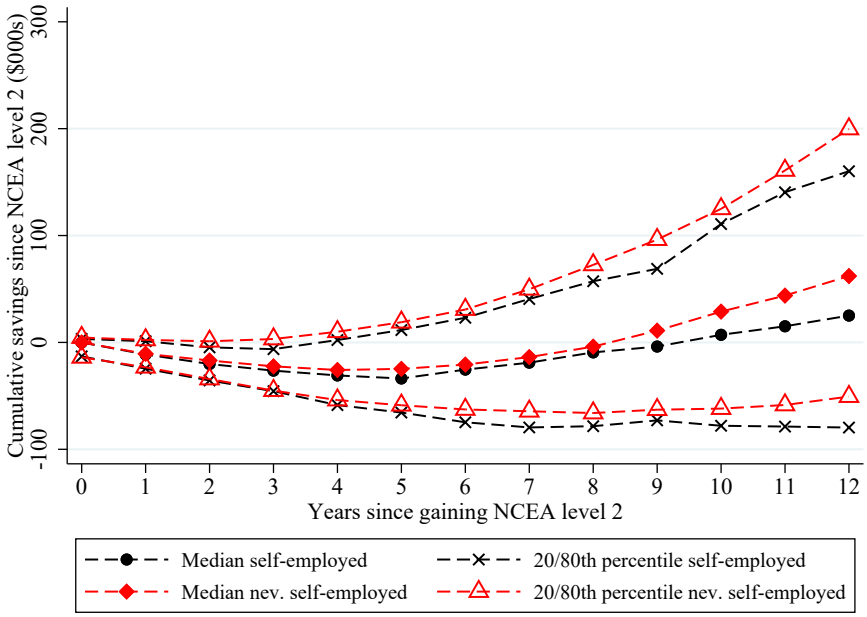
[5] For instance, self-employment may be a way for successful employees to keep a higher proportion of the value they create (positive selection into self-employment), or it may be a last resort for individuals who can't secure employment or who place high value on objectives other than income (negative selection).

Figure 12: Cumulative savings over time by whether ever self-employed

Panel A: Men



Panel B: Women



Notes: This figure shows the median and 20th and 80th percentiles of cumulative savings of men and women who specialised in Sciences by whether they were self-employed in any year from the year they gained NCEA level 2 to the 12th year after that.

6. How do savings vary with pathways through life outside education?

This section shows how the cumulative and annual savings of students who specialised in Sciences vary with their fertility decisions, overseas experience, and work experience in the first five years after NCEA level 2. We again categorise men and women by whether they are top cumulative savers or top annual savers, and show how the pathways they take outside education are associated with being a top saver of either kind. As in previous sections, we conduct both bivariate and regression analysis. Again, being a top saver means doing well compared with other students of the same gender in the same specialty.

The bivariate analysis is presented in Appendix Tables 13 and 14. As previously, these tables show the proportion of top and non-top savers who have each characteristic and the odds ratio (calculated as the probability a student with the characteristic is a top saver divided by the probability a student without the characteristic is a top saver). Many of the characteristics shown in these tables relate to work experience. In particular, we look at whether the student worked for a certain type of employer for at least one year or at least three years in the first five years after NCEA level 2. Note here we limit the sample considered to those students who had at least that many years of work experience for some employer. For example, when considering whether students had at least 3 years of experience working for central government, the students without the characteristic are those who have at least three years of work experience, but who do not have three years of experience working for central government.

The regression analysis is presented in Appendix Tables 15 and 16. The first three columns in each table explore the correlates of being a top cumulative saver, and the last three columns look at being a top annual saver. All columns control for students' backgrounds, level of highest qualification, fields of study, the timing of their children's births, and their overseas experience. The second and third columns on each side of the table also control for years of early work experience and various characteristics of the employers where the experience was gained. The coefficients on the employer type variables should be interpreted as comparisons with students who have the same education and years of experience, but who don't have that particular type of experience. The remainder of this section discusses the results from Appendix Tables 13 to 16.

The bivariate comparisons show children are positively associated with savings for men and negatively for women. Similarly, in the regressions that control for students' backgrounds and education, men who have children are more likely to be top savers, though the relationship is generally statistically insignificant. In contrast, the regressions for women show those who have children by year 10 are less likely to be top cumulative savers, and those who have children

in years 6 to 12 are less likely to be top *annual* savers. This is consistent with the large literature on the motherhood earnings penalty, which shows this penalty is partly driven by women exiting the labour market or reducing their work hours after having children.

Overseas experience in years 11 or 12 increases the probability of being a top saver for both genders when compared with those with similar education, timing of children, and backgrounds but who don't go overseas. This is partly because we impute overseas earnings and assume overseas wages are higher than New Zealand wages.

Unsurprisingly, the regressions show a history of solid work experience in the five years after NCEA level 2 increases the probability of being a top cumulative saver for both genders when compared with those with the same educational, fertility, and travel history but less work experience over this period. It also increases the probability of being a top annual saver, particularly for women. Twenty percent of men and 15% of women who get any work experience work for central government for at least one year in this period. This central government experience contributes more than other work experience to being a top cumulative saver for both genders and to being a top annual saver for women.

Retail Trade is the most common industry in which men and women gain work experience: 28% of men and 20% of women with any work experience have experience in this industry. The regressions show that, compared with work experience in other industries, this experience tends to decrease the likelihood of being a top saver, particularly being a top cumulative saver for women. Experience in Accommodation and Food Services (more common among women than among men) decreases the likelihood of being a top saver even more for both genders. Experience in the Professional, Scientific, and Technical Services industry, gained by 8% of men with work experience, increases the likelihood of being a top annual saver for men. Experience in Public Administration and Safety, gained by 7% of women with work experience, increases the probability of a woman being a top cumulative saver, but not a top annual saver.

7. Conclusions

In this specialty profile, we focussed on Māori men and women who specialised in Sciences at NCEA level 2, and who achieved a level 2 NCEA certificate by age 19 even though they were not top academic performers. We investigated separately by gender the pathways through education and life that are associated with strong labour market outcomes for these students, measuring labour market outcomes with cumulative and annual savings 12 years after NCEA level 2. In the regression analysis we controlled for several characteristics of students'

backgrounds, but all the relationships we find should be considered suggestive of causality rather than necessarily causal.

Seventy percent of Māori students who specialise in Sciences at level 2 gain a qualification at level 4 or above. Such qualifications seem to benefit both men and women in the labour market, but qualifications at level 7 and above have clear benefits only for women. For men, they have a high opportunity cost, and the increase in annual earnings they give is not necessarily large enough to compensate. For men, industry training at level 4 or above yields strong labour market outcomes. Women who do industry training at level 3 or higher also tend to do well even when compared with other similar students.

In terms of field of study, qualifications in Engineering and Related Technologies at level 4 and above lead to exceptionally high cumulative and annual savings for the 17% of men and tiny number of women who gain them. If they are at level 7 or higher, they are associated with even higher annual savings, but lower cumulative savings for men. Although the few women who follow these pathways (who perform exceptionally) are likely to be a very select group, it is reasonable to assume that some women could have strengthened their labour market outcomes by studying Engineering and Related Technologies instead of the less lucrative fields they chose.

From a policy perspective, it is worth considering the reasons few Māori women with an aptitude for Sciences study Engineering and Related Technologies. As discussed in the main report, this seems to come from a lack of encouragement into this pathway at school, internalised gender norms, and in some cases work environments and cultures that are not optimal for women to thrive in.

Higher study in Natural and Physical Sciences is a natural extension of Sciences in school, but tends to lead to weak outcomes, particularly for men and if the study is below level 7. Qualifications at level 7 or higher in Health or in Management and Commerce are associated with strong annual savings for both genders, though Health yields low cumulative savings for men.

Early work experience in Central Government seems to set women on a path that leads to higher annual savings later on, but benefits men only through higher cumulative savings. However, experience in Professional, Scientific, and Technical Services for the 8% of men with work experience who gain it is linked with higher annual savings years later. The most common industries for early work experience, Retail Trade and Accommodation and Food Services, are both dominated by women and are associated with low annual and cumulative savings.

Appendix Table 1: Qualification levels of men who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
	Non-top savers	Top savers		Non-top savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
School qualifications gained:							
NCEA cert level 3 within 1 yr	60.4	50.7	0.73**	57.7	61.6	1.14	1059
NCEA cert level 3 within 5 yrs	63.9	56.8	0.79**	61.6	66.7	1.19	1059
University Entrance within 1 yr	57.0	47.9	0.75**	54.1	59.7	1.20	1059
Level of highest qualification gained within 10 years:							
Level 2	12.5	12.2	0.97	14.0	5.5	0.42***	1059
Level 3	17.1	17.8	1.04	18.6	12.3	0.67**	1059
Level 4	13.3	32.9	2.34***	15.7	23.3	1.45***	1059
Level 5	<5% have characteristic			<5% have characteristic			1059
Level 6	5.0	9.5	1.66**	5.0	6.9	1.30	1059
Level 7	35.3	19.2	0.51***	31.5	33.3	1.07	1059
Level 8	8.6	6.8	0.82	6.5	12.5	1.71***	1059
Level 9 or 10	<5% have characteristic			<5% have characteristic			1059
Industry training credits gained within 10 years:							
Any credits	28.2	56.2	2.49***	31.9	41.7	1.39***	1059
Any credits at level 4+	14.6	46.6	3.23***	17.9	34.2	1.93***	1059
50+ credits	16.5	45.2	2.85***	20.4	30.1	1.49***	1059
50+ credits at level 4+	8.2	32.4	3.13***	10.4	22.2	1.94***	1059
Level of highest industry training qualification gained within 10 years:							
Level 2+	17.9	50.0	3.06***	21.9	34.2	1.61***	1059
Level 3+	13.3	43.2	3.14***	16.8	30.1	1.78***	1059
Level 4+	8.6	34.2	3.23***	10.8	26.0	2.18***	1059
Types of tertiary institute where student enrolled within 10 years (for students who enrolled in any tertiary):							
Industry Training Organisation	35.1	59.2	2.17***	38.5	45.8	1.27**	1041
Institute of Technology/Polytech	56.7	66.2	1.38**	58.5	58.3	0.99	1041
Private Training Establishment	49.5	64.8	1.66***	51.3	56.9	1.20	1041
University	71.7	45.7	0.42***	66.5	66.2	0.99	1041
Wananga	8.3	2.9	0.38**	8.0	4.2	0.57*	1041
Other Tertiary Provider	5.8	15.5	2.17***	6.5	11.1	1.54**	1041
Locations of education providers where student enrolled within 10 years (including schools):							
Main urban area	<5% do not have characteristic			<5% do not have characteristic			1059
Secondary urban area	20.8	26.0	1.26*	21.1	24.7	1.17	1059
Minor urban area	22.5	26.0	1.16	22.5	25.0	1.12	1059
Rural centre or rural area	10.4	17.8	1.60***	11.5	13.7	1.17	1059
Different region to school	82.0	87.0	1.36*	82.4	85.5	1.21	993

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 2: Qualification levels of women who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
	Non-top savers	Top savers		Non-top savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
School qualifications gained:							
NCEA cert level 3 within 1 yr	56.8	65.1	1.32**	54.7	72.6	1.90***	1242
NCEA cert level 3 within 5 yrs	59.2	67.5	1.33**	57.4	73.8	1.82***	1242
University Entrance within 1 yr	53.2	63.9	1.43***	50.6	74.7	2.37***	1242
Level of highest qualification gained within 10 years:							
Level 2	14.5	13.3	0.92	15.7	8.3	0.55***	1242
Level 3	17.3	14.3	0.83	18.8	8.3	0.45***	1242
Level 4	11.5	10.8	0.95	12.4	7.2	0.61**	1242
Level 5	5.5	6.1	1.10	6.3	3.6	0.61	1242
Level 6	<5% have characteristic			<5% have characteristic			1242
Level 7	38.4	42.2	1.13	35.5	53.6	1.79***	1242
Level 8	5.2	10.7	1.79***	4.8	12.0	2.04***	1242
Level 9 or 10	<5% have characteristic			<5% have characteristic			1242
Industry training credits gained within 10 years:							
Any credits	17.3	21.7	1.25*	18.4	19.0	1.03	1242
Any credits at level 4+	6.3	15.7	2.08***	7.3	10.7	1.39	1242
50+ credits	6.9	14.5	1.83***	7.6	11.9	1.46**	1242
50+ credits at level 4+	<5% have characteristic			<5% have characteristic			1242
Level of highest industry training qualification gained within 10 years:							
Level 2+	9.7	16.7	1.60***	10.3	14.3	1.33	1242
Level 3+	5.1	14.3	2.22***	5.8	10.7	1.65**	1242
Level 4+	<5% have characteristic			<5% have characteristic			1242
Types of tertiary institute where student enrolled within 10 years (for students who enrolled in any tertiary):							
Industry Training Organisation	23.1	29.3	1.29*	23.8	25.6	1.08	1221
Institute of Technology/Polytech	65.5	61.0	0.86	67.3	54.9	0.66***	1221
Private Training Establishment	51.1	52.4	1.04	51.7	50.6	0.97	1221
University	65.8	70.4	1.18	63.0	81.0	2.13***	1221
Wananga	17.5	13.4	0.77*	17.3	14.6	0.85	1221
Other Tertiary Provider	5.2	11.0	1.80***	5.9	8.5	1.36	1221
Locations of education providers where student enrolled within 10 years (including schools):							
Main urban area	<5% do not have characteristic			<5% do not have characteristic			1242
Secondary urban area	21.1	19.3	0.91	21.2	19.0	0.90	1242
Minor urban area	25.1	16.9	0.66**	24.8	19.0	0.76**	1242
Rural centre or rural area	10.3	8.3	0.83	10.3	8.3	0.83	1242
Different region to school	85.6	82.5	0.84	85.3	83.8	0.91	1173

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 3: Regressions of being a top saver on level of highest qualification for men

Dependent variable:	Student is a top cumulative saver				Student is a top annual saver			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age at NCEA level 2	0.038*	0.043**	0.035*	0.038**	0.025	0.029	0.026	0.027
	(0.020)	(0.019)	(0.018)	(0.019)	(0.018)	(0.018)	(0.018)	(0.018)
Percentile score (0-1)	-0.136	0.113	0.094	0.275*	0.160	0.066	0.014	0.134
	(0.162)	(0.169)	(0.165)	(0.166)	(0.162)	(0.171)	(0.166)	(0.173)
Multiple specialties	0.007	0.017	0.016	-0.001	0.028	0.020	0.023	0.011
	(0.033)	(0.032)	(0.031)	(0.031)	(0.034)	(0.034)	(0.033)	(0.034)
School decile	0.006	0.008*	0.007	0.008	0.008	0.007	0.007	0.007
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)
School not in main urban area	0.052*	0.043	0.021	0.014	0.033	0.032	0.020	0.017
	(0.031)	(0.030)	(0.029)	(0.030)	(0.030)	(0.030)	(0.029)	(0.030)
Highest qualification gained within 10 years (omitted category: level 2):								
Level 3		0.006	-0.019	0.040		0.038	0.038	0.051
		(0.048)	(0.048)	(0.048)		(0.039)	(0.040)	(0.040)
Level 4		0.198***	-0.019	0.167***		0.180***	0.034	0.159***
		(0.051)	(0.055)	(0.051)		(0.043)	(0.047)	(0.045)
Level 5 or 6		0.029	-0.039	0.037		0.077*	0.026	0.080*
		(0.055)	(0.054)	(0.054)		(0.047)	(0.046)	(0.047)
Level 7		-0.088**	-0.096**	0.002		0.110***	0.104***	0.145***
		(0.042)	(0.042)	(0.045)		(0.038)	(0.038)	(0.042)
Level 8 to 10		-0.101**	-0.097*	0.001		0.190***	0.189***	0.229***
		(0.051)	(0.051)	(0.053)		(0.054)	(0.054)	(0.057)
Highest industry training qualification gained within 10 years (omitted category: none):								
Level 2			0.121*				-0.002	
			(0.064)				(0.053)	
Level 3			0.157**				0.008	
			(0.063)				(0.052)	
Level 4			0.341***				0.231***	
			(0.056)				(0.052)	
Level 5 or 6			0.570***				0.555***	
			(0.174)				(0.169)	
Any Gateway credits completed within 10 years				0.149**				0.070
				(0.061)				(0.059)
Enrolled in institute type within 10 years:								
Industry Training Organisation				0.066**				0.039
				(0.028)				(0.028)
Institute of Technology/Polytech				-0.023				-0.011
				(0.025)				(0.026)
Private Training Establishment				0.021				0.022
				(0.024)				(0.025)
University				-0.143***				-0.048
				(0.033)				(0.031)
Wānanga				-0.114***				-0.076*
				(0.037)				(0.042)
Other Tertiary Provider				0.108**				0.063
				(0.055)				(0.053)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.009	0.068	0.125	0.116	0.009	0.032	0.063	0.045
Observations	1,056	1,056	1,056	1,056	1,056	1,056	1,056	1,056

Notes: This table presents the results of ordinary least squares regressions of dummy variables for being a top cumulative saver (columns 1-4) or top annual saver (columns 5-8) on educational controls. All regressions include dummies for missing school decile, missing percentile score, and missing school location. Standard errors are robust. Asterisks denote: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 4: Regressions of being a top saver on level of highest qualification for women

Dependent variable:	Student is a top cumulative saver				Student is a top annual saver			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age at NCEA level 2	0.008	0.008	0.006	0.006	-0.001	-0.000	-0.001	0.001
	(0.018)	(0.018)	(0.018)	(0.018)	(0.017)	(0.017)	(0.017)	(0.017)
Percentile score (0-1)	0.196	0.214	0.171	0.238*	0.527***	0.303**	0.290**	0.293**
	(0.134)	(0.142)	(0.141)	(0.143)	(0.129)	(0.133)	(0.133)	(0.137)
Multiple specialties	0.025	0.026	0.028	0.030	0.044	0.043	0.045	0.048
	(0.033)	(0.033)	(0.033)	(0.033)	(0.034)	(0.034)	(0.034)	(0.033)
School decile	0.012**	0.012**	0.013***	0.011**	0.014***	0.013***	0.013***	0.013***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)
School not in main urban area	-0.035	-0.034	-0.046*	-0.044*	-0.011	-0.004	-0.008	-0.009
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.024)	(0.024)	(0.024)
Highest qualification gained within 10 years (omitted category: level 2):								
Level 3		-0.038	-0.054	-0.034		-0.038	-0.055	-0.043
		(0.040)	(0.040)	(0.041)		(0.034)	(0.034)	(0.034)
Level 4		0.001	-0.056	-0.006		0.008	-0.032	-0.004
		(0.044)	(0.042)	(0.044)		(0.037)	(0.036)	(0.037)
Level 5 or 6		-0.018	-0.025	-0.001		-0.015	-0.018	-0.005
		(0.048)	(0.049)	(0.049)		(0.040)	(0.040)	(0.040)
Level 7		-0.021	-0.031	-0.002		0.105***	0.098***	0.100***
		(0.038)	(0.038)	(0.041)		(0.034)	(0.034)	(0.036)
Level 8 to 10		-0.011	-0.012	0.007		0.160***	0.157***	0.155***
		(0.051)	(0.051)	(0.053)		(0.051)	(0.051)	(0.052)
Highest industry training qualification gained within 10 years (omitted category: none):								
Level 2			-0.011				0.028	
			(0.050)				(0.049)	
Level 3			0.211***				0.180**	
			(0.074)				(0.071)	
Level 4			0.242***				0.149*	
			(0.082)				(0.078)	
Level 5 or 6			0.596***				0.022	
			(0.226)				(0.215)	
Any Gateway credits completed within 10 years				-0.002				0.054
				(0.039)				(0.039)
Enrolled in institute type within 10 years:								
Industry Training Organisation				0.057**				0.049*
				(0.028)				(0.027)
Institute of Technology/Polytech				-0.031				-0.055**
				(0.025)				(0.024)
Private Training Establishment				0.027				0.045**
				(0.023)				(0.023)
University				-0.019				0.022
				(0.029)				(0.025)
Wānanga				-0.043				-0.028
				(0.030)				(0.030)
Other Tertiary Provider				0.150***				0.092*
				(0.054)				(0.050)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.021	0.022	0.047	0.038	0.050	0.074	0.084	0.089
Observations	1,245	1,245	1,245	1,245	1,245	1,245	1,245	1,245

Notes: This table presents the results of ordinary least squares regressions of dummy variables for being a top cumulative saver (columns 1-4) or top annual saver (columns 5-8) on educational controls. All regressions include dummies for missing school decile, missing percentile score, and missing school location. Standard errors are robust. Asterisks denote: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 5: Fields of study at school of men who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
Characteristic	Non-top savers (1)	Top savers (2)	(3)	Non-top savers (4)	Top savers (5)	(6)	(7)
Passed at least 14 credits at level 2 by year of NCEA level 2 in:							
English	55.6	56.8	1.04	52.9	66.7	1.59***	1059
Maths	74.9	76.7	1.08	74.4	77.0	1.12	1059
Māori	6.1	5.5	0.91	6.1	5.5	0.91	1059
Humanities	71.7	78.1	1.32*	71.0	80.6	1.54***	1059
Social Science	26.8	23.3	0.86	25.4	28.8	1.15	1059
Science	<5% do not have characteristic			<5% do not have characteristic			1059
Passed at least 14 achievement standard credits at level 2 by year of NCEA level 2 in:							
English	40.9	39.2	0.95	38.4	49.3	1.42***	1059
Maths	63.1	67.1	1.15	62.3	69.9	1.31**	1059
Māori	<5% have characteristic			<5% have characteristic			1059
Humanities	54.1	61.6	1.28**	53.9	63.0	1.35**	1059
Social Science	23.6	21.9	0.93	22.6	24.7	1.09	1059
Science	91.4	91.8	1.04	91.1	94.5	1.54	1059
Passed at least 14 credits at level 3 within 5 years in:							
English	27.6	21.9	0.78*	25.7	28.8	1.13	1059
Maths	56.3	50.0	0.82	54.1	59.7	1.20	1059
Māori	<5% have characteristic			<5% have characteristic			1059
Humanities	39.4	37.0	0.92	37.5	43.8	1.23	1059
Social Science	25.8	21.9	0.84	23.6	30.1	1.30**	1059
Science	71.0	60.3	0.69***	68.5	71.2	1.11	1059
Arts & Crafts	12.1	8.2	0.70	12.1	8.2	0.70	1059
Computing & IT	8.6	6.8	0.82	8.6	9.6	1.10	1059
Business	7.2	8.2	1.12	6.5	9.6	1.39	1059
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5% have characteristic			1059
Community & Social Services	<5% have characteristic			<5% have characteristic			1059
Education	<5% have characteristic			<5% have characteristic			1059
Service Sector	9.6	16.4	1.58***	10.4	12.5	1.18	1059
Engineering & Technology	12.5	27.4	2.04***	13.2	24.7	1.77***	1059
Manufacturing, Planning & Constrn	3.9	12.3	2.33***	5.0	6.9	1.31	1059
Passed at least 14 achievement standard credits at level 3 within 5 years in:							
English	22.1	16.4	0.74**	20.0	23.6	1.18	1059
Maths	49.8	44.4	0.84	47.9	51.4	1.12	1059
Māori	<5% have characteristic			<5% have characteristic			1059
Humanities	33.0	30.1	0.90	31.1	38.4	1.29**	1059
Social Science	23.6	19.2	0.81	21.4	27.8	1.31*	1059
Science	64.9	57.5	0.78*	62.3	68.5	1.25	1059
Arts & Crafts	9.7	8.2	0.87	9.6	8.1	0.86	1059
Computing & IT	<5% have characteristic			<5% have characteristic			1059
Business	5.0	4.1	0.84	5.0	6.8	1.30	1059
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5% have characteristic			1059
Community & Social Services	<5% have characteristic			<5% have characteristic			1059
Education	<5% have characteristic			<5% have characteristic			1059
Service Sector	<5% have characteristic			<5% have characteristic			1059
Engineering & Technology	5.4	5.4	1.00	5.4	5.5	1.02	1059
Manufacturing, Planning & Constrn	<5% have characteristic			<5% have characteristic			1059

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 6: Fields of study at school of women who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
Characteristic	Non-top savers (1)	Top savers (2)	(3)	Non-top savers (4)	Top savers (5)	(6)	(7)
Passed at least 14 credits at level 2 by year of NCEA level 2 in:							
English	64.0	71.1	1.30**	61.6	80.7	2.21***	1242
Maths	57.4	71.1	1.63***	56.2	75.9	2.09***	1242
Māori	7.9	7.1	0.92	7.9	7.2	0.93	1242
Humanities	73.7	83.3	1.61***	72.5	89.3	2.65***	1242
Social Science	27.0	30.5	1.15	26.6	33.3	1.29**	1242
Science	<5% do not have characteristic			<5% do not have characteristic			1242
Passed at least 14 achievement standard credits at level 2 by year of NCEA level 2 in:							
English	44.1	56.0	1.46***	41.1	67.9	2.43***	1242
Maths	41.1	54.2	1.52***	39.3	59.5	1.92***	1242
Māori	6.3	6.0	0.95	5.8	7.1	1.18	1242
Humanities	54.1	71.1	1.82***	51.8	80.7	3.08***	1242
Social Science	21.8	28.6	1.33**	21.1	31.3	1.51***	1242
Science	77.9	88.0	1.83***	76.4	94.0	3.91***	1242
Passed at least 14 credits at level 3 within 5 years in:							
English	34.9	37.3	1.09	33.2	44.0	1.44***	1242
Maths	40.2	50.0	1.37***	37.6	60.0	2.06***	1242
Māori	6.3	3.6	0.60*	6.1	4.8	0.81	1242
Humanities	45.5	49.4	1.13	43.5	57.1	1.55***	1242
Social Science	28.4	34.5	1.25*	26.7	41.7	1.69***	1242
Science	61.6	67.5	1.23*	59.4	77.4	2.01***	1242
Arts & Crafts	16.0	13.1	0.83	15.7	14.3	0.91	1242
Computing & IT	9.7	8.5	0.89	10.0	8.4	0.86	1242
Business	6.3	8.4	1.27	6.4	8.4	1.27	1242
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5% have characteristic			1242
Community & Social Services	<5% have characteristic			<5% have characteristic			1242
Education	<5% have characteristic			<5% have characteristic			1242
Service Sector	16.3	19.0	1.16	17.8	13.1	0.74**	1242
Engineering & Technology	<5% have characteristic			<5% have characteristic			1242
Manufacturing, Planning & Constrn	<5% have characteristic			<5% have characteristic			1242
Passed at least 14 achievement standard credits at level 3 within 5 years in:							
English	26.6	28.9	1.10	24.2	38.1	1.66***	1242
Maths	32.0	44.0	1.50***	29.6	52.4	2.11***	1242
Māori	<5% have characteristic			<5% have characteristic			1242
Humanities	36.4	42.2	1.21	34.4	50.6	1.69***	1242
Social Science	24.5	31.3	1.31**	22.4	39.3	1.86***	1242
Science	51.2	61.9	1.42***	48.8	71.1	2.16***	1242
Arts & Crafts	15.7	10.8	0.71	14.8	14.3	0.97	1242
Computing & IT	<5% have characteristic			<5% have characteristic			1242
Business	<5% have characteristic			<5% have characteristic			1242
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5% have characteristic			1242
Community & Social Services	<5% have characteristic			<5% have characteristic			1242
Education	<5% have characteristic			<5% have characteristic			1242
Service Sector	<5% have characteristic			<5% have characteristic			1242
Engineering & Technology	<5% have characteristic			<5% have characteristic			1242
Manufacturing, Planning & Constrn	<5% have characteristic			<5% have characteristic			1242

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 7: Fields of tertiary study of men who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
	Non-top savers	Top savers		Non-top savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields and levels in which student passed at least 0.5 EFTS within 10 years:							
Natural & Physical Sciences at level 2+	69.9	57.5	0.66***	67.0	68.5	1.05	1059
Natural & Physical Sciences at level 4+	25.1	9.6	0.38***	23.2	17.8	0.76*	1059
Natural & Physical Sciences at level 7+	8.6	2.7	0.35***	7.9	5.5	0.73	1059
Natural & Physical Sciences at level 8+	<5% have characteristic			<5% have characteristic			1059
Information Technology at level 2+	15.0	8.2	0.57**	13.9	12.3	0.89	1059
Information Technology at level 4+	10.8	4.1	0.41***	10.4	6.8	0.69**	1059
Information Technology at level 7+	<5% have characteristic			<5% have characteristic			1059
Information Technology at level 8+	<5% have characteristic			<5% have characteristic			1059
Engineering & Related Technologies at level 2+	23.2	43.8	2.06***	23.6	43.2	1.99***	1059
Engineering & Related Technologies at level 4+	17.1	32.9	1.91***	16.4	35.6	2.16***	1059
Engineering & Related Technologies at level 7+	6.1	6.8	1.11	4.3	12.5	2.24***	1059
Engineering & Related Technologies at level 8+	<5% have characteristic			<5% have characteristic			1059
Architecture & Building at level 2+	8.6	9.6	1.10	8.9	9.6	1.06	1059
Architecture & Building at level 4+	7.5	9.5	1.21	7.9	8.2	1.04	1059
Architecture & Building at level 7+	<5% have characteristic			<5% have characteristic			1059
Architecture & Building at level 8+	<5% have characteristic			<5% have characteristic			1059
Ag, Environmental & Related Studies at level 2+	8.9	6.8	0.79	8.9	8.1	0.92	1059
Ag, Environmental & Related Studies at level 4+	<5% have characteristic			<5% have characteristic			1059
Ag, Environmental & Related Studies at level 7+	<5% have characteristic			<5% have characteristic			1059
Ag, Environmental & Related Studies at level 8+	<5% have characteristic			<5% have characteristic			1059
Health at level 2+	10.4	6.8	0.68**	9.3	9.6	1.03	1059
Health at level 4+	9.0	2.8	0.34***	8.2	8.1	0.99	1059
Health at level 7+	<5% have characteristic			<5% have characteristic			1059
Health at level 8+	<5% have characteristic			<5% have characteristic			1059
Education at level 2+	7.2	<2.7	<0.42***	6.8	<2.7	<0.44**	1059
Education at level 4+	6.1	<2.7	<0.49***	6.1	<2.7	<0.49**	1059
Education at level 7+	<5% have characteristic			<5% have characteristic			1059
Education at level 8+	<5% have characteristic			<5% have characteristic			1059
Management & Commerce at level 2+	21.9	19.4	0.89	20.8	24.7	1.19	1059
Management & Commerce at level 4+	18.2	13.9	0.77	16.4	21.9	1.32	1059
Management & Commerce at level 7+	9.0	6.8	0.79	7.5	12.5	1.53***	1059
Management & Commerce at level 8+	<5% have characteristic			<5% have characteristic			1059
Society & Culture at level 2+	59.1	44.4	0.63***	56.3	56.2	1.00	1059
Society & Culture at level 4+	31.4	15.1	0.46***	27.9	28.8	1.04	1059
Society & Culture at level 7+	12.9	2.8	0.24***	11.4	9.6	0.85	1059
Society & Culture at level 8+	<5% have characteristic			<5% have characteristic			1059
Creative Arts at level 2+	16.4	9.6	0.60***	15.7	12.3	0.80	1059
Creative Arts at level 4+	10.8	4.1	0.41***	10.4	6.8	0.69**	1059
Creative Arts at level 7+	<5% have characteristic			<5% have characteristic			1059
Creative Arts at level 8+	<5% have characteristic			<5% have characteristic			1059
Food, Hospitality & Personal Servs at level 2+	<5% have characteristic			<5% have characteristic			1059
Food, Hospitality & Personal Servs at level 4+	<5% have characteristic			<5% have characteristic			1059
Food, Hospitality & Personal Servs at level 7+	<5% have characteristic			<5% have characteristic			1059
Food, Hospitality & Personal Servs at level 8+	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes at level 2+	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes at level 4+	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes at level 7+	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes at level 8+	<5% have characteristic			<5% have characteristic			1059

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 8: Fields of tertiary study of women who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
Characteristic	Non-top savers (1)	Top savers (2)	(3)	Non-top savers (4)	Top savers (5)	(6)	(7)
Fields and levels in which student passed at least 0.5 EFTS within 10 years:							
Natural & Physical Sciences at level 2+	53.2	59.5	1.23*	50.3	71.4	2.08***	1242
Natural & Physical Sciences at level 4+	19.6	16.7	0.85	17.2	26.5	1.53***	1242
Natural & Physical Sciences at level 7+	7.6	6.0	0.82	6.9	8.4	1.18	1242
Natural & Physical Sciences at level 8+	<5% have characteristic			<5% have characteristic			1242
Information Technology at level 2+	<5% have characteristic			<5% have characteristic			1242
Information Technology at level 4+	<5% have characteristic			<5% have characteristic			1242
Information Technology at level 7+	<5% have characteristic			<5% have characteristic			1242
Information Technology at level 8+	<5% have characteristic			<5% have characteristic			1242
Engineering & Related Technologies at level 2+	5.5	10.8	1.74***	5.2	11.9	1.94***	1242
Engineering & Related Technologies at level 4+	<5% have characteristic			<5% have characteristic			1242
Engineering & Related Technologies at level 7+	<5% have characteristic			<5% have characteristic			1242
Engineering & Related Technologies at level 8+	<5% have characteristic			<5% have characteristic			1242
Architecture & Building at level 2+	<5% have characteristic			<5% have characteristic			1242
Architecture & Building at level 4+	<5% have characteristic			<5% have characteristic			1242
Architecture & Building at level 7+	<5% have characteristic			<5% have characteristic			1242
Architecture & Building at level 8+	<5% have characteristic			<5% have characteristic			1242
Ag, Environmental & Related Studies at level 2+	7.3	8.3	1.12	7.3	7.2	0.99	1242
Ag, Environmental & Related Studies at level 4+	<5% have characteristic			<5% have characteristic			1242
Ag, Environmental & Related Studies at level 7+	<5% have characteristic			<5% have characteristic			1242
Ag, Environmental & Related Studies at level 8+	<5% have characteristic			<5% have characteristic			1242
Health at level 2+	21.8	19.3	0.88	20.3	25.0	1.23	1242
Health at level 4+	20.2	18.1	0.89	18.8	22.9	1.22*	1242
Health at level 7+	12.1	15.7	1.26	10.6	20.5	1.79***	1242
Health at level 8+	<5% have characteristic			<5% have characteristic			1242
Education at level 2+	14.8	8.3	0.58***	14.5	8.3	0.60**	1242
Education at level 4+	13.9	8.3	0.62***	13.9	8.3	0.62**	1242
Education at level 7+	10.9	6.1	0.59*	10.6	7.2	0.71*	1242
Education at level 8+	<5% have characteristic			<5% have characteristic			1242
Management & Commerce at level 2+	28.2	34.5	1.26*	28.4	33.3	1.20	1242
Management & Commerce at level 4+	21.1	26.5	1.26*	20.6	27.4	1.34**	1242
Management & Commerce at level 7+	8.5	15.7	1.69***	7.9	16.9	1.89***	1242
Management & Commerce at level 8+	<5% have characteristic			<5% have characteristic			1242
Society & Culture at level 2+	65.9	65.5	0.99	62.8	78.6	1.89***	1242
Society & Culture at level 4+	36.3	31.3	0.84	33.0	44.6	1.47***	1242
Society & Culture at level 7+	13.9	10.7	0.79	11.5	20.0	1.64***	1242
Society & Culture at level 8+	<5% have characteristic			<5% have characteristic			1242
Creative Arts at level 2+	18.4	10.7	0.59***	17.5	12.0	0.70*	1242
Creative Arts at level 4+	11.1	6.0	0.56**	10.0	10.6	1.05	1242
Creative Arts at level 7+	<5% have characteristic			<5% have characteristic			1242
Creative Arts at level 8+	<5% have characteristic			<5% have characteristic			1242
Food, Hospitality & Personal Servs at level 2+	8.8	8.3	0.96	9.7	4.8	0.53***	1242
Food, Hospitality & Personal Servs at level 4+	<5% have characteristic			<5% have characteristic			1242
Food, Hospitality & Personal Servs at level 7+	<5% have characteristic			<5% have characteristic			1242
Food, Hospitality & Personal Servs at level 8+	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes at level 2+	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes at level 4+	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes at level 7+	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes at level 8+	<5% have characteristic			<5% have characteristic			1242

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 9: Fields of tertiary qualification of men who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
	Non-top savers	Top savers		Non-top savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields of highest qualification gained within 10 years:							
Natural & Physical Sciences	11.1	4.1	0.40***	10.8	5.5	0.54**	1059
Information Technology	<5% have characteristic			<5% have characteristic			1059
Engineering & Related Technologies	14.3	34.2	2.30***	14.3	34.2	2.30***	1059
Architecture & Building	4.6	6.8	1.37*	5.0	5.5	1.08	1059
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			1059
Health	<5% have characteristic			<5% have characteristic			1059
Education	<5% have characteristic			<5% have characteristic			1059
Management & Commerce	12.6	15.1	1.18	11.8	18.1	1.47***	1059
Society & Culture	14.0	8.2	0.61***	13.2	9.7	0.75	1059
Creative Arts	7.2	<2.7	<0.42**	6.8	4.1	0.64*	1059
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes	27.1	24.7	0.90	30.0	13.7	0.44***	1059
Fields of qualifications at level 4+ gained within 10 years:							
Natural & Physical Sciences	12.2	2.8	0.25***	11.5	5.5	0.51**	1059
Information Technology	<5% have characteristic			<5% have characteristic			1059
Engineering & Related Technologies	13.3	32.9	2.34***	13.2	34.2	2.44***	1059
Architecture & Building	4.6	6.8	1.37*	5.0	6.8	1.29	1059
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			1059
Health	<5% have characteristic			<5% have characteristic			1059
Education	<5% have characteristic			<5% have characteristic			1059
Management & Commerce	13.9	13.7	0.98	12.1	20.8	1.63***	1059
Society & Culture	15.1	6.8	0.48***	14.3	9.7	0.70	1059
Creative Arts	7.9	2.7	0.38***	7.5	4.1	0.59	1059
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes	<5% have characteristic			<5% have characteristic			1059
Fields of qualifications at bachelor's level+ gained within 10 years:							
Natural & Physical Sciences	11.5	2.8	0.27***	10.8	5.5	0.54**	1059
Information Technology	<5% have characteristic			<5% have characteristic			1059
Engineering & Related Technologies	5.0	6.8	1.29	3.9	12.3	2.34***	1059
Architecture & Building	<5% have characteristic			<5% have characteristic			1059
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			1059
Health	<5% have characteristic			<5% have characteristic			1059
Education	<5% have characteristic			<5% have characteristic			1059
Management & Commerce	10.4	8.2	0.81	8.2	15.3	1.69***	1059
Society & Culture	10.8	2.8	0.28***	9.6	6.9	0.75	1059
Creative Arts	<5% have characteristic			<5% have characteristic			1059
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			1059
Mixed Field Programmes	<5% have characteristic			<5% have characteristic			1059

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 10: Fields of tertiary qualification of women who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
	Non-top savers	Top savers		Non-top savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields of highest qualification gained within 10 years:							
Natural & Physical Sciences	10.3	7.1	0.72	9.4	10.8	1.14	1242
Information Technology	<5% have characteristic			<5% have characteristic			1242
Engineering & Related Technologies	<5% have characteristic			<5% have characteristic			1242
Architecture & Building	<5% have characteristic			<5% have characteristic			1242
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			1242
Health	14.5	16.7	1.14	13.6	20.2	1.44***	1242
Education	10.6	8.3	0.81	11.2	6.0	0.57**	1242
Management & Commerce	16.3	21.4	1.30**	16.6	19.3	1.15	1242
Society & Culture	15.7	10.7	0.70**	14.5	15.7	1.07	1242
Creative Arts	6.6	3.6	0.58*	5.7	6.0	1.04	1242
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes	29.6	26.5	0.88	32.0	16.7	0.49***	1242
Fields of qualifications at level 4+ gained within 10 years:							
Natural & Physical Sciences	11.5	7.1	0.65*	10.3	11.9	1.14	1242
Information Technology	<5% have characteristic			<5% have characteristic			1242
Engineering & Related Technologies	<5% have characteristic			<5% have characteristic			1242
Architecture & Building	<5% have characteristic			<5% have characteristic			1242
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			1242
Health	14.8	16.9	1.13	13.9	20.2	1.42**	1242
Education	10.9	8.4	0.79	11.2	8.3	0.77	1242
Management & Commerce	15.7	20.5	1.29**	15.7	21.4	1.34**	1242
Society & Culture	18.5	12.0	0.66**	16.7	20.0	1.19	1242
Creative Arts	7.3	4.8	0.70	6.1	8.3	1.30	1242
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes	<5% have characteristic			<5% have characteristic			1242
Fields of qualifications at bachelor's level+ gained within 10 years:							
Natural & Physical Sciences	10.3	7.1	0.72*	9.1	10.8	1.17	1242
Information Technology	<5% have characteristic			<5% have characteristic			1242
Engineering & Related Technologies	<5% have characteristic			<5% have characteristic			1242
Architecture & Building	<5% have characteristic			<5% have characteristic			1242
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			1242
Health	10.9	14.3	1.27	9.4	19.3	1.86***	1242
Education	6.9	4.8	0.73	7.0	4.8	0.72	1242
Management & Commerce	8.1	16.7	1.83***	7.6	16.7	1.92***	1242
Society & Culture	12.1	7.1	0.62**	10.3	14.3	1.34**	1242
Creative Arts	<5% have characteristic			<5% have characteristic			1242
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			1242
Mixed Field Programmes	<5% have characteristic			<5% have characteristic			1242

Notes: The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 11: Regressions of being a top saver on field of higher study for men

Dependent variable:	Student is a top cumulative saver			Student is a top annual saver		
	(1)	(2)	(3)	(4)	(5)	(6)
Passed at least 14 credits at level 3 within 5 years in:						
English	-0.061	-0.030	-0.030	-0.013	-0.000	-0.005
	(0.045)	(0.043)	(0.043)	(0.045)	(0.044)	(0.043)
Maths	0.030	0.031	0.041	0.032	0.009	0.014
	(0.035)	(0.034)	(0.034)	(0.037)	(0.037)	(0.036)
Humanities	0.054	0.065	0.062	0.043	0.052	0.063
	(0.041)	(0.040)	(0.040)	(0.041)	(0.041)	(0.039)
Social science	-0.013	0.015	0.011	0.057*	0.053	0.054*
	(0.029)	(0.029)	(0.029)	(0.032)	(0.033)	(0.032)
Science	-0.109***	-0.106***	-0.113***	-0.035	-0.052	-0.052
	(0.039)	(0.038)	(0.038)	(0.040)	(0.040)	(0.039)
Arts & crafts	-0.051	-0.013	-0.017	-0.065*	-0.042	-0.045
	(0.035)	(0.037)	(0.036)	(0.035)	(0.039)	(0.036)
Service sector	0.074*	0.040	0.036	0.034	0.014	0.002
	(0.045)	(0.045)	(0.044)	(0.042)	(0.041)	(0.040)
# of other fields	0.078***	0.049**	0.036*	0.058***	0.036*	0.031
	(0.021)	(0.020)	(0.019)	(0.020)	(0.020)	(0.020)
Passed at least 0.5 EFTS at level 4+ within 10 years in:						
Natural & Physical Sciences		-0.105***			-0.099***	
		(0.031)			(0.035)	
Information Technology		-0.162***			-0.135***	
		(0.038)			(0.035)	
Engineering & Related Technologies		0.114***			0.156***	
		(0.041)			(0.040)	
Health		-0.116**			-0.099**	
		(0.049)			(0.050)	
Education		-0.054			-0.127*	
		(0.082)			(0.066)	
Management & Commerce		-0.020			-0.022	
		(0.044)			(0.043)	
Society & Culture		-0.068**			0.042	
		(0.033)			(0.037)	
Creative Arts		-0.084*			-0.057	
		(0.048)			(0.049)	
# of other fields		-0.043			-0.026	
		(0.037)			(0.033)	
Passed at least 0.5 EFTS at level 7+ within 10 years in:						
Natural & Physical Sciences		-0.020			0.057	
		(0.044)			(0.051)	
Information Technology		0.110*			0.207***	
		(0.066)			(0.071)	
Engineering & Related Technologies		-0.046			0.173**	
		(0.068)			(0.072)	
Health		0.031			0.231***	
		(0.064)			(0.081)	
Education		-0.064			-0.003	
		(0.087)			(0.081)	
Management & Commerce		-0.000			0.133**	
		(0.056)			(0.065)	
Society & Culture		-0.094**			-0.045	
		(0.038)			(0.048)	
Creative Arts		-0.083			0.012	
		(0.063)			(0.068)	
# of other fields		0.001			0.100	
		(0.081)			(0.085)	

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	(1)	(2)	(3)	(4)	(5)	(6)
Gained qualification at level 4+ within 10 years in:						
Natural & Physical Sciences			-0.184***			-0.213***
			(0.047)			(0.045)
Engineering & Related Technologies			0.227***			0.233***
			(0.048)			(0.047)
Health			-0.067			-0.173***
			(0.086)			(0.031)
Education			-0.048			-0.145***
			(0.054)			(0.045)
Management & Commerce			0.076			0.075
			(0.068)			(0.064)
Society & Culture			-0.044			-0.032
			(0.061)			(0.049)
Creative Arts			-0.105*			-0.012
			(0.063)			(0.065)
# of other fields			0.025			0.045
			(0.033)			(0.031)
Gained bachelor's degree+ within 10 years in:						
Natural & Physical Sciences			0.073			0.178***
			(0.054)			(0.055)
Engineering & Related Technologies			-0.184**			0.057
			(0.072)			(0.080)
Health			-0.092			0.321***
			(0.093)			(0.086)
Education			-0.080			0.050
			(0.090)			(0.082)
Management & Commerce			-0.123			0.082
			(0.078)			(0.079)
Society & Culture			-0.090			0.040
			(0.067)			(0.062)
Creative Arts			-0.037			0.005
			(0.073)			(0.082)
# of other fields			-0.069			0.015
			(0.064)			(0.072)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.044	0.112	0.112	0.027	0.099	0.101
Observations	1,056	1,056	1,056	1,056	1,056	1,056

Notes: This table presents the results of ordinary least squares regressions of dummy variables for being a top cumulative saver (columns 1-3) or top annual saver (columns 4-6) on field of study controls. Background characteristics are the first five controls shown in Appendix Table 3. Fields of study controlled for are the more common fields. Standard errors are robust. Asterisks denote: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 12: Regressions of being a top saver on field of higher study for women

Dependent variable:	Student is a top cumulative saver			Student is a top annual saver		
	(1)	(2)	(3)	(4)	(5)	(6)
Passed at least 14 credits at level 3 within 5 years in:						
English	-0.016	-0.003	-0.013	-0.001	0.010	-0.004
	(0.042)	(0.040)	(0.041)	(0.043)	(0.042)	(0.042)
Maths	0.045	0.020	0.020	0.092***	0.049	0.052
	(0.031)	(0.031)	(0.031)	(0.032)	(0.032)	(0.032)
Humanities	-0.002	0.010	0.011	0.010	0.000	0.005
	(0.041)	(0.039)	(0.040)	(0.041)	(0.040)	(0.040)
Social science	0.016	0.017	0.025	0.063**	0.061**	0.064**
	(0.027)	(0.027)	(0.027)	(0.028)	(0.028)	(0.028)
Science	-0.012	0.008	-0.005	0.011	0.008	0.009
	(0.031)	(0.032)	(0.031)	(0.029)	(0.030)	(0.029)
Arts & crafts	-0.074**	-0.054*	-0.063**	-0.064**	-0.071**	-0.075**
	(0.031)	(0.032)	(0.032)	(0.032)	(0.032)	(0.031)
Service sector	0.041	0.024	0.038	-0.029	-0.015	-0.017
	(0.032)	(0.032)	(0.032)	(0.027)	(0.028)	(0.028)
# of other fields	0.010	0.005	-0.000	-0.000	0.003	0.000
	(0.019)	(0.019)	(0.019)	(0.018)	(0.018)	(0.018)
Passed at least 0.5 EFTS at level 4+ within 10 years in:						
Natural & Physical Sciences		-0.077**			0.017	
		(0.038)			(0.043)	
Information Technology		-0.009			-0.014	
		(0.092)			(0.087)	
Engineering & Related Technologies		0.112			0.222**	
		(0.097)			(0.098)	
Health		-0.121***			-0.103***	
		(0.034)			(0.032)	
Education		-0.101*			-0.090*	
		(0.052)			(0.050)	
Management & Commerce		-0.018			-0.009	
		(0.033)			(0.032)	
Society & Culture		-0.041			0.010	
		(0.029)			(0.029)	
Creative Arts		-0.077*			0.011	
		(0.040)			(0.044)	
# of other fields		0.022			-0.008	
		(0.043)			(0.035)	
Passed at least 0.5 EFTS at level 7+ within 10 years in:						
Natural & Physical Sciences		-0.022			-0.005	
		(0.053)			(0.059)	
Information Technology		0.322*			0.449***	
		(0.176)			(0.167)	
Engineering & Related Technologies		0.329*			0.339**	
		(0.186)			(0.171)	
Health		0.151***			0.244***	
		(0.047)			(0.048)	
Education		0.035			0.042	
		(0.058)			(0.058)	
Management & Commerce		0.089			0.112**	
		(0.055)			(0.054)	
Society & Culture		-0.035			0.083*	
		(0.040)			(0.044)	
Creative Arts		-0.049			0.050	
		(0.065)			(0.080)	
# of other fields		0.033			0.095	
		(0.108)			(0.106)	

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	(1)	(2)	(3)	(4)	(5)	(6)
Gained qualification at level 4+ within 10 years in:						
Natural & Physical Sciences			-0.059			-0.154**
			(0.099)			(0.070)
Engineering & Related Technologies			0.375***			0.390***
			(0.140)			(0.139)
Health			-0.013			-0.122***
			(0.059)			(0.031)
Education			0.031			-0.024
			(0.060)			(0.056)
Management & Commerce			-0.043			-0.004
			(0.039)			(0.037)
Society & Culture			-0.046			-0.010
			(0.045)			(0.042)
Creative Arts			-0.021			0.065
			(0.063)			(0.069)
# of other fields			-0.010			-0.010
			(0.036)			(0.030)
Gained bachelor's degree+ within 10 years in:						
Natural & Physical Sciences			-0.058			0.158**
			(0.103)			(0.078)
Engineering & Related Technologies			0.238			0.411***
			(0.185)			(0.141)
Health			0.046			0.295***
			(0.068)			(0.051)
Education			-0.083			0.000
			(0.071)			(0.067)
Management & Commerce			0.140**			0.133**
			(0.060)			(0.059)
Society & Culture			-0.077			0.058
			(0.055)			(0.057)
Creative Arts			-0.078			0.027
			(0.085)			(0.099)
# of other fields			-0.005			0.085
			(0.077)			(0.093)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.030	0.075	0.078	0.073	0.126	0.129
Observations	1,245	1,245	1,245	1,245	1,245	1,245

Notes: This table presents the results of ordinary least squares regressions of dummy variables for being a top cumulative saver (columns 1-3) or top annual saver (columns 4-6) on field of study controls. Background characteristics are the first five controls shown in Appendix Table 3. Fields of study controlled for are the more common fields. Standard errors are robust. Asterisks denote: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 13: Non-education characteristics of men who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
	Non-top savers	Top savers		Non-top savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Years student had any children:							
Fifth year after NCEA level 2 or earlier	5.4	12.3	1.92***	6.1	9.6	1.45	1059
Years 6 to 10 after NCEA level 2	14.3	26.0	1.75***	16.4	19.2	1.16	1059
Years 11 to 12 after NCEA level 2	13.3	20.5	1.49***	13.9	17.8	1.25	1059
Years of early work experience:							
Any work experience in year of NCEA level 2 or earlier	12.6	32.4	2.38***	15.7	19.4	1.22	1059
Any work experience in years 1 to 5 after NCEA level 2	75.0	95.9	6.08***	78.1	86.1	1.57**	1059
Three+ years of work experience in years 1 to 5	40.0	83.6	5.29***	46.6	56.8	1.38***	1059
Sectors of work experience in years 1 to 5 after gaining NCEA level 2:							
Central government in at least one year	10.0	20.0	1.75***	12.4	14.3	1.13	840
Central government in at least 3 years	6.4	18.0	1.87***	10.8	9.8	0.92	516
Other government in at least one year	6.7	7.0	1.04	6.4	9.7	1.40*	840
Other government in at least 3 years	<5% have characteristic			<5% have characteristic			516
Non-profit organisation in at least one year	9.1	7.1	0.82	8.3	11.1	1.28	840
Non-profit organisation in at least 3 years	<5% have characteristic			<5% have characteristic			516
Firm size of work experience in years 1 to 5 after gaining NCEA level 2:							
Small employer (<10 employees) in at least one year	24.9	22.5	0.91	25.2	21.3	0.84	840
Small employer (<10 employees) in at least 3 years	14.3	13.3	0.95	14.5	11.9	0.84	516
Medium employer (10-99 employees) in at least one year	44.3	40.8	0.90	42.9	45.2	1.08	840
Medium employer (10-99 employees) in at least 3 years	21.6	21.3	0.99	20.8	23.8	1.14	516
Large employer (100+ employees) in at least one year	59.3	68.6	1.36**	61.0	62.9	1.06	840
Large employer (100+ employees) in at least 3 years	46.4	60.7	1.46***	49.2	58.5	1.33*	516
Industries of work experience in years 1 to 5 after gaining NCEA level 2:							
Agriculture, Forestry, Fishing in at least one year	9.0	7.0	0.81	8.7	6.5	0.77	840
Agriculture, Forestry, Fishing in at least 3 years	5.4	5.0	0.95	5.4	<4.8	<0.91	516
Manufacturing in at least one year	17.6	17.1	0.98	18.3	14.3	0.79	840
Manufacturing in at least 3 years	9.0	13.3	1.31	10.8	7.3	0.72	516
Construction in at least one year	13.8	22.5	1.53***	13.8	22.6	1.56***	840
Construction in at least 3 years	9.1	18.0	1.57***	10.7	17.1	1.48**	516
Wholesale Trade in at least one year	6.2	7.1	1.12	6.4	8.1	1.20	840
Wholesale Trade in at least 3 years	<5% have characteristic			<5% have characteristic			516
Retail Trade in at least one year	20.5	17.1	0.85	20.1	19.0	0.95	840
Retail Trade in at least 3 years	13.5	8.3	0.69	12.2	11.9	0.98	516
Accommodation & Food Services in at least one year	14.8	7.0	0.52***	13.8	9.7	0.73*	840
Accommodation & Food Services in at least 3 years	8.2	<3.3	<0.49***	7.7	<4.7	<0.65**	516
Transport, Post, Warehousing in at least one year	6.2	2.9	0.52*	6.4	3.2	0.55	840
Transport, Post, Warehousing in at least 3 years	<5% have characteristic			<5% have characteristic			516
Financial & Insurance Services in at least one year	<5% have characteristic			<5% have characteristic			840
Financial & Insurance Services in at least 3 years	<5% have characteristic			<5% have characteristic			516
Professional, Scientific, Technical Services in at least 1 year	7.6	10.0	1.24	6.4	14.8	1.93***	840
Professional, Scientific, Technical Services in at least 3 years	<5% have characteristic			<5% have characteristic			516
Administrative & Support Services in at least one year	7.7	7.0	0.93	7.3	8.1	1.08	840
Administrative & Support Services in at least 3 years	<5% have characteristic			<5% have characteristic			516
Public Administration & Safety in at least one year	8.6	19.7	1.90***	11.1	11.3	1.02	840
Public Administration & Safety in at least 3 years	6.3	19.4	1.95***	10.7	11.9	1.10	516
Education & Training in at least one year	6.2	5.6	0.93	5.5	6.5	1.13	840
Education & Training in at least 3 years	<5% have characteristic			<5% have characteristic			516
Health Care & Social Assistance in at least one year	<5% have characteristic			<5% have characteristic			840
Health Care & Social Assistance in at least 3 years	<5% have characteristic			<5% have characteristic			516
Arts & Recreation Services in at least one year	5.7	2.9	0.56	5.5	3.2	0.63	840
Arts & Recreation Services in at least 3 years	<5% have characteristic			<5% have characteristic			516
Other industry in at least one year	10.5	10.0	0.96	9.6	14.3	1.39	840
Other industry in at least 3 years	<5% have characteristic			<5% have characteristic			516

Notes: Employment counts as work experience if it is by the highest-paying employer in the year and wages are at least $10,000. Work experience in at least one year characteristics are defined only for those with at least a year of work experience. Work experience in at least three years characteristics are defined only for those with at least three years of work experience. The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 14: Non-education characteristics of women who are top savers

	Cumulative savings			Annual savings			
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	Students
Characteristic	Non-top savers (1)	Top savers (2)	(3)	Non-top savers (4)	Top savers (5)	(6)	(7)
Years student had any children:							
Fifth year after NCEA level 2 or earlier	23.3	8.3	0.36***	23.3	6.0	0.26***	1242
Years 6 to 10 after NCEA level 2	33.3	10.8	0.30***	34.4	6.0	0.16***	1242
Years 11 to 12 after NCEA level 2	19.9	13.3	0.67**	21.8	6.0	0.28***	1242
Years of early work experience:							
Any work experience in year of NCEA level 2 or earlier	12.7	21.4	1.62***	13.9	15.7	1.12	1242
Any work experience in years 1 to 5 after NCEA level 2	76.4	95.2	4.88***	78.9	84.3	1.35*	1242
Three+ years of work experience in years 1 to 5	39.8	67.5	2.50***	44.4	48.2	1.13	1242
Sectors of work experience in years 1 to 5 after gaining NCEA level 2:							
Central government in at least one year	11.9	26.3	1.96***	13.4	22.5	1.60***	993
Central government in at least 3 yrs	3.0	16.1	2.58***	6.1	12.2	1.74**	564
Other government in at least one year	6.3	8.9	1.30*	6.5	9.9	1.40	993
Other government in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Non-profit organisation in at least one year	11.9	8.8	0.76	12.2	7.1	0.61	993
Non-profit organisation in at least 3 yrs	6.9	5.4	0.83	6.8	5.0	0.77	564
Firm size of work experience in years 1 to 5 after gaining NCEA level 2:							
Small employer (<10 employees) in at least one year	25.4	17.7	0.70**	25.3	19.7	0.77*	993
Small employer (<10 employees) in at least 3 yrs	14.5	8.9	0.67	14.3	12.2	0.87	564
Medium employer (10-99 employees) in at least 1 yr	49.2	43.0	0.83*	48.5	45.7	0.92	993
Medium employer (10-99 employees) in at least 3 yrs	29.8	21.4	0.73**	28.6	22.0	0.76	564
Large employer (100+ employees) in at least one year	55.3	70.0	1.63***	56.7	66.2	1.38**	993
Large employer (100+ employees) in at least 3 yrs	35.1	58.9	1.96***	40.1	50.0	1.37**	564
Industries of work experience in years 1 to 5 after gaining NCEA level 2:							
Agriculture, Forestry, Fishing in at least one year	5.6	5.1	0.93	5.7	4.3	0.78	993
Agriculture, Forestry, Fishing in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Manufacturing in at least one year	9.5	11.4	1.16	9.2	12.9	1.33	993
Manufacturing in at least 3 yrs	3.8	8.8	1.71	4.7	7.5	1.44	564
Construction in at least one year	<5% have characteristic			<5% have characteristic			993
Construction in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Wholesale Trade in at least one year	<5% have characteristic			<5% have characteristic			993
Wholesale Trade in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Retail Trade in at least one year	30.2	21.5	0.70***	29.1	23.9	0.81	993
Retail Trade in at least 3 yrs	18.3	12.5	0.72*	17.0	12.5	0.75	564
Accommodation & Food Services in at least one year	23.8	11.4	0.49***	22.6	14.1	0.62***	993
Accommodation & Food Services in at least 3 yrs	10.7	7.1	0.72	10.8	7.5	0.72	564
Transport, Post, Warehousing in at least one year	<5% have characteristic			<5% have characteristic			993
Transport, Post, Warehousing in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Financial & Insurance Services in at least one year	<5% have characteristic			<5% have characteristic			993
Financial & Insurance Services in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Professional, Scientific, Technical Services in at least 1 yr	8.3	11.4	1.29	8.0	12.9	1.48**	993
Professional, Scientific, Technical Services in at least 3 yrs	6.1	10.5	1.46	6.1	12.2	1.74*	564
Administrative & Support Services in at least one year	5.2	8.8	1.50*	5.4	7.0	1.24	993
Administrative & Support Services in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Public Administration & Safety in at least one year	4.8	13.9	2.17***	6.1	10.0	1.49**	993
Public Administration & Safety in at least 3 yrs	3.0	12.7	2.33***	4.8	9.8	1.73*	564
Education & Training in at least one year	10.3	8.8	0.87	10.0	9.9	0.99	993
Education & Training in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Health Care & Social Assistance in at least one year	12.3	15.0	1.19	12.3	14.1	1.13	993
Health Care & Social Assistance in at least 3 yrs	5.3	7.1	1.23	6.1	5.0	0.85	564
Arts & Recreation Services in at least one year	<5% have characteristic			<5% have characteristic			993
Arts & Recreation Services in at least 3 yrs	<5% have characteristic			<5% have characteristic			564
Other industry in at least one year	10.3	11.3	1.08	10.3	10.0	0.97	993
Other industry in at least 3 yrs	5.3	5.3	0.99	6.1	<4.9	<0.83	564

Notes: Employment counts as work experience if it is by the highest-paying employer in the year and wages are at least $10,000. Work experience in at least one year characteristics are defined only for those with at least a year of work experience. Work experience in at least three years characteristics are defined only for those with at least three years of work experience. The odds ratio is calculated as (probability a student with the characteristic is a top saver)/(probability a student without the characteristic is a top saver). Population percentages are expressed as bounds where affected by confidentialisation of values under 6. Asterisks denote the odds ratio is different to one at: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 15: Regressions of being a top saver on pathways outside education for men

Dependent variable:	Student is a top cumulative saver			Student is a top annual saver		
	(1)	(2)	(3)	(4)	(5)	(6)
Any children born in year relative to NCEA level 2:						
Year 5 or earlier	0.096	0.053	0.047	0.062	0.055	0.063
	(0.062)	(0.062)	(0.062)	(0.056)	(0.056)	(0.056)
Years 6 to 10	0.082*	0.068*	0.076*	0.025	0.021	0.028
	(0.042)	(0.039)	(0.039)	(0.037)	(0.038)	(0.038)
Years 11 and 12	0.060	0.055	0.049	0.056	0.049	0.051
	(0.040)	(0.038)	(0.039)	(0.037)	(0.037)	(0.037)
Overseas at least 6 months in year relative to NCEA level 2:						
Any year 3 to 5	-0.052	-0.002	0.001	-0.040	-0.022	-0.018
	(0.055)	(0.049)	(0.049)	(0.048)	(0.049)	(0.049)
Any year 6 to 10	0.058	0.065*	0.061*	0.030	0.032	0.029
	(0.038)	(0.036)	(0.035)	(0.039)	(0.039)	(0.039)
Year 11 or 12	0.154***	0.146***	0.144***	0.268***	0.266***	0.268***
	(0.047)	(0.044)	(0.044)	(0.052)	(0.052)	(0.051)
Years of work experience in years 1 to 5 after NCEA level 1 (omitted category: 0):						
1		0.039	0.057*		0.024	0.035
		(0.033)	(0.033)		(0.043)	(0.043)
2		0.055	0.069*		0.048	0.054
		(0.041)	(0.039)		(0.048)	(0.045)
3		0.195***	0.223***		0.100*	0.108**
		(0.048)	(0.049)		(0.052)	(0.051)
4		0.184***	0.212***		0.051	0.069
		(0.046)	(0.046)		(0.050)	(0.051)
5		0.416***	0.433***		0.095*	0.088*
		(0.051)	(0.050)		(0.053)	(0.051)
Any work experience in years 1 to 5 in:						
Central government		0.120**			-0.003	
		(0.047)			(0.042)	
Medium-sized firm (10-99 employees)		-0.021			0.038	
		(0.031)			(0.030)	
Large firm (100+ empployees)		-0.034			-0.007	
		(0.031)			(0.032)	
Agriculture, Forestry, Fishing			-0.085*			-0.032
			(0.048)			(0.053)
Manufacturing			-0.034			-0.043
			(0.040)			(0.038)
Construction			0.021			0.081*
			(0.045)			(0.043)
Retail Trade			-0.069*			0.011
			(0.038)			(0.038)
Accommodation & Food Services			-0.112***			-0.060
			(0.042)			(0.044)
Professional, Scientific, and Technical Services			0.046			0.153**
			(0.057)			(0.060)
Administrative & Support Services			-0.063			-0.017
			(0.055)			(0.054)
Public Administration & Safety			0.072			-0.043
			(0.052)			(0.049)
Education & Training			-0.073			0.000
			(0.056)			(0.056)
Health Care & Social Assistance			0.038			0.009
			(0.079)			(0.072)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Level of highest qualification fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Fields of study controls	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.166	0.265	0.276	0.163	0.172	0.187
Observations	1,056	1,056	1,056	1,056	1,056	1,056

Notes: This table presents the results of ordinary least squares regressions of dummy variables for being a top cumulative saver (columns 1-3) or top annual saver (columns 4-6) on pathways outside education. Fields of study controls are those presented in column 2 of Appendix Table 11. Employment counts as work experience if it was for the highest paying employer in the year and at least $10,000 of wages were paid. Standard errors are robust. Asterisks denote: * p<0.10, ** p<0.05, *** p<0.01.

Appendix Table 16: Regressions of being a top saver on pathways outside education for women

Dependent variable:	Student is a top cumulative saver			Student is a top annual saver		
	(1)	(2)	(3)	(4)	(5)	(6)
Any children born in year relative to NCEA level 2:						
Year 5 or earlier	-0.060**	-0.002	0.007	-0.020	0.003	0.011
	(0.024)	(0.023)	(0.023)	(0.022)	(0.022)	(0.023)
Years 6 to 10	-0.131***	-0.142***	-0.141***	-0.106***	-0.113***	-0.111***
	(0.023)	(0.021)	(0.022)	(0.019)	(0.019)	(0.020)
Years 11 and 12	-0.014	-0.021	-0.022	-0.087***	-0.088***	-0.091***
	(0.027)	(0.025)	(0.025)	(0.022)	(0.021)	(0.021)
Overseas at least 6 months in year relative to NCEA level 2:						
Any year 3 to 5	0.066	0.108**	0.112**	0.006	0.023	0.029
	(0.059)	(0.052)	(0.053)	(0.053)	(0.051)	(0.052)
Any year 6 to 10	0.058	0.062	0.053	0.026	0.028	0.020
	(0.040)	(0.038)	(0.039)	(0.039)	(0.039)	(0.039)
Year 11 or 12	0.142***	0.137***	0.144***	0.287***	0.285***	0.292***
	(0.047)	(0.044)	(0.044)	(0.047)	(0.047)	(0.047)
Years of work experience in years 1 to 5 after NCEA level 1 (omitted category: 0):						
1		0.020	0.119***		-0.001	0.049
		(0.036)	(0.035)		(0.040)	(0.039)
2		0.040	0.176***		-0.015	0.055
		(0.038)	(0.037)		(0.040)	(0.038)
3		0.050	0.179***		-0.020	0.042
		(0.040)	(0.040)		(0.040)	(0.041)
4		0.221***	0.364***		0.075*	0.144***
		(0.046)	(0.045)		(0.044)	(0.043)
5		0.352***	0.470***		0.132***	0.187***
		(0.049)	(0.047)		(0.046)	(0.045)
Any work experience in years 1 to 5 in:						
Central government		0.210***			0.094**	
		(0.038)			(0.037)	
Medium-sized firm (10-99 employees)		0.004			0.035	
		(0.028)			(0.027)	
Large firm (100+ empployees)		0.045			0.029	
		(0.028)			(0.027)	
Agriculture, Forestry, Fishing			-0.083			-0.013
			(0.056)			(0.055)
Manufacturing			-0.036			0.031
			(0.046)			(0.045)
Construction			0.065			0.158**
			(0.080)			(0.077)
Retail Trade			-0.107***			-0.045
			(0.030)			(0.029)
Accommodation & Food Services			-0.151***			-0.072**
			(0.030)			(0.029)
Professional, Scientific, and Technical Services			-0.024			0.064
			(0.048)			(0.048)
Administrative & Support Services			0.008			-0.002
			(0.055)			(0.055)
Public Administration & Safety			0.130**			0.015
			(0.059)			(0.050)
Education & Training			0.011			0.031
			(0.046)			(0.047)
Health Care & Social Assistance			-0.000			0.011
			(0.043)			(0.039)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes
Level of highest qualification fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Fields of study controls	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.137	0.265	0.268	0.225	0.252	0.257
Observations	1,245	1,245	1,245	1,245	1,245	1,245

Notes: This table presents the results of ordinary least squares regressions of dummy variables for being a top cumulative saver (columns 1-3) or top annual saver (columns 4-6) on pathways outside education. Fields of study controls are those presented in column 2 of Appendix Table 11. Employment counts as work experience if it was for the highest paying employer in the year and at least $10,000 of wages were paid. Standard errors are robust. Asterisks denote: * p<0.10, ** p<0.05, *** p<0.01.