Building on strengths: **Humanities**



Isabelle Sin, Shannon Minehan, and Thomas Benison

July 2024

Document information

Author contact details

Isabelle Sin Motu Economic and Public Policy Research isabelle.sin@motu.org.nz

Shannon Minehan Motu Economic and Public Policy Research shannon.minehan@motu.org.nz

Thomas Benison Motu Economic and Public Policy Research thomas.benison@motu.org.nz

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.

Disclaimer

The opinions, findings, recommendations, and conclusions expressed in this paper are those of the authors, not Te Puni Kōkiri or Motu Economic and Public Policy Research.

These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) and Longitudinal Business Database (LBD) which are carefully managed by Stats NZ. For more information about the IDI or LBD please visit https://www.stats.govt.nz/integrated-data/.

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.

Motu Economic and Public Policy Research

PO Box 24390info@motu.org.nz+64 4 9394250Wellingtonwww.motu.org.nzNew Zealand

© 2023 Motu Economic and Public Policy Research Trust and the authors. Short extracts, not exceeding two paragraphs, may be quoted provided clear attribution is given. Motu Working Papers are research materials circulated by their authors for purposes of information and discussion. They have not necessarily undergone formal peer review or editorial treatment.

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 Humanities 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, particularly if they study Health, Management and Commerce, or Engineering and Related Technologies. Society and Culture study is a natural extension of Humanities, but is generally associated with weak outcomes for women. Nonetheless, there may be good non-financial reasons for students to study this subject.

We find qualifications at level 7 or above benefit men's earnings, but at considerable opportunity cost because higher study causes a long delay in entering work. Men get a greater boost to their earnings without the opportunity cost if they gain industry training qualifications at level 4 or higher. Men who study Engineering and Related Technologies or Management and Commerce at any level tend to do comparatively well. Like such women, men who specialised in Humanities have a tendency to study Society and Culture, which is not associated with strong outcomes.

For both men and women, early career experience working in central government appears beneficial, as does work experience in the Public Administration and Safety industry or the Education and Training industry for women.

JEL codes

120, 130, 123, 126, J15, J24

Keywords

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

iii

Contents

1.	Introd	uction	3
2.	Overvi	ew of the students who specialised in Humanities	3
3.	How d	o savings vary with level of qualifications?	7
	3.1	Cumulative and annual savings by level of highest qualification	7
	3.2	Qualification levels of top cumulative and annual savers	11
4.	How d	o savings vary with fields of study in higher education?	14
	4.1	Cumulative and annual savings by fields of study	14
	4.2	Fields of higher study of top cumulative and annual savers	16
5.	How d	o savings vary with self-employment?	20
	5.1	Self-employment by level of highest qualification	20
	5.2	Cumulative and annual savings by self-employment status	21
6.	How d	o savings vary with pathways through life outside education?	23
7.	Conclu	isions	25

Tables and Figures

Figure 1: Distribution of level of highest qualification	4
Figure 2: Distribution of field of highest qualification	5
Figure 3: Cumulative savings over time by gender	6
Figure 4: Annual savings over time by gender	6
Figure 5: Savings over time by level of highest qualification for men	8
Figure 6: Savings over time by level of highest qualification for women	9
Figure 7: Cumulative savings 12 years after NCEA level 2 by gender and level of highest qualification	10
Figure 8: Annual savings 12 years after NCEA level 2 by gender and level of highest qualification	11
Figure 9: Cumulative savings 12 years after NCEA level 2 by gender and field of highest qualification	15
Figure 10: Annual savings 12 years after NCEA level 2 by gender and field of highest qualification	15
Figure 11: Self-employment over time by highest qualification	20
Figure 12: Cumulative savings over time by whether ever self-employed	22

Appendix Table 1: Qualification levels of men who are top savers	27
Appendix Table 2: Qualification levels of women who are top savers	28
Appendix Table 3: Regressions of being a top saver on level of highest qualification for men	29
Appendix Table 4: Regressions of being a top saver on level of highest qualification for women	30
Appendix Table 5: Fields of study at school of men who are top savers	31
Appendix Table 6: Fields of study at school of women who are top savers	32
Appendix Table 7: Fields of tertiary study of men who are top savers	33
Appendix Table 8: Fields of tertiary study of women who are top savers	34
Appendix Table 9: Fields of tertiary qualification of men who are top savers	35
Appendix Table 10: Fields of tertiary qualification of women who are top savers	36
Appendix Table 11: Regressions of being a top saver on field of higher study for men	37
Appendix Table 12: Regressions of being a top saver on field of higher study for women	39
Appendix Table 13: Non-education characteristics of men who are top savers	41
Appendix Table 14: Non-education characteristics of women who are top savers	42
Appendix Table 15: Regressions of being a top saver on pathways outside education for men	43
Appendix Table 16: Regressions of being a top saver on pathways outside education for women	44

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 Humanities 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 Humanities. 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 Humanities at school.

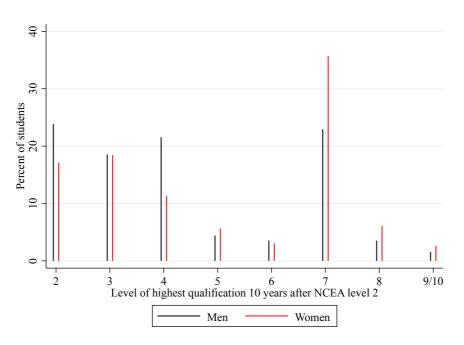
2. Overview of the students who specialised in Humanities

Māori students who specialised in Humanities are defined as students who showed strong results in NCEA level 2 standards in subjects such as English, languages (other than te reo Māori),

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.

and health and physical education.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 3,762 students specialised in Humanities, 55% of whom are female, and 18% 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 Humanities. The most common highest qualification level for women is level 7 (which includes bachelor's degrees and other qualifications at a similar level), which is attained by 36% of women but only 23% of men. Men are likely to gain highest qualifications at levels 2, 3, 4, or 7. Many women also gain level 2 or 3 highest qualifications, but women are much less likely than men to gain level 4 qualifications. Women are more likely than men to gain qualifications at levels above 7, but less than 10% of women do so.



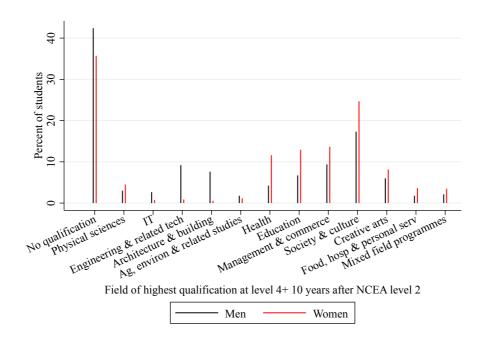


Notes: This figure shows the highest level of qualification gained by men and women who specialised in Humanities. To be counted, qualifications must have been gained within 10 years of achieving NCEA level 2.

Figure 2 shows the distribution across fields of study of the highest qualifications of men and women who specialised in Humanities at level 2. Among those who gain qualifications at

² The full list of subjects included in the specialty Humanities is: communication skills; Christian theology; Christian ministries; religious studies; English, women's perspectives; languages; health and physical education; international languages for industry; Pacific studies; sports education; and Christian studies. Not all of these subjects are necessarily available to study at level 2.

level 4 or above, the most common field of study for both genders is Society and Culture, in which around a quarter of women and 17% of men gain a highest qualification at level 4 or above. Health, Education, and Management and Commerce are other common fields that are dominated by women, whereas Engineering and Related Technologies, and Architecture and Building are dominated by men.





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 Humanities. 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.

Figure 3 shows the evolution over time of the distribution of cumulative savings for men and women who specialised in Humanities. Median cumulative savings are negative for the first five years for men and the first seven years for women, indicating any earnings the median students have over these years are insufficient to cover their estimated living costs and tertiary fees. By the time women's median cumulative savings reach 0 in year 8, men's are already over \$35,000. By 12 years after NCEA level 2, median men's savings are around \$155,000, more than twice as high as women's. Men at the 20th and 80th percentiles also have higher cumulative savings than women at these percentiles.

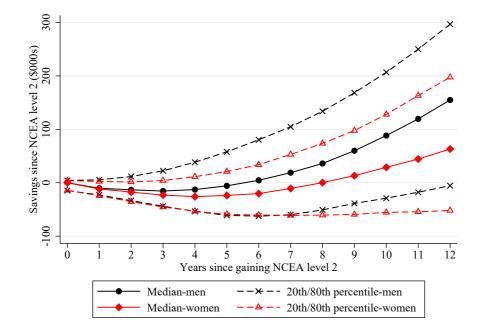
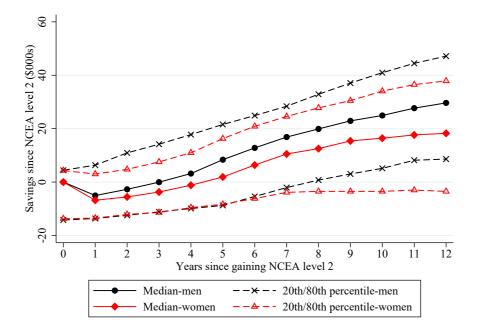


Figure 3: Cumulative savings over time by gender

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 Humanities.





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 Humanities.

Figure 4 similarly shows how the distribution of annual savings changes over time for men and women who specialised in Humanities. It shows the median of men's annual savings begins to pull ahead of the median of women's immediately after NCEA level 2, and by year 12 is well over \$10,000 higher. The large annual savings gap in year 12 suggests men's cumulative savings in later years will continue to pull further ahead of women's.

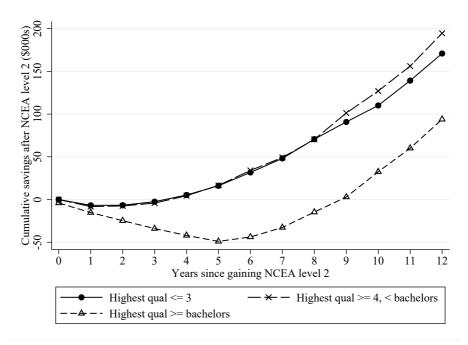
3. How do savings vary with level of qualifications?

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

3.1 Cumulative and annual savings by level of highest qualification

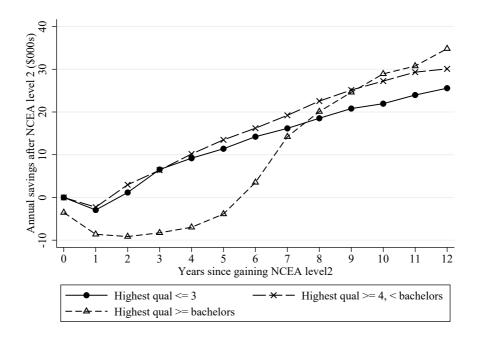
Figures 5 and 6 show how median cumulative and annual savings change over time after gaining NCEA level 2 for men and women who achieve different levels of highest qualification. Figure 5 shows men with intermediate qualifications (at least level 4 but below bachelor's level) have annual savings that are initially similar to those of men with low qualifications (level 2 or 3), but over time gradually pull ahead. Consequently, their cumulative savings are very similar for the first 8 years, after which the savings of men with intermediate qualifications begin to pull ahead. Men with high qualifications (bachelor's level or higher) have the lowest annual savings for 7 years after NCEA level 2, at which point their annual savings overtake those of men with low qualifications. By year 10, the annual savings of men with high qualifications have overtaken those of men with intermediate qualifications and may still be growing faster. The lower early annual savings of students who gain higher qualifications are expected because such students usually delay starting full-time work while they study. However, by the time their annual savings overtake those of intermediate qualified men, their cumulative savings are nearly \$95,000 lower. This gap doesn't narrow by 12 years. How long it takes men with high qualifications to catch up with intermediate-qualified men in terms of cumulative savings will depend on how the annual savings of high-qualified men grow after year 12. With no growth for either group, closing the gap could take another 20 years.

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



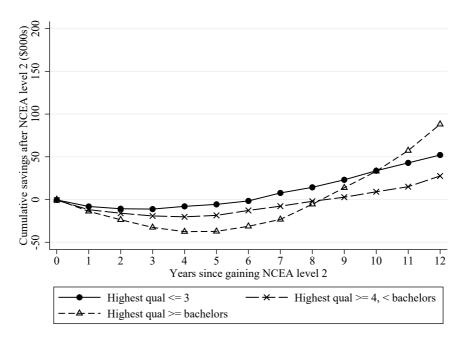
Panel A: Cumulative savings

Panel B: Annual savings



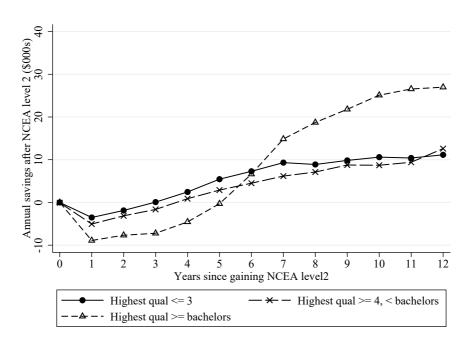
Notes: This figure shows changes over time in the median of cumulative savings since gaining NCEA level 2 (Panel A) and median of annual savings (Panel B) for men who specialised in Humanities and achieved different levels of highest qualification. Qualifications are included if they were gained within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



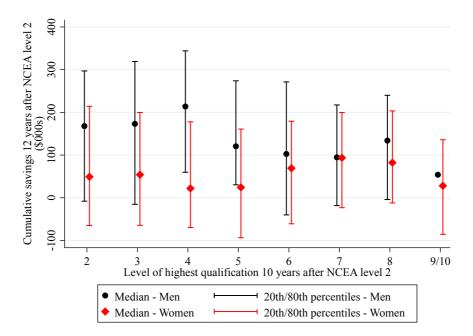
Notes: This figure shows changes over time in the median of cumulative savings since gaining NCEA level 2 (Panel A) and median of annual savings (Panel B) for women who specialised in Humanities and achieved different levels of highest qualification. Qualifications are included if they were gained within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

Figure 6 reveals quite a different story for women to the story for men. For the first five years after NCEA level 2, women's annual savings are inversely related to the level of highest qualification they will attain, and women with low qualifications develop a cumulative savings

advantage over those who are gaining higher qualifications. However, around year 5 the annual savings of women with high qualifications grow sharply as these women complete their studies and enter the labour force. Their annual savings overtake those of less qualified women, and by year 12 are more than \$15,000 ahead. This results in the most qualified women overtaking both groups of less qualified women in terms of cumulative savings by year 11, and pulling further ahead in year 12. Women with intermediate qualifications have consistently lower annual savings than women with low qualifications every year but year 12, and thus have considerably lower cumulative savings by year 12. Intermediate qualifications may not be financially worthwhile for most women.

Taken together, these findings show men who specialised in Humanities tend to do well in the labour market if they leave education without gaining a bachelor's degree. Those with bachelor's degrees or higher may eventually make up for the opportunity cost of their education, but this is not certain. Women with a bachelor's degree, however, do substantially better than women without.

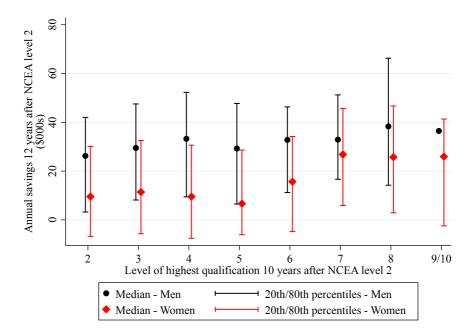




Notes: This figure shows the median and 20th and 80th percentiles of cumulative savings 12 years after NCEA level 2 of men and women who specialised in Humanities by the detailed level of their highest qualification. Qualifications are included if they were gained within 10 years of NCEA level 2. Note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

Figures 7 and 8 explore the distribution of cumulative and annual savings after 12 years for men and women with this specialty by disaggregated level of highest qualification. They show women with level 6 qualifications have somewhat higher savings than those with lower qualifications and those with level 7 qualifications have higher savings again. Level 8 and higher qualifications yield no additional benefit over level 7. Men with level 4 qualifications do very well in the near term, but those with level 8 may come out ahead eventually, depending on how their annual savings increase after the first 12 years.





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 Humanities 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 Humanities 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 Humanities. 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 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, and 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 gualification 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.

Only 38% of men and 52% of women gain a level 3 NCEA certificate the year after their level 2 certificate, but by 5 years after it 43% of men and 55% of women have this qualification. The bivariate analysis shows men who achieve level 3 within 5 years are 57% more likely than men who don't to be top annual savers. Similarly, women who achieve level 3 within 5 years are 70% more likely than women who don't to be top annual savers. However, a level 3 NCEA certificate is not significantly associated with a high probability of being a top cumulative saver for either gender.

Level of highest qualification is strongly positively correlated with being a top cumulative and annual saver for men, both in the bivariate analysis and the regressions. In the regressions that control for students' background, men with level 4 qualifications are more likely to be top cumulative savers than men with the same background with any other level of highest qualification. Compared with them, men with level 7 or level 8 to 10 qualifications are less likely to be top cumulative savers. Men with level 4 or level 7 qualifications are relatively likely to be top *annual* savers, and those with level 8 to 10 qualifications even more so. In the regressions for women, those with higher qualifications are generally more likely to be top annual savers but less likely to be top *cumulative* savers than those with the same background with lower qualifications.

Industry training is a relatively common pathway taken by men: 38% of men complete some industry training credits. Both the bivariate analysis and regressions reveal this is highly beneficial for them, particularly in terms of cumulative savings but also in terms of annual savings. This is true regardless of the level of training and whether they successfully complete any industry training qualifications. Men who achieve any industry training credits are 2.1 times as likely as men who do not achieve any industry training credits to be top cumulative savers and 1.4 times as likely to be top annual savers. This relationship is also present in the regression analysis, which shows even men with level 2 industry training gualifications are more likely to be top cumulative savers than are men with level 2 non-industry training qualifications, and the higher the level of the industry training qualification, the greater the likelihood of being a top saver of either type. Men with industry training qualifications at level 4 or above are more likely to be top cumulative and annual savers than are similar men with level 8 gualifications. In contrast, only 18% of women gain any industry training credits. The regressions show that, while women with industry training gualifications at level 3 or above are weakly more likely than similar women with only level 2 non-industry training qualifications to be top cumulative savers, they are not more likely to be top annual savers.

In terms of the types of tertiary institute attended, men and women who attend industry training organisations are more likely than those who don't to be top cumulative savers, conditional on their backgrounds and level of highest qualification. Men and women who attend wānanga are less likely to be top cumulative and annual savers than are others of their gender with the same highest level of qualification who do not attend them. The same is true for men who attend universities. In the bivariate analysis, attending a school or tertiary institute outside the main urban areas is associated with a higher probability of being a top cumulative saver for men, and an insignificantly lower probability of being a top cumulative and annual saver for 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 no significant relationship between the age at which the student gains NCEA level 2 or whether they have multiple specialties and being a top saver for either gender. However, both genders are more likely to be top cumulative and annual savers if they attended a higher-decile school than if they attended a lower decile school. Women with stronger grades (as measured by their percentile scores) are more likely to be top cumulative and annual savers, although the relationship with being a top annual saver is partly explained by the level and type of highest qualification gained. The relationship with being a top cumulative saver is not affected by such controls. Finally, men who attend school outside main urban areas are more likely to be top cumulative savers because they are more likely to gain industry training qualifications.

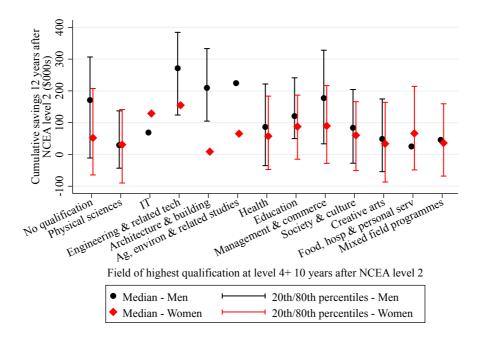
4. How do savings vary with fields of study in higher education?

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

4.1 Cumulative and annual savings by fields of study

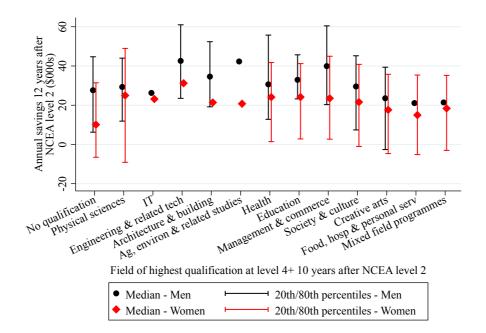
Figure 9 shows how the cumulative savings after 12 years differ for men and women whose highest qualifications at level 4 or above are in different fields. Figure 10 shows the same but for annual rather than cumulative savings. As Figure 2 showed, the highest proportion of men and women have no qualification at level 4 or above. Such men have high cumulative savings, around \$170,000 at the median, compared with \$50,000 for women. They have annual savings somewhat under \$30,000, compared with \$10,000 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 Humanities 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.

The most common field for higher qualifications is Society and Culture, which offers men median cumulative savings well below those of men with no qualifications at this level, and annual savings similar to the savings of those with no qualifications. Society and Culture offers women cumulative and annual savings that are higher than those offered by no qualifications, but still fairly average. Engineering and Related Technologies, the second most common field of higher qualification for men, offers men the highest median cumulative savings (\$270,000) and the highest median annual savings (over \$40,000). Management and Commerce, men's next most common field, offers annual savings only slightly lower and cumulative savings of around \$175,000. Architecture and Building is another common field of qualification for men that offers strong financial rewards.

After Society and Culture, Health, Education, and Management and Commerce are women's most common fields. Health offers women median cumulative savings slightly below the other two, and Management and Commerce offers annual savings slightly below the other two. As is the case for men, Engineering and Related Technologies offers women the highest cumulative and annual savings (about \$155,000 and about \$30,000 respectively), but few women gain such qualifications.

4.2 Fields of higher study of top cumulative and annual savers

In this section we again categorise men and women who specialised in Humanities 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 the bivariate comparisons, men and women who pass at least 14 credits at level 2 in any of English, Maths, Social Science, or Science are more likely than those of their gender who don't to be top annual savers, and this remains true when limiting to achievement standard credits, which tend to be more academic. Maths and Science credits are also associated with a higher probability of being a top *cumulative* saver for women, but not men. However, passing 14 level 2 credits in Māori is associated with a significantly lower probability of being a top annual saver for both genders and a lower probability of being a top cumulative saver for women.

In the bivariate analysis, the level 3 subjects associated with being both top cumulative and annual savers for men are the applied fields: men who pass at least 14 credits at level 3 in Engineering and Technology or the Service Sector have a much higher probability of being top cumulative savers and a considerably higher probability of being top annual savers than men who don't pass such credits. Manufacturing, Planning, and Construction credits are also associated with a higher probability of being a top cumulative saver for men. Service Sector credits, the only one of these three examined in the regressions, remain associated with strong outcomes once students' background, fields of study, and fields of higher qualification are controlled for. Credits at level 3 in some of the more academic fields are associated with a higher probability of being top annual savers for men, though these relationships are not significant in the regressions.

For women, level 3 credits in academic subjects tend to be associated with a higher probability of being a top annual saver. However, this relationship disappears in the regressions, which compare women with the same background characteristics and other level 3 fields of study. The only field that remains weakly significantly associated with being a top annual saver is Humanities. In addition, Arts and Crafts credits are associated with a lower probability of a women being a top cumulative saver, and Service Sector credits with a higher probability of

being a top cumulative saver. The later columns in the table reveal that both these relationships are explained by the fields of study at higher levels to which the level 3 subjects lead.

The difference in results for level 3 credits in different fields between the bivariate and regression analysis suggests it is students with stronger academic backgrounds who tend to pass 14 credits in the more academic subjects, and their higher annual savings are primarily explained by their backgrounds rather than by their success in these subjects.

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 level 4+ in the field" and "gained bachelor's degree+ in the field" must be added together.

Society and Culture, a natural extension of Humanities, is the field in which men who specialised in Humanities are most likely to pass at least 0.5 EFTS of courses at level 4 and above. Twenty-eight percent of men do so, and many of these gain qualifications in the field (17% of men at level 4 or above, 11% at bachelor's level or above). In the regressions, men who study in

this field at level 4 or above are less likely to be top cumulative savers than men with the same background and level 3 fields of study who leave education after level 3. This is likely due to the opportunity cost of higher education. Similarly, *qualifications* in this field are associated with a lower probability of being a top cumulative saver, and if they are below bachelor's level then also a lower probability of being a top annual saver. Despite the lack of financial returns to Society and Culture, students may pursue it for valid reasons unrelated to the labour market.

As suggested in earlier sections, study in Engineering and Related Technologies is associated with strong outcomes for men. The bivariate analysis shows the 19% of men who pass at least 0.5 EFTS in this field at level 2 or above are 2.1 times as likely as men who don't to be top cumulative savers and 66% more likely to be top annual savers, even though nearly half of these men pass these EFTS at a level below 4. In the regressions, men who study in the field at levels 4 to 6 are more likely to be both top cumulative and annual savers than are with men with the same background who leave education after level 3. Study at level 7 or higher is associated with an even higher (though insignificantly so) probability of being a top annual saver, but does not provides a cumulative savings advantage over being an education-leaver.

Thirteen percent of men pass at least 0.5 EFTS of courses in Management and Commerce at level 4 or above. Nine percent gain a qualification in the field at level 4 or above, and 7% gain a bachelor's degree or higher. The bivariate analysis and regressions show all these men are more likely to be top annual savers than are similar men who leave study without gaining a qualification above level 3. Nearly 11% of men pass at least 0.5 EFTS in Health at level 4 or above, but less than 5% of men gain a qualification in the field. The study of Health, particularly below level 7, is associated with a lower probability of being a top saver for men, as is the study of Education at levels 4 to 6.

Women are also particularly likely to pass 0.5 EFTS in Society and Culture and to gain qualifications in this field (38% pass 0.5 EFTS at level 4 or above, 25% gain a qualification at this level, and 17% gain a bachelor's degree or higher). The regressions show these women are less likely than those with the same background but who leave education after level 3 to be top cumulative savers, regardless of level and whether a qualification in this field is gained. The women are also less likely to be top annual savers when the study is at levels below 7.

The regressions show that women who study at Health, Education, or Creative Arts at levels 4 to 6 are less likely to be top savers than are similar women who leave education after level 3. However, the 7% of women with Health qualifications at levels 7 and above (which includes medical degrees) are substantially more likely to be top annual savers. Management and Commerce at level 7 or above, particularly if it results in a qualification, and Engineering and

Related Technologies study at any level also seem to increase the likelihood of being a top saver for women. Management and Commerce is a more common field than Engineering and Related Technologies for women, but Engineering and Related Technologies may result in greater savings.

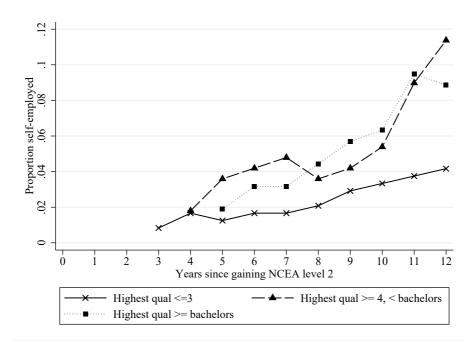
5. How do savings vary with self-employment?

This section first shows how self-employment rates vary over time and by level of highest qualification for students who specialised in Humanities. 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

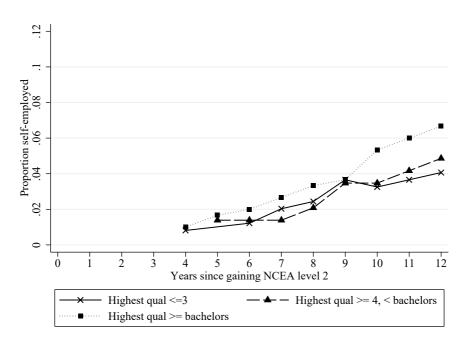
This section shows how the self-employment of students who specialised in Humanities varies over time for each level of highest qualification.







Continued on following page



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 Humanities and achieved different levels of highest qualification. Qualifications gained within 10 years of NCEA level 2 are included. Missing values denote counts so low they must be supressed under Statistics New Zealand's confidentiality rules.

Figure 11 shows self-employment is high for men with qualifications at level 4 or above, somewhat lower for women with bachelor's degrees, and lowest for men with low qualifications (level 2 or 3) and women without bachelor's degrees. The self-employment rate of men with intermediate qualifications is over 11% 12 years after NCEA level 2 and is still growing strongly. At the same point, just under 7% of women with bachelor's degrees are self-employed.

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.³ 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 men who are ever self-employed tend to have very slightly higher cumulative savings than men who are never self-employed. Women who are ever self-employed have lower cumulative savings than those who are not from soon after NCEA level 2, which is consistent with women with less earning potential being more likely to enter self-employment. The gender difference in the relationship between self-employment and savings could suggest men and women have different motivations for entering self-employment.

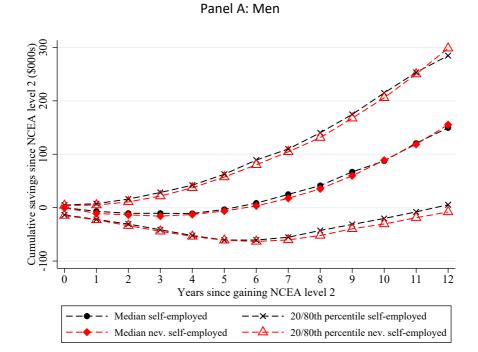
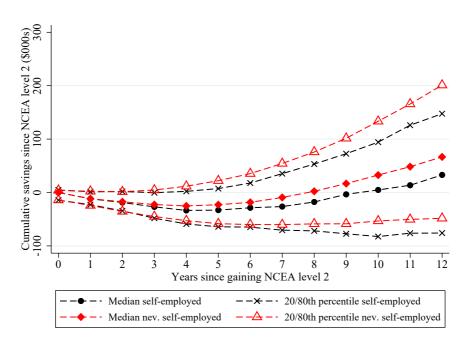


Figure 12: Cumulative savings over time by whether ever self-employed

Continued on following page

³ 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).



Panel B: Women

Notes: This figure shows the median and 20th and 80th percentiles of cumulative savings of men and women who specialised in Humanities 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 Humanities 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.

In both the bivariate comparisons and the regressions that control for a wide range of characteristics including education and overseas experience, children are minimally associated with a man's probability of being a top cumulative or annual saver, and negatively associated with the probability of being a top saver for women. 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.

The regressions for both men and women show overseas experience in year 11 or 12 increases the likelihood of being a top cumulative and annual saver when compared with individuals with similar education, timing of children, and backgrounds but who didn'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 stronger history of work experience in the five years after NCEA level 2 increases the likelihood 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. Working for all five of these years also increases the likelihood of being a top annual saver for men and women. Conditional on work experience, men with central government experience are more likely to be top cumulative savers, and women with such experience are more likely to be top cumulative and annual savers. This suggests early experience working in central government sets the 17% of women with work experience who gain it on a beneficial career trajectory. Experience working for a large employer also seems to benefit women's savings.

Manufacturing, Construction, and Retail Trade are the three industries in which men are most likely to get early work experience. Of the three, Retail Trade is associated with the lowest

likelihood of being a top saver when compared with similar individuals with the same amount of work experience but who did not work in this specific industry. Women are most likely to get work experience in Retail Trade or Accommodation and Food Services, both of which are associated with a lower likelihood of being a top saver. However, 9% of women with any work experience ever work in Public Administration and Safety and 12% in Education and Training, both of which lead to strong labour market outcomes.

7. Conclusions

In this specialty profile, we focussed on Māori men and women who specialised in Humanities 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.

Māori students who specialise in Humanities at level 2 have a strong tendency to gain high level qualifications, particularly if they are women. Although women clearly perform better in the labour market if they gain bachelor's level or higher qualifications, the financial benefit to men of higher qualifications is less clear. Industry training qualifications are very financially rewarding for men, especially at higher levels. Men with such qualifications at level 4 or above have higher cumulative and annual savings after 12 years than do the best-performing men without industry training qualifications (those with qualifications at level 8 or above). In contrast, industry training qualifications appear to have only weak benefits for women, who have the strongest outcomes if they gain a level 7 qualification.

The most common field of higher study for both men and women is Society and Culture, which tends to be associated with weak labour market outcomes. However, there may be valid non-labour market reasons for students to choose this educational pathway, such as connection to culture or personal enrichment.

Men perform best if they gain a qualification in Engineering and Related Technologies at level 4 or above. Those with such qualifications at the bachelor's level have even higher annual savings, but lower cumulative savings. Study at any level in Management and Commerce is associated with strong annual savings for men. However, study in Health or Education at levels 4 to 6 tends to lead to weak outcomes.

Women perform very well if they study Management and Commerce at level 7 or above, or Engineering and Related Technologies at any level, though both of these are relatively rare. The 7% of women who gain a qualification in Health at level 7 or above (which includes medical degrees) also do very well in the labour market. Notably, these three fields that are associated with the strongest outcomes for women are at best weakly related to the specialty Humanities, and not all students with this specialty may have the background or interest to pursue any of the three.

Those who gain early work experience in central government tend to enjoy subsequent success in the labour market, and this is particularly true for women. Women also tend to do well if they get work experience in the Public Administration and Safety industry or the Education and Training industry. No specific industries are associated with very strong labour market trajectories for men, but experience in Construction or Manufacturing tends to be associated with stronger outcomes than does experience in Retail Trade.

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

	Cur	nulative savi	ngs	Α			
	% of stud	dents with		% of stuc			
	chara	characteristic		charad	cteristic	Odda	Students
	am	iong:	Odds ratio	am	ong:	Odds ratio	Students
	Non-top	T o 10 0000000	ratio	among: Non-top Top savers		Tatio	
	savers	Top savers		savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
School qualifications gained:							
NCEA cert level 3 within 1 yr	38.9	35.1	0.88	35.6	47.8	1.49***	1692
NCEA cert level 3 within 5 yrs	43.3	41.7	0.95	40.3	54.4	1.57***	1692
University Entrance within 1 yr	36.4	30.4	0.80**	33.3	43.1	1.39***	1692
Level of highest qualification gained	l within 10) years:					
Level 2	24.0	23.5	0.98	26.1	15.8	0.59***	1692
Level 3	17.3	22.8	1.31**	18.7	17.4	0.93	1692
Level 4	18.7	32.2	1.74***	20.9	24.3	1.17	1692
Level 5	<5% h	ave characte	ristic	<5% h	ave characte	eristic	1692
Level 6	<5% have characteristic			<5% h	ave characte	eristic	1692
Level 7	26.1	11.3	0.43***	22.0	27.6	1.26**	1692
Level 8	<5% have characteristic			<5% have characteristic			1692
Level 9 or 10	<5% have characteristic			<5% have characteristic			1692
Industry training credits gained with	hin 10 yea	rs:					
Any credits	33.6	56.9	2.12***	36.3	46.1	1.38***	1692
Any credits at level 4+	18.5	42.6	2.43***	20.9	33.0	1.62***	1692
50+ credits	19.2	43.5	2.42***	21.8	33.0	1.55***	1692
50+ credits at level 4+	10.9	27.8	2.30***	12.2	21.9	1.70***	1692
Level of highest industry training qu	alification	gained with	in 10 year	'S:			
Level 2+	20.3	45.6	2.46***	22.7	36.2	1.66***	1692
Level 3+	14.7	38.6	2.59***	16.9	29.6	1.74***	1692
Level 4+	10.0	28.1	2.47***	11.6	21.9	1.78***	1692
Types of tertiary institute where stu	ident enro	lled within 1	LO years (fo	or students	who enroll	ed in any t	ertiary):
Industry Training Organisation	42.2	62.8	1.95***	45.6	50.0	1.15	1662
Institute of Technology/Polytech	70.7	72.3	1.06	72.3	65.8	0.79**	1662
Private Training Establishment	62.4	69.9	1.31***	63.9	64.9	1.04	1662
University	53.5	30.1	0.45***	48.5	50.0	1.05	1662
Wananga	13.3	8.0	0.63***	13.4	7.8	0.61***	1662
Other Tertiary Provider	7.0	16.1	1.98***	7.3	14.2	1.74***	1662
Locations of education providers w	nere stude	ent enrolled	within 10	years (inclu	uding school	s):	
Main urban area		ot have chara		• ·	-	-	1692
Secondary urban area	18.9	26.3	1.39***	19.8	23.5	1.19	1692
Minor urban area	20.4	23.5	1.15	20.9	21.1	1.01	1692
Rural centre or rural area	15.6	20.0	1.27**	15.6	19.1	1.21*	1692
Different region to school	84.5	89.9	1.50**	85.1	87.4	1.17	1602

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, M p is missing.

	Cur	nulative savi	ngs	Α	nnual saving	s	
	% of stu	dents with		% of stuc			
	chara	cteristic		charad	cteristic		Students
	am	iong:	Odds	am	ong:	Odds	Students
	Non-top	-	ratio	Non-top savers Savers		ratio	
	savers	Top savers		savers	lop savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
School qualifications gained:							
NCEA cert level 3 within 1 yr	51.6	55.0	1.11	48.9	66.0	1.76***	2070
NCEA cert level 3 within 5 yrs	53.9	57.1	1.11	51.4	67.1	1.70***	2070
University Entrance within 1 yr	48.4	50.4	1.07	44.8	64.5	1.91***	2070
Level of highest qualification gained	l within 10) years:					
Level 2	16.4	20.6	1.24*	18.7	11.4	0.62***	2070
Level 3	17.9	20.6	1.15	19.5	13.5	0.70***	2070
Level 4	11.8	10.0	0.86	12.6	6.4	0.54***	2070
Level 5	6.0	4.3	0.75	6.4	3.5	0.59**	2070
Level 6	<5% h	ave characte	eristic	<5% have characte		eristic	2070
Level 7	35.5	36.2	1.02	31.9	50.4	1.83***	2070
Level 8	6.0	6.4	1.06	5.3	9.2	1.57***	2070
Level 9 or 10	<5% have characteristic			<5% have characteristic			2070
Industry training credits gained with	nin 10 yea	rs:					
Any credits	17.3	22.0	1.26**	18.2	17.1	0.94	2070
Any credits at level 4+	5.3	12.1	1.92***	6.4	6.4	1.01	2070
50+credits	7.1	13.5	1.70***	8.0	10.0	1.21	2070
50+ credits at level 4+	<5% h	ave characte	eristic	<5% h	ave characte	eristic	2070
Level of highest industry training qu	alification	gained with	in 10 year	'S:			
Level 2+	9.5	14.9	1.48***	10.4	10.7	1.03	2070
Level 3+	5.8	12.1	1.81***	6.9	7.8	1.11	2070
Level 4+	<5% have character		eristic	<5% have characteristic			2070
Types of tertiary institute where stu	ident enro	lled within :	LO years (f	or students	who enroll	ed in any t	ertiary):
Industry Training Organisation	22.1	27.4	1.25**	23.3	22.6	0.97	2022
Institute of Technology/Polytech	64.3	59.3	0.84*	65.6	54.0	0.68***	2022
Private Training Establishment	60.1	51.9	0.77***	60.9	48.9	0.68***	2022
University	63.8	59.3	0.86*	60.3	72.8	1.58***	2022
Wananga	22.4	12.5	0.56***	22.0	13.9	0.63***	2022
Other Tertiary Provider	5.6	8.9	1.47**	6.3	5.1	0.83	2022
Locations of education providers w	nere stude		within 10	years (inclu			
Main urban area		ot have char		· ·	-	-	2070
Secondary urban area	19.8	17.1	0.87	19.7	17.1	0.87	2070
Minor urban area	23.0	22.0	0.96	23.3	20.6	0.88	2070
Rural centre or rural area	10.2	8.5	0.85	10.4	7.1	0.72*	2070
Different region to school	87.0	81.5	0.73***	86.7	82.4	0.77**	1917

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, M p is missing.

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

Dependent variable:		Student is a top cumulative saver				er Student is a top annual saver					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)			
Age at NCEA level 2	0.003	0.001	0.010	0.007	0.005	0.007	0.012	0.011			
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)			
Percentile score (0-1)	-0.170	0.018	0.061	0.127	0.220*	0.143	0.172	0.175			
	(0.127)	(0.132)	(0.129)	(0.129)	(0.117)	(0.122)	(0.120)	(0.123)			
Multiple specialties	0.016	0.021	0.003	0.020	0.030	0.023	0.010	0.021			
	(0.031)	(0.031)	(0.030)	(0.031)	(0.032)	(0.032)	(0.031)	(0.032)			
School decile	0.007*	0.009**	0.008**	0.010**	0.012***	0.011***	0.010***	0.010***			
	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)			
School not in main urban area	0.050**	0.043*	0.017	0.025	0.037	0.038	0.018	0.029			
	(0.025)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)	(0.024)			
lighest qualification gained within	10 years (o	omitted ca	tegory: lev	vel 2):							
Level 3		0.046	0.013	0.058*		0.041	0.029	0.050*			
		(0.032)	(0.032)	(0.032)		(0.029)	(0.029)	(0.029)			
Level 4		0.103***	-0.036	0.089***		0.089***	-0.006	0.090***			
		(0.031)	(0.034)	(0.031)		(0.028)	(0.032)	(0.029)			
Level 5 or 6		-0.036	-0.095**	-0.021		0.028	-0.026	0.041			
		(0.038)	(0.037)	(0.039)		(0.038)	(0.035)	(0.038)			
Level 7		-0.115***				0.075**	0.071**	0.119***			
		(0.027)	(0.027)	(0.029)		(0.030)	(0.030)	(0.032)			
Level 8 to 10		• •	-0.112**	-0.017		0.145***	0.139**	0.194***			
		(0.043)	(0.044)	(0.045)		(0.055)	(0.055)	(0.056)			
lighest industry training qualificati	on gained y	. ,	. ,	. ,	orv [.] none)		(0.055)	(0.050)			
Level 2	onguinea	witchini 10 y	0.090**		ory. none,	•	0.071				
			(0.044)				(0.043)				
Level 3			0.195***				0.073				
			(0.049)				(0.046)				
Level 4			0.259***				0.180***				
			(0.041)				(0.040)				
Level 5 or 6			0.509***				0.716***				
			(0.175)				(0.124)				
ny Catoway gradite completed with	thin 10 yes	rc	(0.175)	0.016			(0.124)	0.004			
ny Gateway credits completed wit	ини то уеа	15		0.016				-0.004			
				(0.034)				(0.032)			
nrolled in institute type within 10	years:			0 070***				0.000			
Industry Training Organisation				0.072***				0.032			
				(0.020)				(0.020)			
Institute of Technology/Polytech				-0.035				-0.041*			
				(0.021)				(0.022)			
Private Training Establishment				0.007				0.009			
				(0.020)				(0.021)			
University				-0.111***				-0.052**			
				(0.023)				(0.022)			
Wānanga				-0.070***				-0.092***			
				(0.027)				(0.026)			
Other Tertiary Provider				0.150***				0.144***			
				(0.041)				(0.040)			
ICEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes			
R-squared	0.005	0.040	0.083	0.081	0.017	0.026	0.054	0.050			
- Dbservations	1,695	1,695	1,695	1,695	1,695	1,695	1,695	1,695			

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.

|--|

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	0.018	0.015	0.012	0.014	0.016	0.018	0.017	0.018	
Age at NCLA level 2	(0.013)	(0.013)	(0.012)	(0.014)	(0.010)	(0.018)	(0.017)	(0.012)	
Percentile score (0-1)	0.153	0.249**			• •	• •	0.290***		
	(0.106)	(0.111)	(0.111)	(0.114)	(0.106)	(0.110)	(0.110)	(0.112)	
Multiple specialties	0.016	0.020	0.026	0.015	0.029	0.023	0.025	0.012)	
Multiple specialities	(0.026)								
School decile	• •	(0.026)	(0.026) 0.012***	(0.026) 0.009**	(0.026)	(0.026)	(0.026) 0.012***	(0.026) 0.009**	
	(0.012				(0.004)				
Cohool not in main unhan avec	. ,	(0.004)	(0.004)	(0.004)	. ,	(0.004)	(0.004)	(0.004)	
School not in main urban area	-0.009	-0.008	-0.011	-0.014	0.005	0.003	0.003	0.004	
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.020)	(0.020)	(0.021)	
Highest qualification gained within	10 years (c			-		0.004	0.000	0.010	
Level 3		-0.024	-0.046	-0.009		0.004	-0.003	0.018	
		(0.031)	(0.031)	(0.032)		(0.026)	(0.027)	(0.027)	
Level 4		-0.055	-0.084**	-0.029		-0.008	-0.016	0.017	
		(0.034)	(0.033)	(0.034)		(0.028)	(0.028)	(0.029)	
Level 5 or 6			-0.107***			-0.022	-0.028	0.008	
		(0.035)	(0.035)	(0.036)		(0.031)	(0.031)	(0.032)	
Level 7			-0.079***					0.134***	
		(0.028)	(0.029)	(0.031)		(0.026)	(0.027)	(0.028)	
Level 8 to 10		-0.127**'	*-0.133***	-0.081**		0.101**	0.100**	0.127***	
		(0.038)	(0.038)	(0.040)		(0.040)	(0.040)	(0.042)	
Highest industry training qualificati	on gained v	within 10 y	ears (omi	tted categ	ory: none)	:			
Level 2			-0.038				0.020		
			(0.043)				(0.045)		
Level 3			0.155***				0.049		
			(0.047)				(0.043)		
Level 4			0.174**				0.049		
			(0.079)				(0.067)		
Level 5 or 6			0.570***				0.033		
			(0.215)				(0.206)		
Any Gateway credits completed wi	thin 10 yea	rs		-0.007				-0.014	
				(0.028)				(0.026)	
Enrolled in institute type within 10	vears:			,				ι <i>γ</i>	
Industry Training Organisation	,			0.052**				0.028	
				(0.022)				(0.021)	
Institute of Technology/Polytech				-0.027				-0.036*	
				(0.019)				(0.019)	
Private Training Establishment				-0.051***				-0.036*	
				(0.019)				(0.019)	
University				-0.064***				-0.032	
Oniversity				(0.023)				(0.021)	
Wananga				-0.076***				-0.058***	
Wānanga				(0.020)				(0.020)	
Athor Tortions Provider				(0.020) 0.095**				-0.013	
Other Tertiary Provider									
NCEA lovel 2 year five d offerto	Ve-	Var	Var	(0.041)	Var	Var	Var	(0.035)	
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
D. anuana d	0.010	0.000	0.000	0.040	0.000	0.054	0.055	0.000	
R-squared	0.013	0.020	0.033	0.040	0.038	0.054	0.055	0.063	
Observations Notes: This table presents the result	2,070	2,070	2,070	2,070	2,070	2,070	2,070	2,070	

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

	Cu	mulative savi	ings	/	Annual savin	gs	
	% of stud	dents with		% of stud	dents with		
	characteri	stic among:	Odds ratio	characteri	stic among:	-Odds ratio	Students
	Non-top		Ouusratio	Non-top	Top covors	Ouusratio	
	savers	Top savers		savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Passed at least 14 credits at level 2 by	ear of NCE	A level 2 in:					
English	62.4	63.2	1.02	61.1	67.8	1.27**	1692
Maths	31.3	30.4	0.97	28.5	40.9	1.54***	1692
Māori	10.7	8.8	0.84	11.3	6.1	0.57***	1692
Humanities	<5% do r	not have char	acteristic	<5% do r	ot have char	acteristic	1692
Social Science	25.6	24.3	0.95	24.3	29.6	1.24*	1692
Science	54.9	53.5	0.96	52.4	63.5	1.44***	1692
Passed at least 14 achievement standa	rd credits a	t level 2 by ye	ear of NCEA	level 2 in:			
English	32.7	31.6	0.96	30.3	41.2	1.46***	1692
Maths	21.8	21.9	1.01	19.4	31.3	1.63***	1692
Māori	5.8	4.3	0.78	6.0	3.5	0.62*	1692
Humanities	80.4	79.1	0.94	78.7	86.1	1.53***	1692
Social Science	22.2	22.6	1.02	20.9	27.6	1.33**	1692
Science	40.9	41.2	1.01	38.3	51.3	1.52***	1692
Passed at least 14 credits at level 3 wit	hin 5 years i	in:					
English	23.6	19.1	0.81*	21.8	25.4	1.17	1692
Maths	23.2	18.3	0.78**	20.5	29.6	1.46***	1692
Māori	8.2	6.1	0.77*	8.7	4.3	0.54***	1692
Humanities	48.7	44.3	0.87	46.2	54.8	1.31***	1692
Social Science	23.6	21.1	0.89	21.6	28.1	1.31***	1692
Science	30.5	25.4	0.82*	27.6	37.4	1.42***	1692
Arts & Crafts	11.6	8.8	0.78	10.5	12.2	1.14	1692
Computing & IT	7.1	6.1	0.88	6.7	7.8	1.14	1692
Business	<5%	have characte	eristic	<5%	have charact	eristic	1692
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5%	have charact	eristic	1692
Community & Social Services	8.4	7.0	0.84	8.0	9.6	1.17	1692
Education	<5%	have characte	eristic	<5%	have charact		1692
Service Sector	12.5	26.1	1.96***	13.8	20.9	1.47***	1692
Engineering & Technology	8.7	21.1	2.12***	9.8	17.4	1.65***	1692
Manufacturing, Planning & Constrn	8.4	13.9	1.53***	9.1	11.3	1.20	1692
Passed at least 14 achievement standa							
English	16.0	13.9	0.88	14.2	20.9	1.43***	1692
Maths	17.8	14.9	0.84	15.1	25.2	1.62***	1692
Māori		have characte			have charact		1692
Humanities	40.5	36.8	0.88	37.6	49.1	1.45***	1692
Social Science	20.2	19.1	0.95	18.7	25.4	1.36***	1692
Science	24.1	20.9	0.86	21.2	32.2	1.55***	1692
Arts & Crafts	9.8	7.8	0.82	9.1	10.4	1.13	1692
Computing & IT		have characte		1	have charact		1692
Business		have characte		<5%	1692		
Agriculture, Forestry, & Fisheries		have characte		-	have charact		1692
Community & Social Services		have characte		<5%	1692		
Education		have characte		=	1692		
		have characte			have charact have charact		1692
Service Sector Engineering & Technology		have characte		:	have charact		1692
	51/0			- <u>\</u>			. 1032

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, M p is missing.

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

	Cumulative savings			Annual savings			
	% of students with			% of students with			
	characteristic among:		Odds ratio	characteris	characteristic among:		Students
	Non-top	Top savers	ouusiatio	Non-top	Top savers		
	savers	-		savers	-		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Passed at least 14 credits at level 2 by		A level 2 in:					
English	77.0	77.0	1.00	75.8	81.6	1.32**	2070
Maths	29.0	36.2	1.30***	27.5	41.8	1.64***	2070
Māori	13.5	7.8	0.60***	13.3	8.5	0.66***	2070
Humanities		not have char			ot have chai		2070
Social Science	30.8	34.0	1.13	30.1	36.9	1.27***	2070
Science	58.5	64.5	1.23**	56.9	71.6	1.69***	2070
Passed at least 14 achievement standa				-			
English	49.7	57.4	1.28***	47.7	65.2	1.78***	2070
Maths	19.5	25.5	1.31**	18.1	30.7	1.70***	2070
Māori	10.2	6.4	0.66***	10.0	6.4	0.67**	2070
Humanities	82.3	87.9	1.43***	81.4	91.4	2.11***	2070
Social Science	26.8	30.0	1.13	25.9	34.0	1.36***	2070
Science	42.5	48.9	1.23**	40.1	58.2	1.78***	2070
Passed at least 14 credits at level 3 wi							
English	37.1	39.3	1.08	35.0	47.5	1.51***	2070
Maths	21.9	25.5	1.17	20.2	31.9	1.61***	2070
Māori	10.7	5.0	0.50***	10.2	7.1	0.72**	2070
Humanities	57.9	59.0	1.04	55.0	70.4	1.71***	2070
Social Science	30.1	32.6	1.10	28.6	38.3	1.41***	2070
Science	33.5	37.1	1.14	31.3	45.7	1.62***	2070
Arts & Crafts	19.3	16.4	0.85	18.2	20.7	1.14	2070
Computing & IT	7.1	10.6	1.40**	7.7	8.6	1.10	2070 2070
Business		<5% have characteristic			<5% have characteristic		
Agriculture, Forestry, & Fisheries		have charact			have charact		2070
Community & Social Services	5.8	3.5	0.65*	5.5	5.0	0.92	2070
Education		have charact			have charact		2070
Service Sector	19.5	23.0	1.18*	21.1	17.0	0.81*	2070 2070
Engineering & Technology						have characteristic	
Manufacturing, Planning & Constrn	<5% have characteristic <5% have characteristic						2070
Passed at least 14 achievement standa			-	-			
English	27.5	28.4	1.03	25.3	37.6	1.57***	2070
Maths	15.5	20.6	1.31**	14.4	25.4	1.70***	2070
Māori	7.5	4.3	0.61***	6.9	6.4	0.93	2070
Humanities	50.2	51.1	1.03	46.9	63.6	1.72***	2070
Social Science	27.0	30.5	1.15	25.5	36.4	1.49***	2070
Science	25.5	28.6	1.13	23.3	37.1	1.67***	2070
Arts & Crafts	17.5	15.6	0.90	16.4	19.9	1.20	2070
Computing & IT	<5% have characteristic			<5% have characteristic			2070 2070
Business		<5% have characteristic			<5% have characteristic		
Agriculture, Forestry, & Fisheries		<5% have characteristic			<5% have characteristic		
Community & Social Services		<5% have characteristic			<5% have characteristic		
Education		<5% have characteristic			<5% have characteristic		
Service Sector		<5% have characteristic			<5% have characteristic		
Engineering & Technology	<5% have characteristic <5% have characteristic					2070	
Manufacturing, Planning & Constrn Notes: The odds ratio is calculated as (r		have charact			nave charact		2070

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, M p is missing.

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

	Cu	mulative sa	vings		Annual savir	ngs	
	% of stud	dents with		% of stud	dents with		
	characteri	stic among:	– Odds ratio	characteri	stic among:	– Odds ratio	Student
	Non-top	Top cover		Non-top	Top covore		
	savers	Top savers	b	savers	Top savers)	
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields and levels in which student passed at least	0.5 EFTS wi	thin 10 yea	rs:				
Natural & Physical Sciences at level 2+	20.9	13.9	0.67***	17.6	27.0	1.52***	1692
Natural & Physical Sciences at level 4+	7.1	1.7	0.28***	5.8	6.1	1.05	1692
Natural & Physical Sciences at level 7+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Natural & Physical Sciences at level 8+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Information Technology at level 2+	6.2	2.6	0.46**	5.6	5.2	0.94	1692
Information Technology at level 4+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Information Technology at level 7+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Information Technology at level 8+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Engineering & Related Technologies at level 2+	15.6	33.9	2.14***	17.1	28.7	1.66***	1692
Engineering & Related Technologies at level 4+	8.9	19.1	1.92***	9.4	16.7	1.65***	1692
Engineering & Related Technologies at level 7+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Engineering & Related Technologies at level 8+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Architecture & Building at level 2+	12.2	14.9	1.20	13.1	12.2	0.93	1692
Architecture & Building at level 4+	9.1	13.2	1.37**	9.6	11.3	1.16	1692
Architecture & Building at level 7+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Architecture & Building at level 8+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Ag, Environmental & Related Studies at level 2+	9.1	6.1	0.70**	8.7	7.0	0.82	1692
Ag, Environmental & Related Studies at level 4+		have charac	teristic	<5%	have charact	teristic	1692
Ag, Environmental & Related Studies at level 7+		have charac		<5%	have charact	teristic	1692
Ag, Environmental & Related Studies at level 8+	<5%	have charac	teristic	<5% have characteristic			1692
Health at level 2+	13.8	5.2	0.40***	12.7	10.4	0.84	1692
Health at level 4+	12.4	3.5	0.30***	11.1	7.8	0.73	1692
Health at level 7+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Health at level 8+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Education at level 2+	10.4	<1.7	<0.19***	9.6	5.2	0.58***	1692
Education at level 4+	8.9	<1.7	<0.22***	8.0	4.3	0.58**	1692
Education at level 7+	6.5	<1.7	<0.30***	5.6	4.3	0.80	1692
Education at level 8+	<5%	have charac	teristic	<5%	have charact	teristic	1692
Management & Commerce at level 2+	16.7	15.8	0.95	15.3	21.7	1.39***	1692
Management & Commerce at level 4+	12.7	12.2	0.96	10.7	20.0	1.74***	1692
Management & Commerce at level 7+	6.5	6.1	0.96	5.3	12.2	1.92***	1692
Management & Commerce at level 8+		have charac		:	have charact		1692
Society & Culture at level 2+	68.9	54.8	0.62***	65.6	67.8	1.09	1692
Society & Culture at level 4+	31.8	12.2	0.36***	28.0	27.6	0.98	1692
Society & Culture at level 7+	10.7	2.6	0.27***	9.4	7.8	0.85	1692
Society & Culture at level 8+		have charac	-		have charact		1692
Creative Arts at level 2+	16.0	10.4	0.67***	15.3	12.2	0.80	1692
Creative Arts at level 4+	10.4	5.2	0.53***	10.2	6.1	0.63*	1692
Creative Arts at level 7+		5.2 have charac			have charact		1692
Creative Arts at level 8+		have charac		3	have charact		1692
Food, Hospitality & Personal Servs at level 2+		have charac			have charact		1692
Food, Hospitality & Personal Servs at level 2+		have charac		:	have charact		1692
Food, Hospitality & Personal Servs at level 4+		have charac		1	have charact		1692
Food, Hospitality & Personal Servs at level 7+		have charac			have charact		1692
Mixed Field Programmes at level 2+		have charac			have charact		1692
Mixed Field Programmes at level 2+		have charac		:	have charact		1692
Mixed Field Programmes at level 7+		have charac			have charact		1692
Mixed Field Programmes at level 8+		have charac		-	have charact		1692

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, M p is missing.

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

	Cu	mulative sav	vings		Annual savin	igs	
	% of stud	dents with		% of stud	dents with		
	characteri	stic among:	- Odds ratio	characteri	stic among:	- Odds ratio	Students
	Non-top	Top covers		Non-top	Top covorc		
	savers	Top savers		savers	Top savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields and levels in which student passed at least	0.5 EFTS wi	thin 10 year					
Natural & Physical Sciences at level 2+	23.1	24.3	1.05	21.1	31.9	1.54***	2070
Natural & Physical Sciences at level 4+	8.6	5.0	0.62**	7.1	11.3	1.47***	2070
, Natural & Physical Sciences at level 7+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Natural & Physical Sciences at level 8+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Information Technology at level 2+	<5%	have charact	eristic	1	have charact		2070
Information Technology at level 4+		have charact		-	have charact		2070
Information Technology at level 7+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Information Technology at level 8+		have charact			have charact		2070
Engineering & Related Technologies at level 2+	4.6	7.1	1.44**	5.1	5.0	0.98	2070
Engineering & Related Technologies at level 4+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Engineering & Related Technologies at level 7+	<5%	have charact	eristic	<5%	have charact	teristic	2070
Engineering & Related Technologies at level 8+	<5%	have charact	eristic	<5%	have charact	teristic	2070
Architecture & Building at level 2+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Architecture & Building at level 4+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Architecture & Building at level 7+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Architecture & Building at level 8+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Ag, Environmental & Related Studies at level 2+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Ag, Environmental & Related Studies at level 4+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Ag, Environmental & Related Studies at level 7+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Ag, Environmental & Related Studies at level 8+	<5%	have charact	eristic	<5%	have charact	teristic	2070
Health at level 2+	20.0	15.0	0.75**	18.7	19.9	1.06	2070
Health at level 4+	18.0	12.9	0.72**	16.4	19.1	1.16	2070
Health at level 7+	8.9	9.9	1.10	7.5	14.9	1.77***	2070
Health at level 8+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Education at level 2+	18.8	12.9	0.69***	17.7	17.1	0.97	2070
Education at level 4+	17.5	12.9	0.74**	16.4	17.0	1.03	2070
Education at level 7+	12.8	12.1	0.95	12.2	14.3	1.16	2070
Education at level 8+	<5%	have charact	eristic	<5%	have charact	eristic	2070
Management & Commerce at level 2+	27.8	32.6	1.20*	27.7	32.6	1.20*	2070
Management & Commerce at level 4+	17.1	21.4	1.24**	16.2	24.8	1.50***	2070
Management & Commerce at level 7+	6.6	11.3	1.57***	5.8	13.6	1.96***	2070
Management & Commerce at level 8+		have charact		1	have charact		2070
Society & Culture at level 2+	77.0	74.5	0.89	74.7	83.6	1.56***	2070
Society & Culture at level 4+	41.7	24.8	0.53***	37.9	39.7	1.06	2070
Society & Culture at level 7+	18.8	10.0	0.54***	16.0	20.6	1.27**	2070
Society & Culture at level 8+		have charact			have charact		2070
-	22.3	12.1	0.55***	20.7	19.1	0.92	2070
Creative Arts at level 2+	13.7	6.4	0.35	12.7	10.0	0.92	2070
Creative Arts at level 4+	-	-		1			:
Creative Arts at level 7+		have charact			have charact		2070
Creative Arts at level 8+		have charact		-	have charact		2070
Food, Hospitality & Personal Servs at level 2+	6.5	5.0 have charact	0.80 oristic	6.7	3.6 have charact	0.57**	2070
Food, Hospitality & Personal Servs at level 4+				-			2070
Food, Hospitality & Personal Servs at level 7+		have charact		:	have charact		2070
Food, Hospitality & Personal Servs at level 8+		have charact		-	have charact		2070
Mixed Field Programmes at level 2+		have charact			have charact		2070
Mixed Field Programmes at level 4+		have charact		-	have charact		2070
Mixed Field Programmes at level 7+		have charact have charact		2	have charact have charact		2070 2070
Mixed Field Programmes at level 8+							

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, M p is missing.

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

	Cum	ulative sa	vings	Ar			
	% of stude	ents with		% of stude			
	charact	teristic	O dada	charac	teristic	O dada	Ctudooto
	amo	ong:	Odds	amo	ong:	Odds	Students
	Non-top	Тор	- ratio	Non-top	Тор	- ratio	
	savers	savers		savers	savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields of highest qualification gained with	thin 10 yea						
Natural & Physical Sciences	<5% ha	ave charac	teristic	<5% ha	ave charac	teristic	1692
Information Technology	<5% ha	ave charac	teristic	<5% ha	ave charac	teristic	1692
Engineering & Related Technologies	9.6	26.3	2.40***	10.9	20.9	1.77***	1692
Architecture & Building	7.6	10.5	1.32*	8.2	7.8	0.96	1692
Ag, Environmental & Related Studies	<5% have characteristic			<5% ha	ave charac	teristic	1692
Health	<5% ha	ave charac	teristic	<5% ha	ave charac	teristic	1692
Education	6.7	2.6	0.43***	6.2	4.3	0.73	1692
Management & Commerce	9.1	12.2	1.28*	8.2	16.5	1.80***	1692
Society & Culture	20.0	6.1	0.31***	18.5	12.2	0.67***	1692
, Creative Arts	6.7	2.6	0.43***	6.7	3.4	0.56**	1692
Food, Hospitality & Personal Services	<5% have characteristic				ave charac	teristic	1692
Mixed Field Programmes	37.8	39.1	1.05	40.3	28.7	0.66***	1692
Fields of qualifications at level 4+ gained					_		
Natural & Physical Sciences		ve charac	teristic	<5% ha	ave charac	teristic	1692
Information Technology	<5% have characteristic			<5% have characteristic			1692
Engineering & Related Technologies	6.7	19.1	2.33***	7.3	15.8	1.88***	1692
Architecture & Building	6.9	10.4	1.41**	7.6	7.8	1.03	1692
Ag, Environmental & Related Studies	<5% ha	ave charac	teristic	<5% ha	ave charac	teristic	1692
Health		ave charac		<5% have characteristic			1692
Education	7.6	2.6	0.38***	7.1	5.2	0.76	1692
Management & Commerce	9.1	10.4	1.13	7.6	16.5	1.91***	1692
Society & Culture	20.3	6.1	0.31***	18.3	13.9	0.77**	1692
Creative Arts	6.7	2.6	0.43***	6.5	3.5	0.58**	1692
Food, Hospitality & Personal Services		ve charac			ave charac		1692
Mixed Field Programmes		ive charac			ave charac		1692
Fields of qualifications at bachelor's leve				370110		teristie	1052
Natural & Physical Sciences	-	ve charac	-	<5% ha	ave charac	teristic	1692
Information Technology		ave charac		-	ve charac		1692
Engineering & Related Technologies		ive charac			ve charac		1692
Architecture & Building		ve charac			ave charac		1692
Ag, Environmental & Related Studies		ave charac		-	ave charac		1692
Health		ave charac		-	ave charac		1692
Education		ave charac		-	ave charac		1692
Management & Commerce	6.9	6.1	0.90	5.3	12.2	1.92***	1692
Society & Culture	12.7	3.5	0.30***	11.1	10.4	0.95	1692
Creative Arts	<5% ha	ve charac	teristic	<5% ha	ave charac	teristic	1692
Food, Hospitality & Personal Services		ve charac		3	ave charac		1692
Mixed Field Programmes		ave charac		-	ave charac		1692

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, M p is missing.

	Cumulative savings			An			
	% of stude	ents with		% of stude			
	charact	teristic	Odds	characteristic		Odds	Students
	amo	ong:	- ratio	amo	ong:	- ratio	Students
	Non-top	Тор	1410	Non-top	Тор	1410	
	savers	savers		savers	savers		
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields of highest qualification gained wi	thin 10 yea	rs:					
Natural & Physical Sciences	<5% have characteristic			<5% ha	2070		
Information Technology	<5% have characteristic			<5% ha	ve charac	teristic	2070
Engineering & Related Technologies	<5% have characteristic			<5% ha	ve charac	teristic	2070
Architecture & Building	<5% have characteristic <5% have characteristic				teristic	2070	
Ag, Environmental & Related Studies	<5% have characteristic			<5% ha	ve charac	teristic	2070
Health	10.6	10.1	0.96	9.5	14.3	1.43***	2070
Education	13.1	11.3	0.88	12.4	13.6	1.09	2070
Management & Commerce	13.1	20.7	1.52***	13.7	18.4	1.32**	2070
Society & Culture	24.6	14.3	0.57***	22.2	24.1	1.09	2070
Creative Arts	8.4	4.3	0.55***	7.8	6.4	0.84	2070
Food, Hospitality & Personal Services	5.1	5.0	0.98	5.8	2.8	0.53**	2070
Mixed Field Programmes	31.0	36.4	1.21**	34.1	24.3	0.68***	2070
Fields of qualifications at level 4+gained	l within 10 years:						
Natural & Physical Sciences	<5% have characteristic			<5% ha	ve charac	teristic	2070
Information Technology	<5% have characteristic			<5% ha	2070		
Engineering & Related Technologies	<5% have characteristic			<5% ha	2070		
Architecture & Building	<5% have characteristic			<5% ha	2070		
Ag, Environmental & Related Studies		ive charad			ve charac		2070
Health	11.7	10.6	0.92	10.7	14.9	1.33**	2070
Education	13.1	12.1	0.93	12.4	14.9	1.18	2070
Management & Commerce	12.6	17.1	1.33***	12.4	17.9	1.39***	2070
Society & Culture	26.9	15.7	0.57***	23.9	27.9	1.18	2070
Creative Arts	8.9	5.0	0.60***	8.2	7.1	0.89	2070
Food, Hospitality & Personal Services		ive charac			ve charac		2070
Mixed Field Programmes		ive charac			ve charac		2070
Fields of qualifications at bachelor's leve	0,110						
Natural & Physical Sciences	-	ive charac	-	<5% ha	ve charac	teristic	2070
Information Technology		ive charad			ve charac		2070
Engineering & Related Technologies		ive charad			ve charac		2070
Architecture & Building					ve charac		2070
Ag, Environmental & Related Studies	<5% have characteristic <5% have characteristic				ve charac		2070
Health	7.1	8.5	1.17	5.8	12.9	1.89***	2070
Education	7.6	9.2	1.17	7.3	10.0	1.30*	2070
Management & Commerce	5.5	11.4	1.80***	4.9	13.5	2.18***	2070
Society & Culture	18.4	10.0	0.55***	15.5	22.5	1.43***	2070
Creative Arts		ive charad			ve charac	teristic	2070
Food, Hospitality & Personal Services		ive charac			ve charac		2070
Mixed Field Programmes		ve charac			ve charac		2070

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

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, M p is missing.

Appendix Table 11: Regressions of being a top saver on field of higher stud	y for me	'n
---	----------	----

Dependent variable: Student is a top surver on neuron menu of								
	(1)	(2)	(3)	(4)	(5)	(6)		
Passed at least 14 credits at level 3 wit			N - 7	× /	N - 7	x - /		
English	-0.030	-0.000	-0.009	-0.023	-0.014	-0.016		
C	(0.027)	(0.026)	(0.027)	(0.029)	(0.029)	(0.029)		
Maths	-0.041	-0.042	-0.040	0.028	0.007	0.002		
	(0.039)	(0.037)	(0.037)	(0.041)	(0.040)	(0.041)		
Humanities	-0.008	0.014	0.010	0.018	0.021	0.016		
	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)	(0.025)		
Social science	0.006	0.025	0.019	0.035	0.034	0.032		
	(0.024)	(0.024)	(0.024)	(0.026)	(0.026)	(0.026)		
Science	0.010	0.024)	0.024)	0.028	0.028	0.020		
Science	(0.037)	(0.035)	(0.022)	(0.038)	(0.028	(0.020		
Arts & crafts	-0.025	-0.002	-0.002	0.029	0.056	0.048		
Alts & claits								
Com income to a	(0.029)	(0.030)	(0.029)	(0.034)	(0.034)	(0.034) 0.087***		
Service sector	0.166***	0.153***	0.149***	0.093***	0.090***			
	(0.032)	(0.031)	(0.032)	(0.030)	(0.030)	(0.030)		
# of other fields	0.031**	0.009	0.011	0.034**	0.023	0.029*		
	(0.015)	(0.015)	(0.015)	(0.015)	(0.016)	(0.016)		
Passed at least 0.5 EFTS at level 4+ wit	hin 10 years							
Natural & Physical Sciences		-0.060			-0.039			
		(0.039)			(0.054)			
Engineering & Related Technologies		0.140***			0.095**			
		(0.039)			(0.038)			
Architecture & Building		0.030			0.045			
C C		(0.039)			(0.037)			
Health		-0.096***			-0.110***			
lication		(0.030)			(0.031)			
Education		-0.116***			-0.169***			
		(0.039)			(0.038)			
Managament & Commerce		-0.020			0.077*			
Management & Commerce								
		(0.040)			(0.047)			
Society & Culture		-0.093***			-0.009			
-		(0.023)			(0.027)			
Creative Arts		-0.051			-0.047			
		(0.036)			(0.038)			
# of other fields		-0.106***			-0.070**			
		(0.033)			(0.033)			
Passed at least 0.5 EFTS at level 7+ wit	hin 10 years	in:						
Natural & Physical Sciences		-0.124***			-0.016			
		(0.042)			(0.089)			
Engineering & Related Technologies		-0.148			0.151			
		(0.090)			(0.113)			
Architecture & Building		-0.229***			-0.267***			
		(0.047)			(0.050)			
Health		0.007			0.193***			
hearth		(0.038)			(0.057)			
Education		-0.002			0.119**			
Education								
Managament & Commerce		(0.042)			(0.054)			
Management & Commerce		0.030			0.063			
		(0.055)			(0.066)			
Society & Culture		-0.037			-0.021			
		(0.029)			(0.038)			
Creative Arts		-0.054			-0.023			
		(0.051)			(0.058)			
# of other fields		-0.013			0.166*			
		(0.061)			(0.093)			
	Continu	ed following	naae					

Continued following page

Continued	from previo	ous page			
(1)	(2)	(3)	(4)	(5)	(6)
0 years in:					
		-0.055			0.006
		(0.064)			(0.069)
		-0.017			-0.084*
		(0.040)			(0.044)
		0.100			0.123*
		(0.071)			(0.070)
		-0.152***			-0.111***
		(0.029)			(0.031)
		-0.151***			-0.101**
		(0.036)			(0.039)
		0.065***			0.030
		(0.025)			(0.023)
ars in:					
		-0.074			0.105
		(0.076)			(0.097)
		-0.148***			0.111
		(0.051)			(0.082)
		-0.136*			0.024
		(0.080)			(0.085)
		-0.007			0.096**
		(0.035)			(0.043)
		0.094			0.039
		(0.063)			(0.068)
		-0.155***			0.077
		(0.045)			(0.055)
Yes	Yes	Yes	Yes	Yes	Yes
Yes	Yes	Yes	Yes	Yes	Yes
0.033	0.095	0.073	0.032	0.068	0.056
					1,695
	(1) LO years in: ars in: Yes	(1) (2) LO years in: ars in: Yes Yes Yes Yes 0.033 0.095	LO years in: -0.055 (0.064) -0.017 (0.040) 0.100 (0.071) -0.152*** (0.029) -0.151*** (0.029) -0.151*** (0.025) ars in: -0.074 (0.076) -0.148*** (0.051) -0.136* (0.080) -0.077 (0.035) 0.094 (0.063) -0.155*** (0.045) Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes	(1) (2) (3) (4) LO years in: -0.055 (0.064) -0.017 (0.040) 0.100 (0.071) -0.152*** (0.029) -0.151*** (0.036) 0.065*** (0.029) -0.151*** (0.036) 0.065*** (0.025) ars in: -0.074 (0.076) -0.148*** (0.051) -0.136* (0.080) -0.007 (0.035) 0.094 (0.063) -0.155*** (0.045) Yes Yes <td>(1) (2) (3) (4) (5) IO years in: -0.055 (0.064) -0.017 (0.040) 0.100 (0.071) -0.152*** (0.029) -0.151*** (0.036) 0.065*** (0.025) ars in: -0.074 (0.076) -0.148*** (0.051) -0.136* (0.051) -0.136* (0.080) -0.007 (0.035) 0.094 (0.063) -0.155*** (0.045) Yes Yes</td>	(1) (2) (3) (4) (5) IO years in: -0.055 (0.064) -0.017 (0.040) 0.100 (0.071) -0.152*** (0.029) -0.151*** (0.036) 0.065*** (0.025) ars in: -0.074 (0.076) -0.148*** (0.051) -0.136* (0.051) -0.136* (0.080) -0.007 (0.035) 0.094 (0.063) -0.155*** (0.045) Yes Yes

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 wome	Appendix Table 12	2: Regressions of	of being a top saver	on field of higher study	for women
---	-------------------	-------------------	----------------------	--------------------------	-----------

bendent 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 wi			. ,	. ,	. /	. ,	
English	0.006	0.023	0.021	0.001	0.006	-0.000	
	(0.025)	(0.024)	(0.025)	(0.026)	(0.026)	(0.026)	
Maths	0.009	0.006	0.005	0.040	0.022	0.023	
	(0.032)	(0.031)	(0.032)	(0.033)	(0.033)	(0.033)	
Humanities	-0.020	-0.003	-0.017	0.048*	0.040	0.032	
	(0.025)	(0.024)	(0.025)	(0.025)	(0.025)	(0.025)	
Social science	0.001	0.014	0.007	0.012	0.011	0.003	
	(0.021)	(0.021)	(0.021)	(0.022)	(0.022)	(0.022)	
Science	0.002	0.017	0.007	0.020	0.018	0.008	
	(0.029)	(0.028)	(0.029)	(0.029)	(0.029)	(0.029)	
Arts & crafts	-0.051**	-0.026	-0.033	-0.015	-0.004	-0.012	
	(0.024)	(0.025)	(0.024)	(0.026)	(0.026)	(0.025)	
Service sector	0.047**	0.024	0.040*	-0.008	-0.007	0.008	
	(0.023)	(0.023)	(0.024)	(0.021)	(0.021)	(0.021)	
# of other fields	-0.002	0.004	0.001	-0.007	-0.002	0.002	
	(0.015)	(0.014)	(0.015)	(0.014)	(0.015)	(0.014)	
Passed at least 0.5 EFTS at level 4+ wi			(0.010)	(0.017)	(0.010)	(0.017)	
Natural & Physical Sciences		-0.110***			0.038		
		(0.037)			(0.047)		
Engineering & Related Technologies		0.183**			0.059		
		(0.077)			(0.067)		
Architecture & Building		-0.036			-0.034		
Architecture & Bunuling		(0.131)			(0.133)		
Health		-0.083***			-0.063**		
nearth		(0.026)			(0.027)		
Education		-0.104***		-0.050			
Education							
		(0.031)			(0.036)		
Management & Commerce		0.005			0.044		
		(0.029)			(0.029)		
Society & Culture		-0.112***			-0.051**		
		(0.021)			(0.022)		
Creative Arts		-0.115***			-0.088***		
		(0.027)			(0.030)		
# of other fields		-0.046			-0.006		
		(0.036)			(0.033)		
Passed at least 0.5 EFTS at level 7+ wi	thin 10 years						
Natural & Physical Sciences		-0.014			-0.133*		
		(0.058)			(0.068)		
Engineering & Related Technologies		0.144			0.206		
		(0.195)			(0.211)		
Architecture & Building		-0.032			-0.039		
		(0.174)			(0.173)		
Health		0.070*			0.162***		
		(0.038)			(0.044)		
Education		0.090**			0.079*		
		(0.038)			(0.044)		
Management & Commerce		0.100**			0.104**		
		(0.047)			(0.049)		
Society & Culture		-0.041			0.043		
,		(0.026)			(0.030)		
Creative Arts		-0.011			0.080		
		(0.042)			(0.052)		
# of other fields		-0.000			0.032		
		(0.097)			(0.119)		
	<i>c i</i> :	ed following			(0.110)		

Continued following page

	Continued	from previo	us page			
	(1)	(2)	(3)	(4)	(5)	(6)
Gained qualification at level 4+ within 1	0 years in:					
Health			-0.071*			-0.093***
			(0.038)			(0.032)
Education			-0.053			-0.012
			(0.034)			(0.042)
Management & Commerce			-0.008			-0.021
			(0.034)			(0.030)
Society & Culture			-0.062**			-0.025
			(0.031)			(0.029)
Creative Arts			-0.101***			-0.014
			(0.037)			(0.044)
# of other fields			-0.017			-0.010
			(0.027)			(0.025)
Gained bachelor's degree+ within 10 yea	ars in:					
Health			0.067			0.254***
			(0.050)			(0.051)
Education			0.055			0.086
			(0.047)			(0.054)
Management & Commerce			0.117**			0.207***
			(0.054)			(0.053)
Society & Culture			-0.066*			0.068*
			(0.035)			(0.038)
Creative Arts			-0.006			0.012
			(0.051)			(0.061)
# of other fields			-0.074*			0.023
			(0.043)			(0.049)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.018	0.072	0.046	0.046	0.072	0.071
Observations	2,070	2,070	2,070	2,070	2,070	2,070

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

	-	mulative sav	rings		Annual saving	gs	
	% of stud	dents with		% of stuc	lents with		
	characteri	stic among:	-Odds ratio	characteri	stic among:	Odds ratio	Students
	Non-top savers	Top savers	ouusratio	Non-top savers	Top savers	ouusrutio	
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Years student had any children:							
Fifth year after NCEA level 2 or earlier	13.1	15.8	1.18	14.7	10.4	0.73**	1692
Years 6 to 10 after NCEA level 2	24.2	28.9	1.21*	25.8	22.6	0.87	1692
Years 11 to 12 after NCEA level 2	17.1	20.0	1.16	17.4	18.3	1.05	1692
Years of early work experience:							
Any work experience in year of NCEA level 2 or earlier	15.3	31.6	2.02***	18.0	20.9	1.16	1692
Any work experience in years 1 to 5 after NCEA level 2	81.3	95.6	4.08***	83.1	87.8	1.37**	1692
Three+ years of work experience in years 1 to 5	50.0	88.6	5.67***	55.6	67.0	1.47***	1692
Sectors of work experience in years 1 to 5 after gaining NCE	A level 2:						
Central government in at least one year	11.2	22.0	1.78***	12.8	16.8	1.28*	1422
Central government in at least 3 years	7.5	17.8	1.81***	10.0	11.7	1.14	981
Other government in at least one year	5.5	8.3	1.38	6.4	5.0	0.80	1422
Other government in at least 3 years	<5%	have charact		:	nave charact	eristic	981
Non-profit organisation in at least one year	9.3	16.5	1.61***	10.2	13.7	1.30	1422
Non-profit organisation in at least 3 years	4.0	9.9	1.78***	4.4	11.7	2.03***	981
Firm size of work experience in years 1 to 5 after gaining NC		-	-				-
Small employer (<10 employees) in at least one year	28.2	24.8	0.87	27.3	27.7	1.01	1422
Small employer (<10 employees) in at least 3 years	13.8	9.8	0.76*	12.8	11.7	0.92	981
Medium employer (10-99 employees) in at least one year	46.3	46.8	1.02	45.8	48.0	1.07	1422
Medium employer (10-99 employees) in at least 3 years	24.0	23.3	0.97	24.0	22.1	0.92	981
Large employer (100+ employees) in at least one year	60.0	70.6	1.45***	61.0	68.0	1.28**	1422
Large employer (100+ employees) in at least one year	42.9	55.9	1.43***	46.0	50.6	1.15	981
Industries of work experience in years 1 to 5 after gaining N		55.5	1.45	40.0	50.0	1.15	501
Agriculture, Forestry, Fishing in at least one year	6.6	8.3	1.20	6.4	8.9	1.31*	1422
Agriculture, Forestry, Fishing in at least 3 years		have charact			nave charact		981
Manufacturing in at least one year	21.9	20.2	0.92	22.0	19.0	0.86	1422
Manufacturing in at least 3 years	14.2	12.9	0.92	15.2	9.1	0.63**	981
Construction in at least one year	19.5	26.4	1.34**	20.4	22.8	1.12	1422
-	12.4	15.8	1.21*	13.5	15.4	1.12	981
Construction in at least 3 years	6.6	8.3	1.21	6.7	6.9	1.03	1422
Wholesale Trade in at least one year				-			-
Wholesale Trade in at least 3 years	20.8	have charact 11.1	0.55***	20.1	nave charact 12.9	0.65***	981 1422
Retail Trade in at least one year			0.55***				
Retail Trade in at least 3 years	11.1	5.9		10.4	6.5	0.66*	981
Accommodation & Food Services in at least one year	10.9	8.3	0.78*	10.4	8.9	0.87	1422
Accommodation & Food Services in at least 3 years		have charact			have charact		981
Transport, Post, Warehousing in at least one year	6.6	6.4	0.98	7.0	5.0	0.74	1422
Transport, Post, Warehousing in at least 3 years		have charact			have charact		981
Financial & Insurance Services in at least one year		have charact			have charact		1422
Financial & Insurance Services in at least 3 years		have charact			have charact		981
Professional, Scientific, Technical Services in at least 1 year Professional, Scientific, Technical Services in at least 3 year		have charact have charact			have charact have charact		1422 981
· · · · · · · · · · · · · · · · · · ·	9.3		0.73	8.6		1.04	
Administrative & Support Services in at least one year		6.5 have charact			8.9		1422 981
Administrative & Support Services in at least 3 years	<5% 11.2	have charact 20.2	eristic 1.65***	<5% i 13.1	have charact 13.9	eristic 1.05	981 1422
Public Administration & Safety in at least one year				:			
Public Administration & Safety in at least 3 years	8.0	17.6	1.73***	10.4	11.8	1.11	981
Education & Training in at least one year	7.1	6.4	0.91	6.4	8.9	1.31	1422
Education & Training in at least 3 years		have charact		:	have charact		981
Health Care & Social Assistance in at least one year		have charact		:	have charact		1422
Health Care & Social Assistance in at least 3 years		have charact		-	have charact		981
Arts & Recreation Services in at least one year	5.2	8.3	1.43*	5.1	9.0	1.57***	1422
Arts & Recreation Services in at least 3 years		have charact		-	have charact		981
Other industry in at least one year	8.8	12.0	1.30*	8.6	13.9	1.50***	1422
Other industry in at least 3 years	4.4	6.9	1.34	4.8	7.7	1.44	981

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 a year 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, M p is missing.

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

	Cumulative savings Annual savings						
	% of students with			% of students with			
	characteri	istic among:	- Odds ratio	characteri	tic among:	-Odds ratio	Students
	Non-top savers	Top savers	ouusratio	Non-top savers	Top savers	oddstatio	
Characteristic	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Years student had any children:							
Fifth year after NCEA level 2 or earlier	26.0	9.3	0.35***	26.4	7.8	0.29***	2070
Years 6 to 10 after NCEA level 2	33.5	15.7	0.44***	35.0	10.0	0.26***	2070
Years 11 to 12 after NCEA level 2	21.3	17.0	0.80**	23.5	8.5	0.36***	2070
Years of early work experience:							
Any work experience in year of NCEA level 2 or earlier	13.7	27.9	1.95***	15.7	20.6	1.29**	2070
Any work experience in years 1 to 5 after NCEA level 2	77.8	97.9	10.12***	80.7	86.5	1.42***	2070
Three+ years of work experience in years 1 to 5	38.9	77.3	3.88***	44.3	56.7	1.49***	2070
Sectors of work experience in years 1 to 5 after gaining NCE	A level 2:						
Central government in at least one year	12.6	32.1	2.25***	14.7	26.4	1.73***	1695
Central government in at least 3 yrs	4.2	15.5	2.10***	7.4	8.8	1.14	969
Other government in at least one year	5.4	8.7	1.44**	5.6	7.4	1.24	1695
Other government in at least 3 yrs	<5%	have charact	eristic		have charact		969
Non-profit organisation in at least one year	13.1	8.7	0.70**	12.9	9.0	0.72**	1695
Non-profit organisation in at least 3 yrs	<5%	have charact	eristic	<5% ł	have charact	eristic	969
Firm size of work experience in years 1 to 5 after gaining NC							
Small employer (<10 employees) in at least one year	23.2	16.1	0.70***	23.5	14.0	0.60***	1695
Small employer (<10 employees) in at least 3 yrs	10.3	6.4	0.70**	9.9	6.3	0.68	969
Medium employer (10-99 employees) in at least 1 yr	49.5	43.4	0.83**	48.6	45.5	0.90	1695
Medium employer (10-99 employees) in at least 3 yrs	25.7	18.3	0.74**	23.9	21.0	0.88	969
Large employer (100+ employees) in at least one year	56.3	77.4	2.15***	58.7	71.3	1.56***	1695
Large employer (100+ employees) in at least one year	41.3	60.6	1.67***	45.9	53.8	1.27**	969
Industries of work experience in years 1 to 5 after gaining N		00.0	1.07	43.5	55.0	1.27	505
Agriculture, Forestry, Fishing in at least one year	<5% have characteristic <5% have characteristic			eristic	1695		
Agriculture, Forestry, Fishing in at least 3 yrs	<5% have characteristic			<5% have characteristic			969
Manufacturing in at least one year	9.6	10.9	1.12	9.9	9.9	1.00	1695
Manufacturing in at least 3 yrs	4.2	6.5	1.33*	4.9	6.2	1.19	969
Construction in at least one year		have charact		<5% have characteristic			1695
Construction in at least 3 yrs		have charact			have charact		969
Wholesale Trade in at least one year		· · · · · · · · · · · · · · · · · · ·		nave charact		1695	
Wholesale Trade in at least 3 yrs		have charact			have charact		969
Retail Trade in at least one year	30.7	24.8	0.80**	30.0	26.4	0.87	1695
Retail Trade in at least 3 yrs	19.6	13.0	0.71**	16.9	18.8	1.10	969
Accommodation & Food Services in at least one year	23.4	14.0	0.61***	22.1	16.5	0.75**	1695
Accommodation & Food Services in at least one year	12.6	5.5	0.51***	10.7	8.8	0.84	969
Transport, Post, Warehousing in at least one year				<5% have characteristic		1695	
Transport, Post, Warehousing in at least 3 yrs	<5% have characteristic <5% have characteristic <5% have characteristic <5% have characteristic				969		
Financial & Insurance Services in at least one year	3.3	11.6	2.34***	4.5	8.2	1.59***	909 1695
Financial & Insurance Services in at least 3 yrs		have charact		-	o.z nave charact		969
Professional, Scientific, Technical Services in at least 1 yr	6.1	8.0	1.25	6.1	7.4	1.18	1695
Professional, Scientific, Technical Services in at least 1 yr Professional, Scientific, Technical Services in at least 3 yrs		o.u have charact			nave charact		969
· · · · · ·	7.0	8.8	1.20	7.7	6.6	0.88	969 1695
Administrative & Support Services in at least one year						:	
Administrative & Support Services in at least 3 yrs	<5% have characteristic		<5% have characteristic 8.6 11.5 1.28			969 1695	
Public Administration & Safety in at least one year	6.3 2 7	18.2	2.20*** 2.16***				
Public Administration & Safety in at least 3 yrs	3.7 11 7	14.8	2.16***	7.4	7.5 15 7	1.01 1 24**	969 1695
Education & Training in at least one year	11.7	13.2	1.11 orictic	11.3	15.7	1.34**	1695
Education & Training in at least 3 yrs		have charact			have charact		969
Health Care & Social Assistance in at least one year	11.0 5 1	14.6 ° 2	1.27**	10.8 E 2	14.9	1.32**	1695
Health Care & Social Assistance in at least 3 yrs	5.1	8.3	1.37* 0.24***	5.3	6.3	1.14 0.65**	969 1605
Arts & Recreation Services in at least one year	7.5	2.2	0.34***	6.8	4.1	0.65**	1695
Arts & Recreation Services in at least 3 yrs		have charact			have charact		969
Other industry in at least one year	9.3	11.8	1.21*	9.9	9.9	1.00	1695
Other industry in at least 3 yrs	<5%	have charact			nave charact		969

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 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, M p is missing.

Appendix Table 15: Regressions of being a t	op 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	0.015	0.004	0.001	-0.037	-0.040	-0.044		
	(0.032)	(0.030)	(0.031)	(0.028)	(0.027)	(0.028)		
Years 6 to 10	0.031	0.013	0.018	0.033	0.026	0.028		
	(0.025)	(0.023)	(0.023)	(0.023)	(0.023)	(0.023)		
Years 11 and 12	0.041	0.033	0.030	0.041	0.036	0.036		
	(0.027)	(0.026)	(0.026)	(0.025)	(0.025)	(0.025)		
Overseas at least 6 months in year relative to N	NCEA level 2:							
Any year 3 to 5	-0.032	0.046	0.052	-0.042	-0.011	-0.005		
	(0.040)	(0.037)	(0.036)	(0.036)	(0.036)	(0.036)		
Any year 6 to 10	0.046*	0.037	0.032	-0.015	-0.017	-0.019		
	(0.028)	(0.026)	(0.026)	(0.027)	(0.027)	(0.027)		
Year 11 or 12	0.109***	0.108***	0.102***	0.319***	0.318***	0.317***		
	(0.034)	(0.033)	(0.032)	(0.037)	(0.037)	(0.037)		
Years of work experience in years 1 to 5 after N			. ,	(01007)	(0.007)	(0.007)		
1		-0.048*	0.011		-0.025	0.018		
		(0.027)	(0.025)		(0.036)	(0.035)		
2		-0.052*	0.025)		-0.036	0.020		
-		(0.031)	(0.020)		(0.038)	(0.037)		
3		0.043	0.120***		-0.005	0.054		
5		(0.035)	(0.034)		(0.038)	(0.037)		
4		0.112***	0.201***		0.052	0.120***		
4		(0.037)	(0.036)		(0.040)	(0.038)		
5		0.303***	0.383***		0.040)	0.163***		
5								
Any work ownerience in wears 1 to F in		(0.038)	(0.036)		(0.039)	(0.037)		
Any work experience in years 1 to 5 in:		0.114***			0.020			
Central government		-			0.030			
Medium-sized firm (10-99 employees)		(0.034)			(0.033)			
		0.007			0.034			
		(0.023)			(0.024)			
Large firm (100+ empployees)		0.029			0.033			
		(0.024)			(0.025)			
Manufacturing			-0.051*			-0.020		
			(0.027)			(0.027)		
Construction			-0.015			-0.004		
			(0.029)			(0.029)		
Retail Trade			-0.113***			-0.087***		
			(0.027)			(0.026)		
Accommodation & Food Services			-0.061*			-0.017		
			(0.033)			(0.033)		
Administrative & Support Services			-0.041			0.046		
			(0.034)			(0.037)		
Public Administration & Safety			0.054			-0.022		
			(0.035)			(0.033)		
Education & Training			-0.030			0.056		
			(0.041)			(0.047)		
Health Care & Social Assistance			-0.139***			-0.130***		
			(0.044)			(0.047)		
Arts & Recreation Services			0.075			0.069		
			(0.048)			(0.051)		
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes		
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes		
_evel of highest qualification fixed effects	Yes	Yes	Yes	Yes	Yes	Yes		
Fields of study controls	Yes	Yes	Yes	Yes	Yes	Yes		
	162	162	162	162	162	162		
R-squared	0.114	0.222	0.231	0.145	0.163	0.172		
Observations	1,695	1,695	1,695	1,695	1,695	1,695		

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.

Dependent variable:	Student is	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			× 7					
Year 5 or earlier	-0.122***	-0.032*	-0.046**	-0.074***	-0.041**	-0.050***		
	(0.020)	(0.018)	(0.019)	(0.018)	(0.018)	(0.018)		
Years 6 to 10	-0.093***	-0.094***	-0.088***	-0.092***	-0.093***	-0.093***		
	(0.019)	(0.017)	(0.017)	(0.016)	(0.016)	(0.016)		
Years 11 and 12	-0.004	-0.006	-0.007	-0.096***	-0.096***	-0.097***		
	(0.021)	(0.018)	(0.019)	(0.017)	(0.017)	(0.018)		
Quarsaas at least 6 months in year relative to NG		(0.018)	(0.019)	(0.017)	(0.017)	(0.018)		
Overseas at least 6 months in year relative to NC		0.010	0.008	-0.063*	-0.043	-0.043		
Any year 3 to 5	-0.051							
	(0.039)	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)		
Any year 6 to 10	0.053*	0.057**	0.052**	-0.007	-0.004	-0.007		
	(0.028)	(0.026)	(0.026)	(0.027)	(0.027)	(0.027)		
Year 11 or 12	0.121***	0.106***	0.103***	0.274***	0.268***	0.268***		
	(0.035)	(0.033)	(0.033)	(0.037)	(0.036)	(0.036)		
Years of work experience in years 1 to 5 after NC	EA level 1 (or	nitted catego	ory: 0):					
1		-0.001	0.076***		-0.032	0.012		
		(0.023)	(0.021)		(0.029)	(0.028)		
2		0.013	0.130***		-0.017	0.050*		
		(0.027)	(0.026)		(0.031)	(0.030)		
3		0.056*	0.178***		0.005	0.080**		
		(0.030)	(0.030)		(0.035)	(0.033)		
4		0.166***	0.294***		0.030	0.107***		
4		(0.035)	(0.034)		(0.037)	(0.036)		
5		0.380***	0.495***		0.094**	0.172***		
5								
		(0.038)	(0.036)		(0.039)	(0.037)		
Any work experience in years 1 to 5 in:								
Central government		0.219***			0.088***			
		(0.030)			(0.028)			
Medium-sized firm (10-99 employees)		-0.003			0.008			
		(0.021)			(0.021)			
Large firm (100+ empployees)		0.072***			0.061***			
		(0.022)			(0.022)			
Manufacturing			-0.015			0.011		
-			(0.032)			(0.032)		
Construction			0.005			0.095		
			(0.081)			(0.088)		
Retail Trade			-0.086***			-0.032		
			(0.022)			(0.022)		
Accommodation & Food Society			-0.108***			(0.022) -0.055**		
Accommodation & Food Services								
Administrative & Compared Constants			(0.023)			(0.023)		
Administrative & Support Services			-0.037			-0.034		
			(0.039)			(0.038)		
Public Administration & Safety			0.154***			0.012		
			(0.040)			(0.036)		
Education & Training			0.076**			0.089***		
			(0.032)			(0.033)		
Health Care & Social Assistance			0.029			0.016		
			(0.033)			(0.032)		
Arts & Recreation Services			-0.142***			-0.092***		
			(0.033)			(0.034)		
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	0.128	0.287	0.280	0.174	0.198	0.199		
Observations	2,070	2,070	2,070	2,070	2,070	2,070		
Notos: This table presents the results of ordinand		2,070	2,070	2,070		2,070		

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.



economic & public policy research for other Motu working papers: www.motu.nz