

Building on strengths: Education

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Disclaimer

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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.

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Abstract

This is one of 15 “specialty profiles” associated with the report “Building on strengths: Educational pathways that benefit Māori students” (2023). In this specialty profile we investigate the pathways through education associated with strong labour market outcomes for Māori students who showed an interest in and aptitude for Education at NCEA level 2. Because only a handful of men specialised in Education at level 2, we focus solely on women.

A substantial proportion of women in this specialty carry on in the field to higher levels of study. Around 60% of women gain a qualification at level 4 or above in any field, and nearly half of these are in Education. Furthermore, one in five of the women who get work experience in the first five years after NCEA level 2 get experience in the Education and Training industry.

The financial rewards to following this pathway depend on the level of qualification gained. The 22% of women who gain a bachelor’s degree or higher in Education tend to experience somewhat more labour market success than their less educated peers, but Education qualifications at levels 4 to 6 are associated with weaker outcomes.

This pattern is not limited to the field of Education: on average, degree-level qualifications have substantial financial payoffs for women, including in fields such as Society and Culture, Creative Arts, and Health. Degrees in Management and Commerce offer more modest payoffs.

Alternatively, women who gain level 2 or 3 industry training qualifications also tend to do well, and this could be a good route for those who do not have the desire or background to complete degrees.

For those who can get it, early career work experience for central government or in the Administrative and Support Services industry appears beneficial.

JEL codes

I20, I30, I23, I26, J15, J24

Keywords

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

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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 Education at NCEA level 2. Because Education at this level is dominated by women and the number of men in it is small, in this report we focus solely on women. 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 Education. 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 shows the pathways outside education that are associated with strong outcomes. Finally, Section 6 summarises the pathways through education and life that look likely to lead to strong labour market outcomes women who specialised in Education at school.

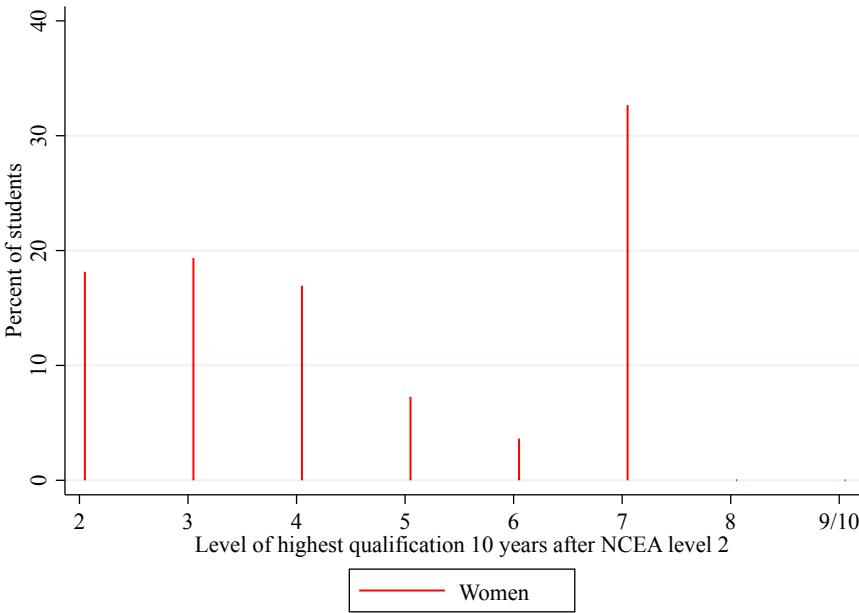
¹ The overall magnitude of savings is sensitive to the assumptions we use to calculate it, so the dollar values should not be taken too seriously. However, differences between students are relatively robust, so more weight can be put on the comparisons between students with different characteristics.

2. Overview of the students who specialised in Education

Māori students who specialised in Education are defined as students who showed strong results in NCEA level 2 standards in subjects such as early childhood education and care.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 252 students specialised in Education, 98% of whom are female, and 27% of whom gained NCEA level 2 at a tertiary institute. Due to the lack of men in the specialty, we focus solely on women.

Figure 1 shows the highest level of qualification attained within 10 years of gaining NCEA level 2 by women who specialised in Education. The most common highest qualification level is level 7 (which includes bachelor’s degrees and other qualifications at a similar level), which is attained by 33% of women. Highest qualifications at levels 2, 3, and 4 are each attained by 17% to 19% of women. Essentially no women obtain qualifications above level 7.³

Figure 1: Distribution of level of highest qualification for women



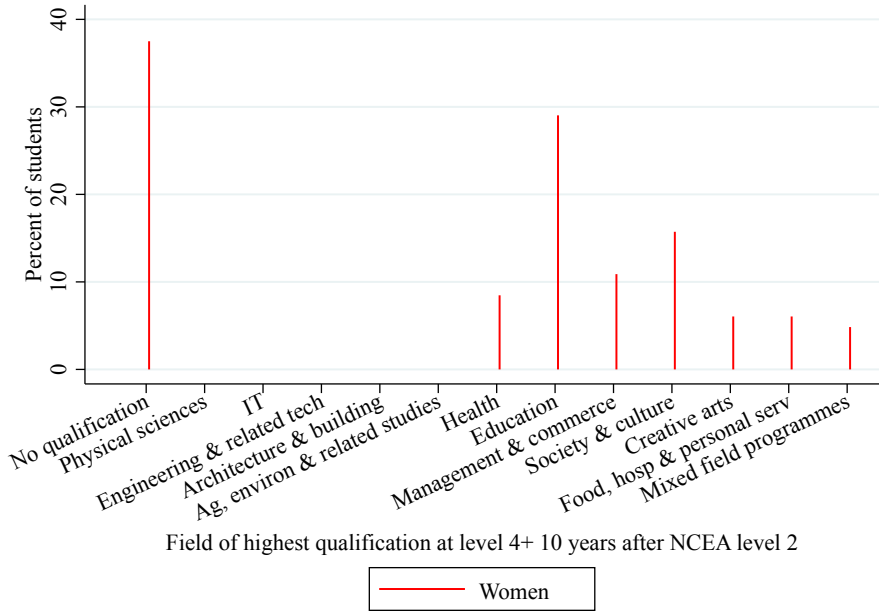
Notes: This figure shows the highest level of qualification gained by women who specialised in Education. To be counted, qualifications must have been gained within 10 years of achieving NCEA level 2. Small but non-zero values may be presented as zeros for confidentiality reasons.

² The full list of subjects included in the specialty Education is: adult education and training; educational administration; special education; generic education and training; early childhood education and care; and pacific islands early childhood education. Not all of these subjects are necessarily available to study at level 2.

³ Small but non-zero values may be represented in the figure as zeros for confidentiality reasons.

Figure 2 shows the distribution across fields of study of the highest qualifications of women who specialised in Education at level 2. Among those who gain qualifications at level 4 or above, the most common field of study for is Education, which attracts almost 30% of students (not much below half the number who gain a highest qualification at this level). Society and Culture is also fairly common (16%), and Management and Commerce moderately so (11%).

Figure 2: Distribution of field of highest qualification



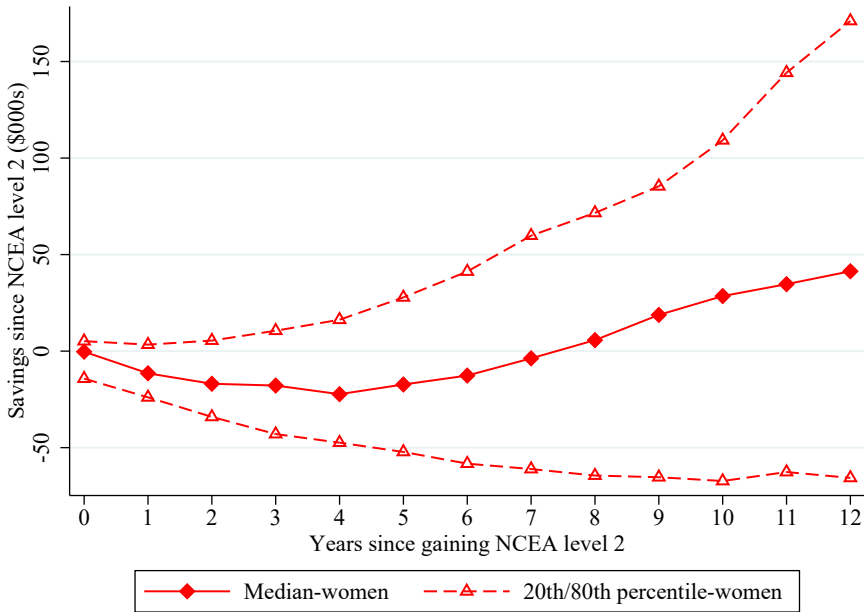
Notes: This figure shows the percentage of students whose highest qualification (at level 4 or above) is in each field among those who specialised in Education. Students may be included in more than one field if they have multiple highest qualifications at the same level. Those whose highest qualification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

Figure 3 shows the evolution over time of the distribution of cumulative savings for women who specialised in Education. Median cumulative savings are negative for the first seven years, indicating any earnings the median students have over these years are insufficient to cover their estimated living costs and tertiary fees. In year 8, cumulative saving are positive for the first time, and they continue to rise. By 12 years after NCEA level 2, median women have cumulative savings of around \$40,000. Women at the 80th percentile of the savings distribution have over \$170,000, and women at the 20th percentile have negative cumulative savings.

Figure 4 similarly shows how the distribution of annual savings changes over time for women who specialised in Education. It shows median women’s annual savings are negative for

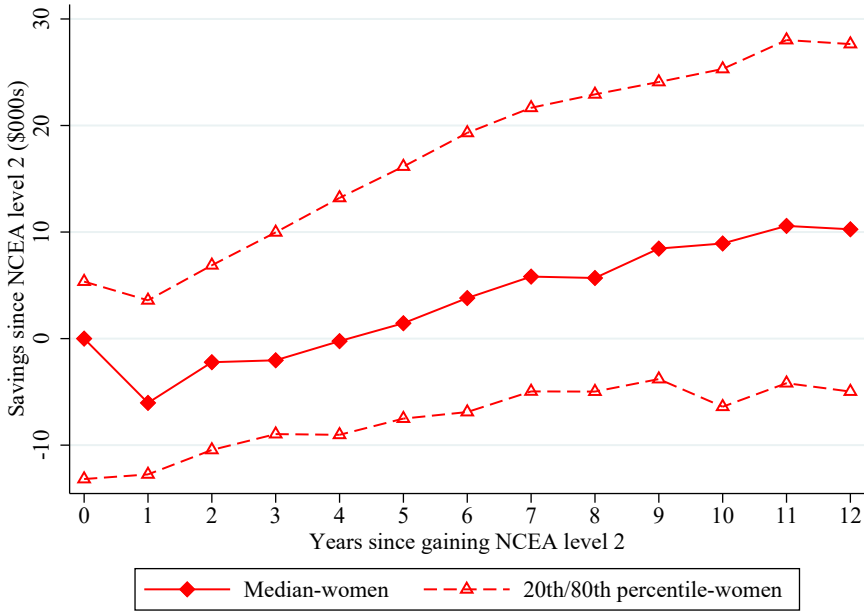
three years after NCEA level 2, after which point they increase steadily to reach \$10,000 in year 12.

Figure 3: Cumulative savings over time



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

Figure 4: Annual savings over time



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

3. How do savings vary with level of qualifications?

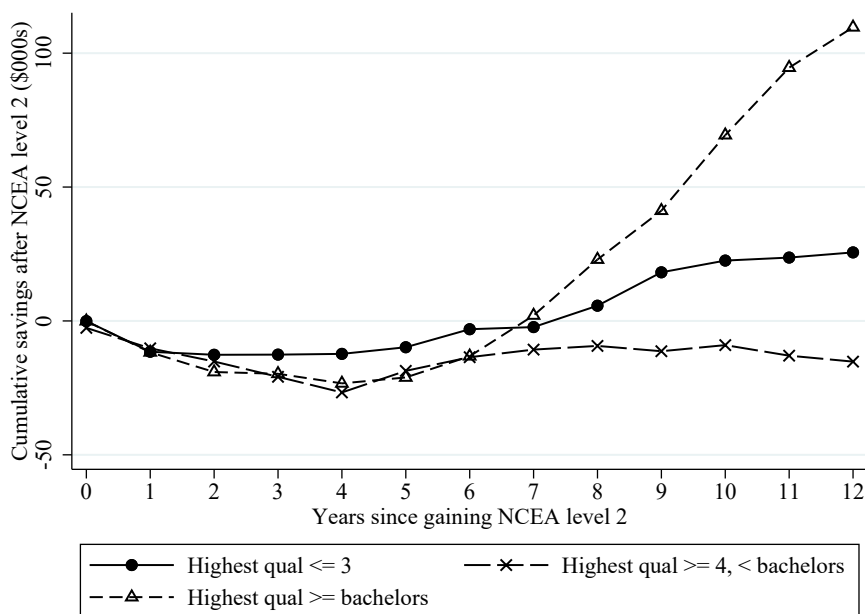
This section shows how the cumulative and annual savings of students who specialised in Education vary with their highest level of qualification.

3.1 Cumulative and annual savings by level of highest qualification

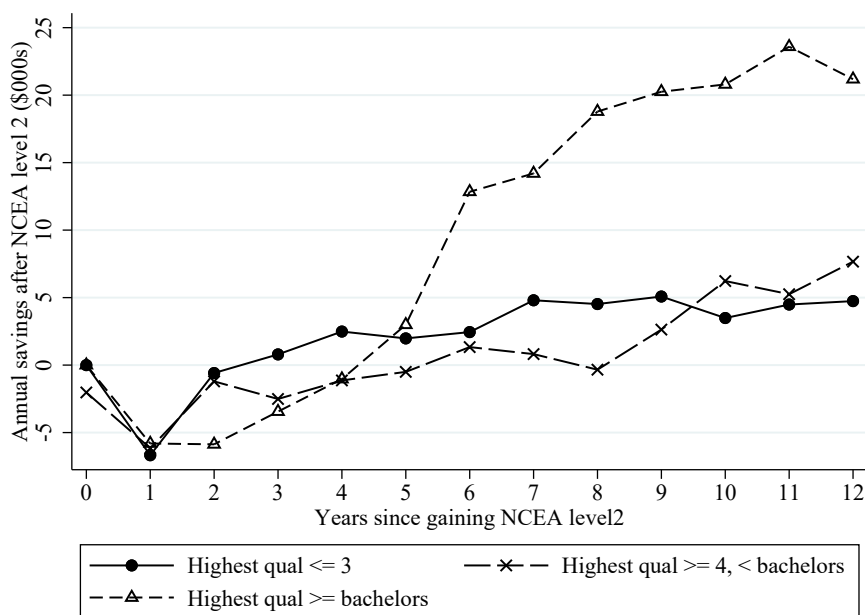
Figure 5 shows how median cumulative and annual savings change over time after gaining NCEA level 2 for women who achieve different levels of highest qualification. Figure 5 shows the cumulative savings of women with intermediate qualifications (level 4 plus, but less than a bachelor's degree) or high qualifications (at least a bachelor's degree) initially fall behind those of women with low qualifications (level 2 or 3). However, in about year 6 the annual and thus cumulative savings of women with high qualifications experience rapid growth as these women complete their study and enter the labour force. From here, their annual savings grow significantly, and by 12 years after NCEA level 2, highly qualified women are saving \$20,000 each year. In comparison, women with low or intermediate qualifications are saving in the region of \$5,000 to \$8,000 each year, and this amount is growing only weakly. The cumulative savings of high-qualified women overtake those of their less qualified peers in year 7, and reach \$110,000 by year 12, compared with \$25,000 for women with low qualifications and a negative amount for women with intermediate savings. The clear story from this figure is women with a bachelor's degree do substantially better than women without.

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

Panel A: Cumulative savings

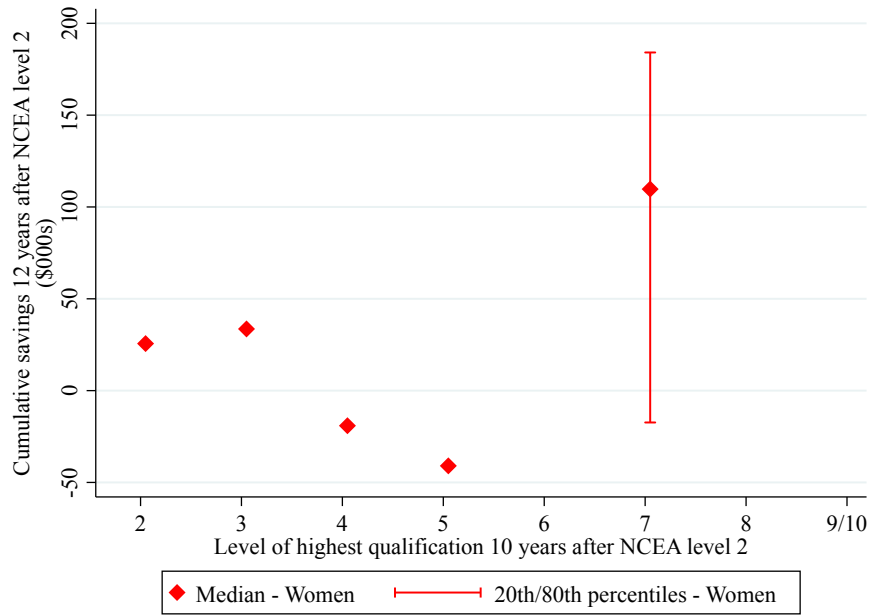


Panel B: Annual savings



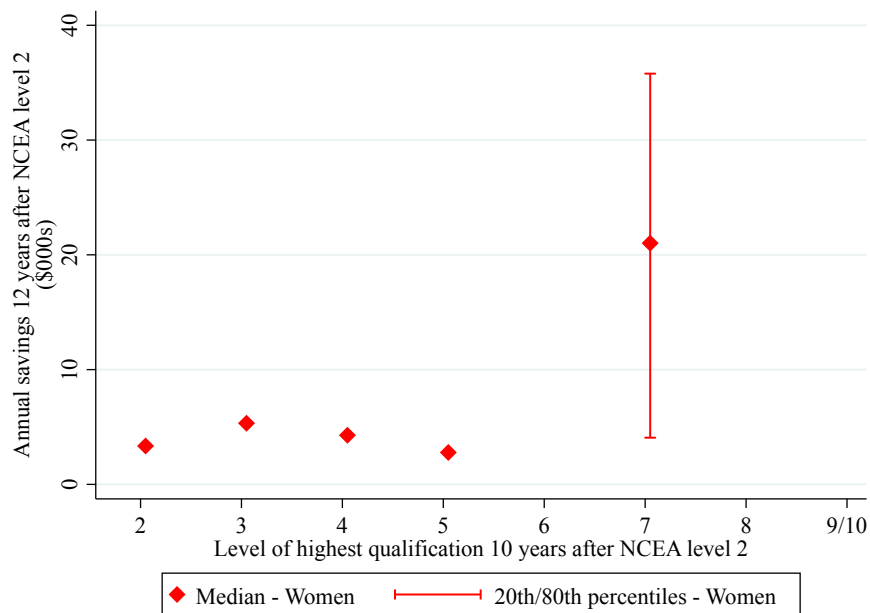
Notes: This figure shows changes over time in the median of cumulative savings since gaining NCEA level 2 (Panel A) and median of annual savings (Panel B) for women who specialised in Education and achieved different levels of highest qualification. Qualifications are included if they were gained within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

Figure 6: Cumulative savings 12 years after NCEA level 2 by level of highest qualification for women



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

Figure 7: Annual savings 12 years after NCEA level 2 by level of highest qualification for women



Notes: This figure shows the median and 20th and 80th percentiles of annual savings 12 years after NCEA level 2 of women who specialised in Education 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 6 and 7 explore the distribution of cumulative and annual savings after 12 years for women with this specialty by disaggregated level of highest qualification. They show women with level 7 qualifications have substantially higher median cumulative and annual savings than women with any lower level of qualification.

3.2 Qualification levels of top cumulative and annual savers

In this section we categorise men and women who specialised in Education 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 Education. 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 Table 1 shows the characteristics associated with being a top cumulative saver or top annual saver. The left-hand side of the table describes each characteristic. Column (1) gives the percentage of students who are *not* top cumulative savers who have the characteristic, and column (2) gives the percentage of students who *are* top savers who have the characteristic. Column (3) is the odds ratio, defined as the proportion of students *with* the characteristic who are top cumulative savers divided by the proportion of students *without* the characteristic who are top savers. Thus an odds ratio of 1 means the probability of being a top cumulative saver is unrelated to whether a student has the characteristic, an odds ratio above 1 means a student is *more* likely to be a top cumulative saver if they have the characteristic, and an odds ratio below 1 means a student is *less* likely to be a top cumulative saver if they have the characteristic. Asterisks on the odds ratio indicate whether it is statistically significantly different to 1. Columns (4) to (6) replicate columns (1) to (3) but for annual instead of cumulative savings.

Appendix Table 1 explores the characteristics top savers are more likely to have, but it considers only one characteristic at a time. Appendix Table 2 uses regressions to explore 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 Table 2 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 table, the first column controls for background characteristics only, the second adds level of highest qualification of any type, and

the third distinguishes highest qualifications by whether they are industry training qualifications or not. In the third column, the comparison group for all the level of qualification variables is students whose highest qualifications are at level 2 and are not industry training qualifications. To compare, for instance, the probability a student with a level 4 industry training qualification is a top saver with the probability a comparison group student is a top saver, the coefficients on “highest qualification is level 4” and “highest industry training qualification is level 4” are added together. The fourth column on each side of the tables does not explicitly distinguish industry training qualifications from other types of qualifications, but controls for level of highest qualification and the types of tertiary institute attended. Here the coefficients on type of tertiary institute attended should be interpreted as conditional on students’ background characteristics and level of highest qualification. The remainder of this section discusses the results from Appendix Tables 1 and 2.

Only 42% of women gain a level 3 NCEA certificate within 5 years of their level 2 certificate. The bivariate analysis shows such women are insignificantly more likely than other women to be top cumulative savers and 2.5 times as likely to be top annual savers.

In regressions that control for students’ backgrounds, women who at gain least a level 7 qualification are substantially more likely than similar less qualified women to be both top cumulative and annual savers, and those few with at least level 8 qualifications are even more likely. Those with level 3 to 6 qualifications are insignificantly more likely to be top savers than those with level 2 qualifications.

Sixteen percent of women do any industry training, and 10% gain an industry training qualification at level 2 or above. In the regressions that control for students’ backgrounds, women with industry training qualifications at level 2 are significantly more likely than those with other level 2 qualifications to be top cumulative and annual savers, and are almost as likely to be top savers as those with level 7 qualifications. Women with level 3 industry qualifications do marginally better, similarly to those with level 7. However, women with industry qualifications at level 4 or above are much less likely than those with only level 2 non-industry training qualifications to be top savers.

The bivariate analysis shows women who attend a university are more likely to be top annual savers than are women who don’t, but the regressions show this is fully explained by the stronger backgrounds and higher levels of qualification gained by women who attend university. The regressions also show that women who attend wānanga are significantly less likely than women with the same level of qualifications who do not to be top cumulative savers, and insignificantly less likely to be top annual savers.

In addition to controlling for students' pathways through education, the regressions in Appendix Table 2, 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 women who are younger when they achieve NCEA level 2 or who attend a higher decile school are more likely to be top cumulative savers. Those who attend a higher decile school are also more likely to be top annual savers, as are those with multiple specialties at level 2 (though only weakly). Women who are stronger academically (indicated by a high percentile score) are insignificantly less likely to be top cumulative or annual savers, but once we compare them with similar women who achieved the same level of highest qualification they are significantly less likely to be top annual savers. This suggests more academically able women select into levels of qualification that should be relatively financially rewarding, but at those levels study fields that are associated with lower financial returns.

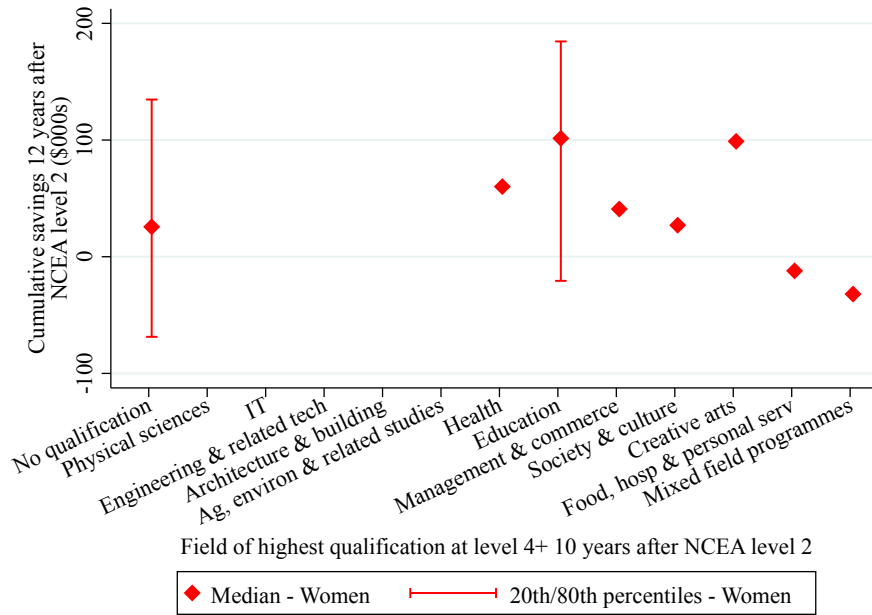
4. How do savings vary with fields of study in higher education?

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

4.1 Cumulative and annual savings by fields of study

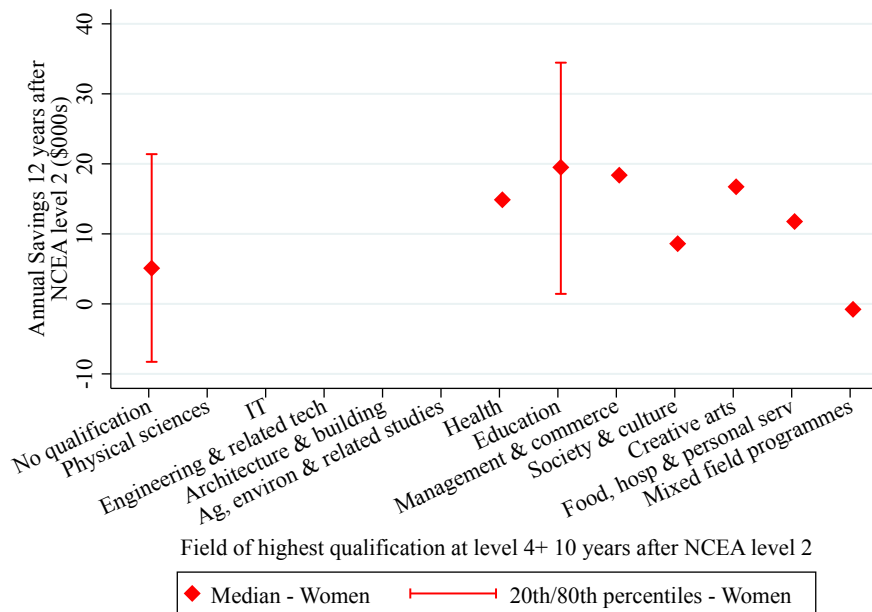
Figure 8 shows how the cumulative savings after 12 years differ for women whose highest qualifications at level 4 or above are in different fields. Figure 9 shows the same but for annual rather than cumulative savings. As Figure 2 showed, the highest proportion of women have no qualification at level 4 or above. Such women have below-average cumulative savings, around \$25,000 at the median, and low annual savings of \$5,000.

Figure 8: Cumulative savings 12 years after NCEA level 2 by 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 women who specialised in Education 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 9: Annual savings 12 years after NCEA level 2 by field of highest qualification



Notes: This figure replicates Figure 8 but presents annual savings rather than cumulative savings.

The most common field for higher qualifications is Education, which offers women the highest median cumulative and annual savings of all fields. Specifically, 12 years after NCEA level 2, cumulative savings for women in Education are \$100,000, matched only by Creative Arts. Education yields \$20,000 in median annual savings, just ahead of Management and Commerce and Creative Arts. Of women's two next most common fields of qualification, Society and Culture and Management and Commerce, Management and Commerce yields substantially higher annual savings and somewhat higher cumulative savings than Society and Culture. Perhaps surprisingly because it tends to be a field with low labour market returns, Creative Arts gives women who specialised in Education equal highest cumulative saving as well as relatively high annual savings.

4.2 Fields of higher study of top cumulative and annual savers

In this section we again categorise men and women who specialised in Education by whether they are top cumulative savers or top annual savers, and show how the fields in which they study and gain qualifications are associated with being a top saver of either kind. As in Section 3.2, we conduct both bivariate and regression analysis. Again, being a top saver means doing well compared with other students of the same gender in the same specialty, and is not a statement about how well the student is doing in absolute terms.

4.2.1 *Fields of study at school level*

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

In many cases, the subjects in which a student passes 14 credits at level 3 affect the student's subsequent pathway through education, such as their fields of study at higher levels, and these in turn affect their ability to save. In the first column, all such impacts are captured by the coefficients on the variables for passing credits in level 3 subjects. In subsequent columns,

we add controls for either fields of higher study or fields of higher qualification. In these columns, the coefficients on level 3 subject credits can be interpreted as differences in the probability of being a top saver based on passing the level 3 credits in that field, given the field the student went on to study or gain qualifications in.

In simple bivariate comparisons, the fields in which women pass at least 14 credits at level 2 are never more than weakly significantly associated with being a top cumulative or annual saver, and the same is true of passing 14 credits of level 2 achievement standards. However, in most cases passing achievement standard credits is associated with a substantially higher probability of being a top annual saver, and these differences are not significant only because of the small sample.

In regressions that control for women's backgrounds, credits in no field at level 3 are significantly associated with being a top saver of either kind. However, many fields are insignificantly positively associated with being a top saver of one kind or the other, and in the bivariate analysis credits in English, Humanities, and Science are at least weakly significantly associated with being a top saver of one type or the other.

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 is presented in Appendix Tables 4 and 5, and the regressions are in Appendix Table 6.

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

Here the comparison student is someone with the same background and level 3 fields of study, but who left education without gaining a qualification at level 4 or above. As before, to compare this student with a similar student who gained a qualification at bachelor's level or above in a particular field, the coefficients on "gained qualification at level 4+ in the field" and "gained bachelor's degree+ in the field" must be added together.

Education, students' specialty at level 2, is the field in which women are most likely to pass at least 0.5 EFTS of courses at level 4 and above. Thirty-two percent of women do so, 29% gain a qualification in this field at level 4 or above, and 22% gain a qualification at bachelor's level or above. In the regressions, study and qualifications in Education are not significantly associated with a higher probability of being a top saver when compared with a woman with the same background and level 3 fields of study, but who left education after level 3. However, the point estimates indicate this study could be beneficial, particularly at level 7 and above, and especially for annual savings.

Society and Culture is next most common. At level 4 to 6, it tends to be associated with a lower chance of being a top saver compared with a similar education-leaver, but the small number of women who complete a degree in this field are relatively likely to be top cumulative and annual savers. Management and Commerce is another field women are likely to study. In the regressions, it tends to be associated with an insignificantly lower probability of being a top saver when studied at levels 4 to 6, and an insignificantly higher probability when studied at level 7 or above. Although the small sample limits our ability to say much about women who studied in the less common fields, it seems qualifications in Health or Creative Arts at bachelor's level or above could be financially rewarding.

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

This section shows how the cumulative and annual savings of students who specialised in Education vary with their fertility decisions, overseas experience, and work experience in the first five years after NCEA level 2. We again categorise 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 7. As previously, this table shows 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 Table 8. The first three columns in the 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 7 and 8.

In the bivariate comparisons, women who had a child any time in the first 12 years after NCEA level 2 are significantly less likely to be top cumulative and annual savers. In the regressions that control for a wide range of characteristics including education, some of these relations are no longer statistically significant. The negative relationship between women's fertility and labour market success 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 show that women who gained more work experience in the five years after NCEA level 2 are much more likely to be top cumulative savers, but only weakly more likely to be top annual savers when compared with those with the same educational, fertility, and travel history but less work experience over this period. They also show that work experience for central government in this period contributes more than other work experience to women being top annual savers.

Retail Trade and Accommodation and Food Services are the two most common industries in which women get early work experience. The regressions compare women with the same education, timing of children, and early years of work experience, and ask whether those with

work experience in a particular industry are more likely to be top cumulative or annual savers than are those who are otherwise similar but have not worked in that particular industry. They show Retail Trade experience is not associated with a different probability of being a top saver, but Accommodation and Food Services is associated with a lower probability of being a top cumulative saver, and insignificantly lower probability of being a top annual saver. Experience in Education and Training, a natural progression of the Education specialty, is gained by 20% of women who get work experience in this period. It is associated with a somewhat low probability of being a top cumulative saver. The most beneficial work experience seems to be in the Administrative and Support Services industry, though most of its differences from other industries are not statistically significant.

6. Conclusions

In this specialty profile, we focused on Māori students who specialised in Education at NCEA level 2, and who achieved a level 2 NCEA certificate by age 19 even though they were not top academic performers. This is the most female-dominated specialty, and consists almost solely of women. We thus investigated women only, analysing 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.

A third of Māori women who specialised in Education at level 2 gain level 7 qualifications, but highest qualifications at levels 2 to 4 are also common. Women who get level 7 or above qualifications experience substantially more success than similar women with lower level qualifications. Among those with lower qualifications, women with only level 3 do better than those with level 4 to 6. Few women pursue industry training, but those who gain industry training qualifications at level 2 or 3 experience strong outcomes.

Among women who gain a qualification at level 4 or above, nearly half get such a qualification in Education. Women who study Education at level 4 to 6, like those who study the other common fields of Society and Culture and Management and Commerce at this level, have somewhat comparatively weak outcomes. However, those who complete bachelor's degrees in any of these three fields tend to do decently. Although the number of women in these fields is too low for us to say with any certainty, bachelor's level qualifications in Health or Creative Arts also may be financially rewarding.

Women who get early career work experience for central government or in the Administrative and Support Services industry tend to do well, but experience in the Education and Training industry is associated with somewhat low cumulative savings.

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

Characteristic	Cumulative savings			Annual savings			Students
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	
	Non-top savers	Top savers		Non-top savers	Top savers		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
School qualifications gained:							
NCEA cert level 3 within 1 yr	36.9	50.0	1.52*	33.8	58.8	2.23***	243
NCEA cert level 3 within 5 yrs	39.1	50.0	1.41	35.9	64.7	2.53***	243
University Entrance within 1 yr	16.7	31.3	1.88***	14.1	41.2	2.84***	243
Level of highest qualification gained within 10 years:							
Level 2	20.0	12.5	0.63	20.3	<11.1	<0.56**	243
Level 3	20.0	18.8	0.94	20.3	12.5	0.62	243
Level 4	18.5	<11.8	<0.65	18.8	<11.1	<0.61*	243
Level 5	7.7	<11.1	<1.36	7.7	<11.1	<1.36	243
Level 6	<5% have characteristic			<5% have characteristic			243
Level 7	29.2	43.8	1.65**	26.2	56.3	2.72***	243
Level 8	<5% have characteristic			<5% have characteristic			243
Level 9 or 10	<5% have characteristic			<5% have characteristic			243
Industry training credits gained within 10 years:							
Any credits	16.7	12.5	0.76	15.4	17.6	1.14	243
Any credits at level 4+	<5% have characteristic			<5% have characteristic			243
50+ credits	7.6	12.5	1.53	6.2	12.5	1.79*	243
50+ credits at level 4+	<5% have characteristic			<5% have characteristic			243
Level of highest industry training qualification gained within 10 years:							
Level 2+	9.1	12.5	1.32	7.7	12.5	1.51	243
Level 3+	<5% have characteristic			<5% have characteristic			243
Level 4+	<5% have characteristic			<5% have characteristic			243
Types of tertiary institute where student enrolled within 10 years (for students who enrolled in any tertiary):							
Industry Training Organisation	21.5	23.5	1.09	20.3	23.5	1.16	243
Institute of Technology/Polytech	89.2	81.3	0.61	89.1	87.5	0.89	243
Private Training Establishment	80.0	81.3	1.07	81.3	81.3	1.00	243
University	42.2	56.3	1.57	40.6	58.8	1.79**	243
Wananga	25.0	18.8	0.74	25.0	18.8	0.74	243
Other Tertiary Provider	6.2	<11.8	<1.69	7.7	<10.5	<1.29	243
Locations of education providers where student enrolled within 10 years (including schools):							
Main urban area	<5% do not have characteristic			<5% do not have characteristic			243
Secondary urban area	24.2	23.5	0.97	23.1	29.4	1.29	243
Minor urban area	21.2	17.6	0.83	20.0	17.6	0.88	243
Rural centre or rural area	6.2	<11.1	<1.60	6.2	<10.5	<1.53	243
Different region to school	88.1	87.5	0.95	85.2	>87.5	>1.17	231

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 2: Regressions of being a top saver on level of highest qualification for women

Dependent variable:	Student is a top cumulative saver				Student is a top annual saver			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Age at NCEA level 2	-0.067** (0.033)	-0.063* (0.033)	-0.060* (0.032)	-0.062** (0.032)	-0.024 (0.034)	-0.016 (0.032)	-0.012 (0.031)	-0.018 (0.032)
Percentile score (0-1)	-0.296 (0.270)	-0.461 (0.290)	-0.466 (0.290)	-0.402 (0.301)	-0.398 (0.264)	-0.644** (0.265)	-0.651** (0.260)	-0.599** (0.279)
Multiple specialties	0.066 (0.056)	0.081 (0.054)	0.083 (0.053)	0.096* (0.055)	0.097* (0.054)	0.116** (0.053)	0.119** (0.053)	0.115** (0.055)
School decile	0.027** (0.011)	0.026** (0.011)	0.027** (0.011)	0.025** (0.012)	0.029** (0.012)	0.025** (0.012)	0.027** (0.012)	0.023* (0.013)
School not in main urban area	0.018 (0.066)	0.023 (0.065)	0.031 (0.066)	0.006 (0.068)	0.038 (0.068)	0.048 (0.062)	0.063 (0.064)	0.043 (0.065)
Highest qualification gained within 10 years (omitted category: level 2):								
Level 3		0.077 (0.081)	0.081 (0.081)	0.071 (0.083)		0.079 (0.068)	0.084 (0.067)	0.079 (0.070)
Level 4		0.017 (0.075)	0.042 (0.076)	0.071 (0.074)		0.023 (0.065)	0.048 (0.064)	0.043 (0.071)
Level 5 or 6		0.053 (0.098)	0.060 (0.098)	0.099 (0.096)		0.102 (0.090)	0.114 (0.089)	0.127 (0.098)
Level 7		0.164** (0.080)	0.174** (0.079)	0.206** (0.081)		0.296*** (0.071)	0.310*** (0.068)	0.313*** (0.079)
Level 8 to 10		0.516*** (0.164)	0.537*** (0.164)	0.620*** (0.177)		0.580*** (0.166)	0.610*** (0.167)	0.620*** (0.187)
Highest industry training qualification gained within 10 years (omitted category: none):								
Level 2			0.167 (0.134)				0.257** (0.122)	
Level 3			0.107 (0.252)				0.151 (0.246)	
Level 4			-0.178** (0.085)				-0.147* (0.077)	
Level 5 or 6			dropped				dropped	
Any Gateway credits completed within 10 years				0.015 (0.061)				0.003 (0.062)
Enrolled in institute type within 10 years:								
Industry Training Organisation				0.042 (0.065)				0.072 (0.063)
Institute of Technology/Polytech				-0.111 (0.101)				-0.018 (0.091)
Private Training Establishment				0.041 (0.064)				0.038 (0.068)
University				-0.022 (0.057)				0.019 (0.058)
Wānanga				-0.111** (0.055)				-0.069 (0.056)
Other Tertiary Provider				0.149 (0.115)				0.001 (0.096)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.056	0.110	0.123	0.138	0.050	0.162	0.188	0.173
Observations	243	243	243	243	243	243	243	243

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 3: Fields of study at school of women who are top savers

Characteristic	Cumulative savings			Annual savings			Students
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	
	Non-top savers	Top savers		Non-top savers	Top savers		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Passed at least 14 credits at level 2 by year of NCEA level 2 in:							
English	48.5	61.1	1.50*	49.2	61.1	1.46	243
Maths	16.7	17.6	1.06	14.1	18.8	1.31	243
Māori	18.5	12.5	0.68	15.6	22.2	1.39	243
Humanities	73.4	76.5	1.14	73.4	76.5	1.14	243
Social Science	18.8	29.4	1.57	18.8	27.8	1.47	243
Science	52.3	56.3	1.14	54.7	50.0	0.86	243
Passed at least 14 achievement standard credits at level 2 by year of NCEA level 2 in:							
English	15.4	23.5	1.49	16.7	27.8	1.63	243
Maths	7.6	<11.1	<1.38	6.2	<11.1	<1.60	243
Māori	13.8	12.5	0.91	10.9	17.6	1.52	243
Humanities	32.3	43.8	1.47	32.3	43.8	1.47*	243
Social Science	10.9	17.6	1.52	10.9	18.8	1.62	243
Science	15.4	23.5	1.49	16.9	18.8	1.10	243
Passed at least 14 credits at level 3 within 5 years in:							
English	10.9	23.5	1.96*	10.9	22.2	1.84*	243
Maths	10.6	17.6	1.56	10.8	17.6	1.54	243
Māori	10.9	<11.8	<1.07	10.8	12.5	1.14	243
Humanities	18.8	29.4	1.57*	18.8	33.3	1.78**	243
Social Science	13.6	17.6	1.27	13.6	22.2	1.56	243
Science	18.2	29.4	1.62	16.9	29.4	1.72*	243
Arts & Crafts	10.6	<11.8	<1.10	9.2	11.8	1.23	243
Computing & IT	13.8	23.5	1.63	14.1	18.8	1.31	243
Business	6.2	<11.1	<1.60	4.7	<11.1	<1.93	243
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5% have characteristic			243
Community & Social Services	<5% have characteristic			<5% have characteristic			243
Education	26.2	29.4	1.14	26.2	29.4	1.14	243
Service Sector	35.4	38.9	1.12	33.8	43.8	1.39	243
Engineering & Technology	<5% have characteristic			<5% have characteristic			243
Manufacturing, Planning & Constrn	<5% have characteristic			<5% have characteristic			243
Passed at least 14 achievement standard credits at level 3 within 5 years in:							
English	<5% have characteristic			<5% have characteristic			243
Maths	6.2	<11.8	<1.69	6.2	<11.1	<1.60	243
Māori	7.7	<11.1	<1.36	7.7	<11.1	<1.36	243
Humanities	7.8	18.8	2.08*	7.8	17.6	1.96*	243
Social Science	10.9	18.8	1.62	10.9	18.8	1.62*	243
Science	7.6	12.5	1.53*	7.7	12.5	1.51	243
Arts & Crafts	7.7	<11.8	<1.43	7.7	11.8	1.43	243
Computing & IT	<5% have characteristic			<5% have characteristic			243
Business	<5% have characteristic			<5% have characteristic			243
Agriculture, Forestry, & Fisheries	<5% have characteristic			<5% have characteristic			243
Community & Social Services	<5% have characteristic			<5% have characteristic			243
Education	<5% have characteristic			<5% have characteristic			243
Service Sector	<5% have characteristic			<5% have characteristic			243
Engineering & Technology	<5% have characteristic			<5% have characteristic			243
Manufacturing, Planning & Constrn	<5% have characteristic			<5% have characteristic			243

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 4: Fields of tertiary study of women who are top savers

Characteristic	Cumulative savings			Annual savings			Students
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	
	Non-top savers	Top savers		Non-top savers	Top savers		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields and levels in which student passed at least 0.5 EFTS within 10 years:							
Natural & Physical Sciences at level 2+	4.7	<11.1	<1.93	4.7	<11.1	<1.93	243
Natural & Physical Sciences at level 4+	<5% have characteristic			<5% have characteristic			243
Natural & Physical Sciences at level 7+	<5% have characteristic			<5% have characteristic			243
Natural & Physical Sciences at level 8+	<5% have characteristic			<5% have characteristic			243
Information Technology at level 2+	9.1	<11.1	<1.19	7.7	<11.1	<1.36	243
Information Technology at level 4+	<5% have characteristic			<5% have characteristic			243
Information Technology at level 7+	<5% have characteristic			<5% have characteristic			243
Information Technology at level 8+	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies at level 2+	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies at level 4+	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies at level 7+	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies at level 8+	<5% have characteristic			<5% have characteristic			243
Architecture & Building at level 2+	<5% have characteristic			<5% have characteristic			243
Architecture & Building at level 4+	<5% have characteristic			<5% have characteristic			243
Architecture & Building at level 7+	<5% have characteristic			<5% have characteristic			243
Architecture & Building at level 8+	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies at level 2+	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies at level 4+	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies at level 7+	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies at level 8+	<5% have characteristic			<5% have characteristic			243
Health at level 2+	10.6	17.6	1.56**	10.9	17.6	1.52	243
Health at level 4+	7.7	18.8	2.11**	7.8	12.5	1.49	243
Health at level 7+	<5% have characteristic			<5% have characteristic			243
Health at level 8+	<5% have characteristic			<5% have characteristic			243
Education at level 2+	43.1	43.8	1.02	41.5	50.0	1.31	243
Education at level 4+	30.8	38.9	1.32	29.2	43.8	1.65*	243
Education at level 7+	24.6	31.3	1.30	23.1	38.9	1.76**	243
Education at level 8+	<5% have characteristic			<5% have characteristic			243
Management & Commerce at level 2+	29.2	29.4	1.01	29.7	29.4	0.99	243
Management & Commerce at level 4+	13.8	<11.8	<0.86	12.5	17.6	1.36	243
Management & Commerce at level 7+	<5% have characteristic			<5% have characteristic			243
Management & Commerce at level 8+	<5% have characteristic			<5% have characteristic			243
Society & Culture at level 2+	56.1	43.8	0.67*	53.1	56.3	1.11	243
Society & Culture at level 4+	26.2	18.8	0.70	24.6	27.8	1.14	243
Society & Culture at level 7+	6.2	<11.1	<1.60	4.7	11.8	2.03*	243
Society & Culture at level 8+	<5% have characteristic			<5% have characteristic			243
Creative Arts at level 2+	12.3	17.6	1.38	12.5	17.6	1.36	243
Creative Arts at level 4+	7.7	<11.8	<1.43	7.7	<11.1	<1.36	243
Creative Arts at level 7+	<5% have characteristic			<5% have characteristic			243
Creative Arts at level 8+	<5% have characteristic			<5% have characteristic			243
Food, Hospitality & Personal Servs at level 2+	10.9	<11.1	<1.01	10.9	<11.1	<1.01	243
Food, Hospitality & Personal Servs at level 4+	6.2	<11.1	<1.60	6.2	<10.5	<1.53	243
Food, Hospitality & Personal Servs at level 7+	<5% have characteristic			<5% have characteristic			243
Food, Hospitality & Personal Servs at level 8+	<5% have characteristic			<5% have characteristic			243
Mixed Field Programmes at level 2+	7.7	<11.1	<1.36	7.7	<11.1	<1.36	243
Mixed Field Programmes at level 4+	<5% have characteristic			<5% have characteristic			243
Mixed Field Programmes at level 7+	<5% have characteristic			<5% have characteristic			243
Mixed Field Programmes at level 8+	<5% have characteristic			<5% have characteristic			243

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 5: Fields of tertiary qualification of women who are top savers

Characteristic	Cumulative savings			Annual savings			Students
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	
	Non-top savers	Top savers		Non-top savers	Top savers		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Fields of highest qualification gained within 10 years:							
Natural & Physical Sciences	<5% have characteristic			<5% have characteristic			243
Information Technology	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies	<5% have characteristic			<5% have characteristic			243
Architecture & Building	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			243
Health	4.7	18.8	2.85***	6.2	17.6	2.30**	243
Education	32.3	38.9	1.25	29.7	43.8	1.62**	243
Management & Commerce	13.6	<11.1	<0.83	13.8	<11.1	<0.82	243
Society & Culture	10.9	12.5	1.13	10.9	12.5	1.13	243
Creative Arts	<5% have characteristic			<5% have characteristic			243
Food, Hospitality & Personal Services	7.8	<11.1	<1.34	7.8	<10.5	<1.28	243
Mixed Field Programmes	35.4	29.4	0.80	36.9	22.2	0.56**	243
Fields of qualifications at level 4+ gained within 10 years:							
Natural & Physical Sciences	<5% have characteristic			<5% have characteristic			243
Information Technology	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies	<5% have characteristic			<5% have characteristic			243
Architecture & Building	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			243
Health	7.6	17.6	2.01**	7.7	12.5	1.51	243
Education	26.2	38.9	1.56*	24.6	43.8	1.96***	243
Management & Commerce	12.3	<11.1	<0.91	10.9	11.8	1.07	243
Society & Culture	16.9	12.5	0.75	16.9	12.5	0.75	243
Creative Arts	6.2	<11.1	<1.60	6.2	<11.1	<1.60	243
Food, Hospitality & Personal Services	6.2	<11.1	<1.60	6.2	<10.5	<1.53	243
Mixed Field Programmes	<5% have characteristic			<5% have characteristic			243
Fields of qualifications at bachelor's level+ gained within 10 years:							
Natural & Physical Sciences	<5% have characteristic			<5% have characteristic			243
Information Technology	<5% have characteristic			<5% have characteristic			243
Engineering & Related Technologies	<5% have characteristic			<5% have characteristic			243
Architecture & Building	<5% have characteristic			<5% have characteristic			243
Ag, Environmental & Related Studies	<5% have characteristic			<5% have characteristic			243
Health	<5% have characteristic			<5% have characteristic			243
Education	20.0	29.4	1.48	16.9	41.2	2.49***	243
Management & Commerce	<5% have characteristic			<5% have characteristic			243
Society & Culture	4.6	<11.8	<2.05	3.1	11.8	2.57**	243
Creative Arts	<5% have characteristic			<5% have characteristic			243
Food, Hospitality & Personal Services	<5% have characteristic			<5% have characteristic			243
Mixed Field Programmes	<5% have characteristic			<5% have characteristic			243

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

Dependent variable:	Student is a top cumulative saver			Student is a top annual saver		
	(1)	(2)	(3)	(4)	(5)	(6)
Passed at least 14 credits at level 3 within 5 years in:						
English	0.103 (0.120)	0.076 (0.111)	0.062 (0.118)	0.020 (0.140)	0.039 (0.151)	-0.003 (0.140)
Maths	0.061 (0.129)	0.009 (0.110)	0.051 (0.113)	0.009 (0.136)	-0.024 (0.126)	-0.013 (0.114)
Māori	-0.025 (0.077)	-0.042 (0.073)	-0.035 (0.078)	0.086 (0.090)	0.060 (0.089)	0.086 (0.087)
Humanities	0.002 (0.090)	-0.017 (0.086)	-0.019 (0.089)	0.075 (0.109)	0.012 (0.120)	0.034 (0.109)
Social science	0.075 (0.081)	0.078 (0.082)	0.054 (0.084)	0.121 (0.088)	0.097 (0.092)	0.066 (0.088)
Science	0.028 (0.099)	-0.002 (0.081)	-0.034 (0.087)	0.089 (0.105)	0.047 (0.095)	0.018 (0.086)
Computing & IT	0.068 (0.079)	0.121 (0.082)	0.102 (0.076)	-0.006 (0.079)	0.010 (0.080)	0.007 (0.073)
Education	0.019 (0.059)	-0.009 (0.060)	0.010 (0.059)	0.069 (0.060)	0.039 (0.059)	0.046 (0.057)
Service sector	-0.016 (0.059)	-0.006 (0.065)	-0.004 (0.062)	0.070 (0.060)	0.066 (0.063)	0.066 (0.059)
# of other fields	0.025 (0.062)	0.051 (0.062)	0.065 (0.060)	0.128* (0.068)	0.159** (0.072)	0.176** (0.069)
Passed at least 0.5 EFTS at level 4+ within 10 years in:						
Health		0.048 (0.119)			-0.030 (0.131)	
Education		0.032 (0.094)			0.017 (0.101)	
Management & Commerce		-0.097 (0.091)			0.015 (0.101)	
Society & Culture		-0.155** (0.062)			-0.059 (0.078)	
Creative Arts		0.129 (0.108)			-0.028 (0.103)	
Food, Hospitality & Personal Services		-0.104 (0.095)			-0.128 (0.098)	
# of other fields		-0.128 (0.095)			-0.047 (0.115)	
Passed at least 0.5 EFTS at level 7+ within 10 years in:						
Health		0.449** (0.206)			0.450** (0.221)	
Education		0.076 (0.107)			0.107 (0.115)	
Management & Commerce		0.226 (0.216)			0.054 (0.230)	
Society & Culture		0.178 (0.129)			0.217 (0.140)	
Creative Arts		0.286 (0.279)			0.366 (0.236)	
# of other fields		0.293 (0.277)			0.221 (0.379)	

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	(1)	(2)	(3)	(4)	(5)	(6)
Gained qualification at level 4+ within 10 years in:						
Health			0.152 (0.125)			0.090 (0.130)
Education			0.124 (0.112)			0.072 (0.112)
Management & Commerce			-0.148* (0.076)			-0.013 (0.098)
Society & Culture			-0.157** (0.073)			-0.232*** (0.069)
Creative Arts			-0.027 (0.098)			-0.013 (0.090)
Food, Hospitality & Personal Services			-0.115 (0.088)			-0.163* (0.092)
# of other fields			0.068 (0.103)			0.113 (0.111)
Gained bachelor's degree+ within 10 years in:						
Health			0.344 (0.229)			0.468** (0.217)
Education			-0.028 (0.124)			0.149 (0.125)
Management & Commerce			0.189 (0.235)			0.142 (0.233)
Society & Culture			0.302** (0.151)			0.448*** (0.153)
Creative Arts			0.721*** (0.152)			0.634*** (0.160)
# of other fields			-0.040 (0.261)			-0.043 (0.294)
NCEA level 2 year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Background characteristics	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.088	0.181	0.197	0.115	0.184	0.267
Observations	243	243	243	243	243	243

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 2. 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 7: Non-education characteristics of women who are top savers

Characteristic	Cumulative savings			Annual savings			Students
	% of students with characteristic among:		Odds ratio	% of students with characteristic among:		Odds ratio	
	Non-top savers	Top savers		Non-top savers	Top savers		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Years student had any children:							
Fifth year after NCEA level 2 or earlier	38.5	<11.8	<0.27***	38.5	<11.1	<0.26***	243
Years 6 to 10 after NCEA level 2	51.5	23.5	0.36***	52.3	23.5	0.36***	243
Years 11 to 12 after NCEA level 2	26.2	12.5	0.47*	27.7	<11.1	<0.39**	243
Years of early work experience:							
Any work experience in year of NCEA level 2 or earlier	18.2	37.5	2.13***	18.5	35.3	1.94***	243
Any work experience in years 1 to 5 after NCEA level 2	80.0	>89.5	>1.85**	81.3	>88.9	>1.65**	243
Three+ years of work experience in years 1 to 5	43.9	76.5	3.17***	49.2	56.3	1.25	243
Sectors of work experience in years 1 to 5 after gaining NCEA level 2:							
Central government in at least one year	9.6	18.8	1.73**	9.4	25.0	2.22***	204
Central government in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Other government in at least one year	<12 have characteristic			<12 have characteristic			204
Other government in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Non-profit organisation in at least one year	17.0	<11.8	<0.72	13.2	17.6	1.29	204
Non-profit organisation in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Firm size of work experience in years 1 to 5 after gaining NCEA level 2:							
Small employer (<10 employees) in at least one year	30.8	29.4	0.95	30.2	29.4	0.97	204
Small employer (<10 employees) in at least 3 yrs	10.7	16.7	1.40	9.4	22.2	2.06	126
Medium employer (10-99 employees) in at least 1 yr	51.9	43.8	0.78	53.8	43.8	0.73	204
Medium employer (10-99 employees) in at least 3 yrs	35.7	30.8	0.86	37.5	22.2	0.55	126
Large employer (100+ employees) in at least one year	51.9	58.8	1.24	51.9	56.3	1.14	204
Large employer (100+ employees) in at least 3 yrs	35.7	46.2	1.34	37.5	45.5	1.27	126
Industries of work experience in years 1 to 5 after gaining NCEA level 2:							
Agriculture, Forestry, Fishing in at least one year	<12 have characteristic			<12 have characteristic			204
Agriculture, Forestry, Fishing in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Manufacturing in at least one year	9.6	<11.1	<1.13	9.6	<11.1	<1.13	204
Manufacturing in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Construction in at least one year	<12 have characteristic			<12 have characteristic			204
Construction in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Wholesale Trade in at least one year	<12 have characteristic			<12 have characteristic			204
Wholesale Trade in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Retail Trade in at least one year	26.4	35.3	1.36	25.0	31.3	1.26	204
Retail Trade in at least 3 yrs	17.2	30.8	1.63	19.4	22.2	1.14	126
Accommodation & Food Services in at least one year	25.5	<12.5	<0.50**	26.4	12.5	0.47*	204
Accommodation & Food Services in at least 3 yrs	10.7	<14.3	<1.23	12.5	<18.2	<1.37	126
Transport, Post, Warehousing in at least one year	<12 have characteristic			<12 have characteristic			204
Transport, Post, Warehousing in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Financial & Insurance Services in at least one year	<12 have characteristic			<12 have characteristic			204
Financial & Insurance Services in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Professional, Scientific, Technical Services in at least 1 yr	7.7	<11.1	<1.33	7.7	<11.1	<1.33	204
Professional, Scientific, Technical Services in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Administrative & Support Services in at least one year	5.7	12.5	1.83**	5.7	13.3	1.94**	204
Administrative & Support Services in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Public Administration & Safety in at least one year	<12 have characteristic			<12 have characteristic			204
Public Administration & Safety in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Education & Training in at least one year	21.2	17.6	0.84	19.2	18.8	0.98	204
Education & Training in at least 3 yrs	10.7	<14.3	<1.23	9.4	<18.2	<1.69	126
Health Care & Social Assistance in at least one year	17.3	23.5	1.33	17.0	29.4	1.67*	204
Health Care & Social Assistance in at least 3 yrs	14.3	16.7	1.13	12.5	22.2	1.67	126
Arts & Recreation Services in at least one year	<12 have characteristic			<12 have characteristic			204
Arts & Recreation Services in at least 3 yrs	<12 have characteristic			<12 have characteristic			126
Other industry in at least one year	11.3	12.5	1.09	11.5	<12.5	<1.07	204
Other industry in at least 3 yrs	<12 have characteristic			<12 have characteristic			126

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

Appendix Table 8: Regressions of being a top saver on pathways outside education for women

Dependent variable:	Student is a top cumulative saver			Student is a top annual saver		
	(1)	(2)	(3)	(4)	(5)	(6)
Any children born in year relative to NCEA level 2:						
Year 5 or earlier	-0.080 (0.059)	-0.012 (0.062)	0.006 (0.059)	-0.031 (0.054)	-0.056 (0.059)	-0.022 (0.059)
Years 6 to 10	-0.117* (0.060)	-0.112* (0.059)	-0.089 (0.057)	-0.135** (0.052)	-0.122** (0.051)	-0.112** (0.053)
Years 11 and 12	-0.053 (0.068)	-0.055 (0.067)	-0.072 (0.065)	-0.112* (0.058)	-0.103* (0.061)	-0.116* (0.062)
Overseas at least 6 months in year relative to NCEA level 2:						
Any year 3 to 5	0.042 (0.125)	0.045 (0.116)	-0.002 (0.112)	-0.036 (0.114)	-0.082 (0.127)	-0.090 (0.114)
Any year 6 to 10	0.015 (0.123)	0.048 (0.116)	0.088 (0.109)	0.143 (0.116)	0.127 (0.119)	0.174 (0.113)
Year 11 or 12	0.277* (0.154)	0.245 (0.152)	0.190 (0.141)	0.067 (0.167)	0.143 (0.169)	0.040 (0.168)
Years of work experience in years 1 to 5 after NCEA level 1 (omitted category: 0):						
1		0.004 (0.096)	0.057 (0.095)		0.080 (0.112)	0.051 (0.114)
2		0.044 (0.081)	0.120 (0.084)		0.111 (0.096)	0.082 (0.102)
3		0.083 (0.099)	0.174* (0.100)		0.139 (0.107)	0.112 (0.109)
4		0.259** (0.107)	0.328*** (0.104)		0.132 (0.118)	0.084 (0.106)
5		0.316*** (0.109)	0.398*** (0.112)		0.073 (0.107)	0.031 (0.107)
Any work experience in years 1 to 5 in:						
Central government		0.180 (0.112)			0.231** (0.099)	
Medium-sized firm (10-99 employees)		-0.058 (0.072)			-0.115* (0.067)	
Large firm (100+ employees)		-0.024 (0.066)			-0.037 (0.064)	
Manufacturing			-0.152 (0.105)			-0.049 (0.120)
Retail Trade			-0.032 (0.078)			0.048 (0.080)
Accommodation & Food Services			-0.151** (0.072)			-0.106 (0.075)
Professional, Scientific, and Technical Services			-0.094 (0.147)			-0.024 (0.122)
Administrative & Support Services			0.182 (0.128)			0.216 (0.133)
Education & Training			-0.144* (0.082)			-0.066 (0.088)
Health Care & Social Assistance			-0.080 (0.087)			0.025 (0.099)
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	0.259	0.340	0.365	0.295	0.326	0.327
Observations	243	243	243	243	243	243

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 6. 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.

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