

Adults' financial literacy activities

Survey of Adult Skills



**Author**

Paul Satherley

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Executive Summary

The Survey of Adult Skills measured the skills of New Zealand adults in literacy, numeracy and problem solving in technology rich environments. It is part of the OECD's Programme for the International Assessment of Adult Competencies (PIAAC). Its background questionnaire included questions on frequency of participating in financial literacy activities in both everyday life and work contexts. The activities were:

- » read bills, invoices, bank statements or other financial statements
- » calculate prices, costs or budgets
- » conduct transactions on the internet, for example buying or selling products or services, or banking.

The report uses three frequency categories: at least once a week; less than once a week but at least once a month; and less than once a month.

The Survey of Adult Skills findings about financial literacy activities in everyday life show that being employed, being female, and being moderately highly skilled are all positively and separately associated with frequently doing financial literacy activities.

Women are more likely than men to undertake financial literacy activities, even after controlling for age (except young people – 16-24 year olds), family circumstances and employment.

Infrequent participation in everyday financial literacy activities is associated with low skills, particularly in numeracy. Moderately frequent participation is associated with high skills, and frequent participation slightly lower skills. This pattern is strong for numeracy skills in relation to calculating prices and costs. Women, on average, have lower numeracy skills than men. Moreover, women who calculate prices and costs frequently have very significantly lower numeracy skills than men who do this frequently.

People calculating prices, costs and budgets more often also appears to be associated with more limited earnings, but is less likely if they have low education.

Undertaking internet transactions is associated with high earnings and high education.

Māori, Pasifika and Asians are more likely to calculate prices and costs in everyday life than New Zealand Europeans. Māori and Pasifika are less likely to conduct internet transactions than New Zealand Europeans and Asians.

Financial literacy activities for work follow different patterns from everyday life. This is expected because only some people's work requires them to read bills and invoices, calculate prices or conduct transactions on the internet, whereas these activities are potentially in scope for anyone's everyday life.

The key factors influencing people's work financial literacy are linked to the work itself either directly or indirectly. For example, managers, clerks and administrators, and people working in financial and insurance services are the most likely to participate in financial literacy activities.

Broadly, people with higher qualifications and higher salaries report more frequent financial literacy activity in their work. The relationship with earnings is stronger than that with qualifications, where people with post-school qualifications at less than degree level participate in financial literacy activity just as often as those with degrees. This is consistent with (a) the finding that employed people with the highest skills, on average, do financial literacy activities with only moderate frequency, and (b) that high skilled and highly qualified occupations (such as professionals and technicians) are less likely to undertake financial literacy activities frequently than managers or clerical workers.



Introduction

What is the Survey of Adult Skills?

The Survey of Adult Skills measured the skills of New Zealand adults in literacy, numeracy and problem solving in technology rich environments. It is part of the OECD's Programme for the International Assessment of Adult Competencies (PIAAC). The survey has been run in 32 other countries, enabling extensive international comparisons.

Skills are becoming more important in the modern workplace and in everyday life. Higher skills are associated with better jobs, higher income and greater well-being. A key purpose of the Survey of Adult Skills is to help answer questions related to skills in New Zealand, such as:

- » what are the characteristics of the most skilled and least skilled people?
- » how people use their skills at work and at home?
- » what areas should we focus on to improve the skills of New Zealand adults?

The survey was undertaken in 2014 with a representative sample of 16-65 year olds living in New Zealand households. In total, 6,177 people were surveyed. It was conducted in English and included an extensive background questionnaire covering education, employment, and the use of skills for work and in everyday life. The respondents were then tested on their skills in literacy, numeracy and problem solving in technology rich environments.

The survey measures skills on continuous scales which show the range of abilities from being able to deal with simple through to more complex tasks.

Financial literacy in the Survey of Adult Skills

The background questionnaire includes questions on participation in literacy, numeracy and IT-related activities – one block of questions applies to activities for work, and the other to everyday life.

Three financial literacy activities are included, one each in literacy, numeracy and IT. All respondents are asked:

In everyday life [outside your work], how often do you usually:

- » *read bills, invoices, bank statements or other financial statements?*
- » *calculate prices, costs or budgets?*
- » *conduct transactions on the internet, for example buying or selling products or services, or banking?*

Those 16-65 year olds currently working or who had paid work in the last 12 months are asked the following:

In your job, how often do you usually:


- » *read bills, invoices, bank statements or other financial statements?*
- » *calculate prices, costs or budgets?*
- » *conduct transactions on the internet, for example buying or selling products or services, or banking?*

For all six questions, the five frequency response options are:

- » *never*
- » *less than once a month*
- » *less than once a week but at least once a month*
- » *at least once a week but not every day*
- » *every day.*

In this report the five frequency options are grouped into three:

- » *less than once a month*
- » *less than once a week but at least once a month*
- » *at least once a week.*



No information is collected on the difficulty or complexity of respondents' financial literacy activities, or the knowledge or skill they require. This report's findings are about how often people undertake the specific activity without inferences about difficulty or complexity.

This report looks at the relationships between (a) how often people participate in financial literacy activities (in both work and everyday life contexts) and (b) a range of demographic, education and work-related variables. It also looks at the relationships between financial literacy participation and literacy, numeracy and problem solving skill. This provides new understandings of the skill-practice relationship.

Analysing the frequency of conducting internet transactions

The sections of the questionnaire that ask about IT-related activities are filtered so that respondents who have not used a computer (for work or in everyday life respectively) do not answer them. Most of the analysis in this report assigns people who have never used a computer to a frequency of 'less than once a month' for conducting internet transactions. For most purposes, this is a more valid indicator of the overall frequency of participating in IT-related activities, than calculating proportions from the population that do use a computer. This applies to IT activities both in everyday life and for work.

Measuring skills in the Survey of Adult Skills

The Survey of Adult Skills measures literacy, numeracy and problem solving skills.

Literacy is the ability to understand, evaluate, use and engage with written texts to get everyday things done. The Survey of Adult Skills only measures reading literacy; there is no writing component. Some skills required are:

- » understanding of written words and sentences
- » comprehension of text in charts and diagrams
- » comprehension, interpretation and evaluation of complex texts.

Numeracy is the ability to use, interpret and communicate mathematical information and ideas in order to engage in and manage the mathematical demands of a range of situations. Some aspects that people are required to understand are:

- » quantity
- » dimension and shapes
- » patterns
- » data and chance
- » visual displays.

Problem solving in technology-rich environments is the ability to use computers to acquire and evaluate information, communicate with others and perform practical tasks. All tasks are completed on a computer that simulates real-world tasks with standard applications. Some skills required are:

- » completing tasks using different everyday computer applications
- » finding specific information in everyday computer applications
- » using common functions to complete tasks in everyday computer applications.

The problem solving assessment used a laptop computer with a mouse and keyboard and not, for example, a touchscreen phone or tablet. On the other hand, the filter question where respondents are asked whether they have ever used a computer does include cell-phones and other devices that connect to the internet.

For more information on the Survey of Adult Skills and its New Zealand and international findings, see Ministry of Education & Ministry of Business, Innovation and Employment (2016) and OECD (2016b).

Statistical significance

This report considers differences over time, or between groups, statistically significant where there is at least 95% certainty that the differences are not due to chance alone. In the bar graphs, the 90% confidence intervals are shown. Where these do not overlap, there is at least 95% certainty that the difference is not due to chance alone.



Financial literacy in PISA and in the OECD's International Network on Financial Education

New Zealand participates in the OECD's three-yearly Programme for International Student Assessment (PISA). This is a study of 15 year olds' skills in reading, mathematics and science. From 2012, the OECD offered financial literacy as an international assessment option in PISA, and New Zealand took part then. PISA 2012 found that New Zealand 15 year old students that were proficient in financial literacy were also likely to be proficient in reading and mathematics. See Ministry of Education (2014) and OECD (2014).

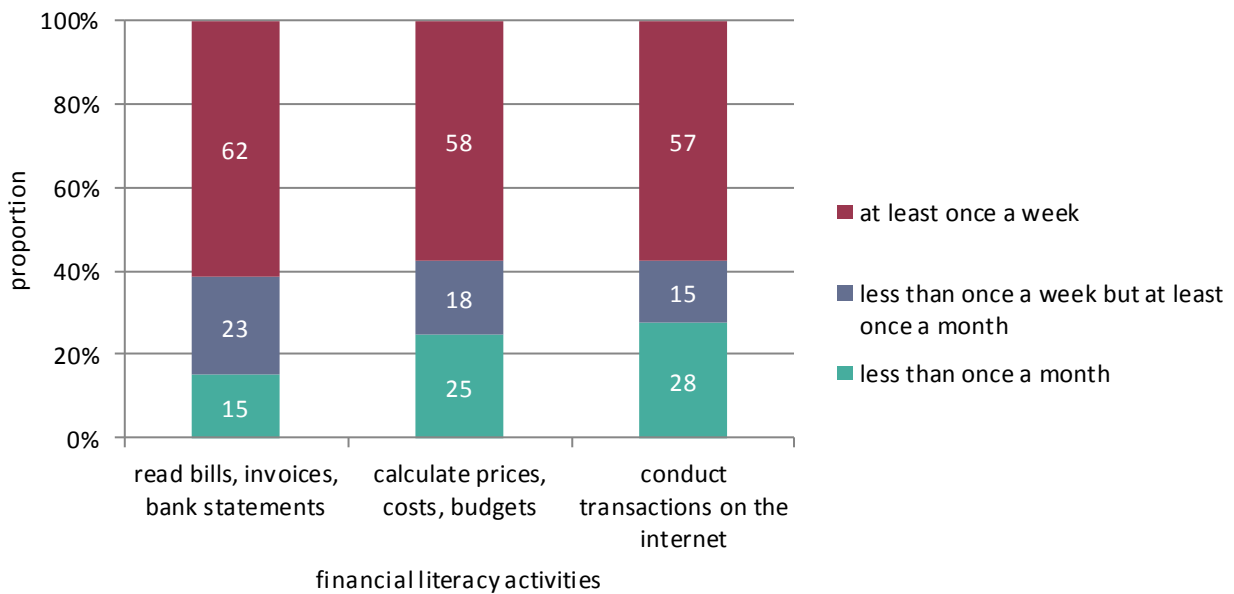
In 2016, the OECD published a report on findings from a study of the financial literacy competencies of adult populations in 30 countries including New Zealand. The study measured financial literacy by assessing financial knowledge, attitudes and behaviour. The International Network on Financial Education (INFE) developed the study's assessment method. The behaviour questions include whether people have a household budget, whether they actively save, whether they avoid borrowing, and to what extent they consider their choices of financial products. See OECD (2016a).

Financial literacy findings from the Survey of Adult Skills, from PISA and from the OECD's INFE therefore measure different but complementary aspects of financial literacy. The Survey of Adult Skills provides measures of the *frequency* of adults' financial literacy activity. This compares with (a) PISA's measure of 15 year old students' financial literacy skill, together with contextual information including whether students had bank accounts and their different sources of money, and with (b) the INFE's indicators of adults' financial knowledge, attitudes and behaviours.

How often do people undertake financial literacy activities in everyday life?

About 60 percent of 16-65 year olds participate in any one of the three financial literacy activities frequently (at least once a week). The proportions participating less frequently are more variable. A quarter of adults read bills, invoices or bank statements moderately often (between monthly and weekly) compared with 15 percent who conduct internet transactions moderately often. And 15 percent read bills or invoices seldom or never compared with 28 percent who seldom or never conduct internet transactions. See Figure 1.

Figure 1: How often adults undertake financial literacy activities in everyday life

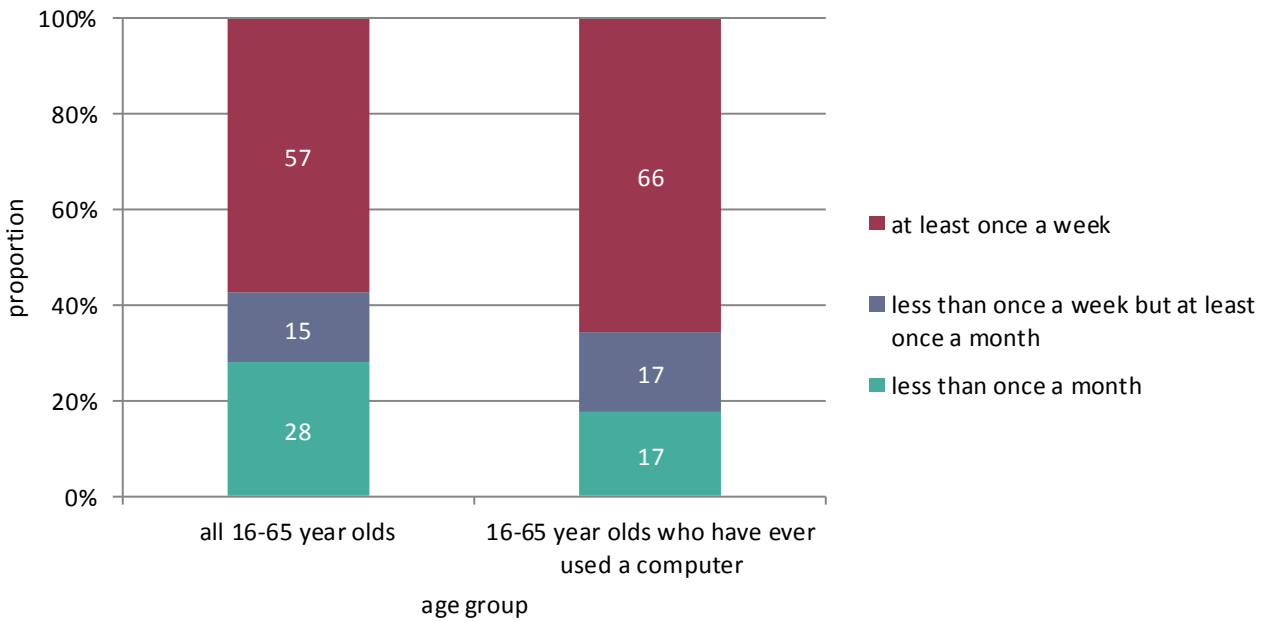


In Figure 1, the proportion for those who conducted internet transactions less than once a month includes those who do not use a computer¹ at all in everyday life and therefore were not asked the question. If these people are not included and the proportions are based on those who do use a computer, the figures adjust to: 66 percent, 17 percent, 17 percent (from 57 percent, 15 percent, 28 percent). See Figure 2.

¹ This includes tablets, cell-phones or other devices that can connect to the internet, receive or send emails, process data or text etc.



Figure 2: How often all adults, and adults who have ever used a computer conduct internet transactions in everyday life



Age

Different age groups have different patterns of how often they undertake financial literacy activities, with different age profiles depending on the activity. Overall, 16-24 year olds read bills, invoices and bank statements less frequently than older age groups. Perhaps this relates to growing financial responsibilities beyond the mid-20s with on average both higher incomes and higher outgoings. See Figure 3.

Those aged over 40 years calculate prices, costs and budgets less often, on average, than those aged under 40 years. This pattern, contrasting with reading bills, invoices and bank statements, may relate to easing pressure to carefully manage money with increasing income. See Figure 4.

Most 16-65 year olds (87 percent) use computers in everyday life for any purpose, though 55-65 year olds are less likely to than younger age groups. See Figure 5.

Those aged 25-39 years are the most likely to conduct transactions on the internet, with both those younger and older than this age group less likely to, particularly those aged 55-65 years. See Figure 6.



Figure 3: How often adults read bills, invoices and bank statements in everyday life, by age group

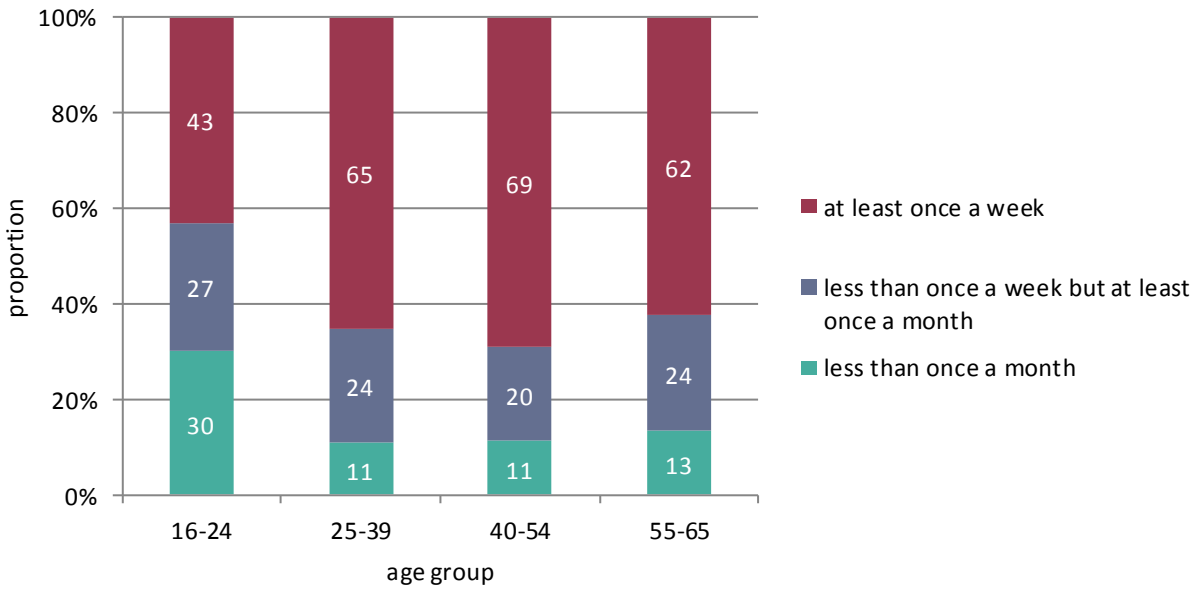


Figure 4: How often adults calculate prices, costs and budgets in everyday life, by age group

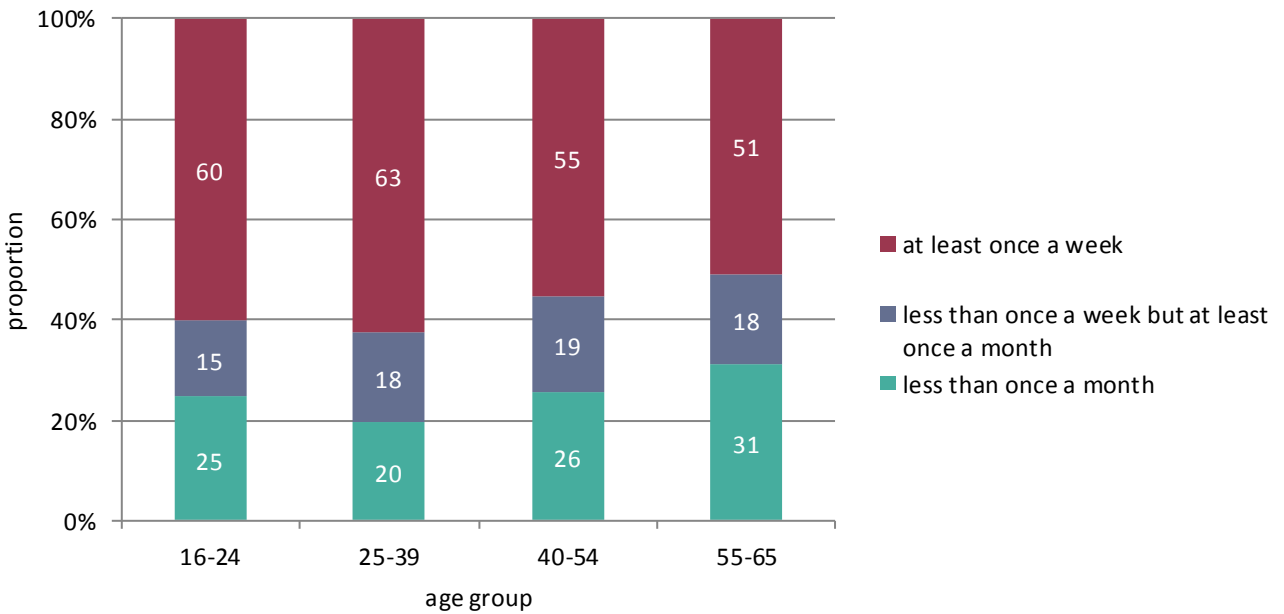




Figure 5: Proportions of adults who use a computer in everyday life by age group

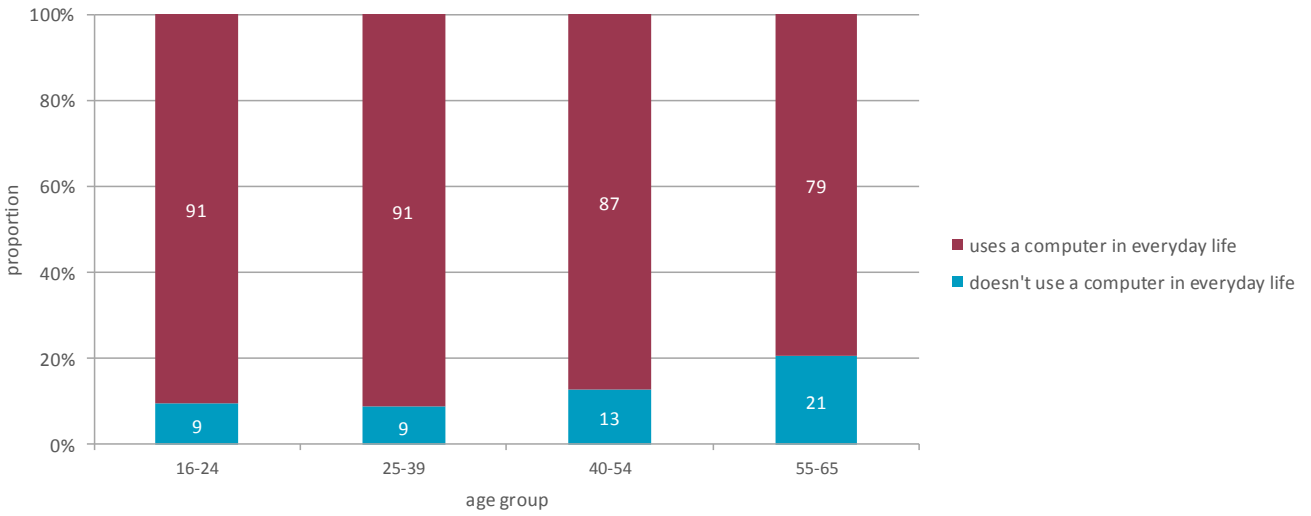
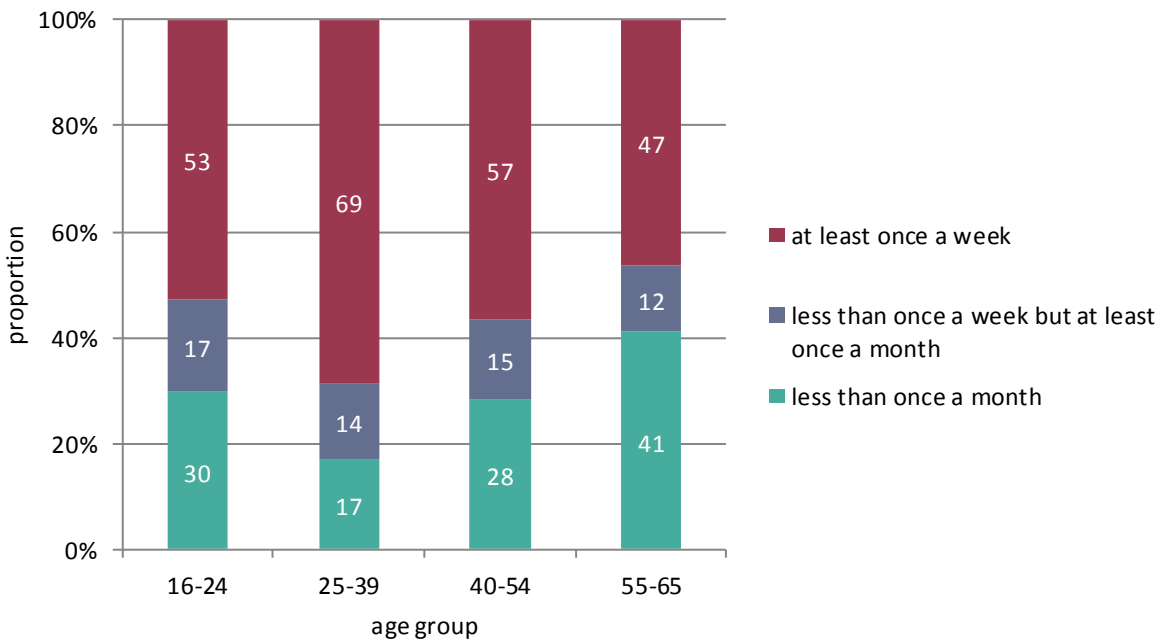


Figure 6: How often adults conduct transactions on the internet in everyday life, by age group



Gender

In general, women report more frequent financial activities than men. The strongest gender difference is for calculating prices, costs and budgets at least weekly which shows a very significant difference (12 percentage points). See Figure 7. This is a numeracy activity but New Zealand women’s numeracy skill is significantly less on average than men’s – women’s average numeracy score is 265 compared to men’s 278². However, the Survey of Adult Skills does not tell us about the difficulty or complexity of the activities. The apparent gender-related mismatch between skill and practice is explored further in Figure 29 on page 24.

The OECD/INFE study of financial literacy competencies has a parallel finding. New Zealand men, on average, have stronger *financial knowledge* than New Zealand women, but are less likely to participate in *financial behaviours*. See OECD (2016a, pp. 31-32, 45).

On average, women are slightly more likely to use a computer in everyday life than men. Overall, 89 percent of women compared to 86 percent of men use a computer in everyday life. But the gender difference applies solely to those aged over 40, and is strongest for those aged 55-65 years, where 84 percent of women compared to 75 percent of men use a computer in everyday life. See Figure 8.

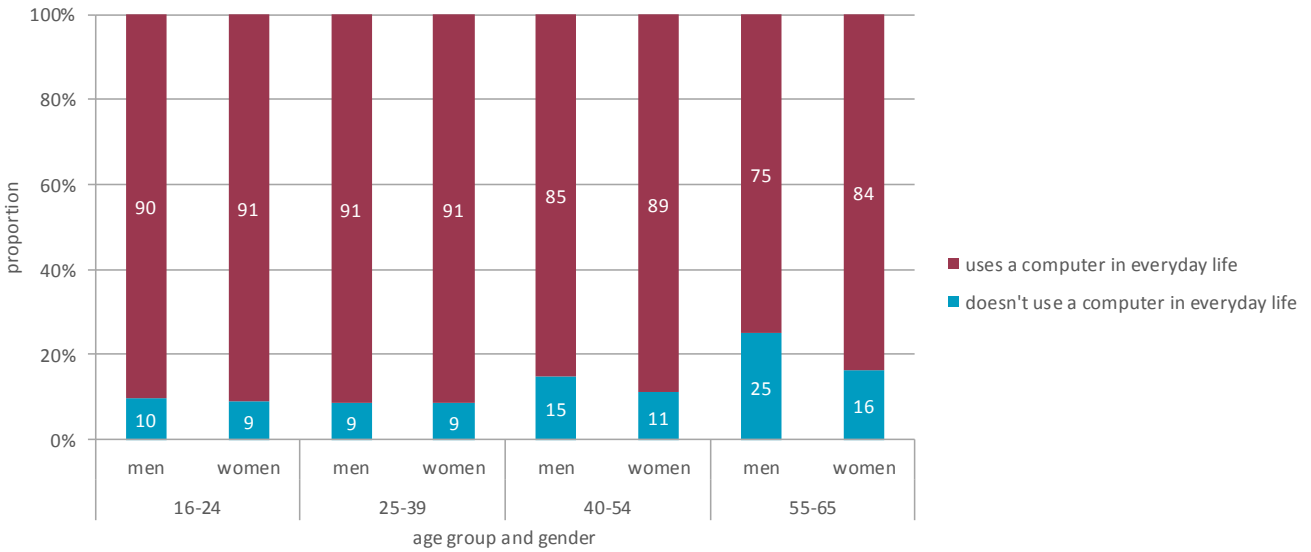
Figure 7: How often adults undertake financial literacy activities in everyday life, by gender



² The Survey of Adult Skills shows no gender difference for literacy or problem solving skills.



Figure 8: Proportions of adults who use a computer in everyday life by age group and gender



The rest of this section looks in more depth at gender differences in the frequency of calculating prices, cost and budgets in terms of work, earnings³ and family circumstances.

A gender-age analysis shows that no gender difference exists for 16-24 year olds in how often they calculate price and costs. However, the strongly gendered pattern of women doing this more often than men applies for the older age groups. Significant differences apply for 25-39 and 40-54 year old men and women, and close to significant differences for 55-65 year olds. See Figure 9.

Employed people are more likely to calculate prices and costs than either the unemployed or those not in the labour force⁴. And the gender difference pattern of women calculating prices and costs more often than men applies to all three labour force status categories. If we analyse the population of *employed* men and women by their earnings, we see that the higher people's earnings the less often they calculate prices and costs. The gender differences are greater for high earning people (quintiles 4 or 5). Women with lower earnings also calculate prices and costs more often than men but the differences are not statistically significant. See Figures 10-11.

The Survey of Adult Skills data can give a view of how everyday life financial literacy activity is shared between spouses or partners. Partnered women are just as likely to calculate prices and costs as single women. In contrast, partnered men are less likely to frequently calculate prices and costs than single men. Accordingly, we see that partnered women are much more likely to calculate prices and costs than partnered men. Everyday financial literacy activity is a type of unpaid household work. Evidently, the sharing of this between couples is significantly gendered along with much other unpaid household work. See Figure 12. The 2009/10 Time Use Survey's findings on participation rates in the activity *Financial budgeting and sale of household goods* confirm this. On an average day, one percent of males and three percent of females reported participating in this activity.⁵

For partnered adults, we see a stronger gender difference for frequency of calculating prices and costs depending on whether the household includes children. Partnered women whose household includes children are much more likely to calculate prices and costs frequently than men in the same living situation; 67 percent of women compared with 49 percent of men. On the other hand, partnered men's frequency of calculating prices and costs appears unaffected by whether their household includes children or not. See Figure 13.

The final gender-related analysis in this subsection looks at patterns of how often men and women calculate prices and costs in relation to combinations of whether the respondent and their partner are working or not. For couples where both are working the gender difference is significant. The difference is greater still where the man is working and the woman isn't – 74 percent of women calculate prices and costs frequently compared to 53 percent of men. Not enough sample size

³ The Survey of Adult Skills collects before-tax earnings on an individual (not household) basis for both employees and those self-employed.

⁴ Employed people are either employees or are self-employed. Unemployed people are not working, but are actively seeking work and available for work. Those not in the labour force are those neither employed nor unemployed.

⁵ Statistics New Zealand (2011)



exists to provide reliable estimates for couples where men are not working but their partner is, and couples where neither are working. See Figure 14.

Figure 9: How often adults calculate prices, costs and budgets in everyday life, by age group and gender

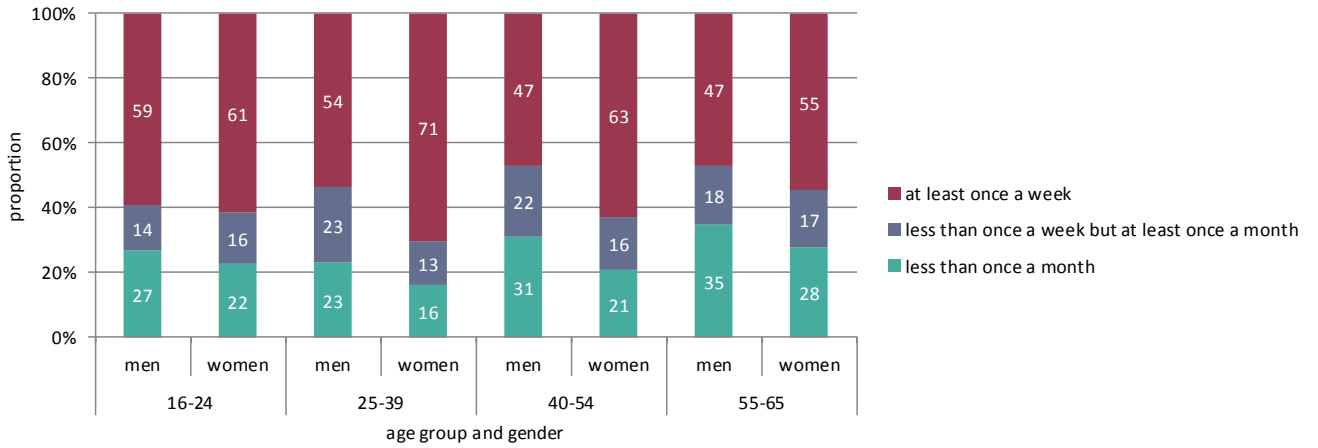


Figure 10: How often adults calculate prices, costs and budgets in everyday life, by labour force status and gender

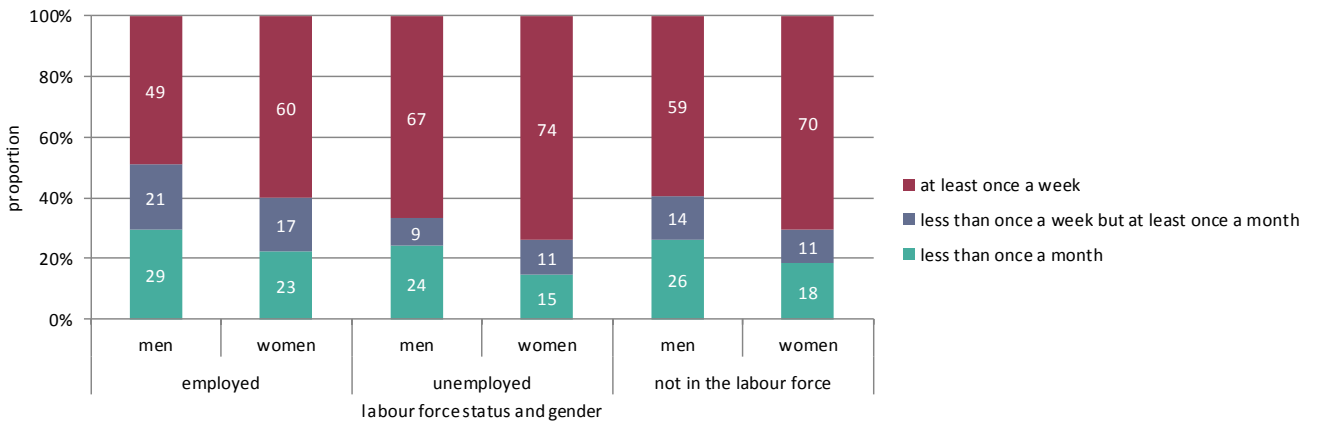




Figure 11: How often employed (employees or self-employed) adults calculate prices, costs and budgets in everyday life, by earnings quintile⁶ and gender

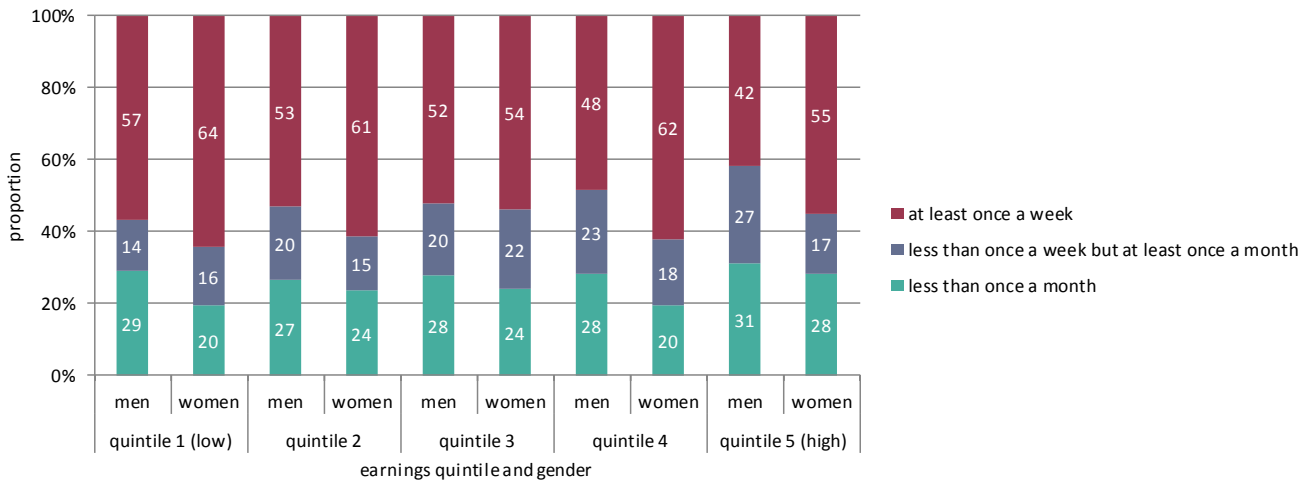
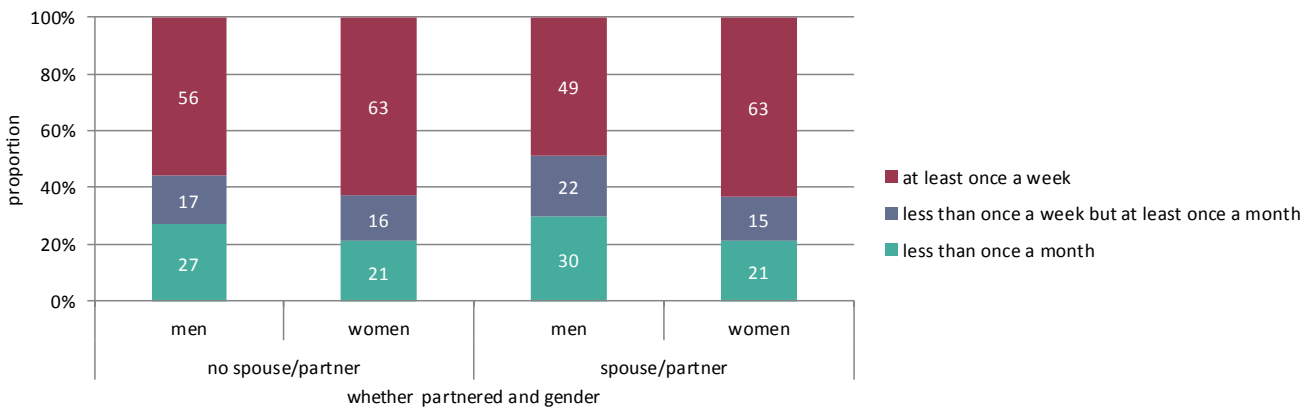


Figure 12: How often adults calculate prices, costs and budgets in everyday life, by whether partnered⁷ and gender



⁶ Self-employed people who report zero earnings are not included in the graph because of small sample sizes.

⁷ The Survey of Adult Skills data does not identify if respondents have an opposite-sex or same-sex partner.



Figure 13: How often *partnered* adults calculate prices, costs and budgets in everyday life, by whether children live in household and gender

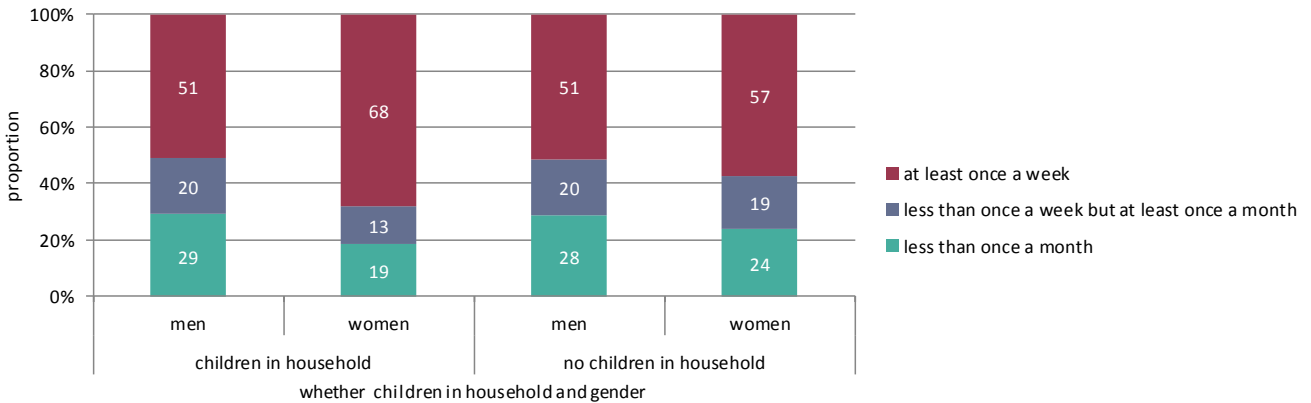
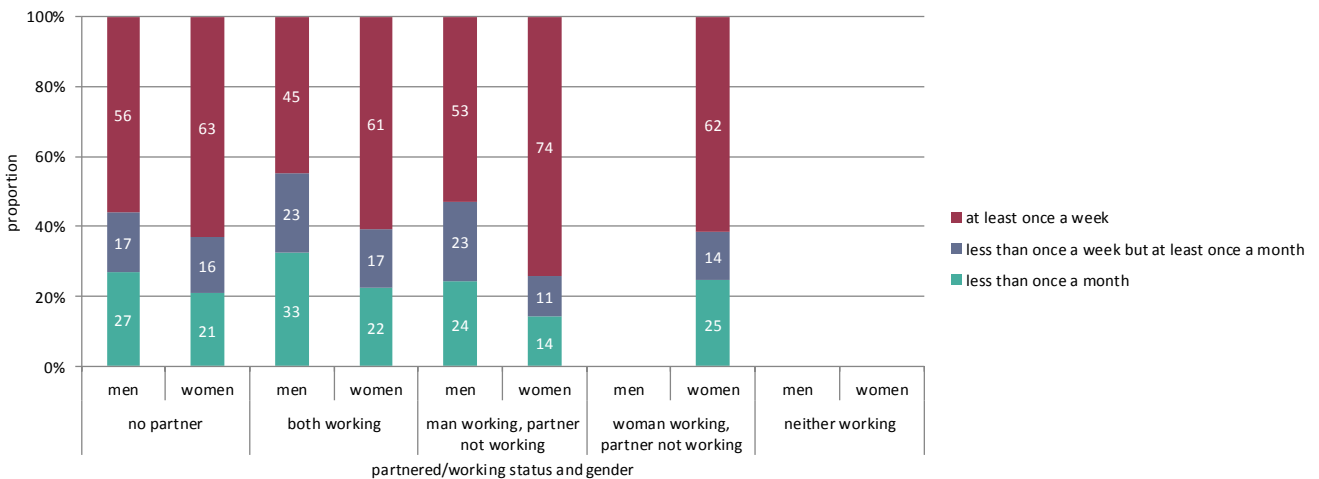


Figure 14: How often adults calculate prices, costs and budgets in everyday life, by whether self/partner are working and gender⁸



Ethnic group

We see no difference across ethnic groups⁹ for how often people read bills, invoice and bank statements. This contrasts with calculating prices, costs and budgets, and with conducting transactions on the internet. New Zealand Europeans are the least likely to calculate prices, costs and budgets. This is consistent with the findings that (a) the higher employed people's earnings the less likely they are to calculate prices and costs frequently, and (b) average earnings of Māori and Pasifika are less than New Zealand Europeans¹⁰.

New Zealand Europeans and Asians are more likely to conduct transactions on the internet than Māori and Pasifika. This in turn is consistent with the finding that Māori and Pasifika are more likely to have lower qualifications than New Zealand Europeans or Asians¹¹.

⁸ This graph does not include data for (a) men who are not working but their partner is and (b) couples where neither is working. The data is unreliable because of small sample size. For survey respondents, two categories (unemployed and not in the labour force) combine to generate 'not working'. For partners, the 'not working' category combines several categories (unemployed, retired, permanently disabled, domestic tasks/caregiving).

⁹ Respondents could report more than one ethnic group and they are counted in each category they report.

¹⁰ Statistics New Zealand (2016)

¹¹ Ministry of Education (2017)



Three smaller ethnic groups are presented in the graphs: Samoan, Indian and Chinese. But no significant differences show up between them and total Pasifika and total Asian, respectively. See Figures 15-17.

Figure 15: How often adults read bills, invoices and bank statements in everyday life, by ethnic group

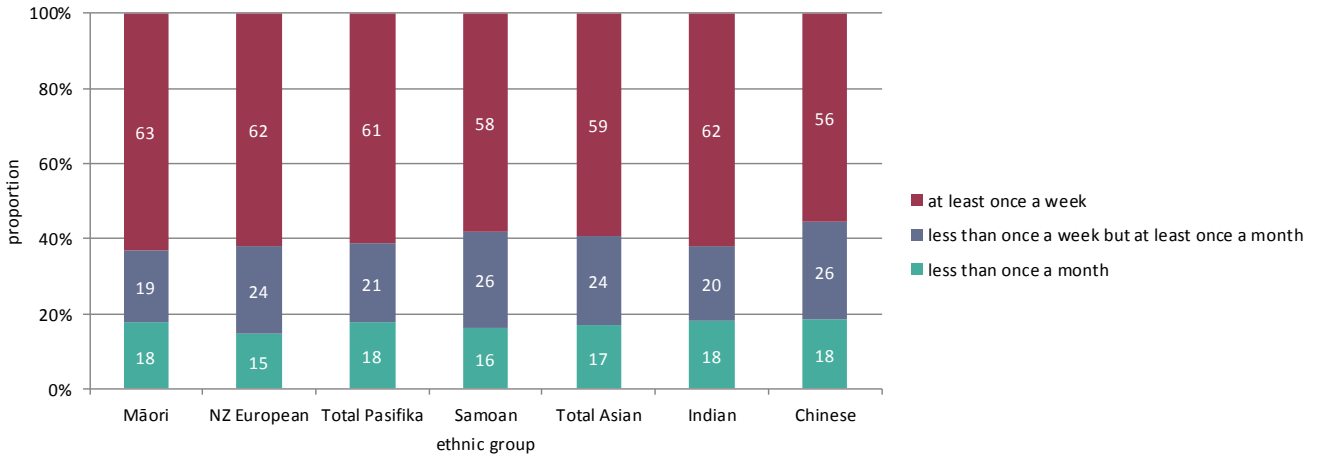


Figure 16: How often adults calculate prices, costs and budgets in everyday life, by ethnic group

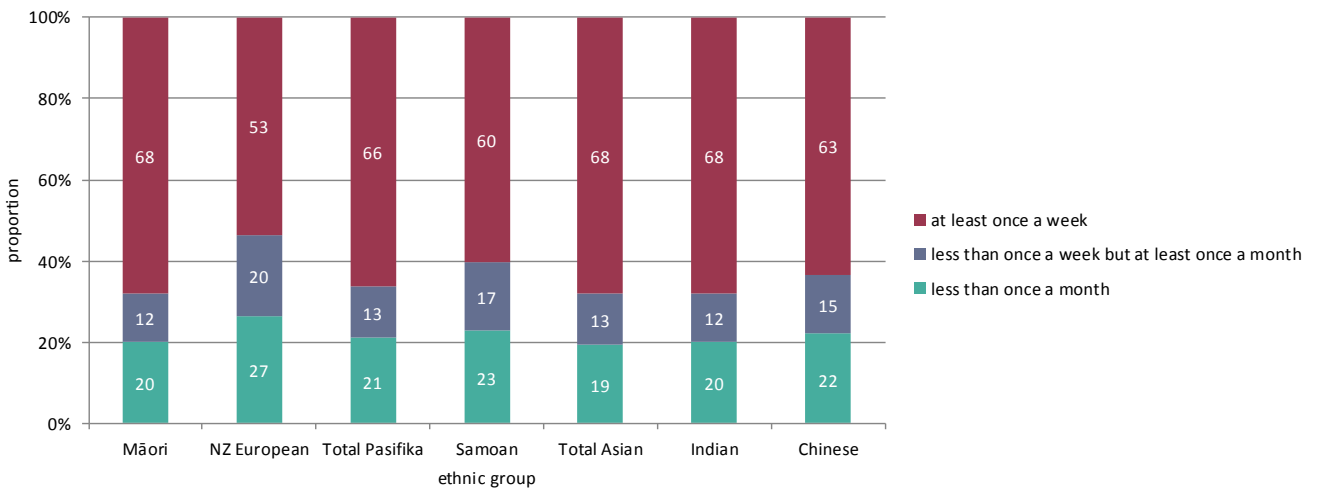
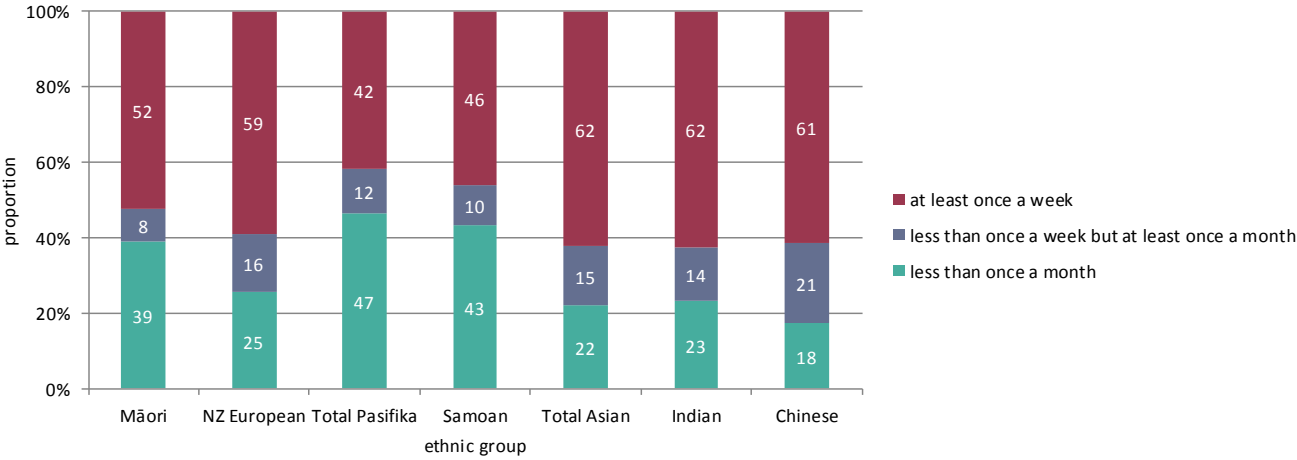




Figure 17: How often adults conduct transactions on the internet in everyday life, by ethnic group



Labour force status

When we analyse frequency of financial literacy activities in everyday life by labour force status a clear pattern emerges of employed people participating significantly more often than those unemployed or those not in the labour force. Nearly half of those not in the labour force conduct internet transactions less than once a month. See Figure 18. Also see Figure 10 which analyses by gender as well as labour force status.

Employed people are more likely than the unemployed or those not in the labour force to use a computer in everyday life for any purpose. See Figure 19.

Figure 18: How often adults undertake financial literacy activities in everyday life, by labour force status

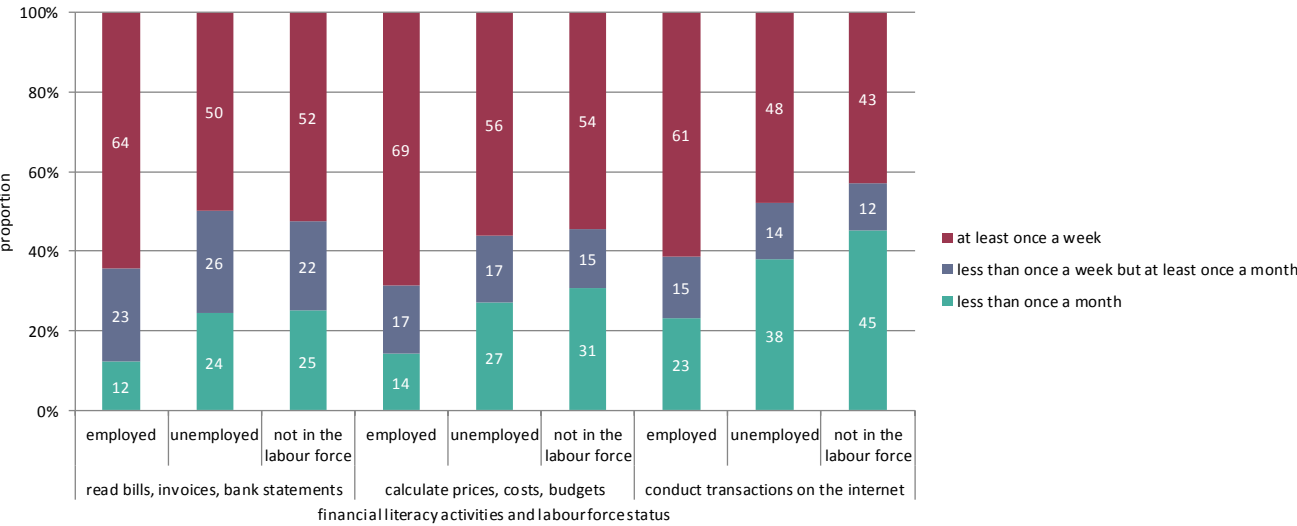
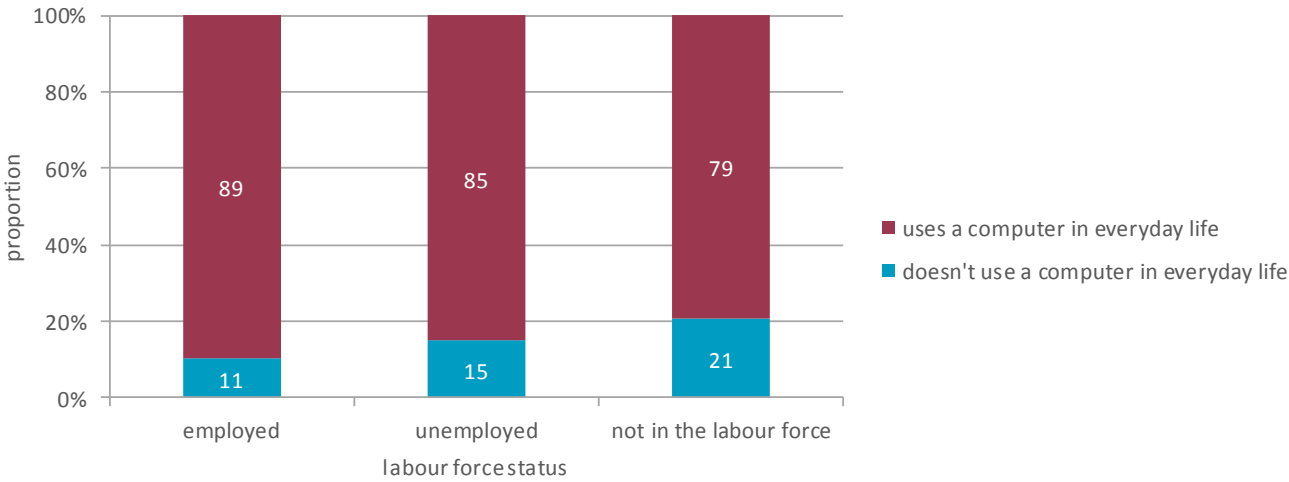




Figure 19: Proportions of adults who use a computer in everyday life by labour force status



If we look at employed people according to their earnings, we get a further picture of associations between everyday financial literacy activity and a socio-economic indicator. We see different patterns for different financial literacy activities. Higher earners read bills and invoices more often than low earners, with a wide range of mid-earners having an intermediate pattern. We see a clear trend where the higher people's earnings, the less often they calculate prices and costs. Higher earners undertake internet transactions more often than mid and low earners. See Figures 20-22.

Figure 20: How often employed adults read bills, invoices and bank statements in everyday life, by earnings quintile

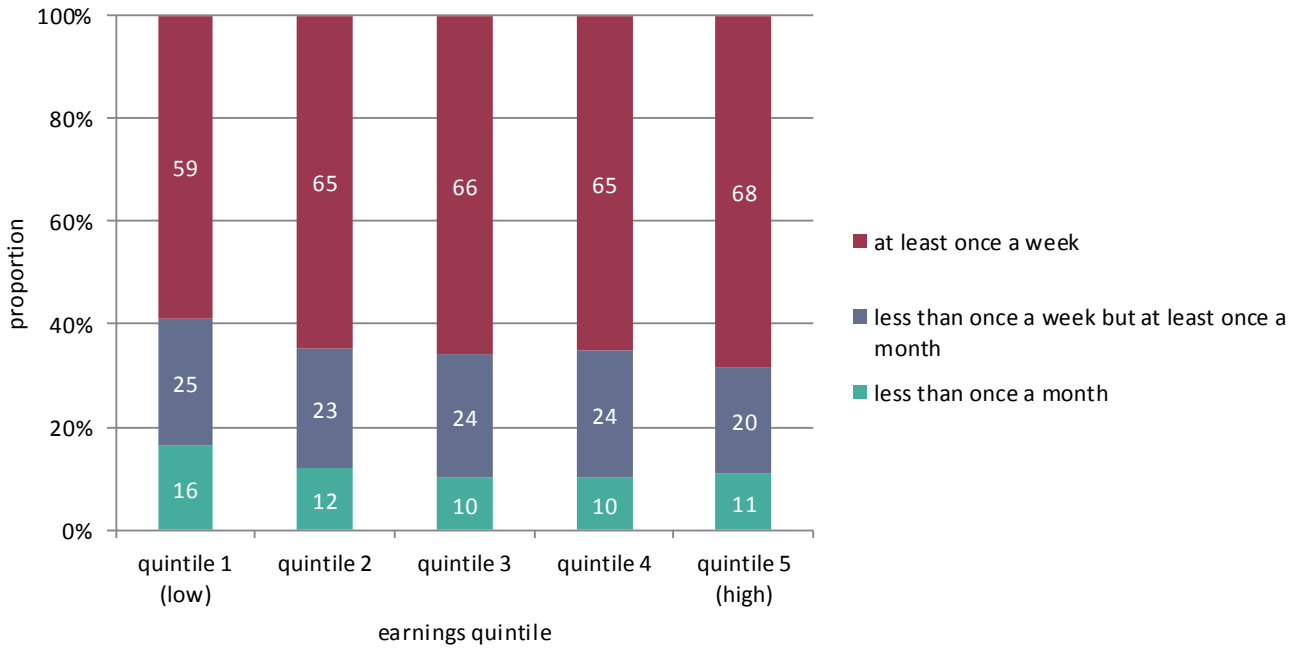




Figure 21: How often employed adults calculate prices, costs and budgets in everyday life, by earnings quintile

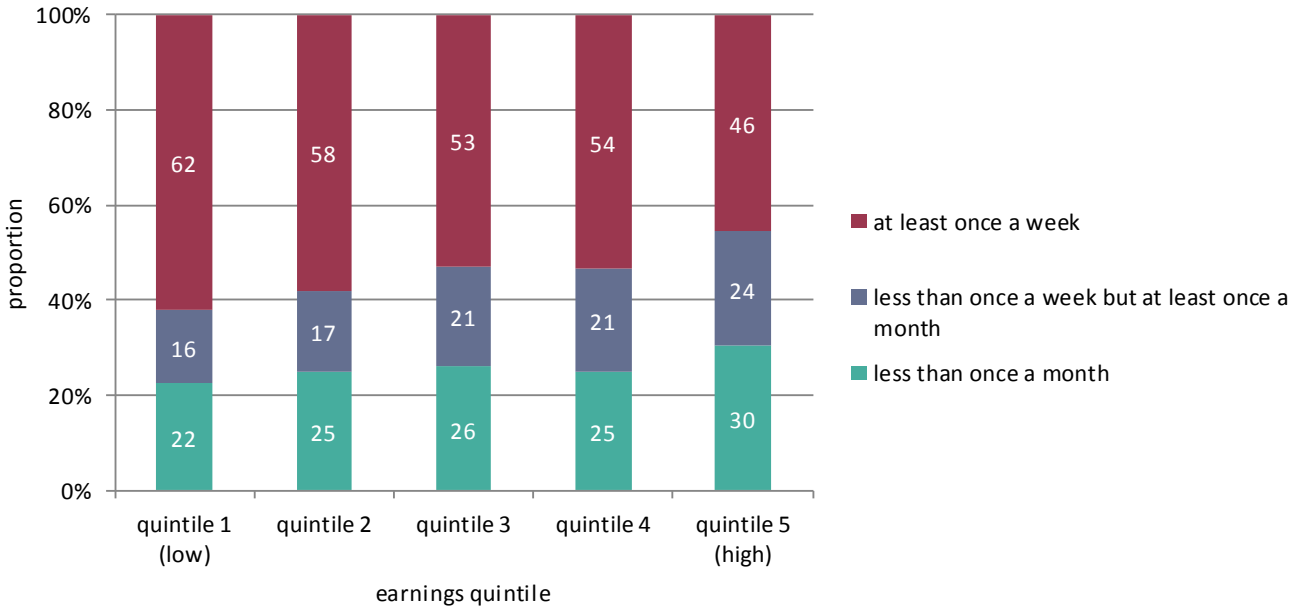
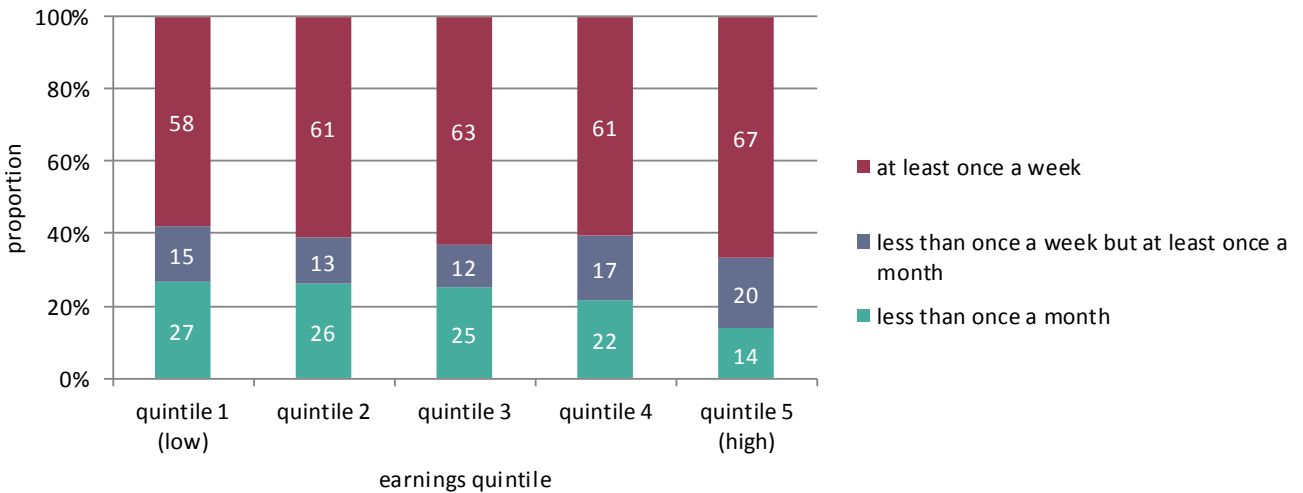


Figure 22: How often employed adults conduct transactions on the internet in everyday life, by earnings quintile



Highest qualification

People with any post-school qualifications read bills and invoices more often than those with only a school education level. See Figure 23. How often people calculate prices and costs has little association with qualification, though people with degrees or higher qualifications seem a little more likely to do this often compared to those with no qualifications. See Figure 24. However, the association is strong for conducting internet transactions. Nearly 60 percent of those with no formal qualifications conduct internet transactions less than monthly compared with 12 percent of those with a degree or higher. See Figure 25.



Figure 23: How often adults read bills, invoices and bank statements in everyday life, by highest qualification

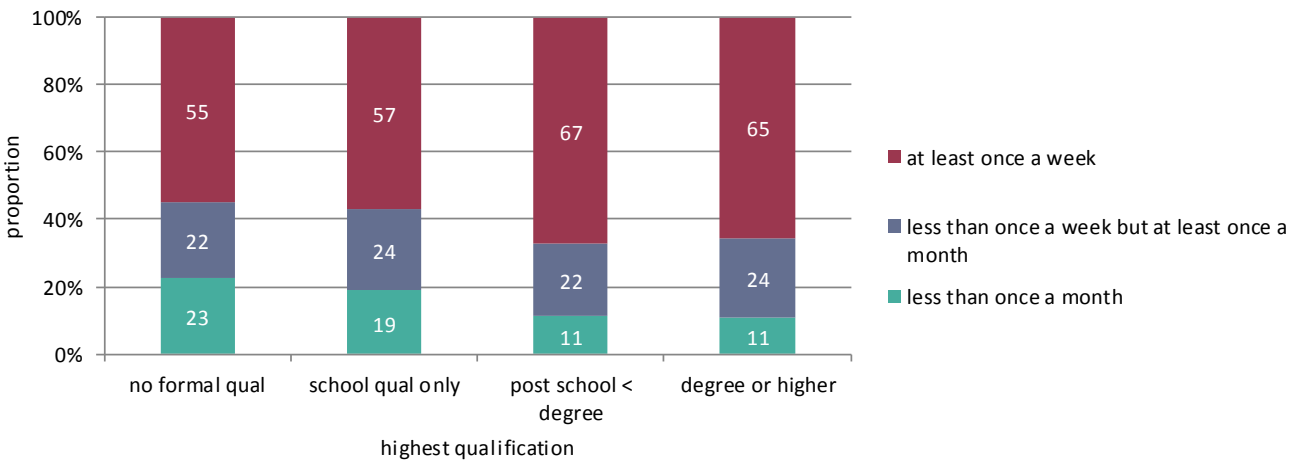


Figure 24: How often adults calculate prices, costs and budgets in everyday life, by highest qualification

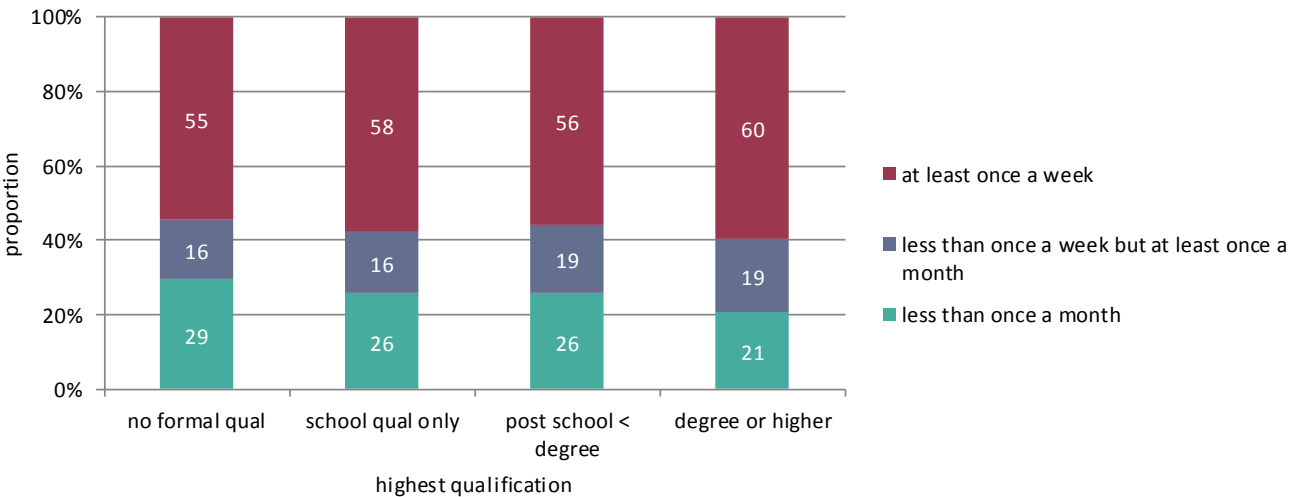
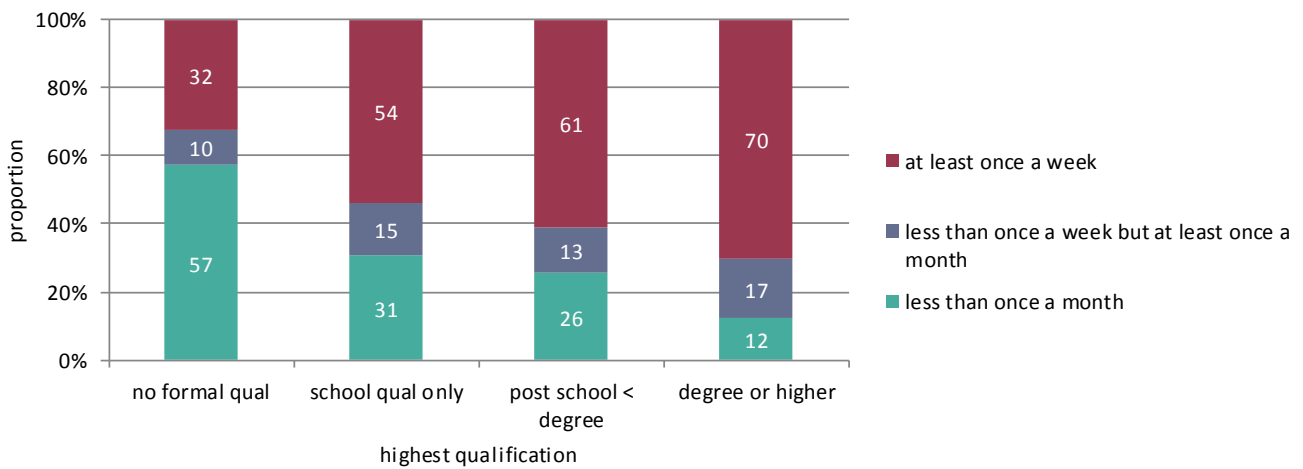




Figure 25: How often adults conduct transactions on the internet in everyday life, by highest qualification



Skills

We turn now to looking at the relationship between the frequency of financial literacy activities in everyday life and skill as measured in: literacy, numeracy, and problem solving in technology rich environments. See Figures 26-30.

For all three financial literacy activities, infrequent participation is associated with significantly lower skills particularly for numeracy. However, frequent participation is associated with slightly lower skills (but mostly not significantly) than moderately frequent participation. Interestingly, those who calculate prices, costs and budgets frequently have significantly lower numeracy skill than those who do this moderately frequently. Apparently, people with strong skills are able to meet their everyday financial information needs with moderate, rather than frequent, participation in these activities.

Figure 27 looks in more detail at the relationship between frequency of reading bills and invoices and skill by analysing across the full five frequency categories. The figure confirms that monthly to weekly participation is associated with the highest skills, and that both more and less frequent participation is associated with lower skills, sometimes significantly lower. Never participating is associated with very low skills especially in numeracy.

Figure 29 looks at the numeracy skill dimension of the finding that, on average, women calculate prices and costs more frequently than men do. We see a significant 16 score point difference between the average numeracy scores of the men and women who frequently calculate prices and costs. However, the data does not tell us if the difficulty or complexity of prices and costs calculations differ according to gender.

This skill/frequency analysis bases the frequency of conducting internet transactions on the population who do use a computer in everyday life. This is to better match how the problem solving in technology rich environments is measured – derived only for those who have used a computer and pass a simple computer-use test. See Figure 30.

Figures 31 and 32 provide background on the associations between skill and qualifications, and skill and age. We see a strong relationship between qualification level and skill with large skill returns to school qualifications, and to degrees or higher qualifications. However, people with post-school qualifications at less than degree level have similar skills to those with school qualifications only. The associations with age are more complex. The highest literacy and numeracy skills are for the 25-39 year olds, and the highest problem solving skills are for the 16-39 year olds. These relationships are discussed in more detail in Ministry of Education & Ministry of Business, Innovation and Employment (2016, pp. 12-17).



Figure 26: How often adults read bills, invoices and bank statements in everyday life, by skill

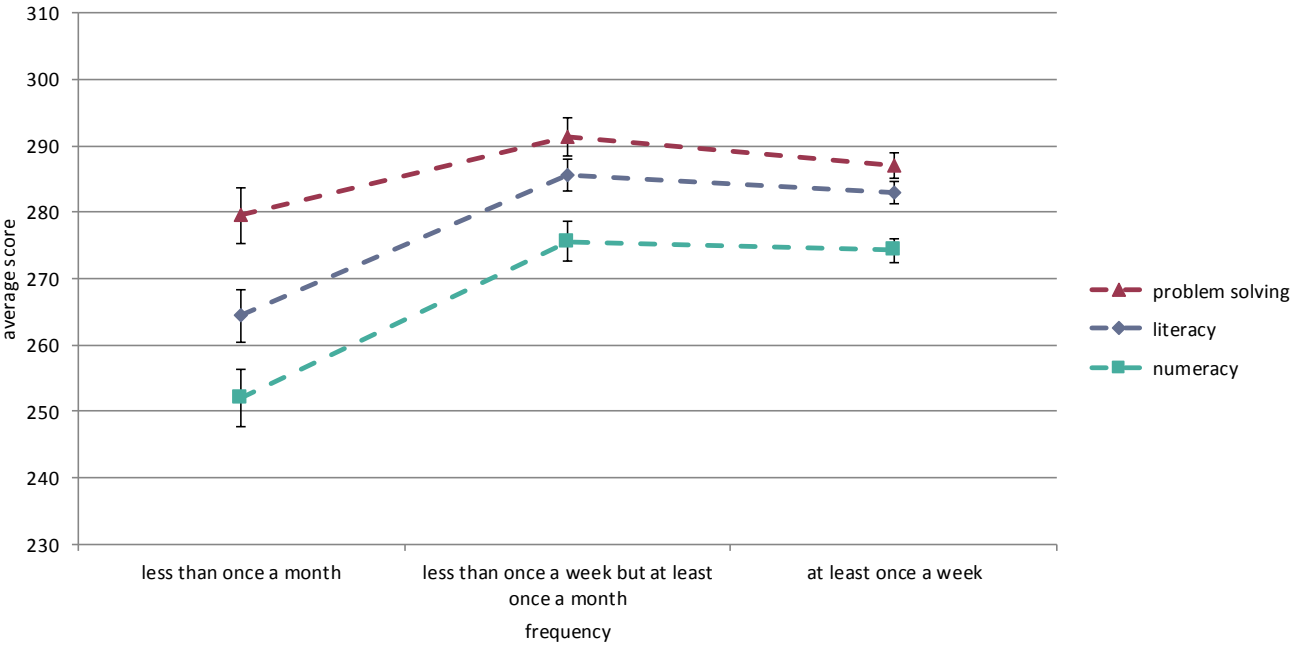


Figure 27: How often – detailed frequency categories – adults read bills, invoices and bank statements in everyday life, by skill

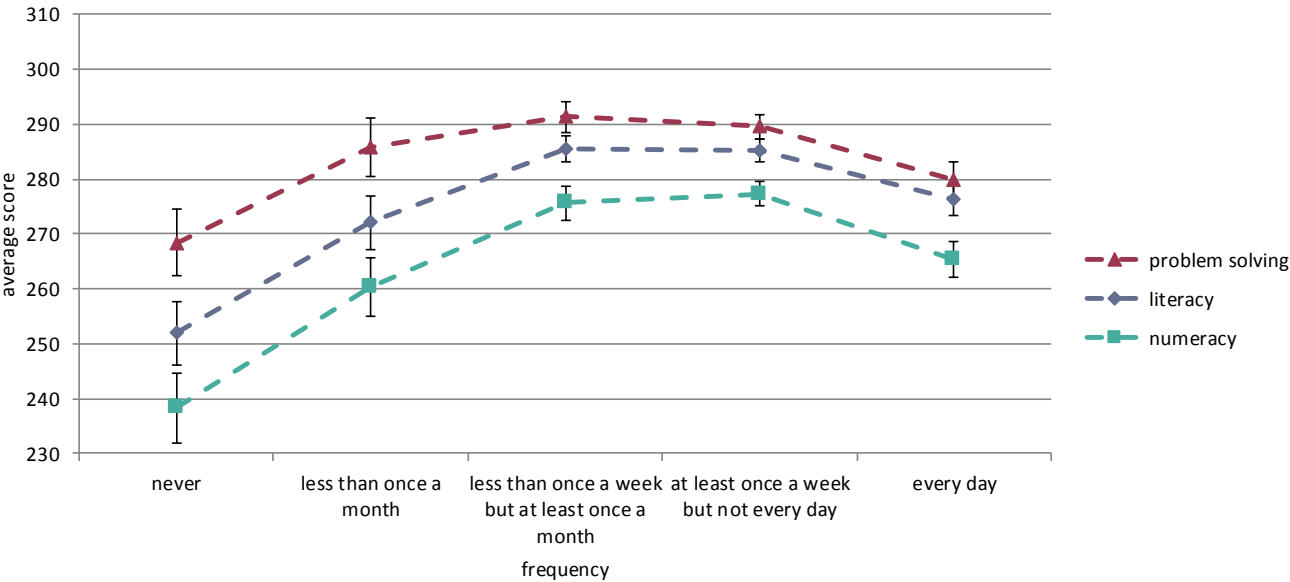




Figure 28: How often adults calculate prices, costs and budgets in everyday life, by skill

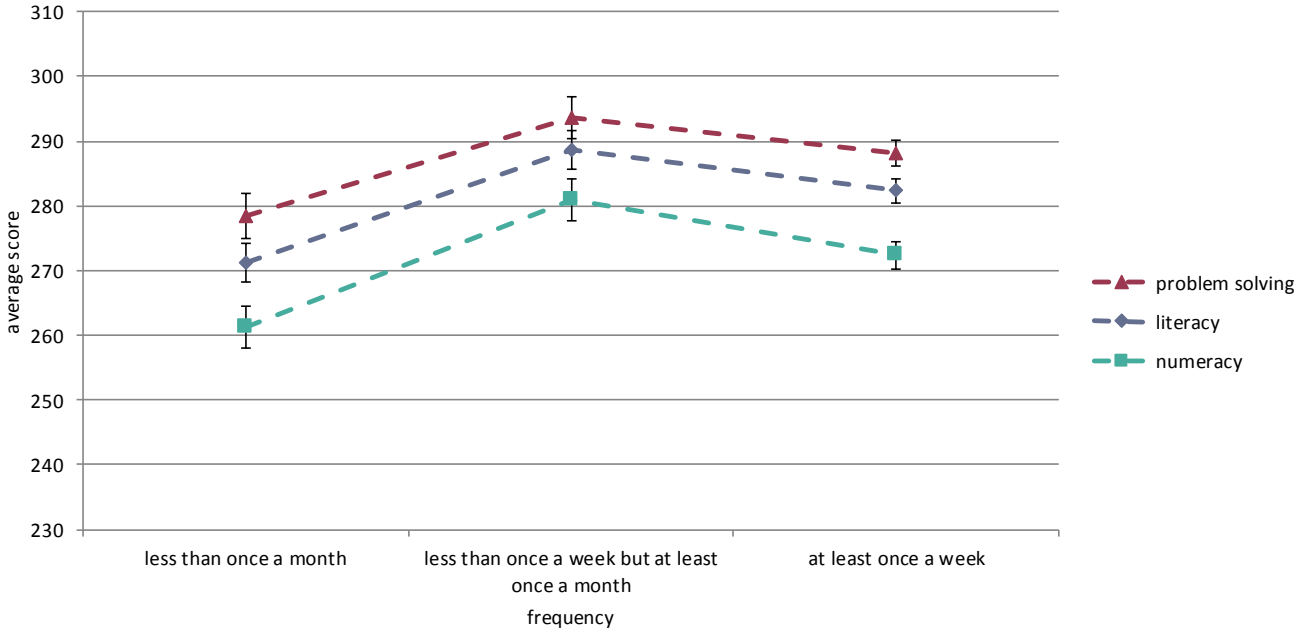


Figure 29: How often men and women calculate prices, costs and budget in everyday life, by numeracy skill

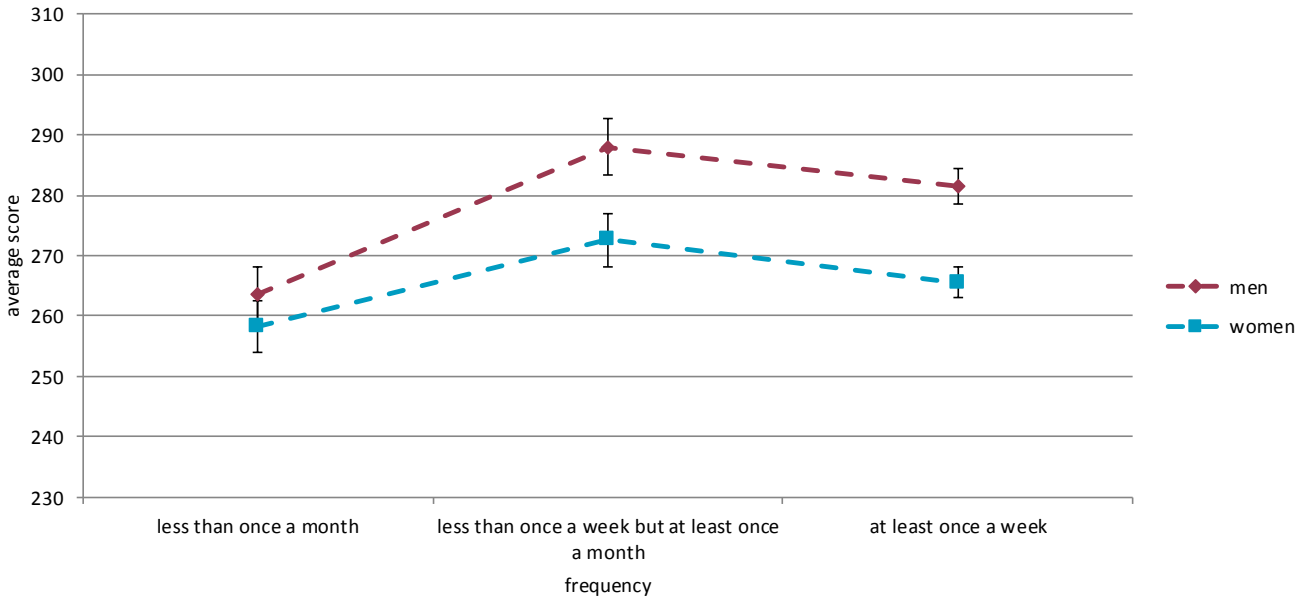




Figure 30: How often adults conduct transactions on the internet in everyday life, by skill

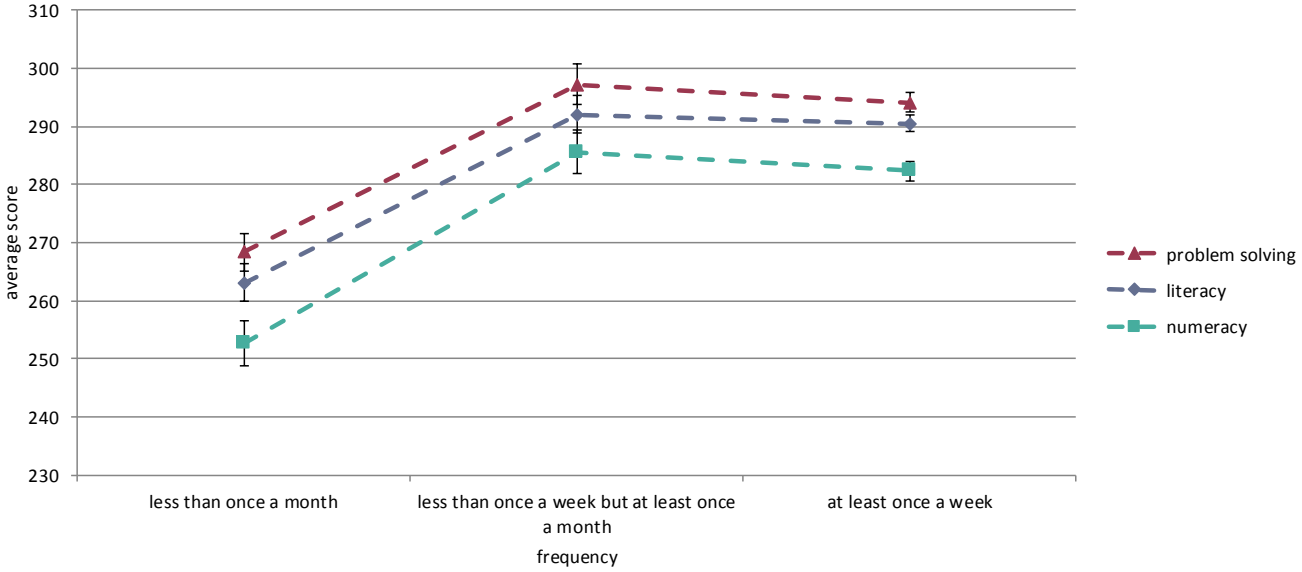


Figure 31: Literacy, numeracy and problem solving skills by highest qualification

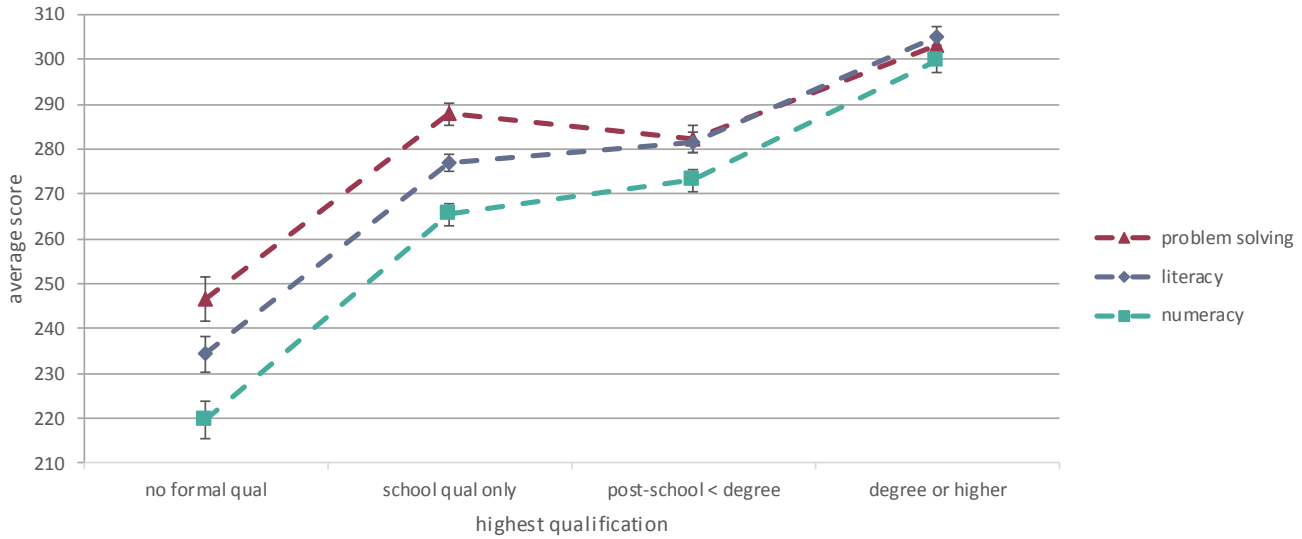
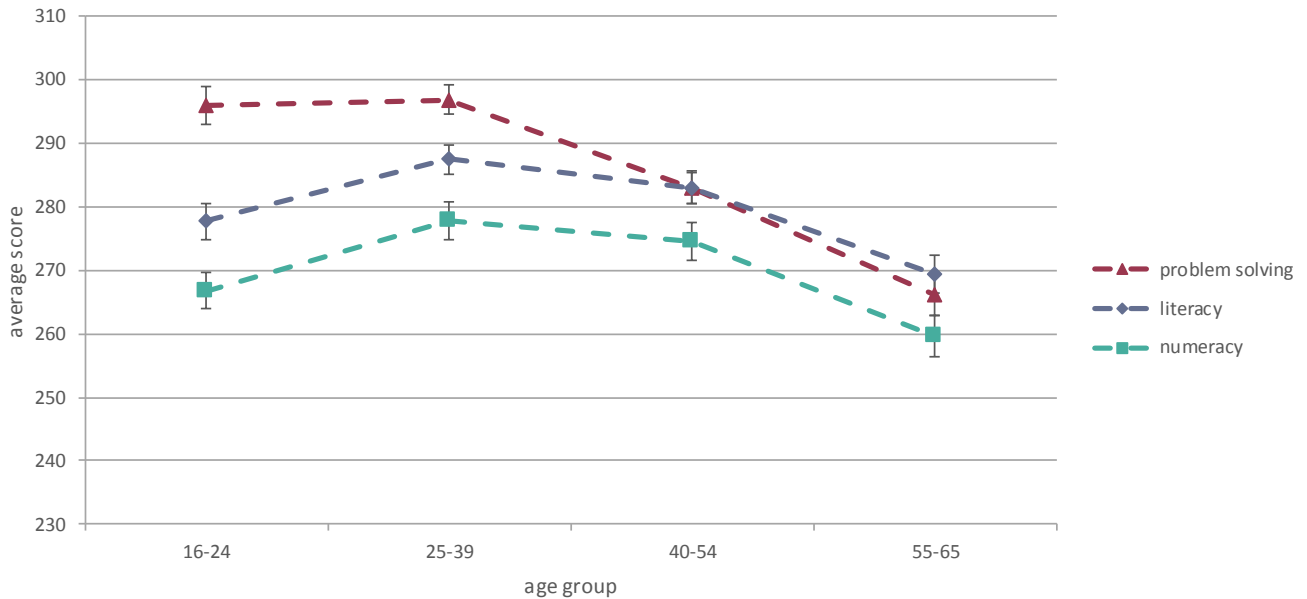




Figure 32: Literacy, numeracy and problem solving skills by age group



Summary

The Survey of Adult Skills findings about financial literacy activities in everyday life show that being employed, being female, and being moderately skilled are all positively and separately associated with frequently doing financial literacy activities.

Women are more likely than men to undertake financial literacy activities, particularly the numeracy activity calculating prices and costs, even after controlling for age (except young people – 16-24 year olds), family circumstances and employment.

Infrequent participation in everyday financial literacy activities is associated with low skills particularly in numeracy. Moderately frequent participation is associated with high skills, and frequent participation slightly lower skills. This pattern is strong for numeracy skills in relation to calculating prices and costs. Women, on average, have lower numeracy skills than men. Moreover, women who calculate prices and costs frequently have very significantly lower numeracy skills than men who do this frequently.

People calculating prices, costs and budgets more often also appears to be associated with more limited earnings, but is less likely if they have low education and low skills.

Undertaking internet transactions frequently is associated with high earnings and high education.

Māori, Pasifika and Asians are more likely to calculate prices and costs in everyday life than New Zealand Europeans. This is consistent with the findings that (a) the higher employed people’s earnings the less likely they are to calculate prices and costs frequently, and (b) average earnings of Māori and Pasifika are less than New Zealand Europeans.

Māori and Pasifika are less likely to conduct internet transactions than New Zealand Europeans and Asians. This in turn is consistent with the finding that Māori and Pasifika are more likely to have lower qualifications than New Zealand Europeans or Asians.

How often do people undertake financial literacy activities for work?

Those people who are currently working, or who had work in the last 12 months, are asked how often they undertake the set of three financial literacy activities for work. These questions belong in a section of the questionnaire that asks about reading, writing, numerical, IT and other types of activities for work. People who are not currently working, but who had work in the last year, are asked the questions about their last job in the past tense. People who haven't worked in the last 12 months are routed past this block of questions.

Overall, people are much less likely to do the financial literacy activities for work than they are in everyday life. This is consistent with the reality that each of the activities is potentially in scope of everyone's everyday life whereas only some people's work requires them to read invoices, calculate costs, or do internet transactions. Another difference between everyday life and work financial literacy activities is that very small proportions of workers participate with moderate frequency. Evidently, where someone has financial literacy activity to do for work, they most likely need to be doing it at least once a week.

Also, far lower proportions of people use a computer for work for any purpose than they do in everyday life, particularly for younger people. See Figures 33-34.

As for the everyday life financial literacy analysis, those who did not use a computer for work are assigned to a frequency of less than once a month for conducting internet transactions.

Figure 33: How often adults undertake financial literacy activities for work, 16-65 year olds

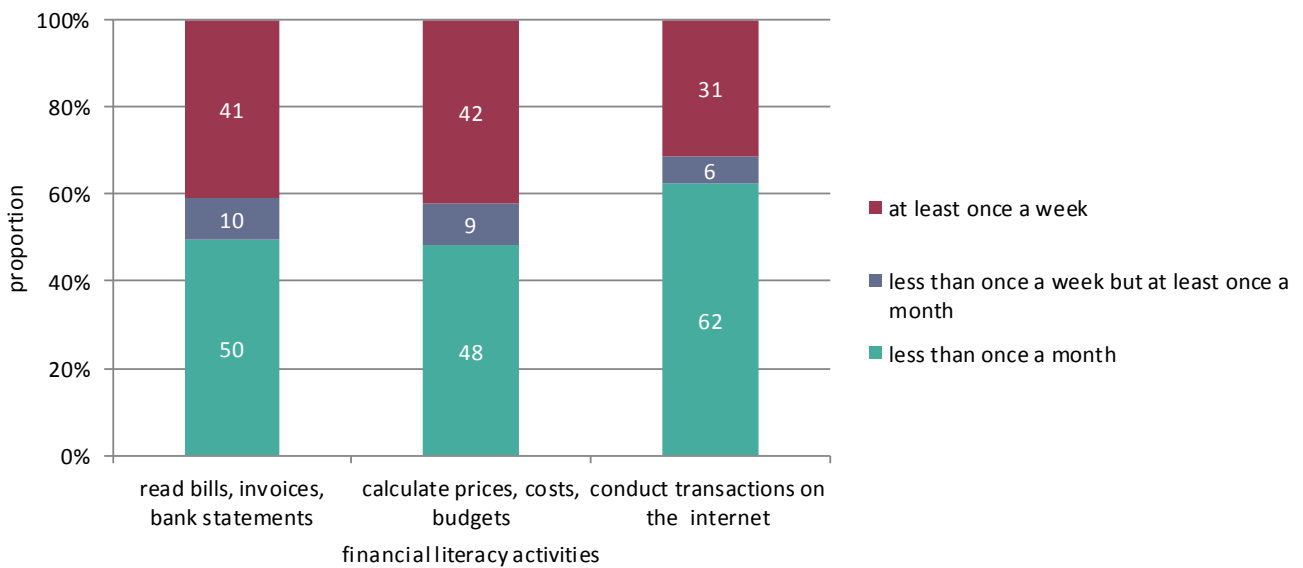
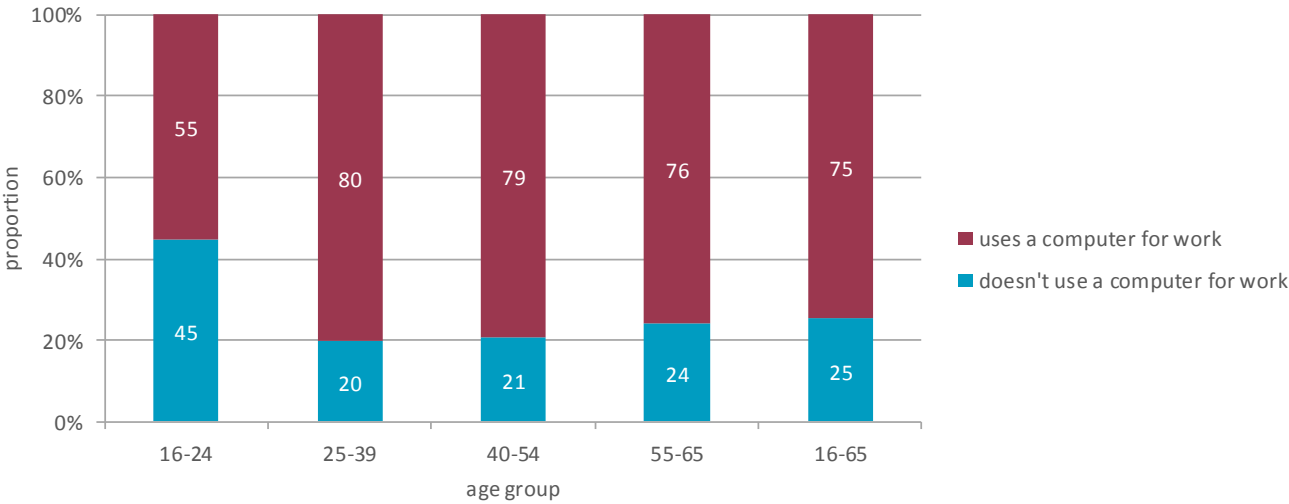




Figure 34: Proportions of adults who use a computer for work by age group



Age

The most notable feature of age-related patterns of participating in financial literacy activities for work is that 16-24 year olds are much less likely than older age groups to participate often in conducting internet transactions, and in reading bills and invoices. Perhaps employers tend to ask older and more experienced employees to undertake these types of activities. Perhaps younger people are more likely to be working in occupations that do not require financial literacy activities as part of the job.

The proportions in this analysis are of those currently working or who worked in the last 12 months, so a high youth unemployment rate is not the reason for the high proportion of 16-24 year olds seldom conducting internet transactions for work. See Figures 35-37.

Figure 35: How often adults read bills, invoices, bank statements for work, by age

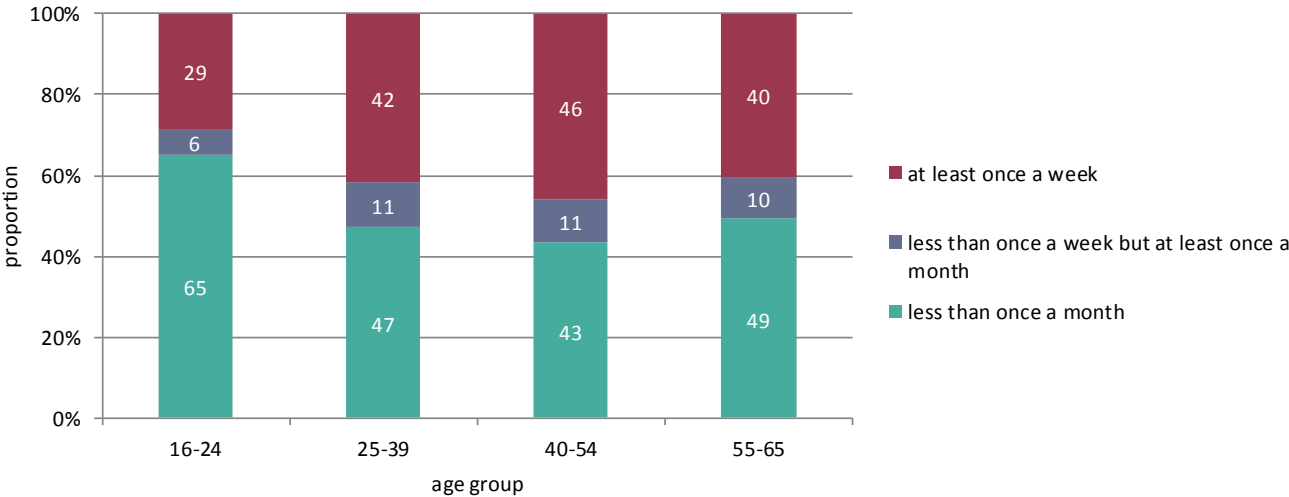




Figure 36: How often adults calculate prices, costs, budgets for work, by age

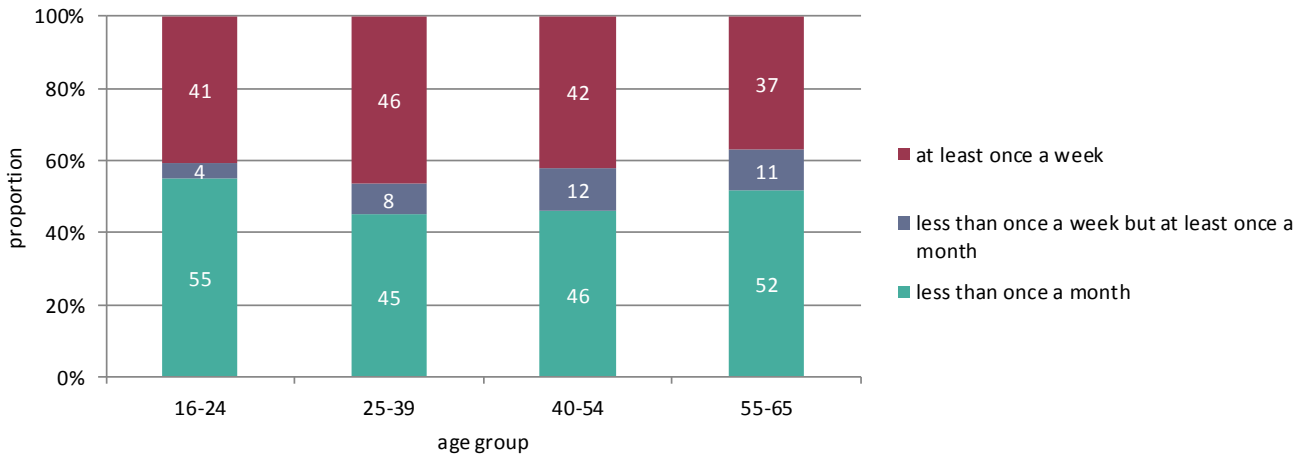
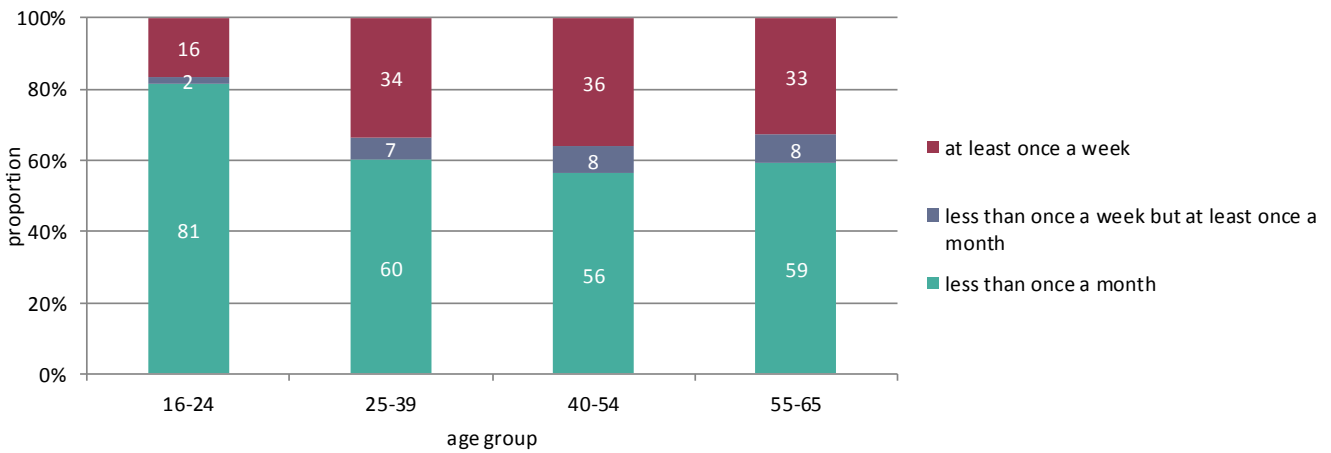


Figure 37: How often adults conduct transactions on the internet for work, by age



Gender

Men and women are just as likely on average to undertake financial literacy activities for work. This contrasts with the distinct gender pattern for everyday life – where women are more likely than men to undertake financial literacy activities. We see no evidence that employers assign financial literacy work differently to men and women – with the proviso that the Survey of Adult Skills does not provide any measure of the complexity or difficulty of the financial literacy activities. See Figure 38.

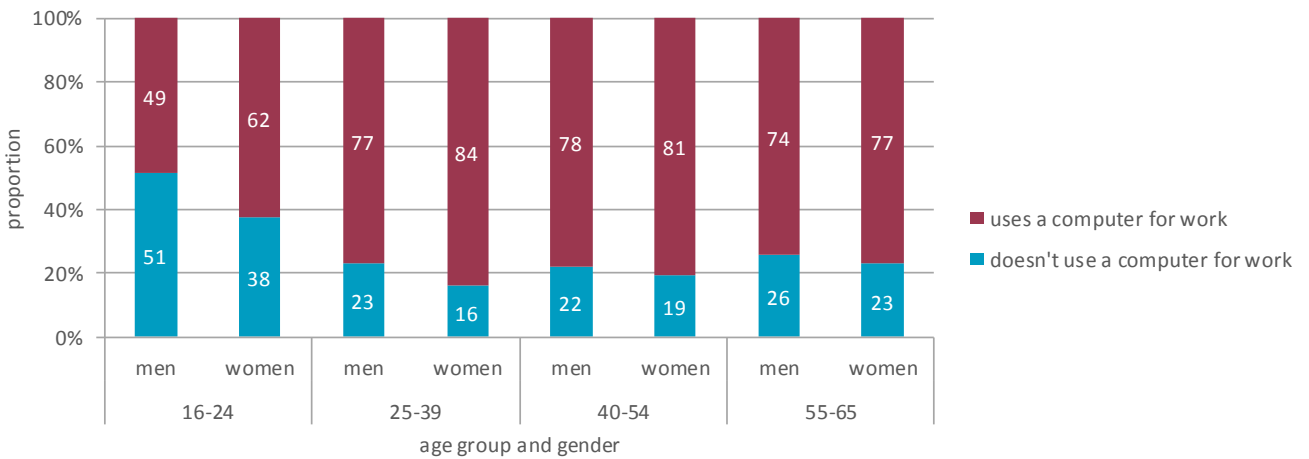
Women aged over 25 are slightly more likely than men to use a computer for work. But young women are noticeably more likely to than young men. See Figure 39.



Figure 38: How often adults undertake financial literacy activities for work, by gender



Figure 39: Proportions of people using a computer for work by age group and gender



Ethnic group

New Zealand European and Asian people are somewhat more likely to read bills and invoices and conduct internet transactions for work than Māori or Pasifika. However, little ethnic difference appears for calculating prices and costs. See Figures 40-42.



Figure 40: How often adults read bills, invoices and bank statements for work, by ethnicity

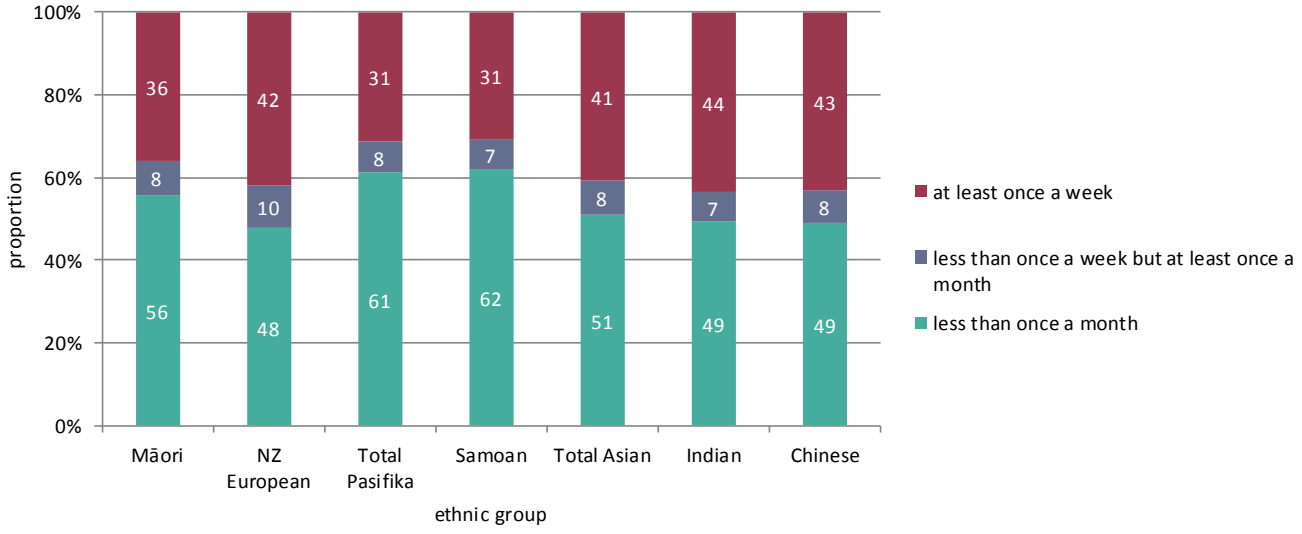


Figure 41: How often adults calculate prices, costs and budgets for work, by ethnicity

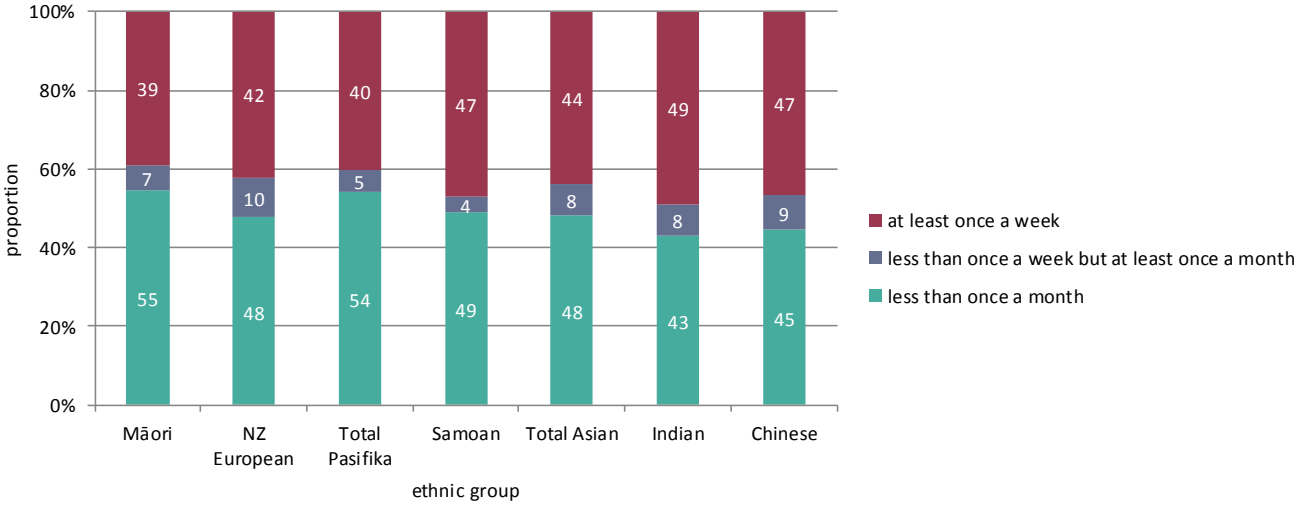
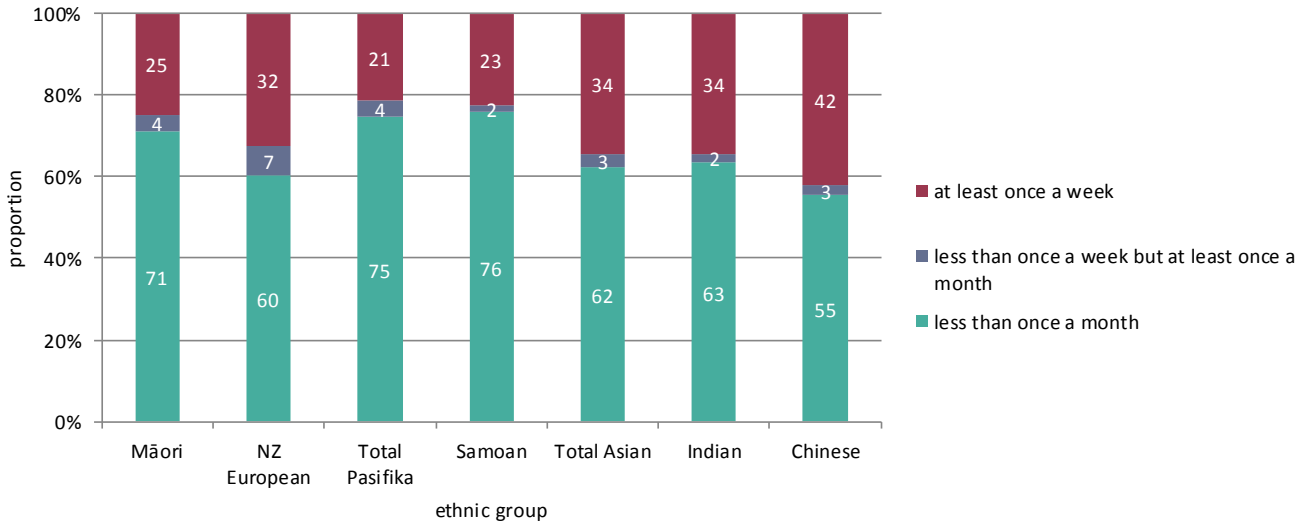




Figure 42: How often adults conduct transactions on the internet for work, by ethnicity



Highest qualification

For all three financial literacy activities, workers with no formal qualifications are least likely to undertake financial literacy activities for work. People with any post-school qualifications are just as likely to participate in financial literacy activities as those with degrees. See Figures 43-47.

Figure 43: How often adults read bills, invoices and bank statements for work, by highest qualification

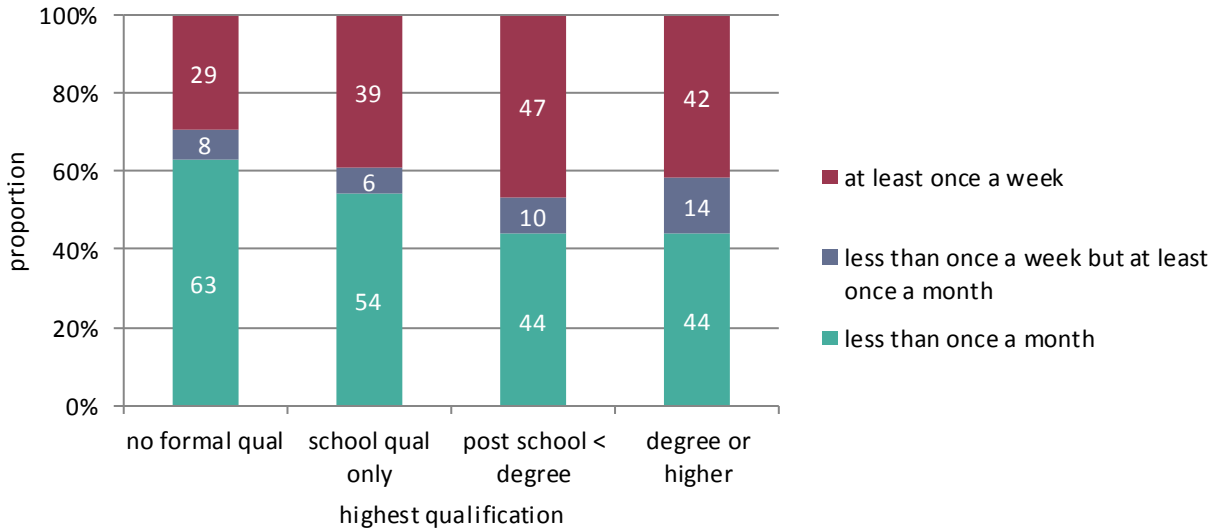




Figure 44: How often adults calculate prices, costs or budgets for work, by highest qualification

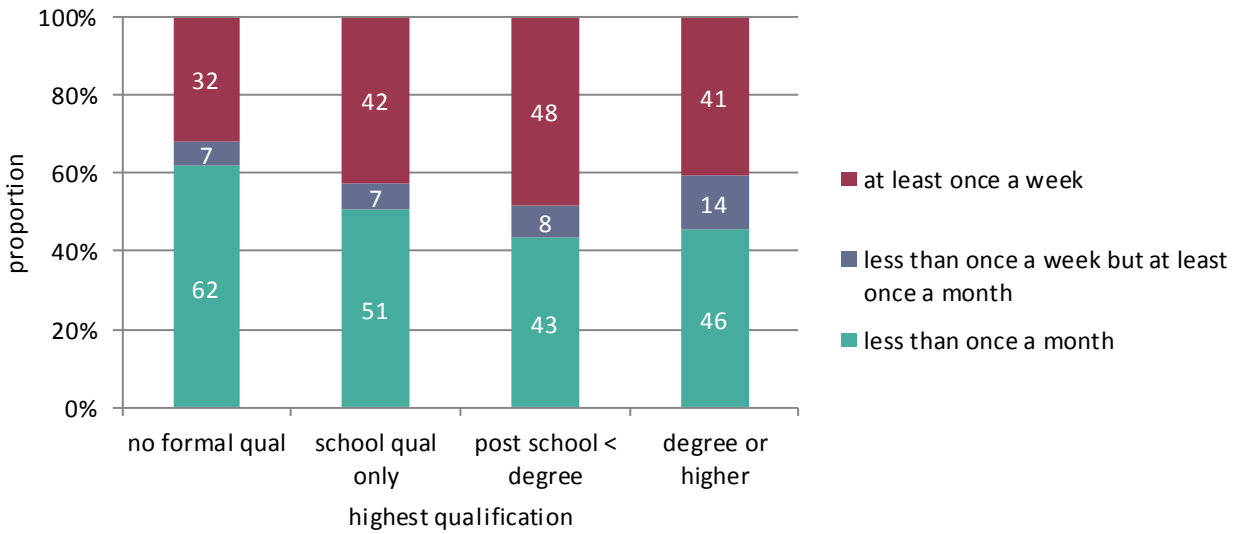
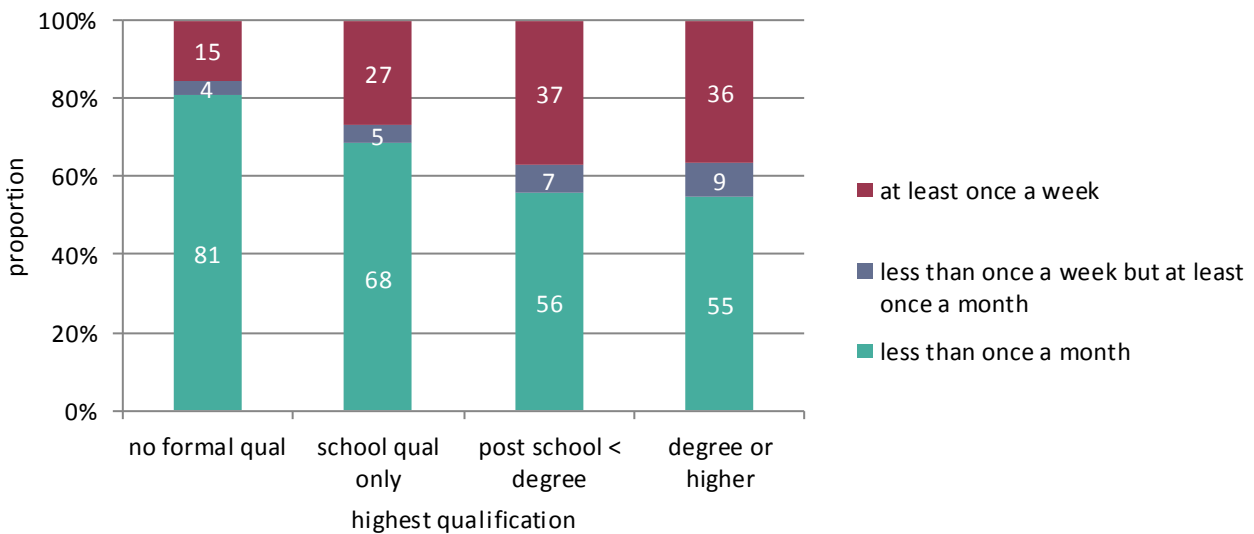


Figure 45: How often adults conduct transactions on the internet for work, by highest qualification



Earnings

The higher an employed person's earnings¹² the more often they participate in financial literacy activities for work. This applies to all three activities, which contrasts with the pattern for everyday life where frequently calculating prices and costs is less likely for employed people on high salaries. See Figures 46-48.

¹² The analysis of employed people's earnings includes only those currently employed. This differs from the other analysis of financial literacy activities for work which includes both those not currently employed but had a job in the last 12 months as well as those currently employed.



Figure 46: How often employed adults read bills, invoices and bank statements for work, by earnings

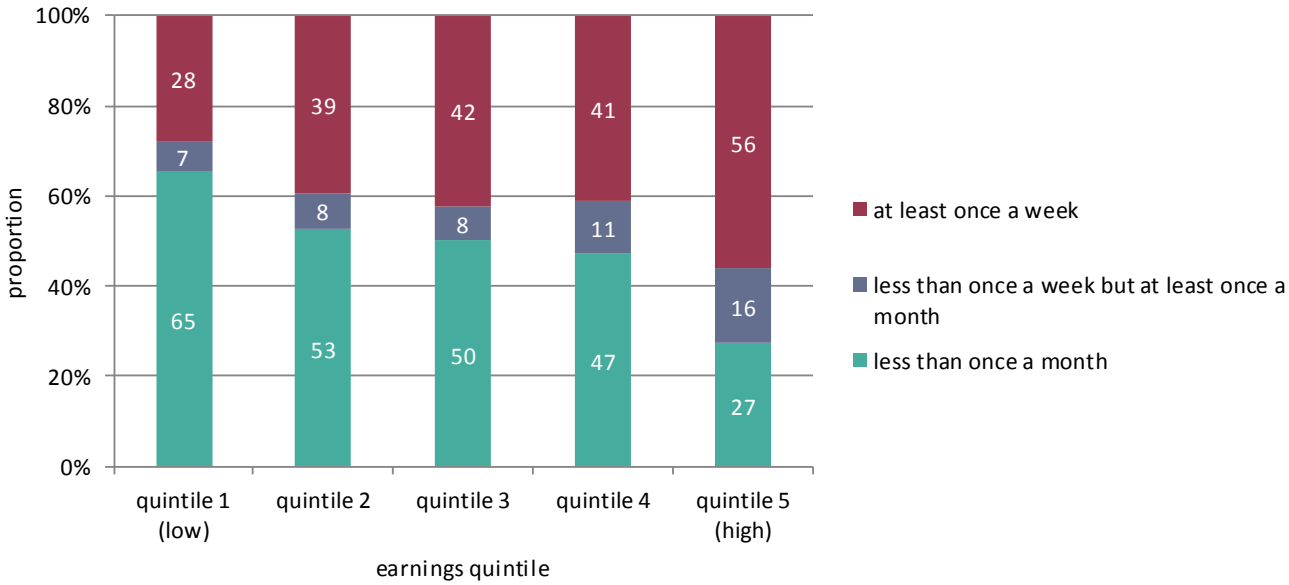


Figure 47: How often employed adults calculate prices, costs and budgets for work, by earnings

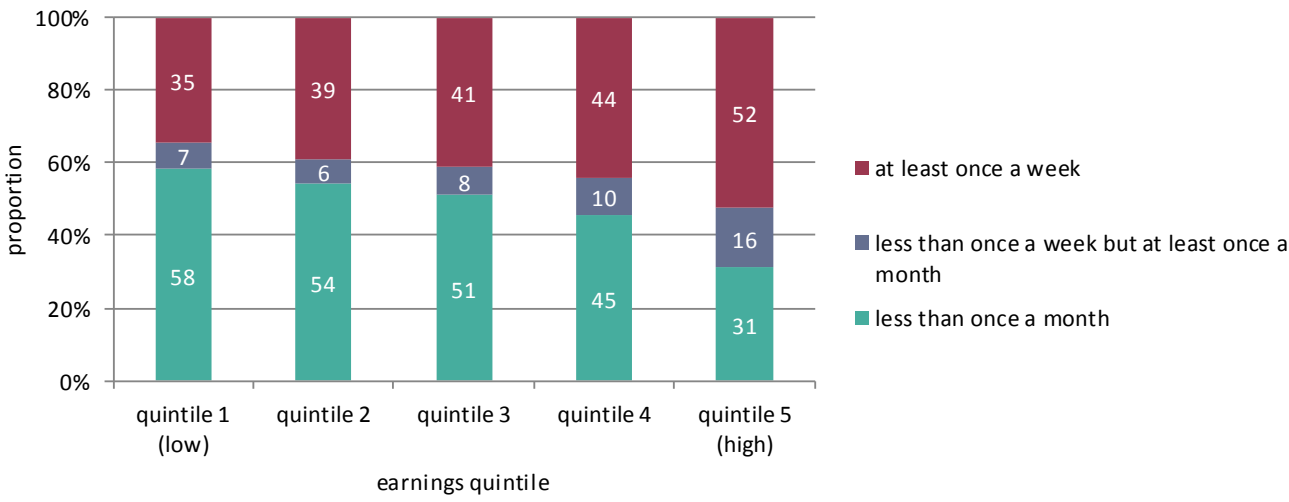
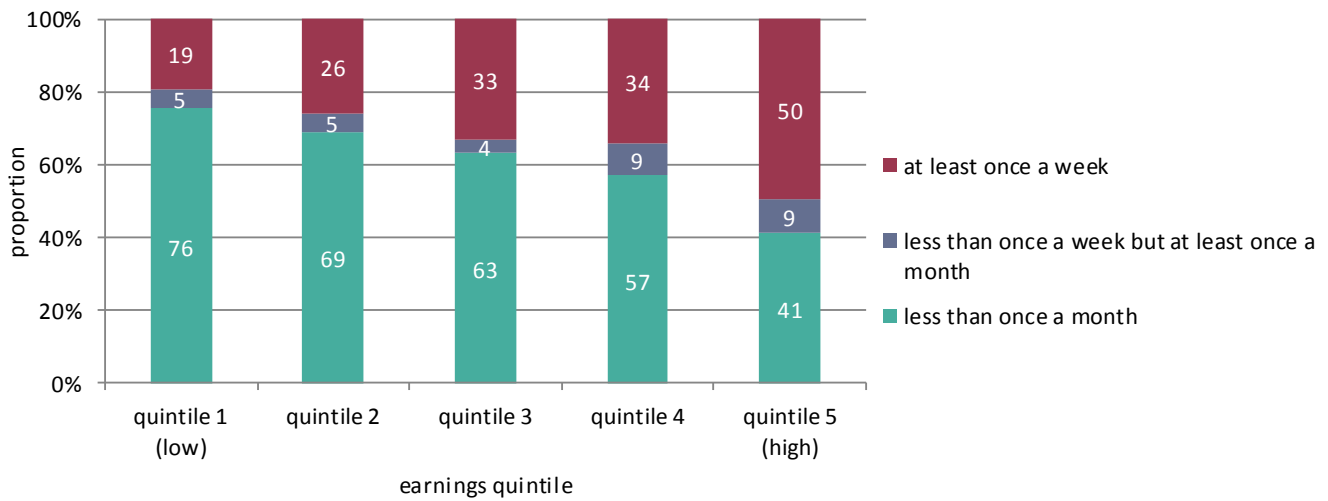




Figure 48: How often employed adults conduct transactions on the internet for work, by earnings



Skills

The broad pattern, as for everyday life, is that the strongest skills are associated with undertaking financial literacy activities for work at moderate frequency. This pattern is strongest for calculating prices and costs and budgets, with significant differences especially for numeracy skill. The pattern for the detailed frequency categories is shown in Figure 51.

The pattern is weak for conducting transactions on the internet, even for problem solving skill. Evidently, relatively little skill sorting happens for employees conducting internet transactions for work. This work-related pattern differs from that of everyday life where people with low skills are unlikely to conduct internet transactions.

In contrast, both at work and in everyday life, skill sorting appears to occur for calculating prices and costs and to a less extent for reading bills and invoices. On average, highly skilled people are likely to do these activities at moderate frequency, moderately skilled people at higher frequency, and low skilled people seldom.

Apparently, highly skilled people on average have jobs that are less likely to require frequent financial literacy activities. Perhaps their jobs include a wider range of activities and tasks than slightly lower skilled people's jobs. Or in a workplace employing professionals, such as a law firm or medical practice, the financial-related work may be undertaken by an office manager rather than the professionals. See Figures 49-52.

An important background point for this analysis is that the average literacy and numeracy skill of the employed is much higher than that of those not working. See Table 1.

Table 1: Skill by labour force status, 16-65 year olds

| Labour force status | Average literacy score | Average numeracy score | Average problem solving score |
|-------------------------|------------------------|------------------------|-------------------------------|
| Employed | 285 | 278 | 289 |
| Unemployed | 265 | 251 | 287 |
| Not in the labour force | 264 | 247 | 276 |
| Total | 281 | 271 | 287 |



Figure 49: How often adults read bills, invoices or bank statements for work, by skill

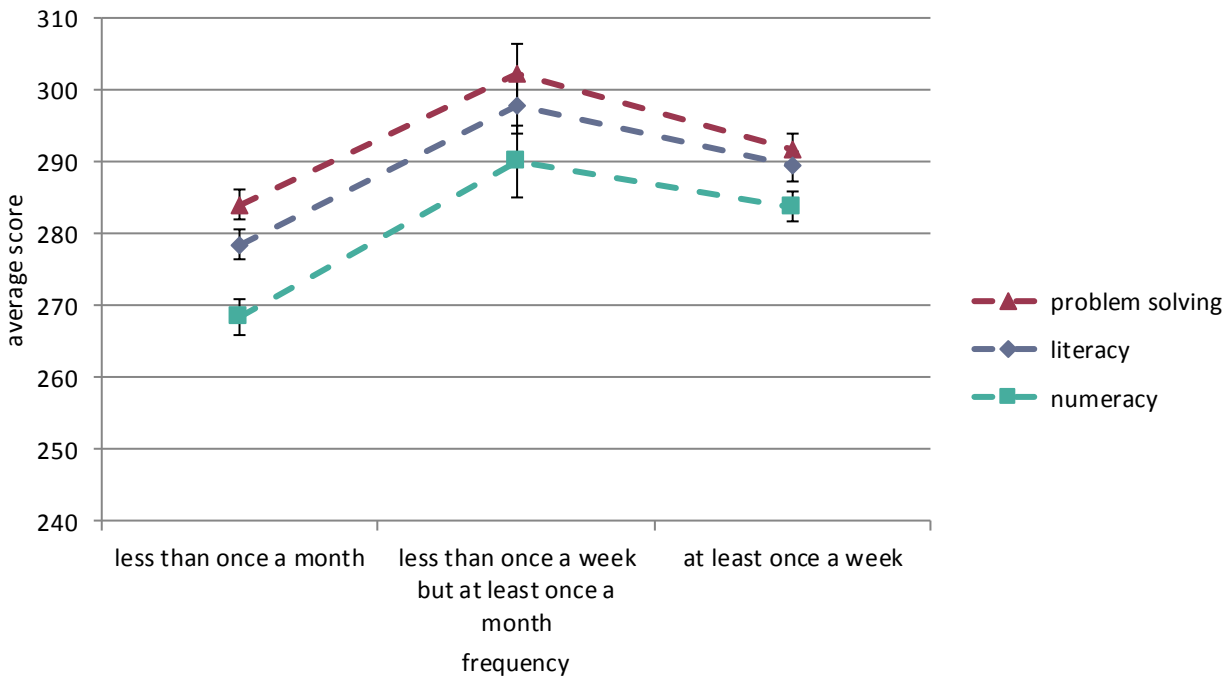


Figure 50: How often adults calculate prices, costs or budgets for work, by skill

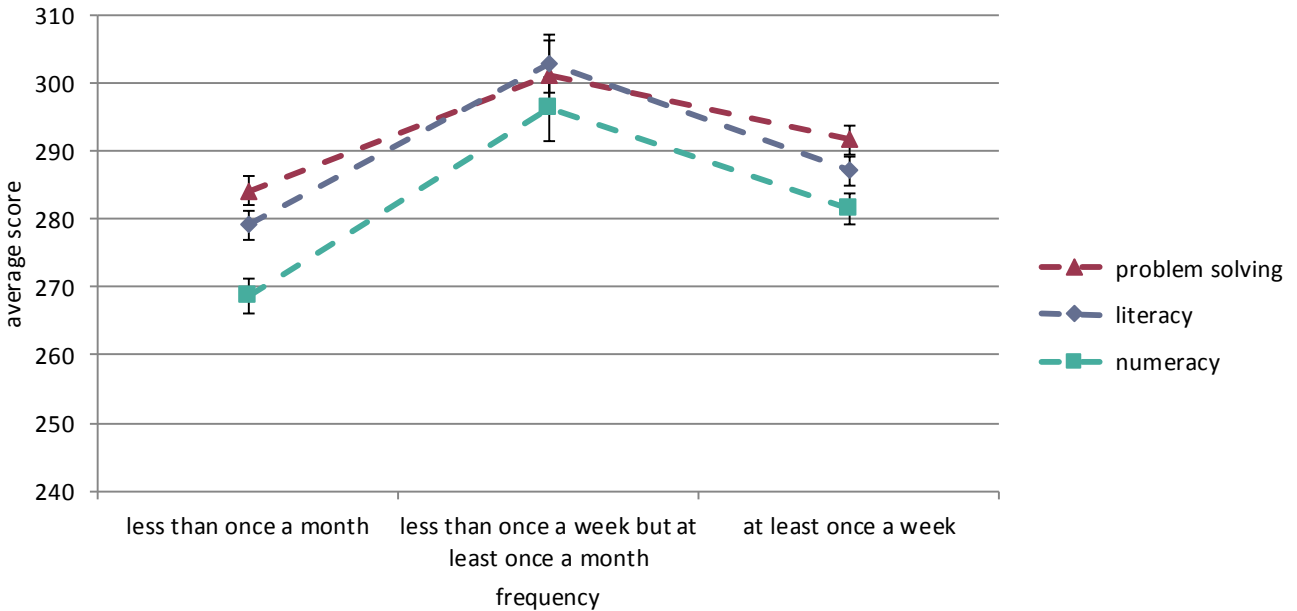




Figure 51: How often – detailed frequency categories – adults calculate prices, costs and budgets for work, by skill

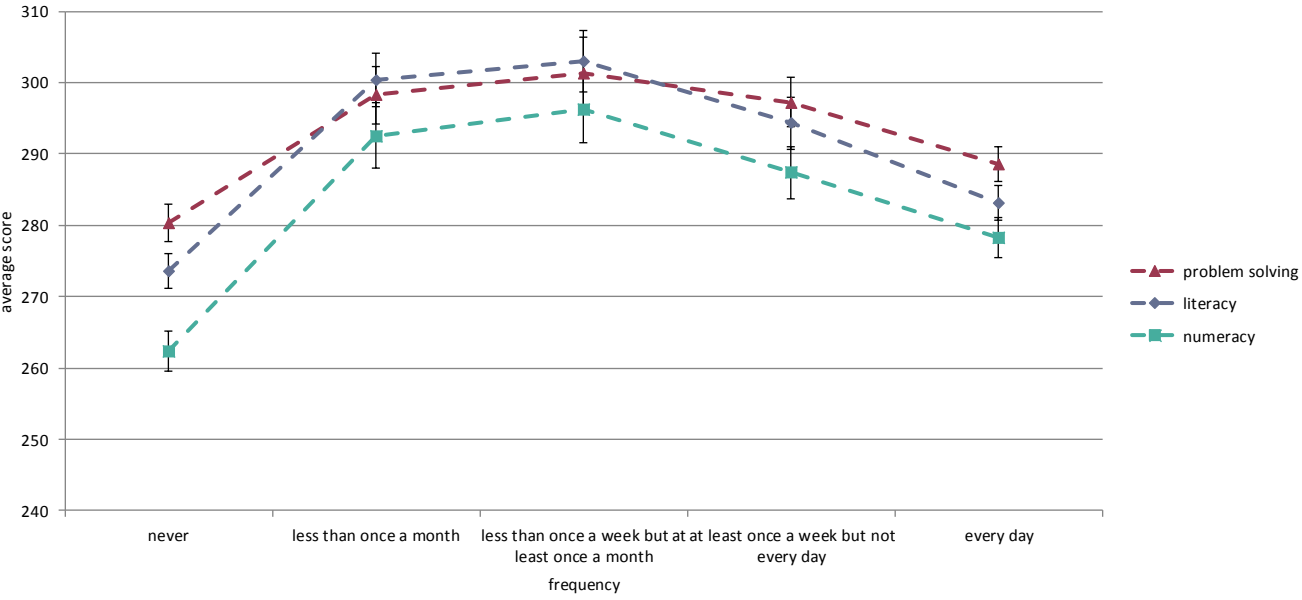
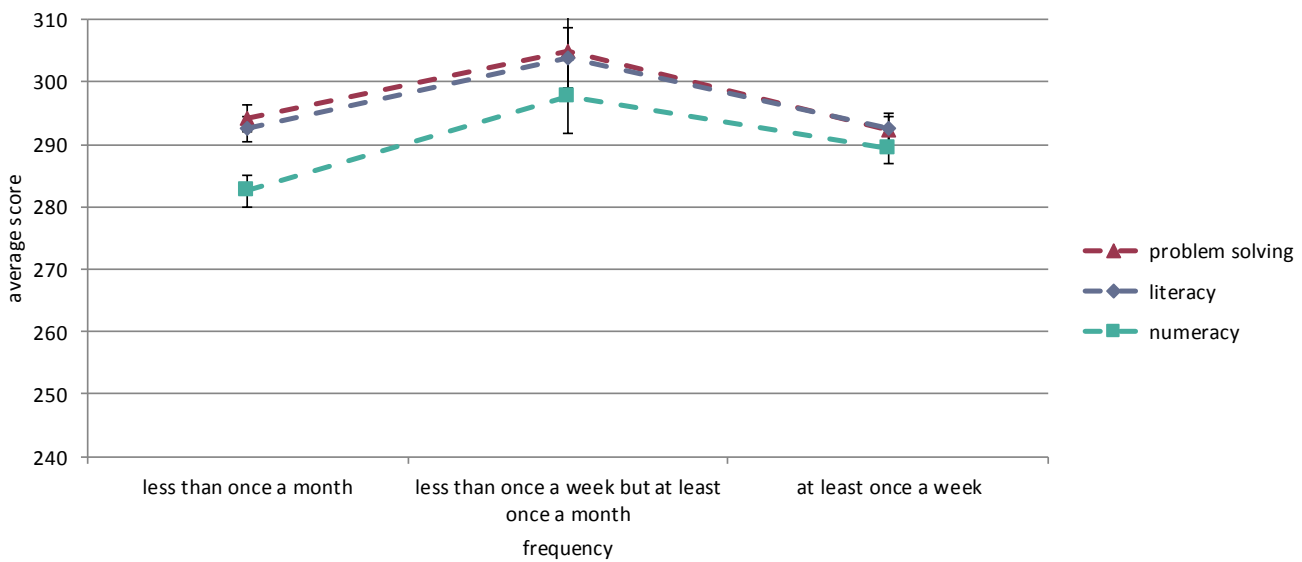


Figure 52: How often adults conduct transactions on the internet for work, by skill



Occupation and industry

The Survey of Adult Skills data enables us to explore the occupation and industry dimension of financial literacy activity for work. All three financial literacy activities show a similar pattern across different occupational groups. Managers and clerical and administrative workers are the most likely to undertake financial literacy activities frequently for work. Labourers are least likely to undertake financial literacy activities for work. Community and personal services workers, and machinery operators and drivers are also unlikely to undertake financial literacy activities for work, as well as professionals, and technicians and trades workers. These latter two occupation groups have high skills on average, but have jobs that are much less likely to entail financial activity than managers or clerical workers. See Figures 53-55.



Figure 53: How often adults read bills, invoices or bank statements for work, by occupation group



Figure 54: How often adults calculate prices, costs and budgets for work, by occupation group

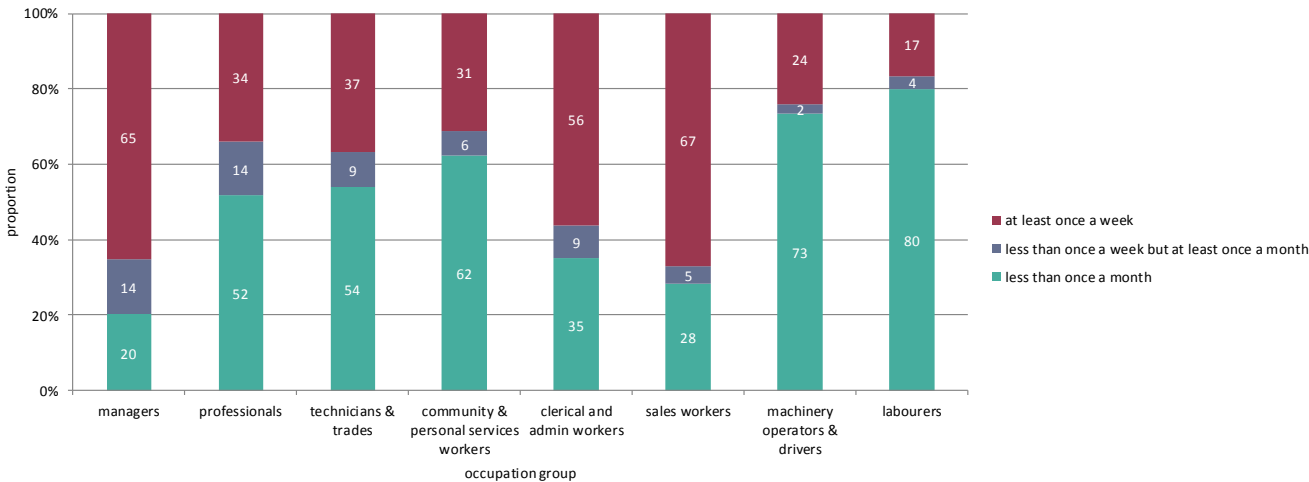
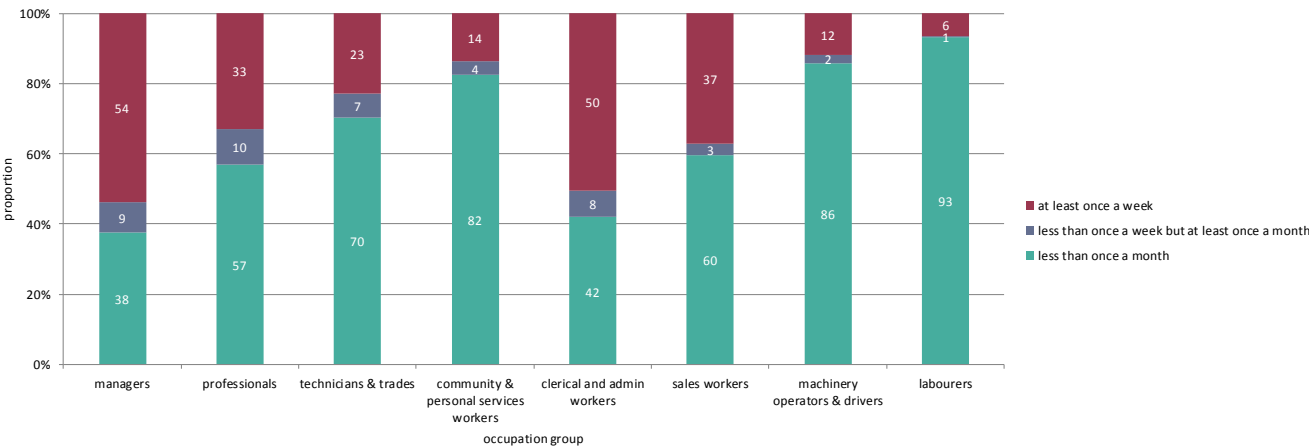


Figure 55: How often adults conduct transaction on the internet for work, by occupation group





Industry group analysis¹³ shows that workers in finance and insurance are by far the most likely to undertake any of the three financial literacy activities for work. Those working in retail trade are also likely to calculate prices and costs frequently. See Figures 56-58. The alignment of the occupation and industry findings with expectations provides an assurance that the Survey of Adult Skills validly measures how often people undertake these activities.

Figure 56: How often adults read bills, invoices or bank statements for work, by industry group

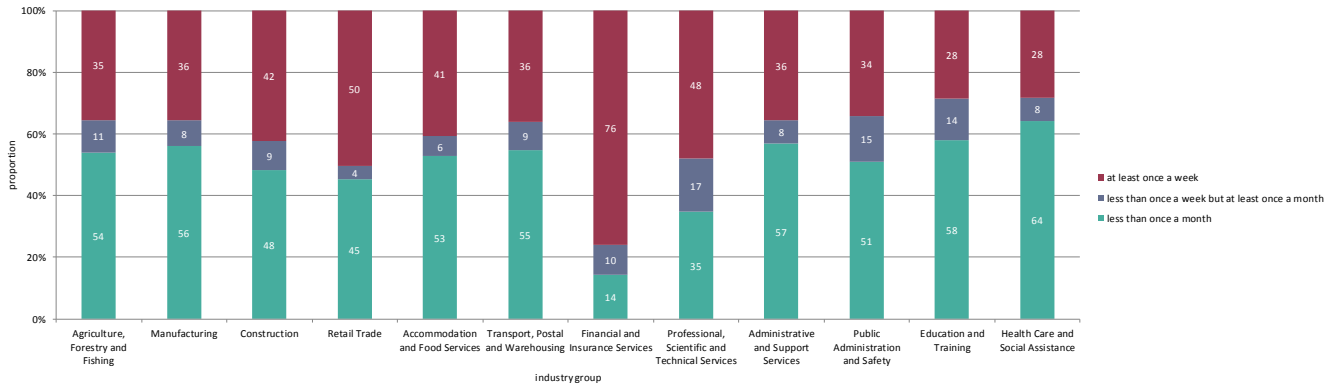
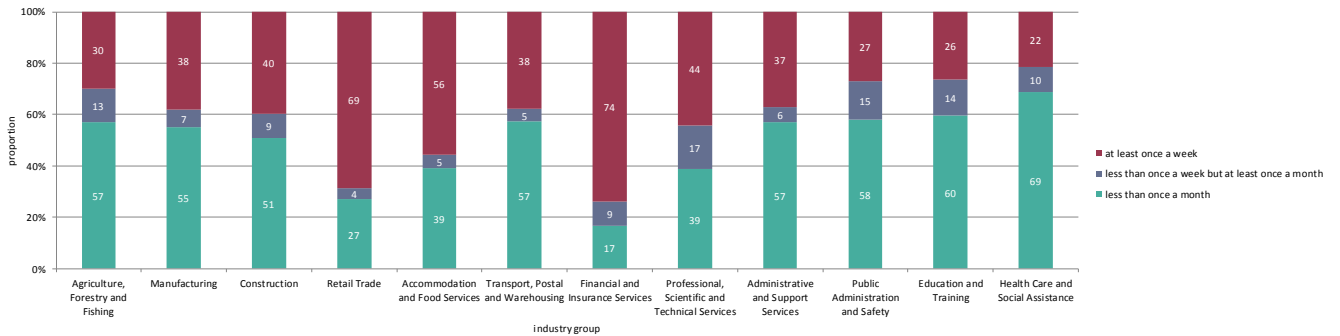


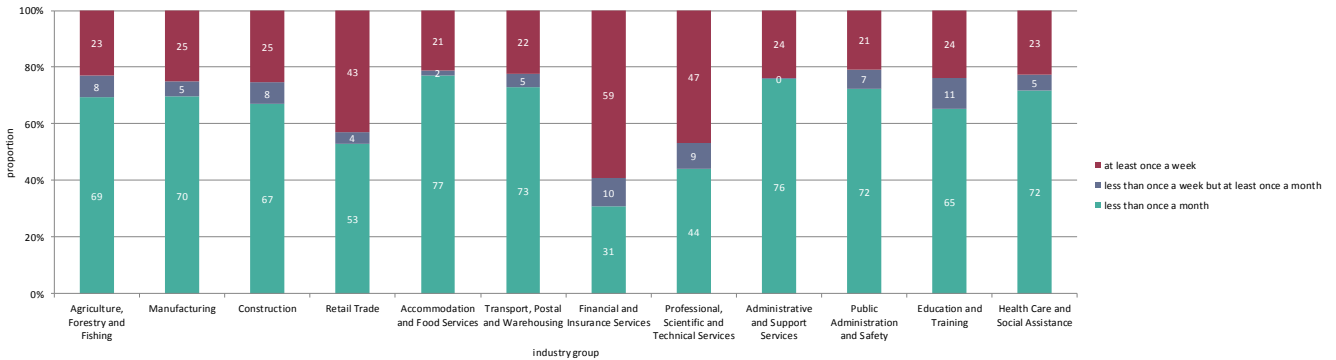
Figure 57: How often adults calculate prices, costs and budgets for work, by industry group



¹³ The following industry groups are not included in the graph because they have too few observations for reliable analysis: Mining; Electricity, Gas, Water & Waste Services; Wholesale Trade; Information Media and Telecommunications; Rental, Hiring and Real Estate Services; Arts and Recreation Services.



Figure 58: How often adults conduct transaction on the internet for work, by industry group



Summary

Financial literacy activities for work follow different patterns from everyday life. This is expected because only some people’s work requires them to read bills and invoices, calculate prices or conduct transactions on the internet, whereas these activities are potentially in scope for anyone’s everyday life.

The key factors influencing people’s work financial literacy are linked to the work itself either directly or indirectly. For example managers, clerks and administrators and people working in finance and insurance are the most likely to participate in financial literacy activities.

Broadly, people with higher qualifications and higher salaries report more frequent financial literacy activity in their work. The relationship with earnings is stronger than that with qualifications, where people with post-school qualifications at less than degree level participate in financial literacy activity just as often as those with degrees. This is consistent with (a) the finding that employed people with the highest skills, on average, do financial literacy activities with only moderate frequency and (b) that high skilled and highly qualified occupations (such as professionals and technicians) are less likely to undertake financial literacy activities frequently than managers or clerical workers.



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