

# Financial Literacy and Superannuation Awareness of Indigenous Australians: Pilot Study Results

Paul Gerrans, Marilyn Clark-Murphy, Keith Truscott

## Abstract

Financial literacy in the general Australian population and how to improve it is now firmly on the national agenda, partly as a result of compulsory superannuation. This paper reports the results of a pilot study which explored the financial literacy levels and superannuation knowledge of Indigenous Australians living in an urban environment. Previous studies have indicated that social disadvantage has a strong correlation with poor financial literacy but previous surveys of financial literacy in Australia have not reported specifically on the Indigenous population. Findings suggest that in some areas financial literacy is significantly weaker than that in the general population. Several of the areas of comparative weakness relate to an over belief in the role of government and the extent to which financial matters are regulated. There is also a high level of desire for financial education and information but a lower level of usage of potential sources of financial information. The findings suggest that a closing of the financial literacy gap is required.

**Keywords:** Financial Literacy, Retirement Savings, Indigenous Australians

## Introduction

The financial exclusion of Indigenous Australians has been identified as a product of a lack of physical access to financial services and low levels of financial literacy (McDonnell 2003). The past decade has seen a greater focus on improving financial literacy across the Australian population, evidenced most prominently by the Federal Government's establishment of the Financial Literacy Foundation in 2005. The National Indigenous Money Management Agenda (NIMMA) is the most prominent evidence of a coordinated attempt to address Indigenous needs in respect of improving both financial literacy and access to financial products and services. This group is the result of a partnership between Reconciliation Australia and Commonwealth Department of Families, Community Services and Indigenous Affairs. NIMMA (2007: 19) highlights the *Improving Banking and Financial Services* meeting in 2002, which brought together key groups in partnership, as an important step in this process. The meeting identified the need for a "partnership between government, indigenous organisations and financial institutions" (NIMMA 2007: 19). The establishment of the Indigenous Banking Reference Group (IBRG) in 2005 provided the collaborative expertise necessary to oversee the NIMMA project and provide input and advice (NIMMA 2007: 20).

The Australian Securities and Investments Commission (ASIC), the peak agency responsible for protection of investors in respect of financial products and services, has acknowledged the specific requirements of Indigenous Australians through proposed good practice principles for Indigenous consumer education programs (Australian Securities and Investments Commission 2002b). In addition, ASIC is a key agency in developing A National Indigenous Consumer Strategy: Action Plan 2005-2010 (National Indigenous Consumer Action Plan Implementation Group, 2005). Considerable progress has been made in the development and provision of education resources to improve financial literacy among Indigenous Australians. For example, whereas in 1999 few education materials were targeted at Indigenous consumers (Financial Services Consumer Policy Centre 1999), the Financial Literacy Foundation (2008) identifies nine programmes and fifteen resources targeted for Indigenous Australians.

Over the same time period superannuation has assumed greater importance for Australians as a means for ensuring adequacy of retirement incomes. The direction of successive government policies has been to shift responsibility for retirement income provision from government to individuals. More recently government policy has also promoted greater choice for individuals in where to direct retirement savings in terms of choice of superannuation funds and investment strategies. With the notable exception of Pragnell (2002), discussion of these superannuation policies and associated issues has been silent on its relevance to, and impact on, Indigenous people. An obvious issue is the shorter life expectancy of Indigenous Australians. Estimates vary but there is approximately a 10 to 17 year difference between male life expectancy for Indigenous Australians and that for males in the general population. Over the period 1996-2001 male Indigenous life expectancy was approximately 59 years

(Human Rights & Equality Opportunity Commission 2006). Hence Indigenous Australians are likely to receive limited benefit from savings which are generally not accessible until the individual reaches preservation age, which at present is 60 years of age for those born after 1<sup>st</sup> July 1964. In the 2009 Federal Budget it was announced that the age at which the age pension could be accessed would be progressively raised from 65 to 67. In the wake of this announcement various commentators suggested that the preservation age for superannuation should be the same as the access age for the age pension. While the government has indicated they have no plans to implement this suggestion any move in that direction would clearly increase the disadvantage experienced by Indigenous Australians, unless there are very significant improvements in life expectancy.

Financial literacy assessments of Indigenous Australians have received little attention in the literature. Knowledge of superannuation in particular has escaped the attention of researchers. The issue is of considerable importance because it focuses on an issue that could result in serious disadvantage to Indigenous people. Financial literacy is necessary for successful participation by individuals in society (Barberis & Thaler 2002) and a lack of financial literacy has been linked to other measures of social disadvantage (Worthington 2006). Examination of financial literacy levels gained prominence in Australia with the publication of the first national survey (ANZ 2003). This report was however silent on financial literacy and Indigenous Australians. The second and third iterations of this survey (ANZ 2005, 2008) provide some analysis of Indigenous Australians as a specific group.

Further, NIMMA (2007: 21) have acknowledged that previous financial literacy and financial access assessments have focussed on remote areas, even though 70% of Indigenous people live in regional and urban areas with their own unique issues.

There appears to be a general lack of research into financial issues affecting Indigenous Australians. McMillen and Donnelly (2008) have noted the limited work on the gambling behaviour of Indigenous Australians despite the potential vulnerability of these communities and the potential impact on financial wellbeing. Scaife (2006) discusses the issues around Indigenous philanthropy and notes concerns about financial acquittal as one possible, though probably unfounded, reason for grantmakers' hesitance to invest in this area.

A driver for the renewed focus on financial literacy in the general population has been the increasing involvement of individuals in their own retirement income provisions and related decision-making. ASIC has made "the importance and complexity of superannuation" a priority area (Australian Securities and Investments Commission 2002a: third para.). However, Indigenous Australians for whom levels of general and financial literacy may be low and for whom retirement savings may be largely irrelevant due to lower income levels and shorter life expectancy have largely been ignored. The IBRG has identified that it will not include superannuation in the initial phase of the NIMMA project (NIMMA 2007: p.21).

The study presented in this paper begins to bridge this gap by providing an assessment of financial literacy, with a subset of questions focussed on superannuation, among an urban Indigenous sample in south-west Western Australia.

Research questions are investigated through face-to-face interviews and analysis of qualitative and quantitative data. The financial literacy component is informed by a previous Australian national survey of financial literacy (ANZ 2003) and a US survey (Jump\$tart Coalition for Personal Financial Literacy 2003) allowing comparison with established benchmarks. Attitudes to and knowledge of superannuation are explored through open-ended questions.

### **Relevant Literature**

Coben, Dawes and Lee (2005) suggest the financial literacy literature can be classified into three distinct areas: research initiatives to develop financial literacy; investigation or assessment of the financial literacy of young adults; and investigation or assessment of the financial literacy of adults. Beal and Delpachtra (2003) similarly suggest the literature can be divided into evaluations of financial literacy programmes and tests of financial literacy among different cohorts. The discussion that follows focuses primarily on the surveys of financial literacy conducted in Australia and internationally.

#### **Australia**

Worthington (2006) notes that while interest in financial literacy in Australia extends across regulators (ASIC 2005), government (Consumer and Financial Literacy Taskforce 2004), the financial industry (ANZ 2005), and industry bodies (Institute of Chartered Accountants 2003), “regrettably, these government and industry initiatives aimed at understanding financial literacy have not been mirrored by academic research, at least in Australia” (Worthington 2006: 3).

The ANZ survey conducted in 2002, 2005, and 2008 is by far the most comprehensive financial literacy survey with questions covering familiarity with financial products, use of financial statements/records, attitudes to financial products and details, use and knowledge of advisers and the propensity to shop around for information. The definition of financial literacy adopted by the ANZ survey and subsequently by the Financial Literacy Foundation is based on a similar UK financial institution survey by Natwest, it reads:

The ability to make informed judgements and to take effective decisions regarding the use and management of money.

ANZ (2005: 6). (The UK project: Schagen, S. (1997). The Evaluation of NatWest Face 2 Face With Finance: National Foundation of Educational Research)

This measure of financial literacy was examined in the three ANZ surveys at a basic requirement level and at a more advanced competence level. The survey included financial knowledge questions “tested against an individual’s needs and circumstances rather than the entire array of financial products and services, some of which they will neither use nor need” (ANZ 2005: 7). The survey

included six questions to assess arithmetic/mathematic literacy and standard literacy. A major finding of each ANZ survey was the strong correlation between financial literacy and socio-economic status. The subsequent ANZ surveys did record whether the respondent was Aboriginal/Torres Straits Islander with a sub-sample of 70 identified in the second survey out of a total sample of 3513, and 54 out of approximately 3500 in the third.

Aside from assessing mathematical literacy and investment fundamentals the ANZ surveys sought information on retirement planning and superannuation specifically. In both surveys they found an overall awareness of superannuation though with mixed results on some of the specifics. For example, they found that a little over half of those surveyed who had superannuation were aware that it was taxed at lower rates than other investments. In terms of expectations of standard of living in retirement approximately equal proportions of those with superannuation (50%) expected to live 'about as comfortably/more comfortably as they are living now' as expected to live 'less comfortably than now but getting by' (ANZ 2008).

In terms of choosing a superannuation fund, while a majority (68%) understood that performance of a superannuation fund was best assessed after consideration of fees, a sizeable proportion (42%) couldn't suggest the types of actions that would result in accumulated superannuation balances being reduced, such as choosing funds that have high fees (ANZ 2008).

Beal and Delpachtra (2003) distinguish investment literacy, which relates to the diversity and management of investments, from financial literacy which they suggest is broader and has a comparatively smaller history. They surveyed a university student body with a survey instrument of 25 questions which covered: basic concepts (5); markets and instruments (5); planning (5); analysis and decisions (5); and insurance (5), similar to Chen and Volpe (1998) discussed below. Specific retirement or superannuation savings questions are not identified in the summary of the survey. Respondents were coded categorically as either having more or less than the median percentage of questions correct. A logistic regression examined the influence of study major (business or not), gender, family status, age, education, occupation, employment status, workforce experience, income and risk preference. They conclude that the level of financial literacy is not high though it is better for students who were studying a business major, male and it improves with experience and income.

Fogarty and MacCarthy (2006) use the Beal and Delpachtra (2003) sample and focus on financial literacy differences given the study major of business, education, and psychology students. Fogarty and Beal (2005) query the appropriateness of such survey instruments to assess a broad notion of financial literacy, suggesting "that financial literacy needs to be redefined to suit individuals" (2004:15). The problem of their suggested approach, however, is that it presupposes the variables of influence upon financial literacy. If incorrect this may hide heterogeneity within these variables that is yet to be identified in the literature. Their sample data did not include ethnicity or culture as an explanatory variable.

Worthington (2006) utilised the ANZ (2003) data to examine financial literacy influences and found that literacy was lower for unemployed, females, those from a non-English speaking background, and those with lower levels of education. While not studying financial literacy directly, Daly and Smith (1996) identify the economic burden suffered by many Indigenous families and the key indicators of social disadvantages that lie behind that result. More recently Daly and Preece (2007) have confirmed that factors such as poor education and lack of job opportunities contribute to poor money management skills among Indigenous Australians in six communities. Low incomes, lack of basic literacy and numeracy, language difficulties and the complexity of dealing with financial institutions were all cited as contributing factors.

In a broader study the National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (Australian Bureau of Statistics 2008) has confirmed that Indigenous Australians continue to suffer higher levels of financial stress than the general population, although there has been some slight improvement since a similar survey conducted in 2004.

Most recently the Financial Literacy Foundation (2007) sought to go beyond baseline knowledge assessments of financial literacy to examine “respondents’ self-assessed ability, understanding, attitudes and behaviour in regard to using and managing money” (Financial Literacy Foundation 2007: 1). The report indicates Australians are quite confident about their money management ability. For example, the majority is confident in their ability to budget (90 percent), save (88 percent), invest (69 percent), manage debt (89 percent), and choose appropriate insurance (82 percent). In fact the lowest proportion, relating to confidence in the respondent’s own ability, was still 63 percent (ensure enough money in retirement). Self-confidence notwithstanding, the survey posits questions and responses which reflect attitudes that it suggests can impede effective decision making. These questions, for example, examine attitudes to thinking about money, the importance of money in happiness, and the role of money. An important contribution of the Financial Literacy Foundation (2007) survey is identifying the role of attitude in addition to financial literacy. There is a need however to support the attitudinal questions used with evidence of their validity and reliability in their suggested function. For example, 90% may believe they have the ability to budget but is this, in fact, the case?

### **International**

Cutler and Devlin (1996) and Cutler (1997) found their American sample respondents not well informed regarding financial matters. With a view to retirement planning Cutler (2001) notes respondents’ poor confidence in investing in mutual funds (equivalent to managed funds in purpose) which he identifies “were invented to simplify investment choices, spread risk through diversification, and empower the individual consumer” and which are central to many individual and company retirement plans. Only 29% indicated they were confident in making a good investment in mutual funds although 82% correctly answered a question about investing in mutual funds “suggesting that financial literacy involves more than just a set of facts” (Cutler 2001: 501).

Cutler (2001) suggests that, as with attempts to measure changes in savings and investment behaviours, financial literacy assessments focussing on retirement preparation should include general consumer orientations toward retirement, financial literacy and knowledge, expectations, worries, and confidence, and retirement-oriented savings and investment behaviour.

Chen and Volpe (1998) in the US used a total of 44 questions relating to personal financial attitudes and knowledge. The questions were multiple choice covering general personal finance knowledge (9), savings and borrowing (9), insurance (6), investments (7), personal opinions, decisions and education (4). They also utilised a sample of university students across 14 institutions. The overall scores were relatively poor with mean correct answers of 53%. A logistic regression of respondents categorised as higher or lower than the median score (the methodology adopted by Beal and Delpachtra (2003) and Worthington (2006) in Australian studies), found respondents who were business majors, male, with more work experience or older were more likely to have higher than the median score. Interestingly race, nationality and income which have been found elsewhere to be significant in explaining levels of financial literacy, were not significant in their sample.

A number of US studies have found that levels of financial literacy and financial knowledge are lower among those from racial minority groups, see for example Bernheim (1995 1998), Jump\$tart (2008a 2008b) and Lusardi and Mitchell (2007). These studies also identified a connection between poorer results and a number of socio-economic variables including lower income and lower levels of education. These findings were borne out by an Organisation for Economic Cooperation and Development (OECD) study (2005) across twelve countries.

In the UK, Schagen and Lines (1996) constructed a sample with two-thirds from sub-groups known to experience debt problems and the remainder from the general population. The results were generally more positive than those from the US research. Of the sub-groups, students were the least confident about financial decisions and single parents were least committed to savings.

Morris (2001) investigated the financial literacy levels of secondary students in New Zealand and was able to examine ethnicity in the sample, including New Zealand European, Maori, Pacific Islander and Asian. She employed a 30 question multiple-choice survey based on the US Jump\$tart survey covering income and taxation (8), budgeting (2), risk management and insurance (2), credit and borrowing (3), spending and banking (4), saving and investing (6), and financial planning (5) (Morris: 21). Questions were adjusted for local terminology and relevance to financial instruments. Six questions were deleted from the Jump\$tart survey, replaced with locally referenced questions and questions from Chen and Volpe (1998). Two questions related to retirement savings including one related specifically to superannuation/pension terminology. Her results were not promising suggesting the students “were not financially knowledgeable and cannot attain a satisfactory grade in a fundamental knowledge-based test” (Morris 2001: ii). Those students classified in middle socio-economic deciles performed better than those on the lowest and highest

decile. Maori and Pacific Islanders did not perform as well as New Zealand European. There was no significant difference in the overall score by gender though there were some differences for individual questions and in these cases males had a higher proportion correct.

### **Survey construction, sample and administration**

The target for this study was Indigenous Australians living an urban lifestyle in Perth, the state capital of Western Australia. A range of Indigenous organisations were contacted and agreed to allow researchers to approach potential respondents; these included both workplaces and social groups (for example church and community organisations). To ensure an appropriate response rate face-to-face interviews were considered more appropriate than mailed or otherwise distributed surveys. Interviews were conducted in a range of settings but primarily in the workplace or meeting place of the social group. The interviewer was a young Indigenous woman who was provided with appropriate training by the researchers prior to the start of the data collection. This data collection technique meant that the sample was made up of willing participants who self-selected from among the groups approached. This led to some bias in the sample which is discussed however, it ensured a higher and more thorough response than could otherwise have been achieved. The interviewer reported that respondents were very eager to participate and also requested advice on where they could obtain financial information; when this occurred they were provided with contact details for relevant government organisations. No financial advice of any description was provided to respondents by the interviewer or the researchers.

A total of 20 questions were compiled drawn from the ANZ (2005) and Jump\$start surveys. The questions were modified in three ways. The first was by personalising the questions to make them better suited for face-to-face survey administration with an Indigenous sample. For example the question "If a lottery win of \$18,000 is shared equally between six people..." was changed to "If Tommy wins \$18,000 on lotto and shares it equally between six people in his family ...". The second variation followed the changes made by Morris (2001) to the US based Jump\$start questions and used appropriate Australian and Indigenous Australian terminology including the use of "boya" the local Nyungar term for money. The third variation was to re-word questions to avoid possible embarrassment if respondents had to say "Don't know" to the interviewer. For example, the inclusion of a "Can't say" option where appropriate. In a similar vein, questions worded as "do you" were changed to "would you" in questions where the respondent may not have had experience.

### **Results**

In the analysis that follows results on levels of financial knowledge and financial literacy are presented in comparison to those from the 2005 and 2008 ANZ surveys. A key goal of the present study is to identify any differences between a sample of Indigenous Australians and one drawn from the general population.



### Sample Demographics

A total of 48 respondents were interviewed in July 2007; Table 1 provides sample demographics. The sample was over-represented with female respondents (70 percent) with the largest age-group those aged between 40 and 50 years (48 percent). The sample was constructed to identify employed respondents and only six percent of the sample did not have full or part-time employment. The way respondents were sourced and the urban location meant that the sample largely represented white collar occupations. Professional and semi-professionals comprised 34 percent of the sample with the same proportion indicating “other white-collar”. The largest group (40 percent) had year ten as the highest level of high school while 19 percent had some college or university education. Approximately 84 percent of the sample had income of \$60,000 or less per annum. The majority (62 percent) of respondents were renting their home with 29 percent paying off the home. The majority of respondents were also paying off their car.

A comparison of the sample with the Western Australian Indigenous population identifies the sample as having higher education attainment. In the Western Australian Indigenous population 63 percent have year ten or below as their highest level of education (Australian Bureau of Statistics 2002: Table I01). It is more difficult to make income comparisons due to the income bands used in the survey but the proportion of Indigenous Western Australians receiving less than \$40,000 is approximately 71 percent<sup>1</sup> compared with 44 percent in the sample. The proportion of sample respondents (38 percent) owning or paying off their own home is also higher than for the wider Western Australia Indigenous population (22 percent) (Australian Bureau of Statistics 2002). These differences are to be expected given that the sample for the present study was living in an urban environment and 79 percent were full-time employed.

### Current financial management and financial management attitude

Table 2 summarises the six questions which examined overall planning attitudes. The responses reveal similar results to the 2005 and 2008 ANZ surveys in some but not all questions. The majority of respondents agreed (87 percent) that it was important to have a long term or short term financial plan. However, a disconnect of sorts exists in the sample with 34 percent of respondents agreeing that they “spend all of my income as I don’t really plan for the future” and a further 18 percent of respondents agreeing that “I feel out of control with my borrowing and credit card generally”. In both cases this is more than twice the proportion found in the ANZ surveys. One consequence of this is reflected in the 37 percent who disagree that “If I had a major loss of income I could manage for a period of time” and the 51 percent who agree that “I have problems setting money aside for major financial outlays”. In both cases the proportions are larger than the ANZ surveys.

1 Based on Western Australian data from Australian Bureau of Statistics (2002: Table I08) adjusted for inflation from June 2001 to March 2008 (25.3%) using Perth CPI numbers (Australian Bureau of Statistics 2008: Table 5).

**Table 1 Sample Demographics**

	Number	Percent
Age group		
20 < 30	9	19.6
30 < 40	5	10.9
40 < 50	22	47.8
50 < 60	8	17.4
60 < 70	2	4.3
Total	46	100.0
No response	2	
Gender		
Female	33	70.2
Male	14	29.8
Total	47	100.0
No response	1	
Highest education level		
Some secondary school	1	2.1
Passed 4th form/Year 10	18	37.5
Passed 5th form/Year 11/ Leaving	3	6.3
Some technical or commercial	3	6.3
Finished technical/ commercial school	5	10.4
Finished/now studying HSC/VCE	3	6.3
Diploma from CAE	6	12.5
Some university/CAE	3	6.3
No response	6	12.5
Main occupation*		
Professional	11	23.4
Semi-Professional	5	10.6
Other White Collar	16	34.0
Sales	1	2.1
Skilled	4	8.5
Semi-skilled	3	6.4
No occupation	1	2.1
Home duties	5	10.6
Student	1	2.1
Total	47	100
No response	1	

Household situation	Number	Percent
Single – Live alone	5	10.6
Single – Live in shared household	10	21.3
Single Parent	6	12.8
Couple – Children at home	15	31.9
Couple – No Children at home	11	23.4
Total	47	100.0
No response	1	
Current employment		
A full-time job 35 hours or more/week	38	79.2
A part-time job	7	14.6
Freelance, home duties, retired	3	6.3
Total	48	100.0
Current Annual Income		
Under \$20,000	8	17.8
\$20,000 – \$40,000	20	44.4
\$41,000 – \$60,000	10	22.2
\$61,000 – \$80,000	5	11.1
\$81,000 – \$100,000	2	4.4
Total	45	100.0
No response	3	
Family Home		
Own outright	4	8.3
Paying off	14	29.2
Renting	30	62.5
Total	48	100.0
Car		
Yes – own or paying off	39	81.3
No	9	18.8
Total	48	100.0

\* This question was answered poorly reflecting categories required further explanation. A large number of "other" answers required reclassification.

**Table 2 Attitude to Financial Management**

Table presents percentage of responses. Bracketed values represent corresponding values from ANZ (2005, 2008)

	Strongly Disagree	Disagree	Agree	Strongly Agree	Can't say
It is important to me to have a long-term financial plan (n=48)	4.2	8.3	43.8	43.8	0.0
	(14.0,11.0)		(84.0,87.0)		(2.0,2.0)
It is important to me to have a financial plan for the short-term (n=46)	4.4	8.7	60.9	26.1	0.0
	(16.0,15.0)		(83.0,84.0)		(1.0,1.0)
I spend all of my income as I get it and don't really plan for the future (n=47)	38.3	23.4	25.5	8.5	4.3
	(84.0,84.0)		(15.0,14.0)		(1.0,2.0)
I feel out of control with my borrowing and credit card generally (n=44)	45.5	22.7	18.2	0.0	13.6
	(92.0,90.0)		(7.0,7.0)		(1.0,3.0)
If I had a major loss of income I could manage for a period of time (n=46)	15.2	21.7	52.2	10.9	0.0
	(21.0,24.0)		(77.0,74.0)		(1.0,2.0)
I have problems setting money aside for major financial outlays (n=47)	19.2	25.5	46.8	4.3	4.3
	(75.0,74.0)		(24.0,24.0)		(1.0,2.0)

### Money management assistance

Table 3 indicates who respondents would consult on financial matters and who they would turn to for financial assistance. The only group which a larger proportion of respondents had consulted, relative to the ANZ surveys, were financial counsellors. Every other person or group had a lower consultation proportion in the current sample relative to the ANZ surveys. Two groups with the largest differences were an accountant and a financial adviser/planner. If the respondent had difficulty in meeting financial requirements, family, friends, financial counsellors and government or charitable agencies were over-represented compared with the ANZ surveys.

**Table 3 Consultation**

Have you ever consulted any of the following people regarding management of your boya (money)? (multiple answers)

	Percent	ANZ (2005,2008)
An accountant	27.7	44.0, 45.0
A Mortgage Broker	12.8	13.0, 18.0
A Stock Broker	0.0	10.0, 10.0
An Insurance Broker	4.3	12.0, 12.0
A Taxation Specialist	21.3	23.0, 26.0
A Financial Counsellor	19.1	13.0, 13.0

	Percent	ANZ (2005,2008)
A Bank Manager or Bank Employee	27.7	35.0, 39.0
A Credit Union or Building Society Employee	6.4	
A Financial Planner or Adviser	23.4	34.0, 34.0
Family or friends	40.4	45.0, 47.0
Cash Converter	8.5	
Pay day lender	4.3	
Government agency	17.0	
Charity organisation	10.6	
Someone else	4.2	2.0, 2.0
Can't say (None of these)	6.4	17.0, 14.0

n=47

If you have difficulty in meeting your financial commitments, who would you prefer to go to? Anyone else? [DON'T READ] (multiple answers)

	Percent	ANZ (2005,2008)
Family	62.5	45.0, 46.0
Friend	25.0	8.0, 7.0
Financial planner/adviser	27.1	6.0, 9.0
Financial counsellor	27.1	
Accountant	8.3	2.0, 4.0
Solicitor	6.3	
Bank/financial institution	31.3	41.0, 40.0
Cash converter	14.6	
Pay day lender	2.1	
Government agency	14.6	5.0, 8.0
Charity organisation	14.6	
Can't say (Don't know)	0.0	11.0, 9.0
Other	0.0	

n=48

### Education

A majority of respondents indicated that they needed further financial education or information and when asked in what specific area education was needed, superannuation was the area most frequently identified. These results are summarised in Table 4. There were several areas in which respondents

felt more in need of education/information than in the ANZ surveys. When compared with the 2008 ANZ survey the most significant of these are budgeting (57%/14%) and superannuation (69%/25%).

#### Table 4 Education and Information Requirements

Do you feel you need further education or information in relation to your personal finances/managing money?

	Percent	ANZ (2005,2008)
Yes	62.2	56.0, 51.0
No	37.8	43.0, 48.0
Can't say	0.0	1.0, 1.0
Total	100.0	100.0

n=37

If Yes to previous question, education/information on...	Percent*	ANZ (2005,2008)
Budgeting	57.1	12.0, 14.0
Investing	51.4	33.0, 39.0
Superannuation	68.6	31.0, 25.0
Taxation	57.1	7.0, 13.0
Business Finance	22.9	5.0, 5.0
How to make complaints/resolve disputes	45.7	12.0, 7.0
Saving	51.4	N/A
Can't say	8.6	16.0, 16.0
Other	5.7	2.0, 5.0

n=35

\*This question was linked to previous Yes/No question (which had 23 positive responses).

However one case answered "No" but then gave a response to this question and 11 gave no response to previous question but still answered this question. Additionally the alternatives were read out as options for respondents in this survey rather than in the ANZ (2005) where the options were offered by the respondent.

#### Attitude and understanding of risk

Three questions, summarised in Table 5, sought respondents' attitude to and understanding of risk. Collectively the results suggest areas of misunderstanding. First, 25 percent of respondents either did not agree or could not say that an investment with a high expected return would likely have a higher than average risk. Secondly, the perception of a good investment was linked with an asset which only increased in value, with only 38 percent indicating that short-term fluctuations were possible with good investments. This compares to 66 and 67 percent in the ANZ surveys. This could suggest a higher level of misunderstanding or, alternatively, a more conservative attitude to risk. However the latter seems less likely given that a majority of respondents would be willing to "invest lightly to see how it goes" when an investment was advertised as offering above market returns with no risk.

**Table 5 Risk Attitude and Understanding**

An investment which has a high expected return likely has a higher than average risk.

	Percent	ANZ (2005, 2008)
True	75.0	87.0, 86.0
False	8.3	8.0, 7.0
Can't say	16.7	5.0, 7.0
Total	100.0	100.0

Which ONE of the following is the most accurate statement about fluctuations in market values?

	Percent	ANZ (2005,2008)
Investments that fluctuate in value are not good in the long term	6.3	5.0, 5.0
Good investments are always increasing in value	37.5	21.0,16.0
Short-term fluctuations in market value can be expected, even with good investments	37.5	66.0,67.0
Can't say (unsure)	18.8	8.0,12.0
Total	100.0	100.0

Which ONE of the following would you think if an investment was advertised as having a return well above market rates and no risk?

	Percent	ANZ (2005,2008)
Consider it 'too good to be true' and not invest	31.3	49.0,52.0
Invest lightly to see how it goes before investing more heavily	54.2	43.0,39.0
Invest heavily to maximise your return	2.1	3.0,3.0
Can't say	12.5	5.0,6.0
Total	100.0	100.0

### Financial Literacy – Basic Mathematics

Six questions, drawn from ANZ (2005) and presented in Table 6, assessed basic numeracy. A majority of respondents answered the addition (92 percent), subtraction (76 percent), multiplication (85 percent), division (85 percent), percentage (87 percent) and percentage subtraction (87 percent) questions correctly. In each question the proportion who answered correctly was higher than the sample of respondents in the 2005 ANZ survey.

**Table 6 Financial Literacy – Basic Mathematics**

	Correct %	ANZ (2005) <sup>1</sup> %
If Tommy spent \$13 on lunch one day but only \$8 the next day, how much did he spend on lunch over the two days?	92	85
If Mary pays for something that costs \$165 with four \$50 notes, how much change would she receive?	90	76
If Tommy and 20 of his friends play lotto and each won a prize of \$350, what is the total amount paid out in prize money to them?	85	78
If Tommy wins \$18,000 on lotto and shares it equally between six people in his family, how much will each person receive?	85	78
If Tommy takes home \$1,400 a month and 50% of this goes on rent, what is the monthly rent?	87	83
If a refrigerator priced at \$1000 is discounted by 10% at a sale, how much would it cost Josie?	87	86

<sup>1</sup> The ANZ (2008) survey does not provide a breakdown

Table 7 examined more general financial knowledge. Nine of these questions were based on the Jump\$tart (2003) survey, with modifications similar to Morris (2001), and the remaining seven were from the ANZ surveys. The average correct score over the 16 questions for the 48 respondents was 56 percent, a relatively poor overall result. While the numbers and coverage of questions are not identical with Morris (2001), they are representative and a comparison of scores can be made. It should also be noted that Morris' (2001) sample was school students. The overall average correct score in Morris (2001) was 55 percent with Maori 48 percent and Pacific Islanders 44 percent. Fifty-two percent failed to achieve the pass mark of 60 percent. Thus the overall average in the current sample suggests general financial knowledge is poor but comparable with Morris (2001) and arguably better than the Indigenous Maori and Pacific Islander sections of her sample.

In the current survey eight questions received less than 50 percent correct responses. The question with the lowest correct score asked respondents which investment offered the highest expected growth over the long term. Only 10 percent of respondents indicated the correct answer of shares, whereas a savings account was selected by 54 percent of respondents. It is interesting to consider whether this reflects a misunderstanding of likely returns or a reflection of preferences/familiarity with investment alternatives. The role of the ASIC in checking an investment prospectus was also poorly understood with 47 percent incorrectly indicating ASIC checked the accuracy of any prospectus lodged with it. Only a third of respondents knew that a cooling-off period existed for house and contents insurance. Only 44 percent of respondents correctly identified repayment behaviour that would result in the highest credit card interest.

Three questions focussed on superannuation. Only 30 percent of respondents correctly indicated that superannuation was taxed at a lower rate compared with other investments and 45 percent answered "can't say". As noted previously, for those on lower marginal tax rates, superannuation would represent a higher taxed savings vehicle. Identification of these individuals is not

possible. While a majority of respondents (88 percent) knew that an obligation existed on employers to make superannuation contributions, a large proportion of respondents (31 percent) incorrectly believed workers could not also make contributions themselves.

### Table 7 Financial Literacy – Financial Knowledge

The questions summarised in this table are based on those from Morris (2001) (Q1-9) and ANZ (2005) (Q10-16). An asterisk denotes the correct response.

	Responses %	Morris (2001)/ANZ (2005,2008) %
1. Mary has saved \$3,000 for tertiary expenses by working part-time. She plans to start TAFE next year and needs all the money she saved. Which of the following is the most suitable place for her money?		
Locked in a drawer at home	0.0	3.4
A bank savings account*	81.3	87.8
Government bonds	10.4	5.8
Shares	4.2	3.0
Can't say	4.2	
2. Tommy and Josie have just had a baby. They received money as gifts and want to put it away for baby's education. Which of the following is likely to have the highest growth over the next 18 years?		
A savings account	54.2	55.1
Shares*	10.4	21.3
An Australian Govt bond	18.8	19.3
A cheque account	2.1	4.4
Can't say	14.6	
3. Many people put aside money to take care of unexpected expenses. If Mary & Billy have put money aside for emergencies, which of the following forms would it be of LEAST benefit to them if they need it right away?		
A cheque account	8.3	10.6
A savings account	14.6	10.8
Shares	29.2	25.1
Invested in a down payment on the house*	37.5	53.5
Can't say	10.4	
4. Which of the following instruments is NOT typically associated with spending?		
ATM (Automated Teller Machine) Card	0.0	8.6
Cash	4.3	4.2
Term deposit*	78.7	82.1
Credit card	10.6	5.1
Can't say	6.4	
5. Which of the following cousins who uses credit cards is likely to pay the HIGHEST dollar amount in finance charges per year if they all charge the same amount per year on their credit cards?		
Tommy who always pays off his credit card in full shortly after he receives it	18.8	13.6



Billy, who occasionally pays off his credit card in full but occasionally will pay the minimum when he is short of cash	14.6	12.9
Josie, who pays at least the minimum amount each month and more when she has the money	12.5	14.2
Mary, who only pays the minimum amount each month*	43.8	59.3
Can't say	10.4	
6. Johnny and Billy are two young cousins. Each has a good credit history. They work at the same company and make approximately the same salary. Johnny has borrowed \$5,000 to buy a car. Billy has borrowed \$5,000 to take a foreign vacation. Who is most likely to pay the lowest interest charge?		
They are both likely to pay the same because they have almost identical financial backgrounds	12.5	23.3
Billy is likely to pay less because people who travel overseas are better risks	8.3	17.2
Johnny is likely to pay less because the car is collateral for the loan*	25.0	39.4
They are both likely to pay the same because the rate is set by law	43.8	20.1
Can't say	10.4	
7. Which of the following statements is NOT correct about most ATM (Automated Teller Machine) cards?		
You can get cash anywhere in the world with no fee*	75.0	78.6
You can generally get cash 24 hours a day	2.1	6.1
You can generally obtain information concerning your bank balance at an ATM machine	0.0	8.7
You must have a bank account to have an ATM card	10.4	6.6
Can't say	12.5	
8. If Tommy and Josie are behind on their debt payments and go to a responsible credit counselling service such as Anglicare, what help can they give?		
They can force those who lent you money to forgive all your debts	0.0	5.7
They can work with those who lent you money to set up a new payment schedule that you can meet*	85.1	71.0
They can cancel and cut up all of your credit cards without your permission	0.0	14.3
They can get the government to apply your income taxes to pay off your debts	2.1	9.0
Can't say	12.8	
9. Under which of the following circumstances would it be financially beneficial for Billy to borrow money to buy something now and repay it with future income?		
When he really needs a two week holiday	8.9	6.3
When some clothes he likes go on sale	4.4	10.0
When the interest on the loan is greater than the interest he gets on his savings	20.0	35.4
When he needs to buy a car to get to a high-paying job*	40.0	48.3
Can't say	26.7	

10. A person keeps their PIN number on a piece of paper in their wallet, with their ATM or bank card. If the wallet is stolen and the card and PIN are used to take money from an account, who is liable for the lost money?		
The Bank only	0.0	3.0,3.0
Both the bank and the card-holder, in equal part	0.0	6.0,6.0
The card-holder only*	95.8	88.0,87.0
Can't say	4.2	3.0,4.0
11. The Australian Securities and Investment Commission checks the accuracy of all prospecti lodged with it.		
True	46.8	57.0, 52.0
False*	19.2	15.0,19.0
Can't say	34.0	28.0,29.0
12. Providers of professional advice about financial products may receive commissions as a result of their advice, so they are required by law to tell this to their clients		
True*	71.7	79.0,78.0
False	8.7	11.0,11.0
Can't say	19.6	10.0,11.0
13. There is a cooling off period after taking out a new house and contents insurance policy, during which time you can cancel the policy and have your premium fully refunded		
True*	34.0	65.0,68.0
False	51.1	13.0,14.0
Can't say	14.9	22.0,18.0
14. Employers are required by law to make superannuation contributions on behalf of their full-time employees		
True*	87.5	97.0,96.0
False	6.3	2.0,3.0
Can't say	6.3	1.0,1.0
15. Workers cannot make superannuation contributions in addition to those made by their employer		
True	22.9	6.0,6.0
False*	68.8	92.0,90.0
Can't say	8.3	2.0,4.0
16. As far as you are aware, is superannuation taxed at a Lower, Higher or the Same rate than other investments?		
Lower rate*	29.8	56.0,58.0
Higher rate	14.9	9.0,5.0
Same rate	10.6	13.0,10.0
Can't say	44.7	22.0,27.0

### Financial Literacy – Superannuation Role and Planning

Further questions focussed on respondent views on the role of superannuation and retirement planning. Some responses suggest that further investigation is warranted given the suggested difference between this sample and the wider Australian sample reported in the ANZ surveys. While 89 percent of respondents identified superannuation as being important or very important

when they retire, which is comparable to ANZ (2005, 2008), only 15 percent indicated they had identified how much they need when they retire. This compares with 35 and 27 percent for the ANZ 2005 and 2008 surveys respectively. Somewhat at odds with the view of the importance of superannuation when retired, is the 54 percent of respondents who considered that the government would make up the gap or any shortfall. This proportion is quite different to ANZ (2005, 2008) where only five and six percent respectively of respondents gave a similar response. The number of respondents does not permit detailed or robust analysis but the proportion of respondents aged less than 40 was less (50 percent) than that of those aged 40 or older (57 percent) who agreed or strongly agreed the government would make up the gap.

An open-ended comment was invited from respondents and seven responses were received. While it is difficult to draw conclusions from so few responses the type of comment is revealing. Two responses specifically questioned the suitability of the superannuation system in view of lower life expectancy:

Aboriginal men live short life spans to 40-45. The system has to change to fit for Aboriginal people. 'Shame factor'.

Aboriginal workers should be able to retire at an earlier age due to the life expectancy. People pass away before the age of 60 (women) and 65 (men)

Two additional responses, while reflecting on personal experiences, again suggest possible barriers that may prevent Indigenous people from participating in the superannuation system.

I don't support the superannuation because of things that happen to me and my husband in the past. We had jobs that paid good wages and they took our money out for super and taxes and did not pay it to their company (fund?). Another problem was my husband was in one Super for a long time – 10 years? – and the company told him that he has no Super with them any more because it all went in accounting fees. I don't have a lot of faith in Super any more. I find I would be better off if I put money into a bank account and saved it that way, where I can keep an eye on my Super and get interest at the same time.

It's hard for us people on Centrelink. We only get \$60.00 to live on. And I worked 11 years and all I got back from my superannuation was \$5000.00. That's nothing and I worked so hard. Aboriginal people never got the help needed to understand superannuation.

### **Comment and Conclusions**

The present study is a pilot study which attempts to investigate the financial literacy and financial knowledge of Indigenous Australians living in an urban environment and draw comparisons to that of a sample drawn from the

general population. Results suggest that in some areas financial knowledge is significantly weaker for this group than that in the general population, such that a closing of the financial literacy gap is required. Interestingly several of the areas of comparative weakness relate to an overstated belief in the role of government and the extent to which financial matters are regulated. For example, beliefs that personal loan rates are set by law, that individuals are not permitted to make superannuation contributions and that ASIC checks in detail the accuracy of all prospectuses. Although reasonable overall, the comparative understanding of the risk/return relationship is poor and could leave people exposed to inappropriate sales techniques of high risk investments.

Knowledge of superannuation is poor compared to the general population and respondents' comments suggest a high level of cynicism about a system which is seen as inappropriate for their needs.

There is a high level of desire for financial education and information in almost all the suggested areas but a lower level of usage of potential sources of financial information such as accountants and bank employees. This is combined with a much higher reliance on family and friends in times of financial hardship.

The results of the present study suggest that there are still areas of significant need for financial education among urban Indigenous Australians. Areas of misunderstanding mean that they may be exposed to a higher level of financial error and poor financial decisions than the general population. An additional challenge for policy makers is the view of the irrelevance of current retirement incomes policy to those who are likely to have lower incomes and a shorter life expectancy.

Given that the majority of respondents to the present study were employed and all were living in an urban environment it is possible that their financial literacy may be better than those living in more remote communities. However, it is also recognised that living in an urban environment and/or being employed does not necessarily mean that Indigenous people do not act and think in traditional or customary ways regarding the management of money. To explore this future research is planned to extend the pilot study to a broader, more representative sample by including Indigenous Australians with lower levels of employment and those living in a less urban environment.

### **Acknowledgements**

The authors would like to thank AIATSIS for their financial support of this research.

### **References**

- Anonymous. (2003) 'Financial literacy levels grim', *Charter*, 74, 18.
- ANZ (2003) *ANZ Survey of Adult Financial Literacy in Australia*, <http://www.anz.com/aus/aboutanz/Community/Programs/FinSurvey2005.asp> [accessed 4th September 2008].

- ANZ (2005) *ANZ's Adult Financial Literacy Survey*, <http://www.anz.com/aus/aboutanz/Community/Programs/FinSurvey2005.asp> [accessed 4th September 2008].
- ANZ (2008) *Home Ownership and Indigenous Australians*, <http://www.anz.com/aus/aboutanz/Community/Indigenous-home-ownership.asp> [accessed 4th September 2008].
- Australian Bureau of Statistics (2002) *Census Community Profile Series : Western Australia*, <http://www.censusdata.abs.gov.au/ABS> [accessed 21st January 2004].
- Australian Bureau of Statistics (2008) National Aboriginal and Torres Strait Islander Social Survey, <http://www.abs.gov.au/ausstats/abs@.nsf/productsbytopic/AD174BBF36BA93A2CA256EBB007981BA?OpenDocument> [accessed 30 October 2009].
- Australian Securities and Investments Commission. (2002a) *Consumer Education Strategy 2001 to 2004*, <http://www.fido.asic.gov.au/fido/fido.nsf/byheadline/Consumer+education+strategy+2001+to+2004?openDocument> [accessed 23rd June 2003].
- Australian Securities and Investments Commission (2002b) *Good Practice in Consumer Education for Indigenous People*. Retrieved September 4, 2008, from <http://www.fido.gov.au/fido/fido.nsf/byheadline/Consumer+reports+and+papers?openDocument> [accessed 4th September 2008].
- Australian Securities and Investments Commission (2005) *Financial Literacy in Schools*, [http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/FinLit\\_schools\\_DP.pdf/\\$file/FinLit\\_schools\\_DP.pdf](http://www.asic.gov.au/asic/pdflib.nsf/LookupByFileName/FinLit_schools_DP.pdf/$file/FinLit_schools_DP.pdf) [accessed 4th September 2008].
- Barberis, N. & Thaler, R. (2002) *A Survey of Behavioral Finance*, Working Paper No. w9222. Cambridge, Mass., National Bureau of Economic Research.
- Beal, D.J. & Delpachtra, S.B. (2003) 'Financial literacy among Australian university students', *Economic Papers*, 22, 65-78.
- Bernheim, B. D. (1995) 'Do households appreciate their financial vulnerabilities? An analysis of actions, perceptions and public policy'. In *Tax Policy and Economic Growth*, Washington, DC, American Council for Capital Formation.
- Bernheim, B. D. (1998) 'Financial illiteracy, education and retirement saving'. In O. S. Mitchell & S. J. Schieber (eds.) *Living with Defined Contribution Pensions: Remaking Responsibility for Retirement*, Philadelphia, University of Pennsylvania Press.
- Chen, H. & Volpe, R.P. (1998) 'An analysis of personal financial literacy among college students', *Financial Services Review*, 7, 107-128.
- Coben, D., Dawes, M. & Lee, N. (2005) *Financial Literacy Education and Skills for Life*. London, National Research and Development Centre for Adult Literacy and Numeracy.

- Consumer and Financial Literacy Taskforce (2004) *Australian Consumers and Money*, <http://www.cfltaskforce.treasury.gov.au/content/discussion.asp?NavID=4> [accessed 10th December 2004].
- Cutler, N.E. & Devlin, S.J. (1996) 'Financial literacy 2000'. *Journal of the American Society of CLU and CHF*, 50 (4), 32-37.
- Cutler, N.E. (1997) 'The false alarms and blaring sirens of financial literacy: Middle-agers' knowledge of retirement income, health finance and long-term care'. *Generation*, 21, 34-41.
- Cutler, N.E. (2001) 'Divine benefit versus divine contribution pensions approaches to monitoring improvements in American retirement income security over the next decade'. *Journal of Applied Gerontology*, 20 (4), 480-507.
- Daly, A. & Smith, D. (1996) 'Policy challenges of the contemporary socio-economic status of Indigenous Australian families'. *Australian Journal of Social Issues*, 31 (4), 355-375.
- Daly, A. & Preece, C. (2007) 'An investigation of financial literacy in six indigenous communities', [http://www.anu.edu.au/caepr/Publications/topical/Daley\\_finance\\_literacy.pdf](http://www.anu.edu.au/caepr/Publications/topical/Daley_finance_literacy.pdf) [accessed 30 October 2009].
- Financial Literacy Foundation (2007) *Financial literacy: Australian's Understanding Money*, Canberra, Commonwealth of Australia.
- Financial Literacy Foundation (2008) *Understanding Money: Good Practice in Developing Financial Literacy Initiatives with Indigenous Australians*, Canberra, Commonwealth of Australia.
- Financial Services Consumer Policy Centre (1999) *Stocktake of Consumer Education in Financial Services: Final Report*, Sydney, Australian Securities & Investments Commission.
- Fogarty, G., & Beal, D. J. (2005) 'Financial Literacy: How do Psychology Students Rate?' Unpublished manuscript, University of Southern Queensland, Toowoomba.
- Fogarty, G., & MacCarthy, K. (2006) 'Financial literacy: A psychologist's perspective on an emerging societal problem in Australia'. In M. Katsikitis (ed.) *Proceedings of the 2006 Joint Conference of the APS and NZPsS*, Auckland, September.
- Human Rights & Equal Opportunity Commission (2006) *A statistical overview of Aboriginal and Torres Strait Islander Peoples in Australia*, [http://www.hreoc.gov.au/Social\\_Justice/statistics/index.html#toc41](http://www.hreoc.gov.au/Social_Justice/statistics/index.html#toc41) [accessed 23rd July 2008].
- Institute of Chartered Accountants (2003) 'Financial Literacy Levels Grim'. *Charter*, 74(5), 18.
- Jump\$tart Coalition for Personal Financial Literacy (2003) *Jump\$tart Questionnaire*, <http://www.jumpstart.org/upload/surveyresultsapril2002.doc> [accessed 16th January 2004].

- Jump\$tart (2008a) *2008 Survey of Personal Financial Literacy Among College Students*, <http://www.jumpstart.org> [accessed 30th April 2008].
- Jump\$tart (2008b) *2008 Survey of Personal Financial Literacy Among School Students*, <http://www.jumpstart.org> [accessed 30th April 2008].
- Lusardi, A. & Mitchell, O. S. (2007) 'Financial literacy and retirement preparedness: Evidence and implications for financial education'. *Business Economics*, 42 (1), 35-44.
- McDonnell, S. (2003) 'Money talks: Overcoming the financial exclusion problems'. Paper presented at the Australian Social Policy Conference, University of NewSouth Wales, Sydney, July.
- McMillen, J. & Donnelly, K. (2008) 'Gambling in Australian Indigenous communities: the state of play'. *Australian Journal of Social Issues*, 43 (3), 397-426.
- Morris, L. (2001) *An Investigation into the Financial Knowledge Levels of New Zealand SeniorSecondary School Students*, <http://www.enzt.co.nz/pdf/Financial%20Literacy.pdf> [accessed 15th December 2001].
- National Indigenous Consumer Action Plan Implementation Group (2005) *Taking Action, Gaining Trust*, Government Printer of the Northern Territory.
- National Indigenous Money Management Agenda (2007) *Banking for the Future*, Canberra, Reconciliation Australia.
- Organisation for Economic Co-operation and Development (2005) *Improving Financial Literacy: Analysis of Issues and Policies*, No. 9264012567, Paris, OECD.
- Pragnell, B. (2002) 'Superannuation policy issues for Indigenous Australians: Scope for reform'. *Australian Universities Review*, 45, 35.
- Scaife, W. (2006) 'Challenges in Indigenous philanthropy: Reporting Australian grantmakers' perspectives'. *Australian Journal of Social Issues*, 41 (4), 437-452.
- Schagen, S. & Lines, A. (1996) *Financial Literacy in Adult Life: A Report to the Nat West Group Charitable Trust*, London, National Foundation for Educational Research.
- Schagen, S. (1997) *The Evaluation of NatWest Face 2 Face with Finance*, London, National Foundation for Education Research
- Worthington, A.C. (2006) 'Predicting financial literacy in Australia' *Financial Services Review* 15 (1), 59-79.

**Paul Gerrans** is Associate Professor of Finance in the School of Accounting, Finance & Economics at Edith Cowan University, where he is Co-Director of the Centre for Retirement Incomes and Financial Education Research (CRIFER). Paul has research and teaching experience in superannuation and retirement planning, personal finance, and investment finance broadly, both in Australia and the US. Paul has published widely in retirement savings with a particular focus on individual investment choices, investment strategy, and the factors influencing financial decision making.

**Marilyn Clark-Murphy** is a Professor of Finance in the School of Accounting, Finance & Economics at Edith Cowan University. She is also a Co-Director of the Centre for Retirement Incomes and Financial Education Research (CRIFER). Marilyn's research focus is on behavioural finance, individual financial making and financial literacy. Marilyn is a member of the Australian Federal Minister for Superannuation and Corporate Law's Superannuation Advisory Committee and a member of the WA Regional Council of FINSIA. She was also a delegate to the Australia 2020 Summit contributing to the stream on the Future of the Australian Economy.

**Keith Truscott** is a Lecturer at Kurongkurl Katitjin, Centre for Indigenous Australian Education and Research also at Edith Cowan University.



Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.