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impact on measures of wealth and home
ownership**

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**Family trusts: ownership, size, and their
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Phil Briggs¹

Abstract

The number of family trusts has increased markedly in New Zealand over the last 15 years. This increase has implications for the measurement of household wealth and home ownership, since a significant proportion of dwellings are now held in family trusts. The Household Savings Survey (HSS), which was undertaken by Statistics New Zealand in 2001, collected data on household wealth, including the assets and liabilities of family trusts. HSS data is re-examined, with an emphasis on looking at the types of households that have family trusts, and also at the assets held in these trusts. The 2001 census, which included for the first time a question on whether a dwelling was held in a private trust, is also re-examined. It seems that many census respondents were confused by the census question, and results from the HSS suggest that the census total for trust dwellings is an undercount. HSS data, together with data on the number of tax returns from private trusts, is used to adjust the 2001 census tenure table. It was found that after adjustment for trust ownership, the home ownership rate still fell between 1991 and 2001. Furthermore, ownership rates fell for all age groups. Some of the difficulties that trusts pose when analysing surveys like the HSS at the unit record level are outlined, as are some suggestions for dealing with these difficulties.

¹ The views expressed in this paper are those of the author and do not necessarily reflect the views of the Reserve Bank of New Zealand. Thanks to Caroline Brooking, Angela Fabian, David Feslier, Bernard Hodgetts, Ross Holmes, Christie Smith, Mark Smith and Clive Thorp for their comments. Any remaining errors are the author's responsibility. Contact information: Economics Department, Reserve Bank of New Zealand, 2 The Terrace, PO Box 2498, Wellington; phone +64 4 471 3796 (direct line) or +64 472 2029; fax +64 4 473 1209; email phil.briggs@rbnz.govt.nz.

1 Introduction

This report takes a look at family trusts: who owns them, what they contain, and how trusts affect the accuracy of measurements of wealth, income, and home ownership. There are three major sources of data on trusts: the 2001 Household Savings Survey (HSS), the 2001 Census, and data from the Inland Revenue Department (IRD). We look first at the HSS, which gives us a ‘snapshot’ picture of trusts. We then look at census and IRD data, which together show us how trust ownership, and also home ownership rates, have changed over time.

2 Household Savings Survey

Survey background

The Household Savings Survey is written up in *The Net Worth of New Zealanders*, which was published in 2002 by Statistics New Zealand. This report will be referred to as NWNZ. Statistics New Zealand has also published *Standard tables and technical notes* for the HSS, which is available from Statistics New Zealand’s website.² In August 2005, a set of extra tables from the HSS was obtained by the Reserve Bank from Statistics New Zealand. These extra tables use the survey data that was collected in 2001. These extra tables largely show assets and liabilities for trusts, and for the population as a whole. In this report we use all of these sources – the original HSS publication, the standard tables, and the extra tables.

While the material from the HSS is now a little dated, it gives us the most comprehensive view that we can get of the assets and liabilities of trusts. Initial tables from the second wave of the SoFIE study, which is an annual longitudinal survey of households, became available in November 2005.³ This second wave of the study provides data on the assets and liabilities of households. However, it does not provide data on the total assets and liabilities of family trusts. Instead, it focuses on only those trust assets that are owned by households, which are the debts which trusts owe to households (more on this below). Consequently, the HSS is likely to remain

² See www.stats.govt.nz/datasets/social-themes/household-savings.htm.

³ SoFIE stands for Survey of Family Income and Expenditure.

the best source of data on trusts for some time yet, and it is worth going back to this 2001 survey to look at what it can tell us.

It is important to know what the amount of wealth held in trusts is, since this wealth may affect consumption and savings decisions. In theory this wealth is not household wealth, since it is not legally owned by households. But, in practice, many households have access to the wealth held in trusts. Hence this wealth is likely to have a significant influence on household behaviour.

The HSS was conducted between August and November 2001 (NWNZ, page i). The survey population was the usually resident population in New Zealand aged 18 years and over living in permanent private dwellings in the North Island, South Island and Waiheke Island. Data was collected from 'economic units'. An economic unit is either a non-partnered individual, or a couple. The decision to collect data on economic units, rather than on total households, was largely due to government interest in retirement issues. Government retirement policies are generally based on such economic units.

The HSS asked individuals and couples whether they were a settlor in a family trust. A settlor is the person who sets up the trust and transfers assets into it. These assets are sold to the trust at a fair price. The purchase of these assets is usually funded by a debt from the trust back to the settlor. This debt is considered an asset to the settlor. The debt is usually repaid by the settlor 'gifting' the trust a certain amount of money each year. There is a limit as to how much can be gifted tax free. The limit is currently \$27,000 per year for each person. (For more details see NWNZ, p 84.)

The HSS collected information on:

- *Respondents' assets as a settlor of the trust.* This is the total amount of debt owed to them as settlors by the trust. These values are included in respondents' total assets, and hence in their net worth too.
- *Total trust holdings.* This is the total value of current trust assets regardless of debt.
- *Total value of trust equity.* According to NWNZ this is the total value of current trust assets minus any debts on those assets (such as mortgages) and any debts owing to the settlor. However, no data on trust equity was published in NWNZ or the accompanying supplementary tables. And in the extra HSS tables obtained by the

Reserve Bank, trust equity does not account for debts owing to the settlor (more on this below).

NWNZ and its associated supplementary tables focus on respondents' assets, which are referred to as 'trust assets'. While we occasionally refer to these assets below, our major focus is on *total* trust holdings.

Aggregate data for trusts

Table 1 summarises HSS data on assets of economic units and trusts. Some of the points worth noting are as follows:

- Total assets, excluding Maori assets (which are assets held by iwi, or hapu, that the respondent holds a share of), are \$435 billion.⁴ The average value of assets (including 'trust assets') held per economic unit is \$243,600.
- The number of economic units with family trusts is 137,800. Around 7.7 percent of all economic units have trusts. However, only 3.7 percent of individuals have trusts, while 12.0 percent of couples have trusts. This is a different situation than that presented in NWNZ, which on page 85 says that: 'The ownership of trusts was relatively low at one percent for individuals and six percent for couples.' As can be seen from Table 1, these lower figures cover only those trusts that owe money to settlors, rather than all trusts.
- Only 95 percent of settlors were able to supply data on the total holdings of trusts. For those that could supply data, the total holdings held in trusts was just over \$93 billion. The average amount held by each of these trusts was \$707,900. If we assume that those trusts for which we don't have data were holding the same average amount, the scaled-up total for trust holdings is \$97.1 billion. Even this amount is likely to be an undercount, since wealth surveys tend to undercount the assets of the wealthiest households.⁵
- The HSS indicates that 3.6 percent of all economic units have 'trust

⁴ Statistics New Zealand excludes Maori assets from its definition of household assets (NWNZ, p58). We also exclude them from the definition used here. Maori assets were \$8.8 billion.

⁵ Despite the likely undercount, in the remainder of this paper we take the figure of \$93 billion as being the total value of trust holdings.

assets'. This is under half of the proportion that reported having trust holdings. Hence the HSS data suggests that less than half of all trusts – around 45 percent of them – still owe money to settlors. Of those trusts that do owe settlors, the average amount owed is \$450,000. As noted above, in the HSS these amounts are counted as assets of the settlors.

- Table 1 gives an aggregate value for 'all assets' of \$499.6 billion. This has been derived by taking total household assets (excluding Maori assets), subtracting 'trust assets' (which is the amount owed by trusts to settlors), then adding on trust holdings. In effect, this is an estimate of the total assets that the households have access to, or can use. Trust holdings account for 18.6 percent of these assets.
- The extra tables that we obtained from Statistics New Zealand show that total trust equity was \$79.7 billion. The value of equity for each trust was calculated by Statistics New Zealand by subtracting the trust's debt from its holdings. This debt did not include the debt owed to settlors (which is to some extent only a notional debt, or a 'paper debt'); hence this debt includes only the debt owed to other parties. Subtracting total equity from total holdings we get an estimate of trust debt of \$13.4 billion, which is equal to 14.4 percent of trust holdings.

Distribution of trust holdings and debt by age and income groups

For individuals, trust ownership generally increases with age, peaking at age 65-74 (Figure 1). For couples it peaks a little earlier, at age 55-64, with around 18 percent of this group owning trusts. Why is trust ownership lower in the older age groups? Some of the apparent decline may be due to people going into rest homes since the survey covers only people who are still in private dwellings. Also, the peaks in trust ownership may reflect the strong growth in the number of trusts over recent years (more on this later), with this growth resulting in high levels in ownership for couples aged 55-64. Growth in older age groups may have been inhibited by the fact that older people are running out of time with respect to gifting all of their assets to trusts.

Table 1
Summary of HSS data on assets of economic units and trusts

	Individuals	Couples	Total	Source
<i>Survey aggregates</i>				
Number of respondents to survey	2,392	2,982	5,374	NWNZ p 125
Total economic units	930,900	855,900	1,786,800	NWNZ p 125
Total population covered by survey	930,900	1,711,800	2,642,700	
Total assets (excluding Maori assets), \$b	109.870	325.372	435.242	NWNZ p 59, Extra table
Maori assets, \$b	3.527	5.263	8.790	NWNZ p 60, Extra table
Average assets per economic unit, \$	118,000	380,200	243,600	
<i>Trust holdings</i>				
Total trusts (i.e. economic units that are settlors)	34,900	102,900	137,800	NWNZ p 87
Trusts as % of economic units	3.7	12.0	7.7	
Trusts providing data on holdings	32,000	99,400	131,400	Table 4.01
Trusts not providing data on holdings	2,800	3,500	6,300	Table 4.01
Reported holdings of trusts, \$b	14.608	78.407	93.015	Table 4.01
Scaled up holdings, \$b	15.932	81.168	97.100	
Average reported trust holdings, \$	456,500	788,800	707,900	
<i>'Trust assets' ⁽¹⁾</i>				
Respondents with trust assets	13,300	50,500	63,800	Table 4.01
Respondents with trust assets as % of economic units	1.4	5.9	3.6	
Trust assets (amounts owed to settlors), \$b	2.689	26.020	28.709	NWNZ p 85, Extra table
Average reported trust assets, \$	202,200	515,300	450,000	
<i>All assets</i>				
Household assets excluding trust assets, \$b	107.181	299.352	406.533	
All assets (excluding trust assets but including trust holdings), \$b	121.789	377.759	499.548	
Trust holdings as % of all assets	12.0	20.8	18.6	
<i>Trust equity and debt</i>				
Trust equity, \$b	12.834	66.825	79.659	Extra table
Trust debt, \$b	1.774	11.582	13.356	Equals holdings minus equity
Trust debt as % of trust holdings	12.1	14.8	14.4	

(1): 'Trust assets' are respondents' assets in trusts; they are the debts owed by trusts to respondents as settlors.

Sources: NWNZ is Statistics New Zealand (2003), *The Net Worth of New Zealanders*. Table 4.01 is from *Standard tables and technical notes* accompanying NWNZ. The extra tables referred to are tables prepared by Statistics New Zealand for the Reserve Bank of New Zealand.

Overall, it can be seen that for middle aged couples – those between age 35 and 64 – a significant proportion are holding assets in family trusts. Even for the youngest component of this age group – those aged 35-44 – around 13 percent of them have family trusts.

Figure 1
Trusts as percentage of all economic units, by age group
 Percent of total

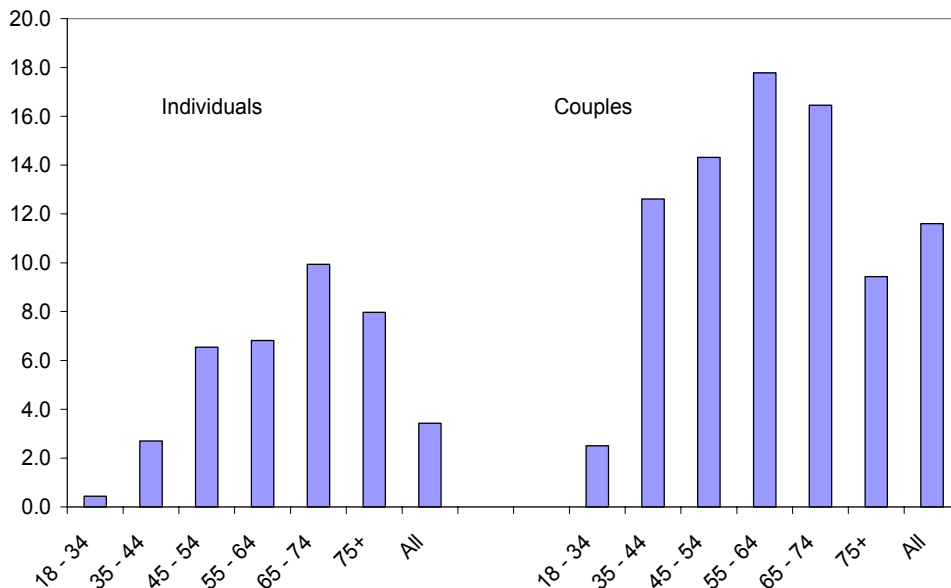


Figure 2 shows the average level of trust holdings. Trust holdings are highest, for both individuals and couples, in the 45-54 age group. Average trust holdings for couples aged 45-54 are around \$1.1 million. The chart also shows average household assets, for comparison. These household assets exclude ‘trust assets’ or the amount owed by trusts to households, since these amounts are included in trust holdings.⁶ The average amount

⁶ The asset figures for economic units presented here include economic units that have trusts. Ideally we would use two mutually exclusive groups: trust-owning units and

held by trusts is 3.1 times larger than the average amount of assets held by households.

Figure 2
Average trust holdings and average assets of economic units, by age group

Average amount, in dollars

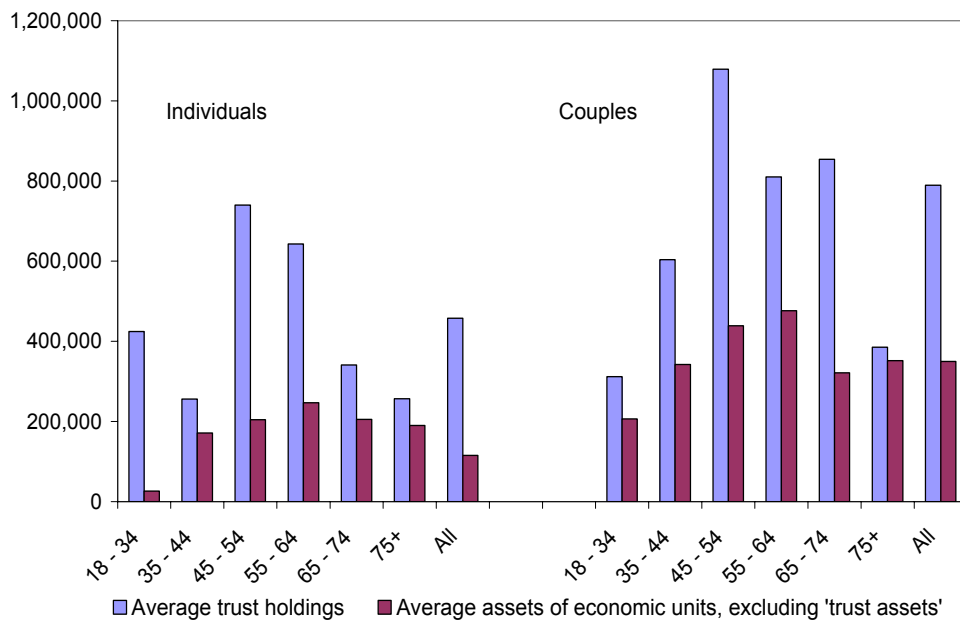


Figure 3 shows debt as a percentage of assets for both trusts and economic units. Looking at the figures for economic units first, we can see that the debt to asset ratio is high for younger age groups and falls as age increases. This makes sense, since younger age groups have had less time to pay off debt, including debt related to mortgages.

The profile for debt to asset ratios for trusts held by couples is similar to that for economic units. However, for trusts held by individuals the debt to asset

'other economic units'. The average assets for 'other economic units' could be expected to be a little higher than those presented here; the figures here include the assets of trust-owning units, which are probably low, given that many of these units will have transferred a large portion of their assets into trusts.

ratio is relatively low for lower age groups. From Figure 1 we saw that trust ownership is relatively low in these age groups, although Figure 2 shows that their average trust holdings are reasonably high. Perhaps this group is generally made up of people who have inherited assets and put them in trust, or people who have had early success in business.

Figure 3

Debt as a proportion of assets for trusts and economic units, by age group

Percentage of assets

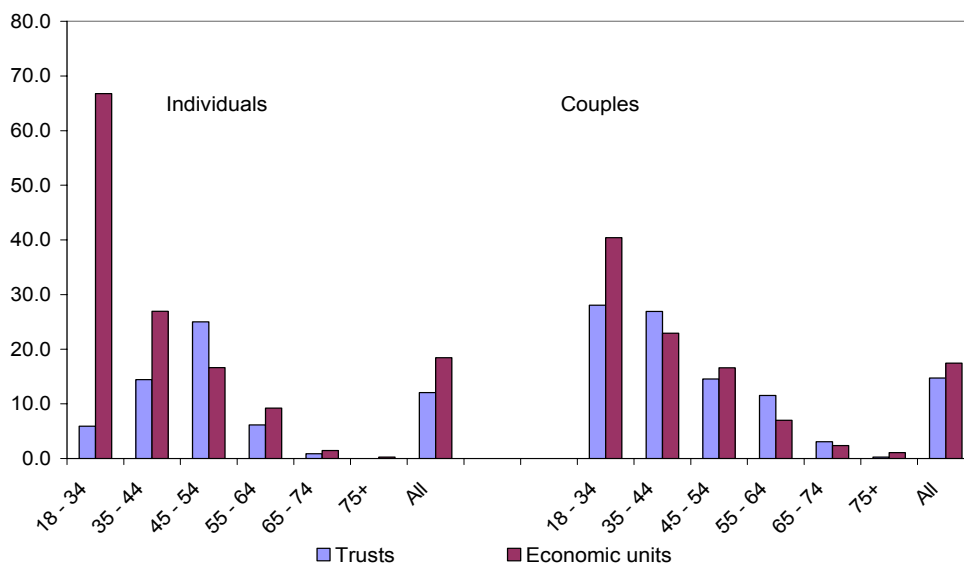


Figure 4 shows net worth for trusts and economic units. Net worth is calculated as assets minus liabilities. As for Figure 2, the asset figures used for economic units exclude 'trust assets'. In calculating 'Total net worth, including trusts' the holdings and debts of trusts have been included with those of economic units. As can be seen, this makes a significant impact on average net worth, even though only 8 percent of economic units have trusts.

Figure 4
Average net worth for trusts and economic units, by age group
 Average amount, in dollars

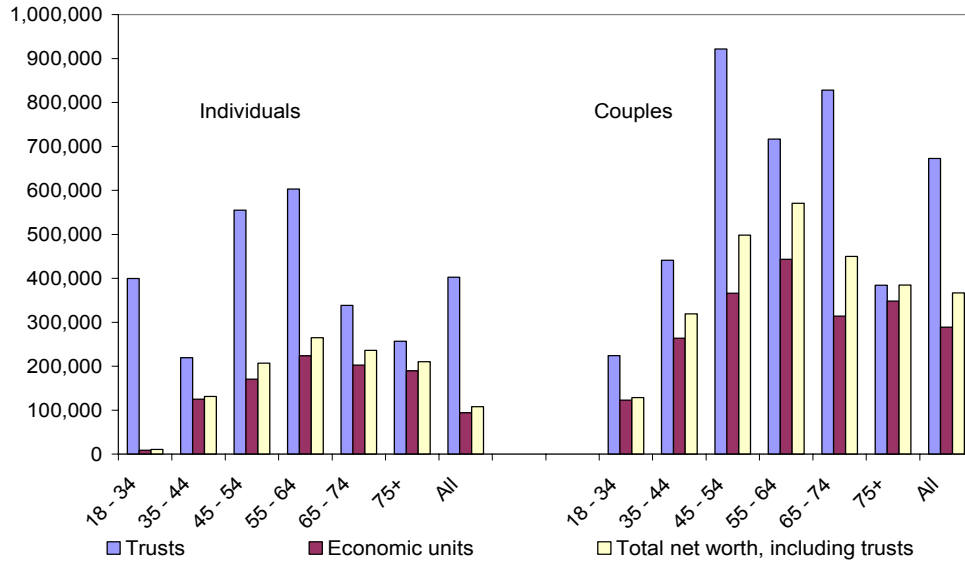
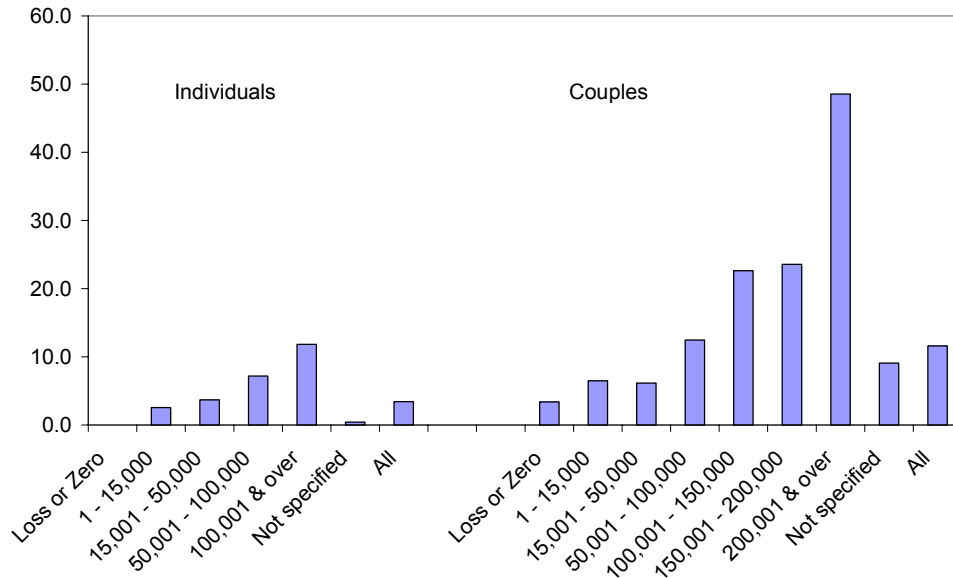


Figure 5
Trusts as percentage of all economic units, by income group
 Percent of total

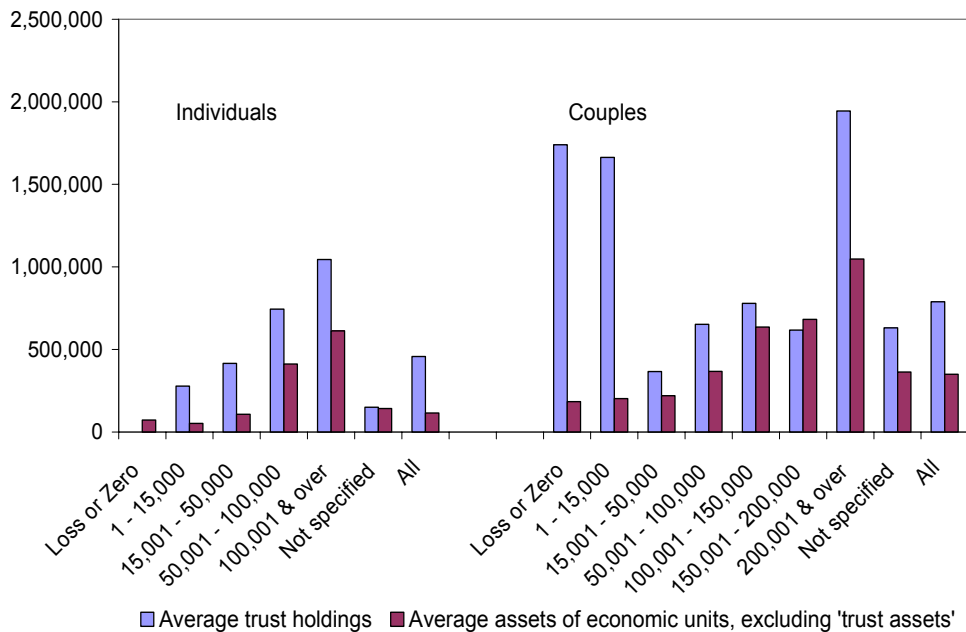


We will now briefly look at trust holdings by income group. As Figure 5 shows, trust ownership increases with income. Of couples who have a combined income of \$200,001 or more, nearly half of these own a trust. (Note that in this chart, and the charts that follow, no results are reported for individuals in the 'loss or zero' category, since the numbers in this category were very small.)

Figure 6 shows average trust holdings and also average assets for economic units. Average trust holdings are highest for couples with a joint income of \$200,001 or more. The average value for this group was nearly \$2 million. Note, though, that couples that were in the 'loss or zero' or \$1-\$15,000 categories also had high average trust holdings. Some of the people in these categories may have been retired. Alternatively, some couples may have been directing any earned income to their trusts rather than directly to themselves. However, as we saw from Figure 5, the proportion of economic units in these two income categories that own trusts is quite small.

Figure 6
Average trust holdings and average assets of economic units, by income group

Average amount, in dollars



As Figure 6 shows, average assets for economic units also tend to rise with income. However, for nearly all income groups, the average level of assets held by economic units is lower than the average holdings of trusts. Why is this? Wouldn't we expect people with incomes similar to those of trust settlors to generally have similar assets? Again, perhaps part of the wealth held in trusts has been inherited. Or perhaps the incomes of trust owners are generally understated, because some trust owners are directing a proportion of their earnings to the trust. Hence, for a particular income group, the assets held by trust owners appear high relative to those of economic units, which have generally not understated their income in the way that trust owners have.

Overall though it seems that trust owners are simply wealthier than economic units with similar incomes. And this is probably why they are trust owners; they are protecting their high-valued assets by putting them into trusts.

Types of assets held in trusts

The HSS asked about the types of assets held in trusts. However, only seven categories of asset types were used when recording the responses.⁷ Many more categories were used when recording the assets of economic units, and published tables in NWNZ listed assets under 21 categories (not including the category of Maori assets).⁸ This creates difficulties in comparing the average values of asset types held by trusts with those held by economic units. Furthermore, while some trusts gave the value of each asset, others simply reported the total value of assets. Nevertheless, these trusts did indicate the type of assets that they were holding, using the seven asset categories.

One of the extra tables obtained from Statistics New Zealand shows the frequency with which trusts hold each type of asset, by age group of the settlor. Another table shows the frequency with which trusts hold each type

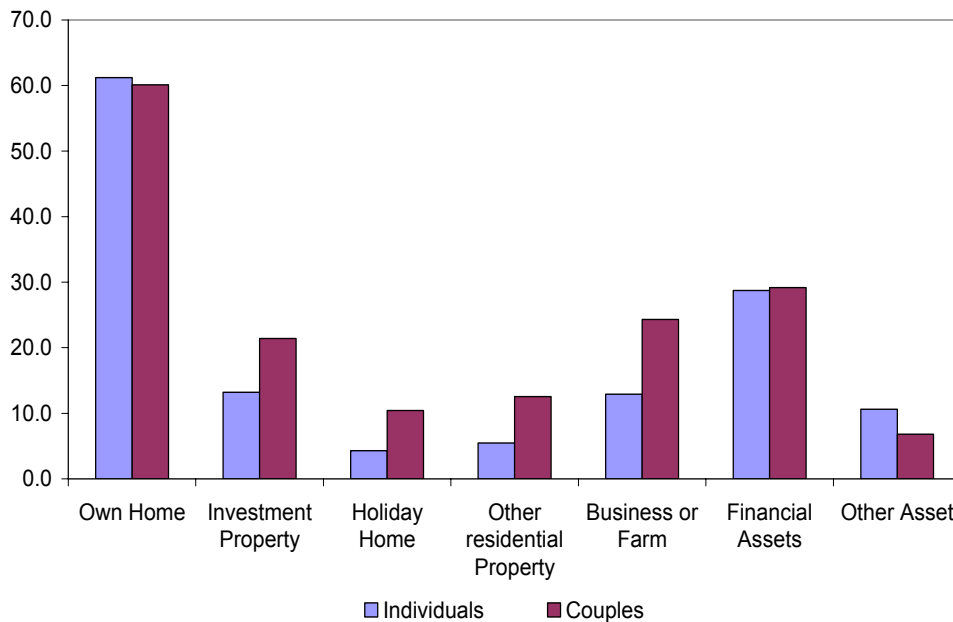
⁷ These categories were: house living in, investment property, holiday home, other residential property, business or farm, financial assets, other type of asset.

⁸ See NWNZ, p60.

of asset, by income of the settlor. However, results for many of the cells in these tables were suppressed.⁹

Nevertheless we can look at the distribution of asset types at the aggregate level. As Figure 7 shows, about 60 percent of all trust owners have their own home in the trust. In total, 83,100 trusts contained the home that the settlor was living in.

Figure 7
Proportion of trusts holding various asset types
 Percent



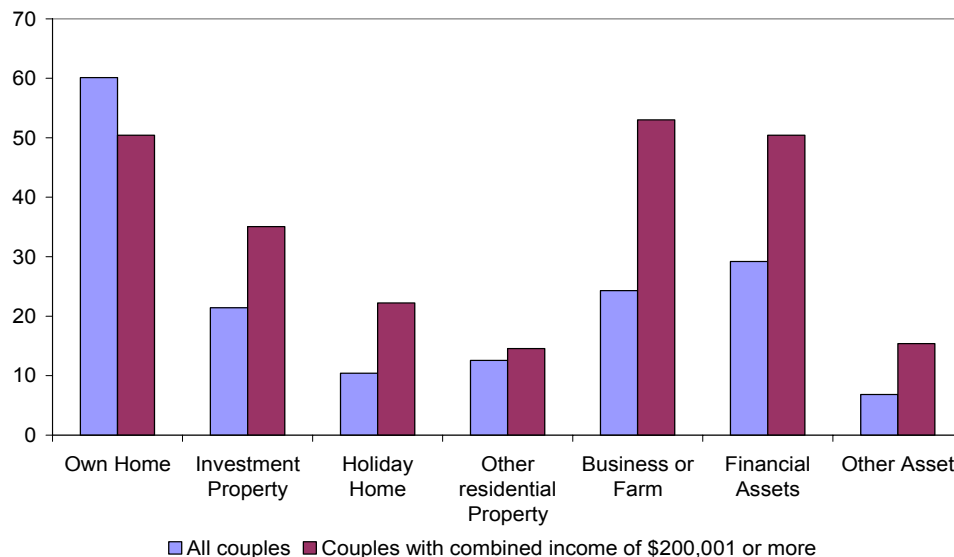
The second most popular asset type is ‘financial assets’. This is perhaps a bit surprising; one might expect that trusts would largely be used to protect property assets. It does however seem to lend some support to the view that some settlors are directing their income to trusts.

⁹ Suppression means that the cell values in the table are not produced. This occurs where the number of survey respondents is small, which means there are concerns about the quality of the data.

The third most popular asset type is ‘business or farm’ while the fourth is ‘investment property’, which will include rented residential properties.

The mix of assets held in trusts does appear to vary with income. Figure 8 shows the proportions of each asset type for trusts owned by couples with a combined income of \$200,001 or more. (This is one of the few income groups for which we have complete data, without cells values being suppressed.) These trusts tend to include fewer houses than other trusts, but are more likely to include other types of assets. In particular, they are more likely to include businesses and farms, and financial assets.

Figure 8
Proportion of trusts of high-income couples holding various asset types
 Percent



An initial attempt was made at estimating the total value of each type of asset held in trust using a two step process. First, an average value of each asset type was estimated using the average asset values for economic units. This involved amalgamating a number of asset categories together to get values for each of the seven categories used for trusts. Second, these averages were multiplied by the number of trusts known to be holding such assets. Summing the totals for each asset type gave total assets of \$33 billion, or around a third of the amount known to be held by trusts (\$93 billion). It should not be surprising that this total was so low. As we noted

earlier with respect to Figure 2, average assets held by trusts are around three times the average assets held by economic units.

These estimates are shown in Table 2 as Alternative 1. One of the seven categories used for trust assets was investment property. As the table indicates, we split this category into rental property and commercial property. This split was based on the rental/commercial proportions reported for economic units. Rental property is a category that we are particularly interested in, given that it makes up a substantial portion of the housing stock.

Table 2
Alternative estimates of trust holdings by asset type

\$Billion

	Alternative 1: using average value of asset type	Alternative 2: using average value of asset type by income group	Alternative 3: Alternative 1 scaled to total trust assets
House living in	15.4	17.5	43.4
Rental property	3.5	4.1	9.9
Commercial property	1.4		3.8
Holiday home	1.5		4.2
Other residential property	2.0		5.5
Business or farm	7.9	16.6	22.3
Financial assets	1.2		3.5
Other type of asset	0.1		0.4
Total	33.0		93.0

An alternative method was to look at trust holdings by income group. As we saw above, the composition of assets held in trusts tends to vary with the income group of the trust owner. Furthermore, the average value of each asset type is also likely to vary by income group, as it does for economic units. For each income group, the average value of an asset type held by economic units was used as the average for trusts. We multiplied this average value by the number of trusts in the income group that were holding this asset type.

Estimates produced this way are shown as Alternative 2 in the table. The estimates for the first two housing types are only slightly larger than the initial estimates. The estimates for the 'business or farm' category are substantially higher. But this is largely because, for this asset type, all businesses were assumed to be farms, and farms generally have higher values than businesses. Estimates for other categories were not made, given the difficulties encountered with suppressed values in the tables showing the number of trust holdings for each asset type.

It seems that this second method, as used for example for the first two asset types, raises total values only slightly. Again, this is not surprising. Figure 6 shows that for total assets, the average values for trusts exceed the average values for economic units for nearly every income group. The same is likely to apply for asset types within each income group.

Alternative 3 takes the Alternative 1 values and scales them so that total assets equal \$93 billion, which is the estimated total value of trust holdings from the HSS. For the 'house living in' and rental property' categories, their values might be seen as being close to maximum values. However, the situation with respect to the 'business or farm' category may be different. Some trusts may include large private businesses. This might in fact be the reason why total assets in trusts are so high, relative to the assets held by economic units.

The HSS showed that assets in the 'house living in' category owned by economic units totalled \$159.2 billion. Assets in the 'rental property' category totalled \$18.9 billion while holiday homes and time shares were worth \$4.5 billion (NWNZ p 60). If we add to these the estimated trust holdings for these categories from Alternative 3 we get a total of \$240.1 billion for the total housing stock.¹⁰ The Reserve Bank's estimate for the private housing stock in September quarter 2001 is \$241 billion. The estimate incorporating Alternative 3 values for trusts is much closer to Reserve Bank's estimate than was the estimate based on the original values for economic units included in NWNZ. (When the results of the HSS were released, some comments were included on differences between HSS data

¹⁰ Values for the 'other residential property' category have not been included, since this category includes sections and partly built residential properties, which have not yet become part of the housing stock.

and other sources of data on household wealth. See NWNZ pp 148-150.)

It is worth remembering though that the HSS surveyed only people who were in private households. Some proportion of the private housing stock will be owned by people who were in institutions, like rest homes. Hence the HSS will be missing this part of the housing stock. Furthermore, a proportion of the private housing stock is owned by institutions like churches, firms, and charitable trusts. This is another part of the housing stock that the HSS will fail to capture. In this context, our housing stock estimates based on Alternative 3 begin to look as though they are on the high side.

Furthermore, Alternative 3 estimates do little to address the shortfall in financial assets in the HSS. The survey showed economic units having financial assets worth \$91.3 billion.¹¹ This is well short of the Reserve Bank's estimate of \$130 billion as at 31 December 2001. Much of the shortfall seems to be in the HSS's total for bank deposits. As Table 2 shows, our Alternative 3 estimates show trusts' financial assets as being only \$3.5 billion, giving total financial assets of \$95 billion, which is still well short of the Reserve Bank figures. This suggests that trusts actually have more financial assets than our Alternative 3 estimates are indicating, and lends support to the view that our Alternative 3 estimates of housing stock assets are overstated.

The difficulties encountered here in estimating total values for various asset types suggest that it would be very difficult to impute values of asset types for each individual trust. Imputation for a particular asset type would involve looking at the characteristics of an economic unit holding a trust and finding a similar economic unit that didn't hold a trust. We would then assume that the asset value for the trust-holding unit would be similar to the

asset value for the non-trust-holding unit. However, the analysis undertaken so far suggests that any imputation method is likely to result in trust assets being underestimated. The reality seems to be that for a trust-holding unit which has a similar income to a non-trust-holding unit, the assets held in the

¹¹ See NWNZ p60. Financial assets are taken to include superannuation, life insurance, credit cards (positive balances), bank deposits (including bonus bonds), shares, managed funds, and other financial assets.

trust are likely to exceed the assets of a non-trust-holding unit, and by a considerable margin.

3 Census and IRD data

It had been hoped that the 2001 census would provide an accurate count of the number of dwellings held in private trusts. As with other censuses, the dwelling form in 2001 asked whether anyone in the household owned or partly owned the dwelling (question 9 in Figure 9). However, unlike other censuses, the accompanying explanatory notes to the dwelling questionnaire told respondents that if the dwelling was held in trust, they should answer ‘no’ to question 9, indicating that they didn’t own the dwelling.

If all respondents who lived in trust dwellings had read these explanatory notes, and followed the instructions correctly, they would have then gone to question 10 which asked ‘Who owns this dwelling?’ and they would have indicated that a private trust owned the building. However, as we will see, it seems that many respondents who were in trust dwellings did not read the explanatory notes, and were confused.

The processing of the census also gave rise to confusion. When the census tables for housing tenure were published, the only mention of private trusts was under rented properties, which showed that 19,512 of these rented properties were owned by private trusts.

However, it seemed clear that there were other trust properties which would have been picked up in the census but which were not identifiable from published census tables. For example, some respondents would have indicated in question 10 that a trust owned the property, then gone on to say in question 11 that they didn’t pay rent. It seemed likely that in the tenure table produced from the census, these respondents would be tucked away in the ‘not owned, no rent is paid’ category. They were not identifiable as being trust dwellings.

Figure 9
Questions 8 to 12 from the Census dwelling questionnaire 2001

8 Does anyone who lives here make mortgage payments for this dwelling?

yes no

9 Do you, or anyone else who lives here, own or partly own, this dwelling?

yes, go to **13**

no, go to **10**

10 Who owns this dwelling?

private person

private trust

Local Authority or City Council

Housing New Zealand

other state-owned corporation or state-owned enterprise, or government department or ministry

a business or other organisation

don't know

11 Do you, or anyone else who lives here, pay rent to the owner (or to their agent) for this dwelling?

yes, go to **12**

no, go to **13**

12 How much rent does the **household** pay to the owner (or to their agent) for this dwelling?

\$

per

week

two-week period

four-week period

calendar month

other. period

Remember to mark your answer like this:

SAMPLE FORM ONLY NOT COMPLETE

Source: Statistics New Zealand

We asked Statistics New Zealand if a census table could be produced which showed all dwellings which had indicated that they were owned by a private trust. Statistics New Zealand provided a table showing sector of landlord by tenure. This table is not reproduced here in full, since there are some difficulties in interpreting this cross tabulation. However, Table 3 shows the results where the landlord, or more correctly, the owner of the dwelling, is a private trust.

Table 3
Dwellings identified as being owned by private trusts in 2001

Owned, with mortgage	5,715
Owned, without mortgage	8,304
Owned, mortgage arrangements undefined	336
Not owned, rent is paid	19,512
Not owned, no rent is paid	22,572
Not owned, rent arrangements undefined	1,623
Not stated (i.e. no answer to question 9)	123
Total	58,188

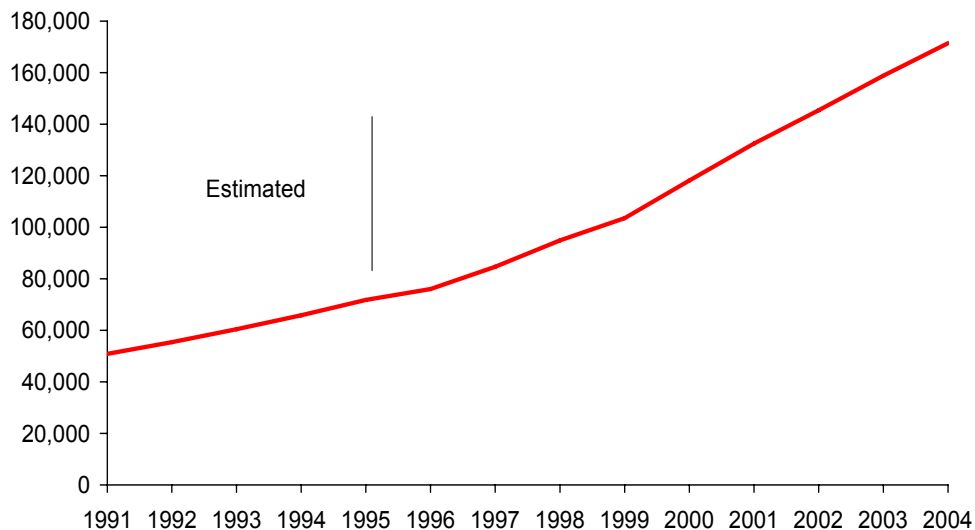
The results confirmed that there was a substantial number of trust dwellings in the ‘Not owned, no rent is paid’ category; there were 22,572 in all. The results showed that there were 58,188 trust dwellings in total, many more than the 19,512 that had been included in the published tenure table under ‘not owned, rent is paid’. Surprisingly, there were 14,255 households (5,715 + 8,304 + 336) which claimed that they owned the dwelling. And yet these dwellings were owned by private trusts. How could that be?

It seems that some people who had their homes in trust became confused on census night. Perhaps they hadn’t read the accompanying notes. Whatever the reason, it seems that some respondents answered yes, they did own the dwelling, in question 9, then – instead of jumping to question 13 as instructed – they went on to say that a private trust owned the dwelling in question 10. In the published census table showing household tenure, these dwellings would have been included in the owned categories and hence were not identifiable as trust dwellings. The other trust dwellings, with the exception of the 19,512 trust dwellings that were rented, were also not identifiable as being trust dwellings in the published tenure table.

Clearly there was confusion as to how to answer question 9. In view of this, it seems likely that the number of private trust dwellings identified in the census is low. As we saw earlier, the HSS, which was undertaken about six months after the census, identified 83,100 trusts that included the settlor’s home. The census number is substantially lower than this. The difference is probably due to households indicating that they did own the home, when in fact it was held in trust. We have adjusted the census tenure table largely on the assumption that this was the case.

The first step in adjusting the 2001 census numbers was to estimate the number of trust dwellings at the time of the census (March 2001). Data was obtained from the Inland Revenue Department showing the number of trusts that filed an income tax return in each income year. This data is for a variety of trust types. Family trusts generally belong in the ‘qualifying trust’ category, which covers trusts that are generally liable for New Zealand income tax (Figure 10).¹² Movements in the number of qualifying trusts were used to adjust the HSS number of trust dwellings and obtain an estimate as at March 2001. This estimate was 79,230.

Figure 10
Annual tax returns from ‘qualifying trusts’
 Number



Source: IRD; Reserve Bank of New Zealand estimates prior to 1995

¹² Other categories are estates, which are trusts that are set up for the purposes of administering wills, and foreign and ‘non-qualifying’ trusts, which are generally trusts that have been set up overseas.

The second step in revising the census table was to estimate the undercount in the census of trust dwellings. Excluding the 123 dwellings in the 'not stated' category, the census gave a figure of 58,065 for trust dwellings. However, 19,512 of these were dwellings that were being rented from trusts. There is an issue regarding this rented category. Some of the so-called renters in this group will be trust settlors who were paying rent to their own trust so that the trust could pay the mortgage on the property. These occupiers fit the HSS description of being a trust settlor living in a dwelling that the trust owns. On the other hand, other renters in this census category will have no connection with the trust that owns the dwelling, and will not match the HSS description. There is no way of accurately knowing what proportion of dwellings in this census category matches the HSS description. In view of this, we have assumed that half of this category – 9,756 dwellings – are not occupied by trust settlors. Subtracting these dwellings from the census total of 58,065 gives 48,309 trust dwellings which fit the HSS description.

The HSS-based estimate of 79,230 gives us 30,920 more trust dwellings than the census-based estimate of 48,310. These additional trusts were allocated proportionately to the first three tenure categories shown in Table 3 (i.e. to 'owned, with mortgage', 'owned without mortgage' and 'owned, mortgage arrangements not defined'.) Corresponding downward adjustments have been made to the same categories for private (i.e. non-trust) dwellings. The results are shown under the sub-heading 'Owned, or owned via a trust' in Table 4, in the table's last column (the column for 2001). Also included under this heading are trust dwellings where no rent is paid, trust dwellings where the rental arrangements are not specified, and rented trust dwellings where the occupier is a settlor of the trust.¹³

¹³ It can be argued that the trust dwellings in the 'not stated' category should also be counted as being owned, since these dwellings are likely to be occupied by trust settlors. However, these dwellings have been left in the 'not elsewhere included' in Table 4, which keeps the total number of dwellings in this category the same as for the census. Given that the number of trust dwellings in this category is so small, excluding them from the ownership category makes little difference to the final results.

In producing figures for total trusts in 1991 and 1996 a similar methodology was used. First, total trust dwellings for each year were estimated, using movements in IRD returns for qualifying trusts.¹⁴ Second, for each year these trusts were allocated across tenure categories. It was assumed that the distribution across tenure categories in both 1991 and 1996 was the same as in 2001. Third, offsetting adjustments were made to the number of non-trust dwellings in each tenure category, ensuring that the original category totals stayed the same. Note that in 1991 and 1996, rented trust dwellings have been extracted out of the dwellings owned by 'a person or private trust'. Finally, the trust numbers were regrouped under the sub-headings that were used for the 2001 trust numbers and which are shown in Table 4.

The estimates in Table 4 show trust dwellings as a proportion of all dwellings (excluding those in the 'not elsewhere included' category) rising from 3.0 percent in 1991 to 6.9 percent in 2001.

4 Adjusted home ownership rates

Grouping dwellings under an 'owned, or owned via a trust' category, as in Table 4, provides a slightly different perspective on the issue of home ownership.

The 'official' home ownership rate, as produced by Statistics New Zealand, is the number of dwellings owned by occupiers as a proportion of total dwellings excluding the 'not elsewhere included' dwellings. This 'not elsewhere included' category covers dwellings for which there is no adequate data to determine their tenure category. The data shows that the official ownership rate was 73.8 percent in 1991, 70.7 percent in 1996 and 67.8 percent in 2001 (see Table 4).

¹⁴ The IRD data begins in 1995. We obtained an estimate for 1991 by assuming annual growth of 9 percent from 1991 to 1995. In comparison, annual growth between 1995 and 2004 averaged 10.2 percent.

Table 4
Household tenure in 1991, 1996, and 2001 with estimated totals for dwellings held in private trusts

	1991	change	% change	1996	change	% change	2001
Owned, or owned via a trust							
Owned with mortgage	448,530	-10,500	-2.3	438,030	-12,780	-2.9	425,250
Owned without mortgage	383,000	-3,960	-1.0	379,040	8,320	2.2	387,360
Owned, mortgage arrangements not defined				17,700	-6,930	-39.2	10,770
Trust with mortgage	7,080	3,260	46.0	10,340	7,690	74.4	18,030
Trust without mortgage	10,290	4,740	46.1	15,030	11,160	74.3	26,190
Trust, mortgage arrangements not defined				610	450	73.8	1,060
Trust, doesn't make rent payments	9,100	3,850	42.3	12,950	9,620	74.3	22,570
Trust, rental arrangements not defined				930	690	74.2	1,620
Trust, rent paid, occupier is trust settler	3,930	1,670	42.5	5,600	4,160	74.3	9,760
Total	861,930	18,300	2.1	880,230	22,380	2.5	902,610
Not owned							
Renting:							
Private person	121,260	50,690	41.8	171,950	59,460	34.6	231,410
Private trust, occupier is not trust settler	3,930	1,670	42.5	5,600	4,160	74.3	9,760
Local authority	15,420	-640	-4.2	14,780	-660	-4.5	14,120
Housing New Zealand	63,550	-10,880	-17.1	52,670	-170	-0.3	52,500
Other state owned entity	13,150	-4,780	-36.3	8,370	-1,940	-23.2	6,430
Business or other organisation	31,190	-18,150	-58.2	13,040	540	4.1	13,580
Not elsewhere included	10,840	7,280	67.2	18,120	3,220	17.8	21,340
Total renting	259,340	25,190	9.7	284,530	64,610	22.7	349,140
Not owned, doesn't make rent payments	28,790	3,660	12.7	32,450	-16,410	-50.6	16,040
Not owned, rental arrangements not defined				20,600	-7,520	-36.5	13,080
Total not owned	288,130	49,450	17.2	337,580	40,680	12.1	378,260
Trusts not elsewhere included	50	20	40.0	70	50	71.4	120
Other not elsewhere included	16,440	33,760	205.4	50,200	13,090	26.1	63,290
							1,344,280
Total	1,166,550	101,530	8.7	1,268,080	76,200	6.0	1,344,280
							1,280,870
Total (excluding 'nei')	1,150,060	67,750	5.9	1,217,810	63,060	5.2	1,280,870
'Owned, or owned via a trust' as % of total ex nei	74.9			72.3			70.5
'Official' ownership rate	73.8			70.7			67.8
Total dwellings 'owned via a trust' (occupied by settlor)	30,400	15,060	49.5	45,460	33,770	74.3	79,230
Dwellings 'owned via a trust' as % of total owned dwellings	3.5			5.2			8.8
All trust dwellings (ex nei) as % of total (ex nei)	3.0			4.2			6.9

Notes on main assumptions:

1. The estimate of total trusts in 2001 is derived from HSS and from IRD estimates of qualifying trusts; total trusts in 1991 are backcast using IRD data as a guide.
2. The distribution of trusts across tenure categories in 1996, and in 1991, is assumed to be the same as in 2001.
3. Census figures for the 'owned' categories have been adjusted; some of the additional trust dwellings were assumed to have been in these categories.

However, if we calculate the ownership rate including dwellings that are owned or owned via a trust we get ownership rates of 74.9 percent in 1991, 72.3 percent in 1996 and 70.5 percent in 2001. While these ownership rates are higher than the official rates, the trend is still down. However, the decline is not quite so severe. The home ownership rate over the decade to 2001 drops not by 6.0 percentage points, as it did before, but by 4.4 percentage points.

It should be stressed though that these figures are estimates only, and are dependent on all the assumptions that we have made. If, for example, all rented trust dwellings, rather than just half of them, were counted as being owned, this would give ownership rates of 75.3 percent in 1991, 72.7 percent in 1996, and 71.2 percent in 2001. On the other hand, if none of the rented trust dwellings are counted as being owned, this gives ownership rates of 74.6 percent in 1991, 71.8 percent in 1996, and 69.7 percent in 2001. Only the central estimates have been used in further analysis (see below).

That the trend in home ownership is still down is an important point. Some analysts have been of the view that the recent strong growth in trust ownership may mean that the underlying level of home ownership has not been declining. Our analysis seems to confirm that it is declining. And Table 4 highlights an important change associated with this decline: growth in the number of rental properties owned by private persons was very strong over the decade to 2001. This growth was much larger than the growth in the 'owned, or owned via trust' category, despite the strong growth in the number of trust dwellings.

Unadjusted census numbers suggest that between 1991 and 2001 home ownership rates declined across all age groups.¹⁵ But what do these ownership rates look like once they are adjusted for trust ownership?

A simple way of adjusting ownership rates was used. First, the number of additional dwellings in the 'owned' category was calculated for each census. For example, Table 4 shows that if we count trust dwellings as being owned we have 902,610 owned dwellings in 2001. In comparison, the original census figure showed that there were 868,656 dwellings in the owned

¹⁵ DTZ New Zealand (2004), p 215.

category. Hence, we have an additional 33,954 dwellings in the owned category in 2001.¹⁶ We also have a corresponding decline of 33,954 dwellings in the ‘not owned’ category in 2001.

Table 5
Home ownership rates by age group, 1991-2001

Age group	Census home ownership rates				Adjusted home ownership rates			
	1991	1996	2001	% point change 1991 to 2001	1991	1996	2001	% point change 1991 to 2001
20-24	26.5	24.7	22.9	-3.6	26.6	24.8	23.2	-3.4
25-29	53.6	45.9	40.9	-12.7	53.8	46.2	41.5	-12.3
30-34	68.8	62.3	56.3	-12.5	69.1	62.8	57.1	-12.0
35-39	76.1	71.5	65.7	-10.4	77.2	73.1	68.3	-9.0
40-44	80.8	77.0	71.7	-9.1	82.1	78.8	74.5	-7.5
45-49	83.0	80.9	76.0	-6.9	84.4	82.7	79.0	-5.4
50-54	84.1	82.5	79.4	-4.7	85.7	84.8	82.5	-3.2
55-59	85.3	83.4	80.2	-5.0	87.3	86.3	84.6	-2.7
60-64	85.8	83.9	80.4	-5.4	87.4	86.7	84.7	-2.7
65 & over	82.9	81.6	80.0	-2.9	84.4	83.8	83.7	-0.7
Total	73.8	70.7	67.8	-6.0	74.9	72.3	70.5	-4.9

Source: Census ownership rates were calculated using data from Table 4, p 91, DTZ New Zealand (2004), Vol 2.

The second step was to allocate these additional owned dwellings across age groups. In doing this it was assumed that the distribution across age groups would be the same as that for all trust dwellings, as shown by the 2001 HSS.¹⁷ For each age group, the additional owned dwellings were added to

¹⁶ These dwellings include trust dwellings that were originally in the ‘not owned, no rent is paid’ category, the ‘not owned, rent arrangements undefined’ category, and half of those in the ‘not owned, rent is paid’ category.

¹⁷ The 2001 HSS distribution was used to allocate additional trust dwellings in 1996 and 1991, as well as in 2001. In doing this, it was implicitly being assumed that the distribution of trust dwellings across age groups has not changed significantly over time.

the 'owned' total, and subtracted from the 'not owned' total. Finally, the new (adjusted) ownership rate ('owned' as a percentage of 'owned plus not owned') was calculated.

The results are shown in Table 5. Not surprisingly, the adjusted ownership rates are higher than the adjusted rates for each age group. However, as with the unadjusted figures, ownership rates decline for each age group. These declines, though, are not as severe as those implied by the census. In particular the declines are less sharp for the older age groups (age 50-54 and above).

5 Summary and conclusions

In summary, our examination of the data on trusts has found the following:

- In 2001 nearly 8 percent of all economic units – 4 percent of individuals and 12 percent of couples – had trusts. Total holdings of trusts account for nearly 19 percent of all household assets. The average amount held by a trust was around \$708,000. In comparison, the average value of assets held by a household was around \$244,000.
- For individuals, trust ownership peaks at age 65-74, while for couples it peaks at age 55-64. Trust ownership increases with income. Of couples with a combined income of \$200,001 or more, nearly half have a trust.
- Average trust holdings are highest for individuals and couples in the 45-54 age group. Trust-owning couples with low incomes also have high trust holdings, which suggests that these people are retired, or that their incomes are going to the trusts, rather than being received directly. Couples earning \$200,001 or more also have high trust holdings.
- The HSS shows that, in 2001, 83,100 people were living in a dwelling that they held in trust. In the 2001 census, 58,200 households indicated that their dwelling was owned by a private trust. However, respondents had problems with the 2001 census questions and the census number appears to be an undercount. The HSS data can be used to adjust the census data on trusts. The adjusted numbers show that if trust dwellings are viewed as being owned, home ownership rates are significantly higher than official rates.

Nevertheless, ownership rates still decline between 1991 and 2001. Furthermore, ownership rates still fell for each population age group.

Looking ahead, the data that is obtained from the 2006 census is likely to give a much more accurate picture of trust ownership than earlier censuses did. The 2006 dwelling questionnaire contained new questions which should determine whether a household holds the dwelling in a trust and whether such a trust makes mortgage payments on the dwelling. IRD data, as shown earlier in Figure 10, suggests that the number of dwellings owned via a trust has continued to increase since 2001. It would not be surprising if the 2006 census was to show around 120,000 households holding their dwelling in a trust. A figure of this size would indicate that trust dwellings as proportion of all occupied private dwellings had risen from around 7 percent in 2001 to around 9 percent in 2006. Trust dwellings as a proportion of all owned dwellings (including trust dwellings) would have risen from around 9 percent to around 13 percent.

It also seems likely that the 2006 census will show a further fall in the home ownership rate. The Household Economic Survey, which is undertaken every three years by Statistics New Zealand, provides some evidence that the home ownership rate has fallen further since 2001. The HES shows the rate falling from 67.7 percent in 2001 to 65.3 percent in 2004. However, these figures should be regarded as being indicative only, given that the survey is based on a relatively small sample (about 3000 households). Also, there are some differences in how housing tenure is recorded in the HES compared to the census.

The analysis undertaken here raises some issues regarding household surveys that attempt to measure wealth. While the HSS provides a lot of valuable data on wealth, there are some difficulties in using or interpreting the data.

For example, 'total assets', as used in official tables of HSS data, does not include the full value of the assets held in trusts but only the amounts that trusts still owe to respondents. In effect, this means that there are 'hidden assets' which a household may have access to, but which are not legally owned by the household. This underlines the value of collecting data on total trust holdings. While the HSS did collect information on the total value of trust holdings – and also the total debt on trust holdings – it did not collect detailed information on the composition and value of these trust holdings.

As mentioned earlier, SoFIE does not collect any data on trust holdings; it only collects data on ‘trust assets’ (the amount that trusts owe settlors).

Also, the HSS did not collect data on the income of trusts. As noted above, some trust settlors may be ensuring that any income gets paid to the trust rather than to themselves. There is no way of telling how widespread this is.

In short, survey returns from respondents with trusts are problematic, in that they are likely to be under-reporting the assets that the respondents have some access to. These returns may also be under-reporting income that the respondents implicitly have access to.

This could affect the results of any analysis undertaken using data from the HSS or similar surveys. For example, the results of any regression analysis relating assets or wealth to other household characteristics could be affected. In particular, the coefficients of any estimated equations could be affected. Any analysis focusing on ‘total assets’, for example, will be using a dataset in which over two thirds of the assets held by trusts are not accounted for.

One way of handling this problem, at least in the HSS, may be to include total trust holdings for a settlor in with the non-trust assets of the settlor. A similar thing could be done with debt. One problem with this though is that all of a trust’s assets and liabilities are in effect being deemed to be those of the settlor. This is not correct, in a legal sense. Also, a trust’s wealth might be more accurately viewed as being the property of the trust’s beneficiaries, rather than the settlor. It seems likely that any settlor of a trust is also likely to be a beneficiary of that trust. However, there may be other beneficiaries of the trust, some of whom might be living in different households.

Another way of handling the problem may be to simply exclude from the analysis any respondents that have trust holdings.

Another approach, especially when it comes to looking at different asset types, would be to impute values for these asset types for each respondent who is a settlor. However, as we have seen, this is likely to be difficult to do. As we have seen, the assets held by trust owners are much higher than the assets of non-trust owners who are in similar age and income groups to these trust owners.

There are probably no easy answers. But researchers need to bear the issue in

mind when analyzing unit record level data from wealth surveys such as the HSS.

Finally, the analysis presented here also raises issues about the design of surveys which aim to measure household wealth. Ideally, analysts would like more details on the assets and liabilities – and possibly the incomes and expenditures – of trusts. These details could be particularly useful when looking at household behaviour regarding spending and saving. But how should this data be collected? One way would be to undertake another HSS, but with more questions on trusts. However, it may not be realistic to do this, given the additional burden that this would impose on respondents. Perhaps trusts should be surveyed directly, with only data on trusts being collected, rather than data on all household assets and liabilities. This will need more consideration. Clearly though, the issue of measuring trusts' wealth is not going to go away, especially given the rise in trust numbers that has occurred over the past decade or so.

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