THE DISTRIBUTION OF PRIVATE SECTOR SUPERANNUATION ASSETS BY GENDER, AGE AND SALARY OF MEMBERS

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Retirement Income Modelling Task Force

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We would like the acknowledge the assistance of the following companies, who so very generously assisted the RIM Task Force in compiling the information contained in this study:

- National Mutual Life Association of Australasia Limited
- Australian Mutual Provident Society
- Lend Lease Corporate Services Limited
- William M. Mercer Pty Ltd

The views expressed in this paper are those of the Author and do not necessarily reflect those of the Retirement Income Modelling Task Force, the Government or of any of the Companies who have so generously provided data to the RIM survey.

INTRODUCTION

This paper presents *preliminary* results of the study of average superannuation assets and contribution levels of *predominantly* private sector individuals conducted by the Retirement Income Modelling Task Force (RIM)[1][2]. The results provide details categorised by the age, gender and salary level of fund members and the type of fund, as at the start of 1993-94. This provides an insight into the distribution of superannuation assets and contributions at the start of the "SGC" era, against which we can measure the impact of the SGC into the future.

The RIM Task Force requires information on the current distribution of superannuation assets and contributions, categorised by the gender, age and salary level of fund members, as a modelling input. RIM will use this information as a basis for:

- developing "reasonable" starting points for hypothetical benefit accumulations in its individual hypothetical models, INDMOD and RIMHYPO. This will allow these models to perform better "typical case" analyses for people with existing superannuation accumulations; and
- developing a starting point distribution of assets and contributions for the cell based model, RIMGROUP. This will:
  - allow RIMGROUP to model more accurately the distribution of superannuation accruals and outcomes for people who are already in the workforce; and
  - provide a point of comparison against which we can assess the impact of policies, such as the SGC, in projections.

The RIM study of assets and contributions commenced in mid 1993. RIM officers approached major life insurance companies to see whether they could provide information on the distribution of superannuation assets and contributions for members of funds they administer. Three major life companies and one actuarial firm agreed to participate in the study. The study covers around $25.6 billion of assets as at June 1993 (or about 15% of total superannuation assets) in 3.9 million individual accounts, predominantly in the private sector. We estimate, on the basis of a comparison of ISC and ABS data, that there are around 2.15 accounts per fund member and that the study covers the superannuation accounts of around 1.8 million people.

The companies participating in the study were:

- National Mutual Life Association of Australasia Limited;
- Australian Mutual Provident Society;
- Lend Lease Corporate Services Limited; and
- William M. Mercer Pty Ltd.

Appendix A summarises the results of the study, Appendix B outlines the information RIM requested from the participants while Appendix C sets out details of the data definitions and

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[1] The Retirement Income Modelling Task Force is a joint project of the Treasury, Department of Finance and the Department of Social Security.

[2] The data in this paper is still preliminary pending receipt of final data from all respondents.

concepts this paper uses. The remainder of this paper discusses the results we obtained from the study[3].

RECENT TRENDS IN SUPERANNUATION COVERAGE

Table 1 shows the strong rise in superannuation coverage for all age groups since 1988 as industrial award superannuation spread through the workforce. Between 1987 and 1992, the proportion of employees with employer superannuation cover has doubled, with a near trebling in the coverage of women employees.

[3] The results in this paper are descriptive of the sample of superannuation accounts we have obtained. They come from an unweighted recombination of the data. We will investigate the data further and perform a weighted recombination of data once we have received all the data and the results of the November 1993 ABS Superannuation survey. We will also check the data against data from the Insurance and Superannuation Commission.

Table 1: Trends in Superannuation Coverage by Age and Gender

Age	Year *(a)*:									
	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
	% of employees in group with employer superannuation support									
						Males				
15-19	9.5%	9.7%	9.7%	9.6%	11.0%	11.7%	17.6%	26.7%	48.9%	57.4%
20-24	29.8%	28.7%	29.3%	28.7%	30.2%	32.0%	37.9%	43.4%	66.5%	74.9%
25-34	51.9%	51.2%	51.2%	49.7%	49.7%	51.1%	56.2%	56.2%	77.3%	85.6%
35-44	61.2%	60.7%	62.5%	61.7%	62.2%	63.6%	65.9%	66.8%	81.8%	88.1%
45-54	66.0%	63.8%	65.6%	64.2%	65.9%	64.9%	70.1%	69.8%	85.2%	89.8%
55-59	63.4%	63.5%	63.8%	65.6%	64.1%	64.1%	65.8%	67.8%	84.7%	85.1%
60-64	46.4%	49.6%	50.2%	50.6%	48.3%	51.0%	56.9%	62.4%	77.0%	72.0%
65+	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*	24.4%	34.5%	31.5%	*(b)*
Total	*50.0%*	*49.2%*	*50.0%*	*49.2%*	*49.9%*	*50.9%*	*55.0%*	*57.5%*	*76.8%*	*83.5%*
						Females				
15-19	10.0%	14.3%	7.6%	10.4%	8.1%	8.6%	13.9%	19.1%	44.7%	50.7%
20-24	24.5%	24.2%	25.9%	24.6%	26.0%	26.0%	33.1%	44.7%	64.3%	72.4%
25-34	27.5%	29.9%	28.1%	29.8%	29.8%	32.5%	39.3%	45.4%	67.7%	78.0%
35-44	23.4%	24.2%	23.9%	23.9%	25.7%	29.9%	38.9%	48.0%	68.0%	77.9%
45-54	28.4%	26.8%	28.7%	30.9%	32.8%	36.1%	43.0%	50.5%	72.6%	83.2%
55-59	32.3%	34.7%	29.5%	30.6%	31.8%	34.8%	44.8%	48.9%	70.9%	77.2%
60-64	21.5%	26.7%	19.5%	27.8%	23.2%	24.0%	39.0%	45.6%	62.0%	66.4%
65+	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*	16.2%	14.4%	44.9%	*(b)*
Total	*23.9%*	*24.7%*	*24.0%*	*25.2%*	*26.0%*	*28.3%*	*35.8%*	*43.8%*	*66.4%*	*76.2%*
						Persons				
15-19	9.7%	10.1%	8.6%	10.0%	9.6%	10.1%	15.8%	23.0%	46.9%	57.0%
20-24	27.3%	26.6%	27.7%	26.8%	28.3%	29.2%	35.7%	44.0%	65.4%	73.7%
25-34	43.0%	43.2%	42.2%	41.8%	41.6%	43.6%	49.2%	51.7%	73.3%	82.3%
35-44	46.9%	46.6%	47.2%	46.2%	47.0%	49.3%	54.1%	58.4%	75.5%	83.5%
45-54	52.7%	50.3%	52.1%	51.2%	53.1%	53.4%	59.0%	61.8%	79.9%	87.0%
55-59	55.0%	55.8%	54.5%	56.1%	54.5%	55.1%	59.4%	62.0%	80.0%	82.1%
60-64	40.2%	43.6%	42.7%	45.3%	42.1%	43.4%	52.9%	58.1%	73.2%	70.7%
65+	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*	*(b)*	22.0%	28.1%	35.8%	*(b)*
Total	*39.9%*	*39.5%*	*39.5%*	*39.4%*	*39.9%*	*41.4%*	*46.8%*	*51.6%*	*72.2%*	*80.3%*

Source: ABS 6334.0, Employment Benefits, Australia, 1983 to 1992.

(a) Data are for August in the year shown, except for 1991 where the data are for July.

(b) Data for 65+ age group not published, data for 60-64 age group are for persons aged 60+.

We expect that this influx of new fund members will initially depress the average level of superannuation assets of *superannuation fund members* because of the large number of people commencing in funds from zero with, at least initially, low employer contribution rates. The Superannuation Guarantee Charge (SGC) will further increase the superannuation coverage of employees with gradually increasing employer contribution rates.

DISTRIBUTION BY AGE OF MEMBER

Chart 1 shows the age and gender distribution of superannuation fund membership we obtained from the study[4]. This shows a higher concentration of women members of superannuation funds in the younger age groups than for men, reflecting the workforce participation patterns of women more generally. Overall, the age distributions in the chart reflect those of the employed workforce more generally.

Chart 1: Age distribution of superannuation population by gender

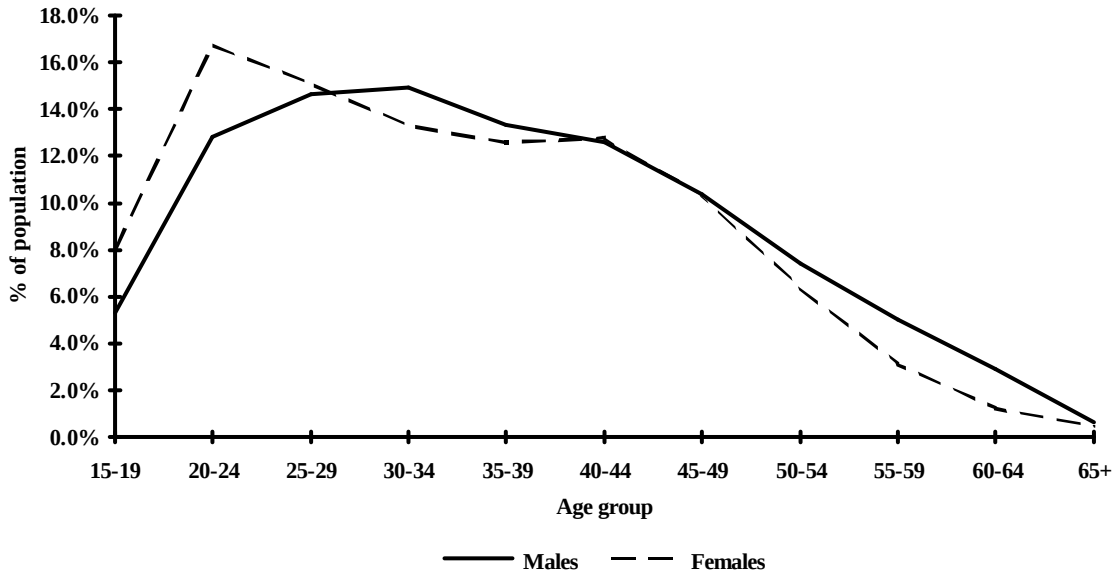

Table 2 and Chart 2 show the average superannuation fund assets of *fund members* (as opposed to people in the population more generally) by age group and gender, adjusted for the extent of multiple fund membership[5]. Table 2 shows that on average the male members of superannuation funds have superannuation assets 2.7 times those of women. Before age 30, men have around 1.5 times the superannuation assets of women, mainly reflecting differences in their relative earnings. From age 30 until middle age, the relative disparity in average superannuation assets widens as the workforce participation patterns of men and women diverge. We could also expect that the lack of full vesting and preservation of benefits when changing employment or when leaving the workforce could affect women more than men. This is because women are more likely to have interrupted workforce participation patterns and are more likely to work in casual or part time jobs.

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[4] Fund members include both members of employer sponsored superannuation funds and contributors to personal superannuation schemes. These results are very similar to the age distribution of superannuation fund membership shown (for all *employed* persons) shown in ABS 6319.0, Superannuation Australia, November 1991. The results of the November 1993 survey are expected in Mid June 1994.

[5] We have adjusted the data for the multiple fund membership by reducing the estimate of the number of people (as opposed to *accounts*) covered by the study in all categories. Appendix C provides further details of the estimate of multiple fund membership.

Chart 2: Superannuation assets by age and gender

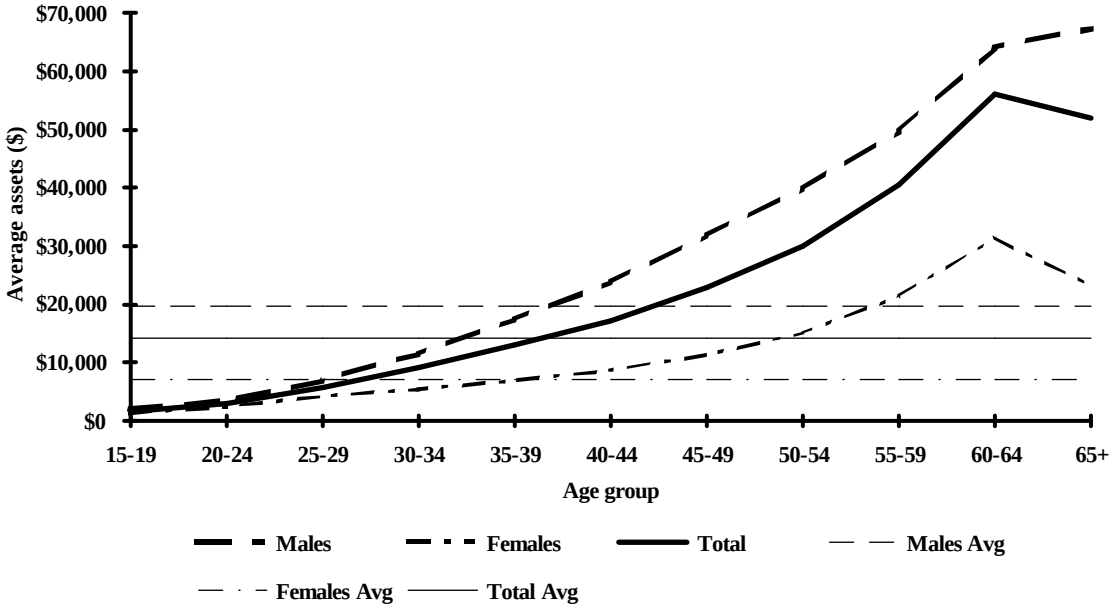


Table 2 shows that we estimate, on average, male superannuation fund members of *retirement age* (55+) have superannuation assets in the range of $50,000 to $67,000. This compares with average superannuation assets in the range $21,000 to $31,000, less than half the male level, for women of retirement age.

Table 2: Average superannuation assets per member by age and gender

Age group	Males	Females	Persons
15-19	$1,999	$1,330	$1,639
20-24	$3,495	$2,473	$2,982
25-29	$6,969	$4,235	$5,758
30-34	$11,556	$5,445	$9,068
35-39	$17,506	$6,964	$13,066
40-44	$23,778	$8,723	$17,172
45-49	$31,857	$11,358	$22,971
50-54	$39,959	$15,108	$30,065
55-59	$49,769	$21,443	$40,575
60-64	$64,106	$31,453	$56,063
65 and over	$67,407	$23,215	$52,033
All ages	$19,623	$7,143	$14,187

Table 3 shows the level of superannuation accumulations we could expect to see for people of retirement age if they had received fully preserved SGC equivalent superannuation support over their working lives. A comparison of Tables 2 and 3 shows that the current average superannuation benefits of people of retirement age are well below the projected "SGC equivalent" benefits, particularly for women.

However, even with the improvements in superannuation coverage under the SGC, women might still only accrue around half the superannuation benefits of men because of differences in average earning levels and workforce participation patterns. The different workforce participation patterns include both the greater incidence of part time and casual work amongst women than men and the more interrupted work histories of women that arise because of child bearing. Future trends in the relative earnings of women and developments in their workforce participation patterns may, however, affect the levels of superannuation benefit they accrue relative to men.

Table 3: Projected SGC equivalent benefits for retirees (retiring end of 1992-93)

Retirement age	Males *(a)*	Females *(b)*
55	$167,365	$84,916
60	$193,700	$100,195
65	$216,255	$112,963

(a) Male earning average male earnings for each year of age while in the workforce (age earning profiles from ABS 1990 income distribution survey).

(b) Female earnings based on average female earnings for each year of age while in the workforce. Females assumed to work full time in all years except:

- 25-29 when not in the labour force; and
- 30-34 when working part time at two thirds of the full time rate.

(c) Other assumptions are:

- person commences at age 21 and retires at the age shown at the end of 1992-93;
- employer contributions 9%;
- fund earns the 10 year bond rate *plus* 1% throughout the accrual period;
- fixed charges of $1.70 per week for administration and life insurance (1994 prices indexed to CPI);
- AWE growth and inflation based on historical AWE and CPI data; and
- all benefits fully preserved.

DISTRIBUTION BY SALARY LEVELS

This section examines the distribution of superannuation membership and assets categorised by the salary level of the member[6]. Chart 3 shows the greater concentration of female superannuation fund members in the lower salary groups. This is a major factor accounting for the lower average superannuation assets of women we observed in the previous section.

[6] The salary data in this section should be treated with some caution. Readers should interpret the salary levels as indicative only. This is because funds often only keep limited salary information on their administrative systems and definitions of superannuation salary may differ from a person's actual salary level. See Appendix C for further details of the data, definitions and concepts in this paper.

Chart 3: Superannuation membership by gender and salary level

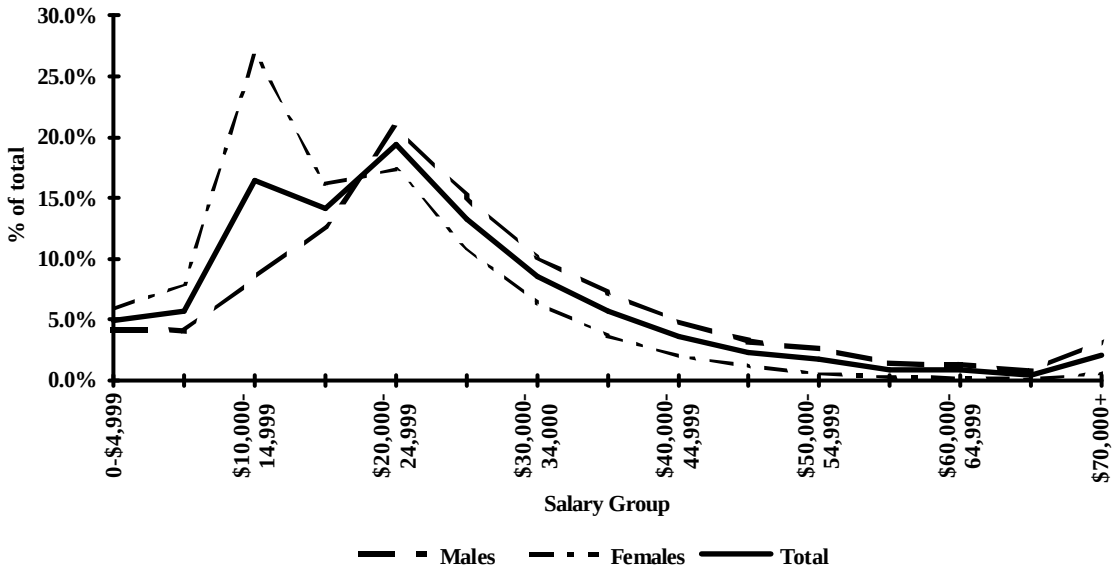
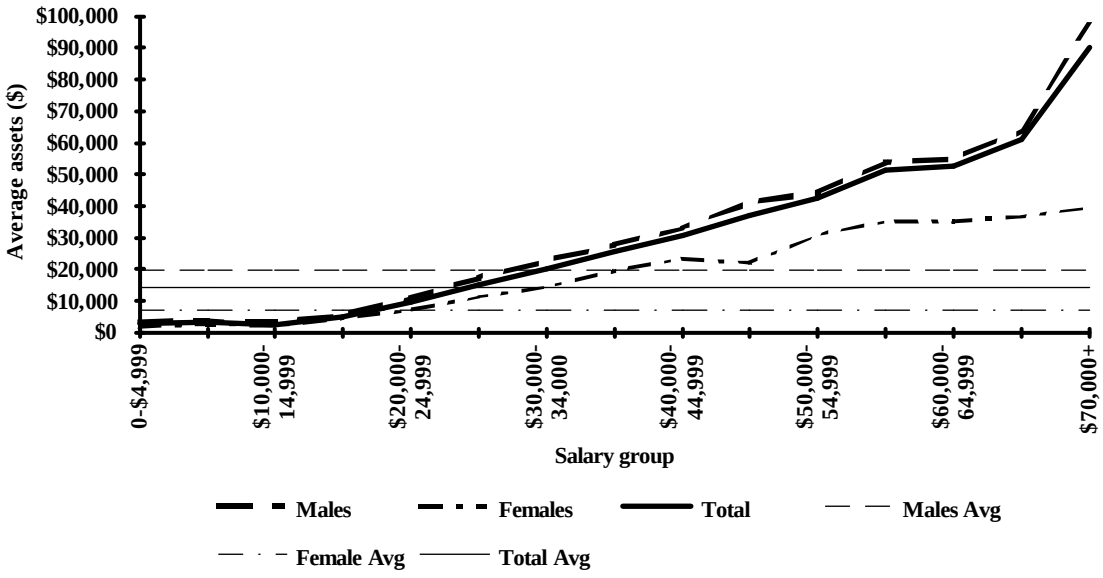


Table 4 and Chart 4 show average superannuation assets by the salary level and gender of superannuation fund members. They show little variation in average superannuation assets up to around $15,000 salary level, after which they increase steadily with salary. At any given salary level, the average superannuation assets of men are greater than those of women. As already noted, this may reflect factors such as differences in labour force participation patterns, different past fund membership patterns and the effects of incomplete vesting and preservation of benefits which may have a greater impact on women than men.

Table 4: Average superannuation assets per member by salary level and gender

Salary group	Males	Females	Persons
$0-4,999	$3,531	$1,969	$2,719
$5,000-9,999	$3,649	$2,752	$3,112
$10,000-14,999	$3,276	$2,154	$2,480
$15,000-19,999	$5,588	$4,695	$5,146
$20,000-24,999	$11,018	$7,205	$9,524
$25,000-29,999	$17,411	$11,349	$15,245
$30,000-34,999	$22,833	$14,440	$20,082
$35,000-39,999	$27,715	$19,705	$25,462
$40,000-44,999	$33,095	$23,394	$30,780
$45,000-49,999	$41,210	$22,079	$36,951
$50,000-54,999	$44,205	$30,796	$42,333
$55,000-59,999	$53,808	$35,094	$51,380
$60,000-64,999	$54,896	$35,045	$52,589
$65,000-69,999	$63,784	$36,618	$61,124
$70,000 and over	$97,624	$39,354	$90,094
All persons	$19,623	$7,143	$14,187

Chart 4: Average superannuation assets by salary group and gender



TYPES OF SCHEME

The majority of the increase in superannuation coverage in the last decade has been in defined contribution superannuation schemes with relatively low employer contribution rates. This reflects the key role of the 3% industrial award superannuation and more recently, the SGC, in extending superannuation coverage to workers who previously had no superannuation cover. We asked respondents to our survey to tabulate their results, if possible, into categories for defined contribution or defined benefit schemes. This split of data was not available from all respondents, so the results may not be fully consistent with our other survey results

Chart 5 shows that, defined benefit schemes have an "older" age distribution of membership for both men and women than defined contribution schemes and that within each scheme type, men have an "older" age distribution than women.

Chart 6 shows a heavier concentration of the members of defined benefit schemes in the higher salary groups than for defined contribution schemes. This is consistent with the spread of industrial award superannuation to lower paid workers in recent years, where those schemes have been predominantly defined contribution schemes.

Chart 5: Age distribution - Defined Benefit Vs Defined Contribution

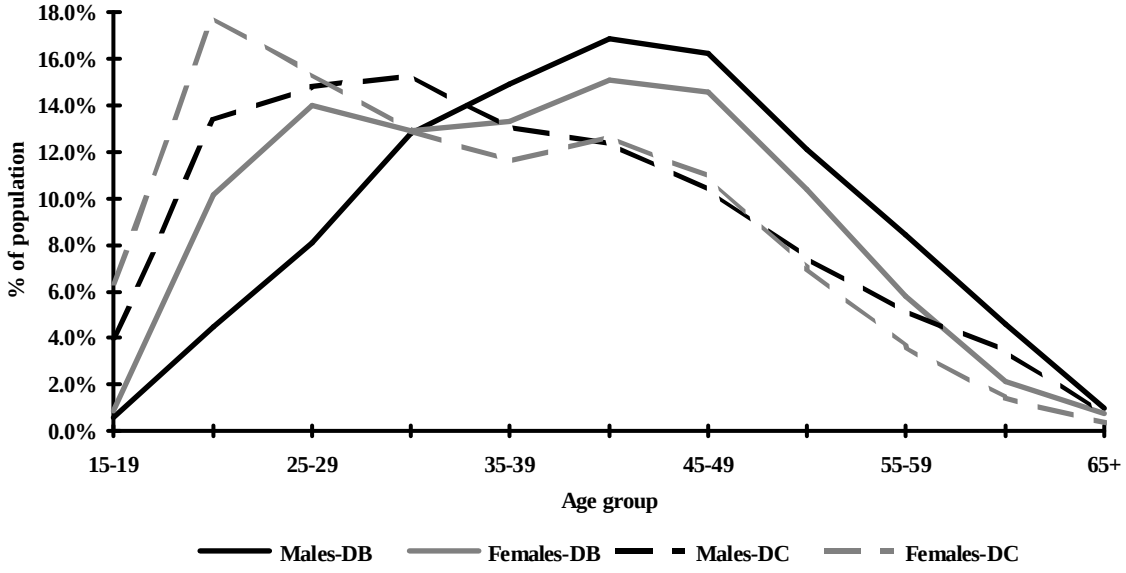


Chart 6: Superannuation membership salary level and type of scheme

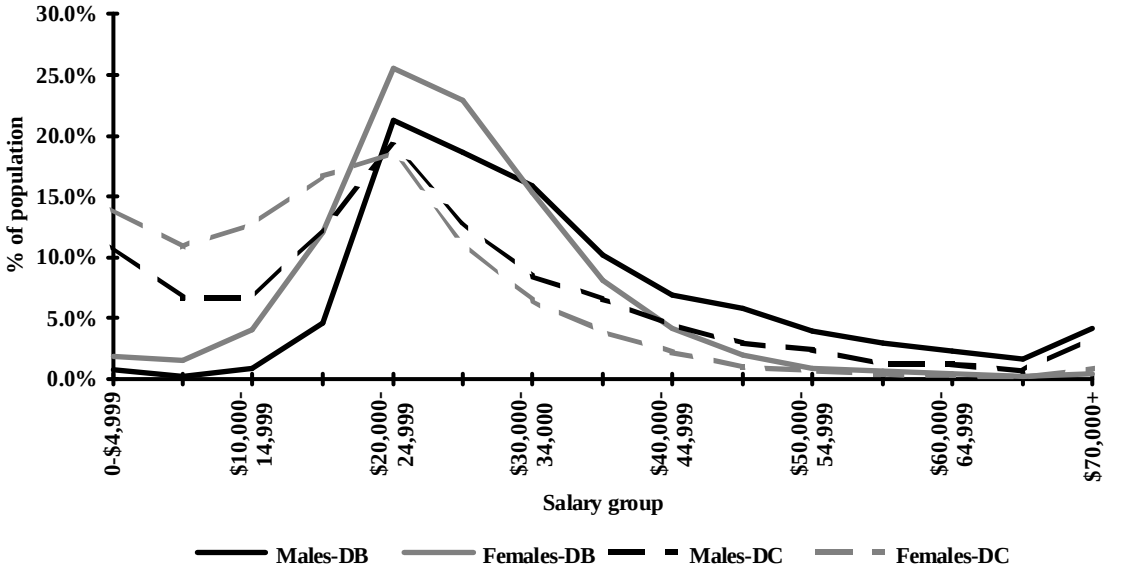


Table 5 shows that:

- the average assets (measured by the *level* of vested superannuation benefits) in defined benefit *accounts* (as opposed to fund members) are 3.8 times higher than the average assets in defined contribution schemes; and
- the gap between the average assets of men and women is smaller in defined benefit schemes. In defined benefit schemes men have 1.8 times the average assets of women

while in defined contribution schemes men have 2.5 times the average assets of women.

Table 5: Average superannuation assets *per account* by type of scheme

Salary	Defined benefit schemes			Defined contribution schemes		
Group ($)	Males	Females	Persons	Males	Females	Persons
0-4999	$3,925	$1,284	$2,684	$1,039	$600	$817
5k-9999	$840	$1,197	$1,071	$942	$937	$939
10k-14999	$707	$2,287	$1,609	$1,349	$1,438	$1,403
15k-19999	$5,031	$4,528	$4,821	$2,323	$2,133	$2,225
20k-24999	$7,188	$7,140	$7,176	$4,182	$2,768	$3,565
25k-29999	$12,615	$11,608	$12,362	$6,476	$3,919	$5,431
30k-34999	$19,211	$16,784	$18,721	$8,442	$4,635	$6,998
35k-39999	$23,154	$22,059	$22,927	$10,063	$6,666	$8,977
40k-44999	$27,292	$21,510	$26,479	$11,447	$7,369	$10,292
45k-49999	$32,677	$27,103	$32,205	$13,360	$8,472	$12,291
50k-54999	$36,484	$26,498	$35,921	$16,690	$10,806	$15,607
55k-59999	$39,163	$34,822	$38,934	$18,094	$8,343	$16,125
60k-64999	$43,639	$34,671	$43,245	$22,242	$10,317	$20,279
65k-69999	$44,767	$34,929	$44,472	$23,318	$11,547	$21,663
70000 +	$78,684	$47,656	$77,998	$38,280	$11,077	$33,470
Age group						
15-19	$1,228	$722	$1,075	$218	$169	$191
20-24	$4,343	$4,020	$4,220	$889	$756	$821
25-29	$8,260	$7,672	$8,071	$1,910	$1,438	$1,697
30-34	$12,417	$9,893	$11,871	$3,312	$1,877	$2,734
35-39	$15,958	$10,563	$14,898	$4,995	$2,414	$3,923
40-44	$20,336	$11,682	$18,633	$6,952	$3,053	$5,201
45-49	$25,082	$13,076	$22,715	$10,295	$4,292	$7,553
50-54	$29,901	$16,314	$27,318	$14,091	$5,936	$10,595
55-59	$33,227	$22,105	$31,458	$19,921	$8,813	$15,932
60-64	$34,134	$29,532	$33,619	$29,145	$14,706	$25,579
65+	$59,945	$51,015	$58,434	$31,097	$14,534	$26,424
All groups	$20,899	$11,816	$18,947	$6,794	$2,737	$4,993

SUPERANNUATION CONTRIBUTIONS

This section examines results for the average level of superannuation contribution categorised by the age and salary of contributors to superannuation schemes. The analysis represents contributions in terms of the average contribution rate for each salary level and age group. We need to interpret this information with care because:

- there are problems with defining the salary levels which form the base for calculating the contribution rate. This base is not defined the same way in all schemes;

- in many cases salary level data was not available. We have distributed contributions for which no salary data was available across the remainder of the population within each age group according to the salary distribution of contributions of the remainder of the population; and
- as with the data on average assets per member, we have adjusted the contribution rates in the charts for our estimate of the extent of multiple fund membership. This is an across the board estimate which does not take account of potential systematic variations, for instance between men and women, by salary level or age or between employer and member contributions.

Accordingly, we should interpret the data in this section only as representing broad trends in contribution rates.

EMPLOYER CONTRIBUTIONS

The employer contribution rates in this section are rates as at the beginning of 1993-94 and are affected by the superannuation guarantee charge(SGC). The SGC requires small employers (payrolls under $1 million) to contribute 3%, and large employers 5%, of the *notional earnings base* to a complying superannuation fund in 1993-94.

Overall, the data show that the average employer contribution rate at the start of 1993-94 was around 5.6% for men, 6% for women and 5.7% overall. However, the greater concentration of women in the lower salary groups offsets the higher average contribution rate we observe for them. Because of this, the average *dollar* value of employer contributions for women is lower than for men. The average annual employer contribution was $1560 for men while it was $1170 for women or 75% of the male level. Overall, the average employer contribution was $1390.[7]

We need to treat the relative contribution rates of men and women in this section with some caution. Higher average employer contributions for women than for men could arise, for instance, because women benefit more from fixed levels of employer contributions under many industrial awards, which tend to favour lower salary earners. On the other hand, the result could also arise from the methodology we have used to adjust for multiple fund membership which applies a single factor to all groups. If, on average, men receive contributions into more funds than women, a single adjustment factor that does not account for this will produce an upwards bias in the average contribution rates of women relative to men. This is an area where we still need to do further work to refine our estimates. Nonetheless, *within* gender boundaries, the data in this section still give a valid picture of the distribution of contributions by the age and salary level of fund members.

Chart 7 shows average employer contribution rates by the age and gender of fund members. The Chart shows:

- an initial strong rise in average employer contribution rates as the age of employees increases from teenagers to the 20-24 age group;

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[7] The overall contribution rate from the survey compares with ABS estimates in ABS 6348, *Labour Costs, Australia* which show the average employer contribution rate rising from 3.2% of employee earnings in 1988-89 to 4.6% in 1991-92.

- from age 20 to around 30 to 35, average employer contribution rates are relatively static before increasing steadily with age;
- employer contribution rates rise more strongly with age for men than for women.

Chart 7: Employer contribution rates by age and gender

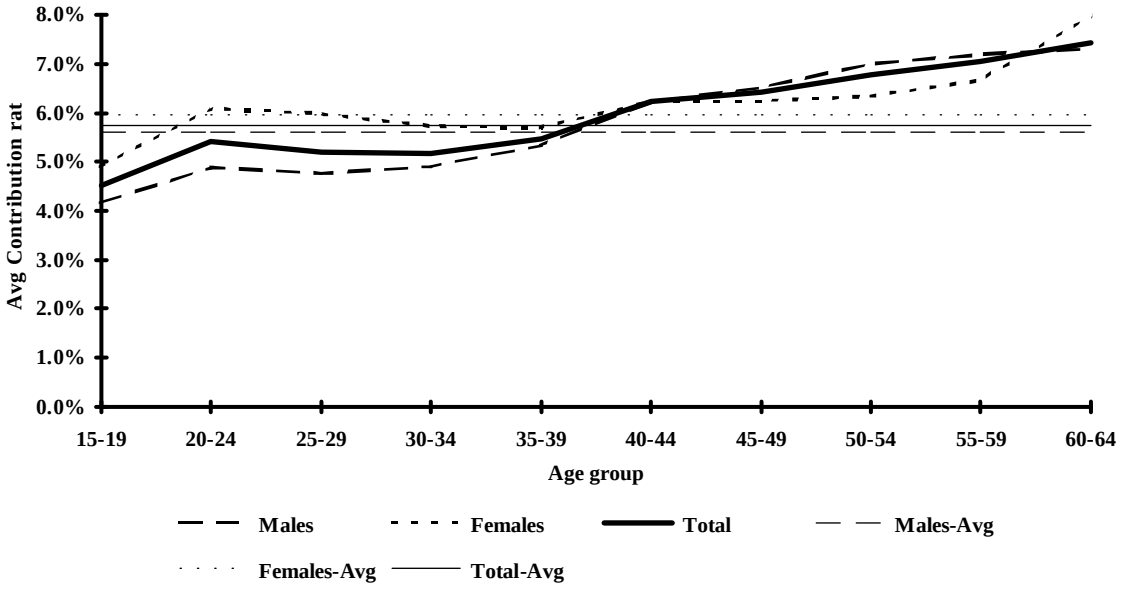

Chart 8: Employer superannuation contributions by income level and gender

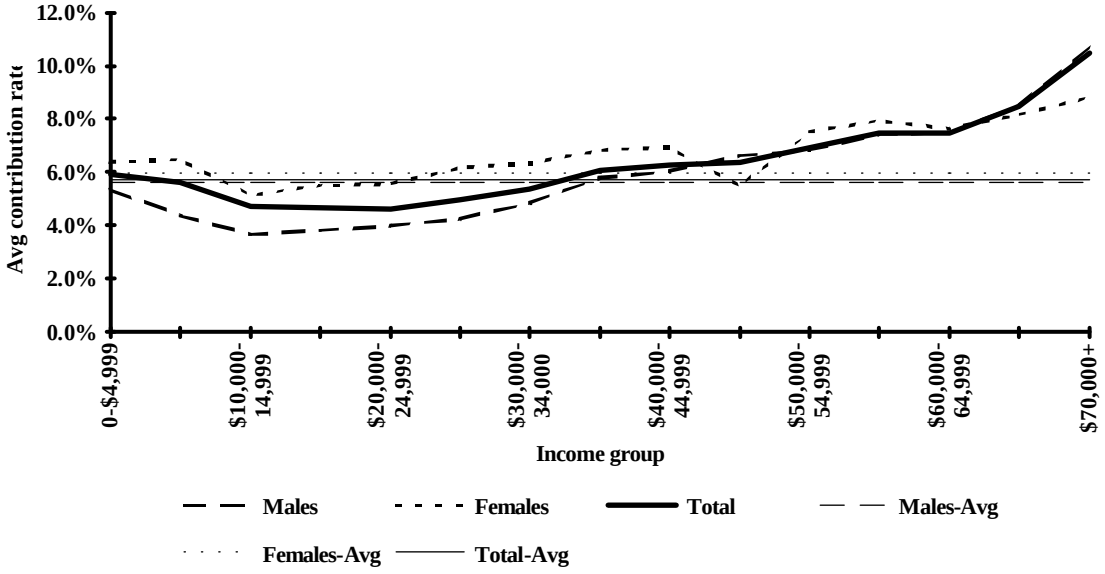

Chart 8 shows average employer contribution rates by the salary level and gender of fund members. The chart shows that:

- the level of employer contribution initially falls as salary levels rise, until we reach a salary level of around $15,000. This may reflect factors such as fixed levels of contributions under industrial awards which will tend to boost the average employer contribution rates for low paid workers.
- from around $15,000 salary, the contribution rate is positively related to salary level; and
- employer contribution rates rise more strongly with increases in salary for men than for women.

Taken together, Charts 7 and 8 show that employer contribution rates tend to be higher for older workers and for workers on higher salary levels, with a stronger correlation between contribution rates and age than between contributions and salary level.

MEMBER CONTRIBUTIONS

The study shows that the average member contribution rate[8] was around 4.3% of salary, with men contributing an average of 4.8% of salary and women 3.5%. These figures translate into average contributions of $1345 for men, $680 for women and $1050 overall. The much lower average contribution level for women reflects a combination of a lower contribution rate and lower average salaries.

Chart 9 shows member contribution rates by age and gender. The chart shows:

- the rate of member contributions increases strongly with age, particularly after age 50; and
- very similar pattern of member contribution rates by age for both men and women, with the member contribution rate of women increasing slightly more strongly with age for women than for men.

The increase in member contribution rates with age, particularly as people near retiring age, may reflect their greater saving capacity as well as the perception that such saving has a more immediate benefit as people get closer to retirement.

Chart 10 shows member contribution rates by salary level and gender. The chart shows that:

- the average rate of member contribution starts at quite a high level at low salary levels, declining steeply as salary increases to around $15,000. Because these high rates of contributions apply to a very low salary base they do not translate into very high contribution levels. These high initial contribution rates may reflect the impact of "floors" on the level of contribution that members can make to personal superannuation schemes;
- as salary increases from around the $15,000 level, the average member contribution rate also rises again and stabilises at an salary level of around $25,000; and
- overall, there is not a very strong relationship between the member contribution rate and salary level.

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[8] Member contributions in this section include *both* member contributions to employer sponsored superannuation schemes and contributions to personal superannuation policies.

Chart 9: Member contribution levels by age and gender

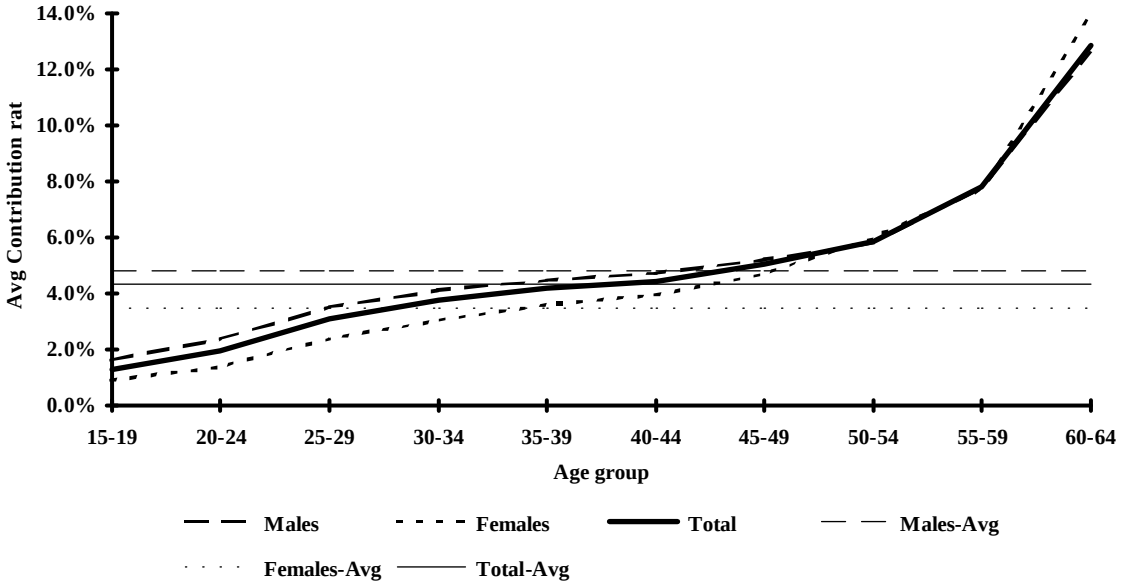
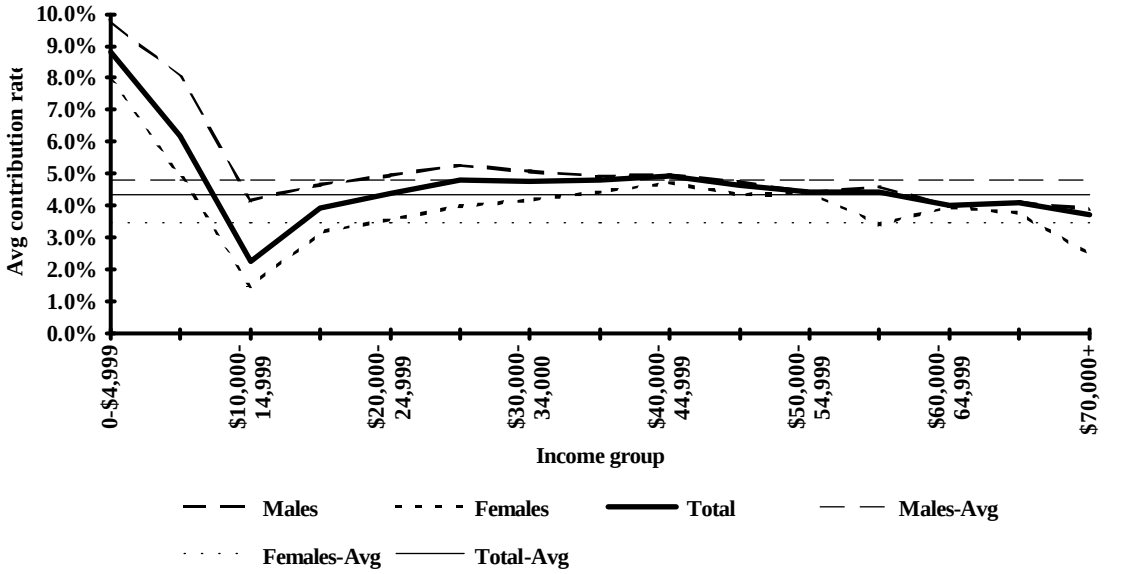


Chart 10: Member superannuation contributions by income level and gender



Taken together, Charts 9 and 10 show that member contribution rates vary principally with age. While there is some variation in contribution rate by salary level for low salary groups, this is possibly driven by factors such as the administrative arrangements of schemes or judgements about what constitutes a minimum reasonable contribution.

CONCLUSIONS

Information on the distribution of superannuation assets and contributions amongst superannuation fund members, categorised by the age and salary of members, is essential if we are to undertake a detailed analysis of retirement income policies. This is because elements of retirement income policy, such as the age pension, are very sensitive to the levels of retirement income generated by superannuation accumulations. This means that calculations performed at the population average are likely to produce misleading outcomes. Our study has provided us with a range of distributional data which will be an essential input into the development of our group model RIMGROUP as well as providing a better basis for "typical case" analysis in our individual hypothetical models, INDMOD and RIMHYPO.

The study has revealed a number of characteristics of the existing pool of superannuation savings and of fund members. These characteristics include:

- Women have substantially lower average superannuation asset accumulations than men, reflecting factors such as:
  - their lower average earnings;
  - their higher incidence of part-time work;
  - past levels of superannuation coverage; and
  - their broken workforce participation patterns meaning they have fewer years of contributory service and are more likely to dissipate benefits due to lack of vesting and preservation on change of job or workforce status.
- Members of defined benefit schemes have substantially higher levels of accrued benefit at all ages and salary levels. In addition, members of defined benefit schemes tend to be older and more concentrated in higher salary groups than members of defined contribution schemes, reflecting the broader coverage of defined contribution schemes, particularly amongst the low paid.
- Employer superannuation contribution rates appear to be slightly higher on average for women than for men but, because of women having lower average earnings, this does not translate into higher dollar contributions.
- Employer contribution rates also tend to be higher for older workers and for workers on higher salary levels.
- Men tend to have a higher member contribution rate than women, and the member contribution rate for both men and women is principally related to the age of the person.

In the future, we can expect a substantial increase in the level of superannuation assets people have at retirement due the impact of the SGC. However, unless there is a substantial change in workforce participation patterns and relative earnings, it is likely that women will still only accrue around half the superannuation benefits of men.

APPENDIX A: TABLES OF RESULTS

APPENDIX B: INFORMATION REQUESTED FROM RESPONDENTS

We asked respondents to the RIM survey on distribution of superannuation contributions and assets to provide information in respect of superannuation funds and policies they administer. We asked respondents to provide information on:

- numbers of people;
- the total superannuation assets of those people; and
- superannuation contributions for those people, categorised as.
  - personal superannuation;
  - award/SGC superannuation; or
  - other employer superannuation.

Tabulated by:

- Sex;
- Age at last birthday:

from		**to**	
15	–	19	years
20	–	24	years
25	–	29	years
30	–	34	years
35	–	39	years
40	–	44	years
45	–	49	years
50	–	59	years
60	–	64	years
65 years and over			

- superannuation salary, as recorded on the respondent's administration system:

from		**to**
$0	–	$4999
$5000	–	$9999
$10,000	–	$14,999
$15,000	–	$19,999
$20,000	–	$24,999
$25,000	–	$29,999
$30,000	–	$34,999
$35,000	–	$39,999
$40,000	–	$44,999
$45,000	–	$49,999
$50,000	–	$54,999
$55,000	–	$59,999
$60,000	–	$64,999
$65,000	–	$69,999
$70,000 and over		

- type of fund:
  - defined benefit
  - defined contribution

We also asked respondents to indicate the date at which the data they provided was current.

APPENDIX C: THE DATA, DEFINITIONS AND CONCEPTS

The study derives its results from data maintained in the administrative databases of the participating companies. We therefore need to take care in interpreting the results of the study because of the limitations of that administrative data. This section defines the data presented in the study and lists some caveats in its use.

Salary income data

The study requested that companies provide data on superannuation assets and contributions classified by members' salaries. In general, funds only maintain limited salary details on their systems where that information is necessary for the administration of the fund. The salary information funds maintain may differ from a member's actual salary because:

- superannuation salary will usually exclude overtime and allowances;
- the fund's salary information will usually relate to a particular date and the fund will only update that information periodically (eg annually), if at all; and
- a person may have more than one job so the fund is unaware of the person's total salary income.

In many cases, funds may not hold salary data because it is not necessary for fund administration. Generally, no salary information was available for preserved superannuation benefits and salary information was not available for a large part of the population whose only superannuation was provided under an industrial award or under the SGC or for the personal superannuation sector. In all, salary information was unavailable for 57% of the superannuation assets covered by the study.

In some cases where salary details were missing, it was possible to "deem" a salary level from the level of award or SGC contributions and use this to place the members concerned into an salary category.

In the final estimates presented here, we have allocated the superannuation assets, contributions and membership of the "salary unknown" group, for each age group, to salary groups on a basis proportional to the assets, contributions or membership in the total line for each known salary group. This allocation preserves the age distribution of the "salary unknown" group and distributes those assets across salary groups according to their known shares of assets, contributions or fund membership.

Assets

The superannuation assets presented in this study represent the *account balances* of superannuation fund members rather than the total assets of funds:

- In defined contribution schemes a member's asset balance is the balance of the member's account;
- In defined benefit schemes the asset figure is the member's *vested* superannuation benefit.

The sum of members' superannuation benefits and total fund assets may differ because of factors including reserving policies, incomplete vesting or fund surpluses. Overall, these factors indicate

that the study will tend to understate average superannuation assets of superannuation fund members.

Numbers of members

Companies responding to the study provided information on the characteristics of superannuation *accounts* they administer as opposed to the characteristics of the individual account holders. Information based on the number of accounts is likely to include a very significant level of double counting. Table C1 below compares 1991 ABS statistics on superannuation fund membership with the corresponding ISC data on the number of superannuation fund accounts:

Table C1: Superannuation accounts per member

Sector	Number of members (ABS) *(a)*	Number of accounts (ISC) *(b)*	Accounts per member
	'000		
Public	1538.4	2,511	1.63
Private	3272.1	7,035	2.15
Total	4810.5	9,547	1.98

(a) From ABS Cat No. 6319.0, "Superannuation Australia", November 1991
(b) From the ISC "Superannuation Bulletin", 1990-91.

The study provided figures for 3.9 million superannuation accounts. Adjusting for the number of superannuation per person in the private sector, we estimate the study covers around 1.8 million people. These figures are consistent with people being members of a personal or employer fund as well as an industrial award fund or having a preserved superannuation benefit.