RETIREMENT INCOME MODELLING TASK FORCE

Early Retirees - Trends and their Use of Superannuation Benefits and Social Security Payments

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EARLY RETIREES - TRENDS AND THEIR USE OF SUPERANNUATION BENEFITS AND SOCIAL SECURITY PAYMENTS

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As is well known, Australia will experience a marked ageing of the population over the next half century because of increases in life expectancy and the "baby boomer" generation moving through to retirement. The aged dependency ratio is predicted to rise from 13% in 1972 to 39% by 2059. These demographic shifts are occurring in conjunction with major changes in the labour force participation for both males and females, including:

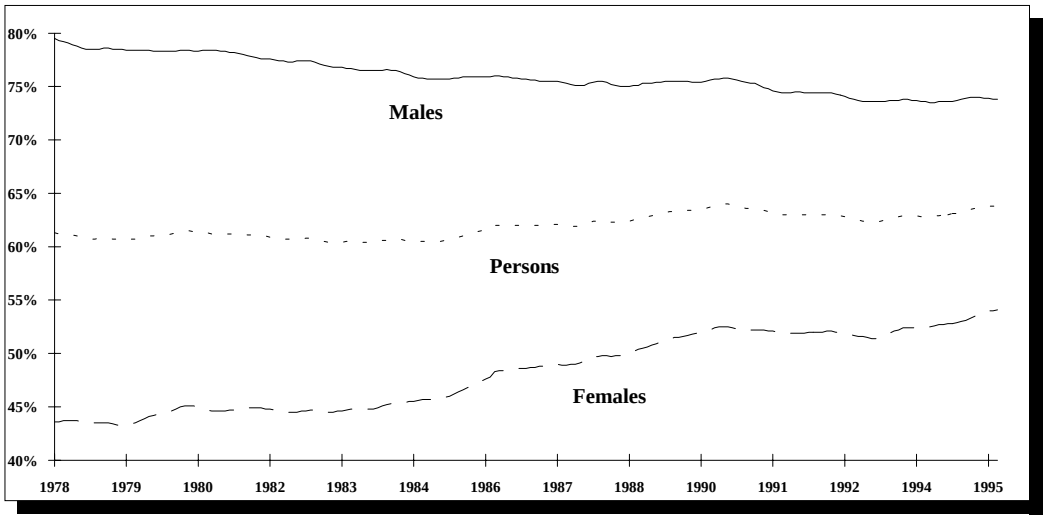
- a general decrease in the participation rate for men,
- a general increase in the participation rate for females,
- an aging of women having their first child,
- longer periods spent in education by the young, and
- early retirement.

The aged dependency ratio provides a measure of the relative burden shared by those of working age. To capture early retirement a better measure might be the retired dependency ratio defined as the ratio of persons retired to those actually working. Our analysis shows that this ratio is currently around 40%. On current trends this ratio could be expected to rise to over 60% next century.

PARTICIPATION RATE DEVELOPMENTS

The total participation rates in Australia has been rising over the last the last two decades. These movements are driven by a long run increase in female participation which has been offset, to a lesser extent, by a falling male participation rate (Chart 1). Since the ratio of males to females remains constant, these trends do not arise from compositional shifts, but have their origins in a number of
fundamental supply and demand pressures in the economy. Although there are significant cyclical (short run) movements in the participation rates, the long run trend must be explained in both

Chart 1. Labour Force Participation Rate - By Gender



economic and social shifts. On the labour demand side there have been attitudinal shifts by employers with regard to employing women, growth of industries which favour female employment and increased use of part-time (and casual) employment (which fits the lifestyle requirements of many women). On the supply side, the relative pay gap has narrowed between males and females. There is increased access to child care along with smaller families, delay in marriage, delay in child raising and changes in marriage rates. Last, but not least, the increased level of education of women has made them more competitive in the labour market. In total, these factors have significantly increased the benefits to women who enter the labour force which is directly reflected in their increasing participation rate.

These aggregate trends, however disguise the changes that have occurred between full-time and part-time employment. In particular, male part-time employment has been increasing, admittedly from a low base, offsetting significant falls in full-time participation for males. Women on the other hand have increased their participation rates for full-time and part-time work. These trends can be seen at all age levels.

Chart 2. Male - Full-time - Age Specific Participation Rate

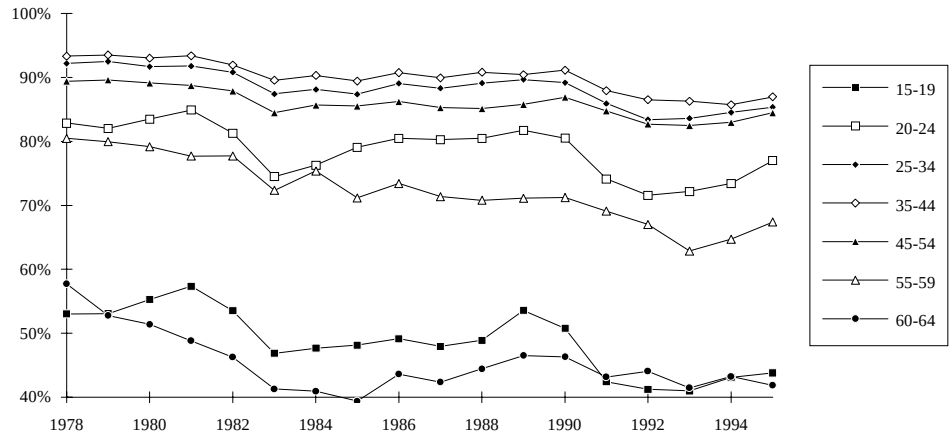


Chart 3. Male - Part-time - Age Specific Participation Rate

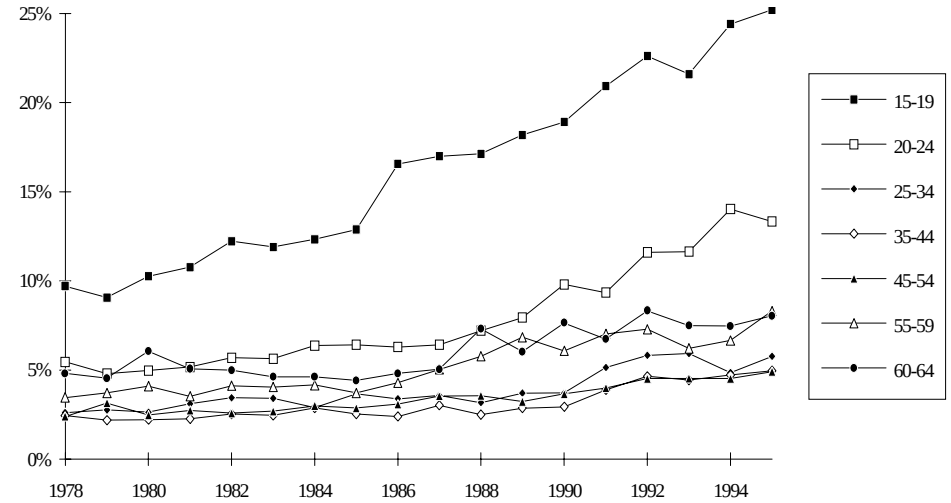


Chart 4. Female - Full-time - Age Specific Participation Rate

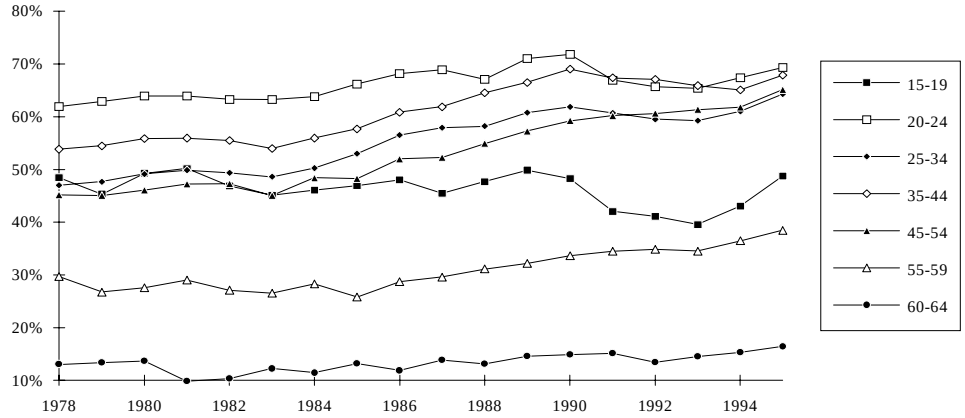
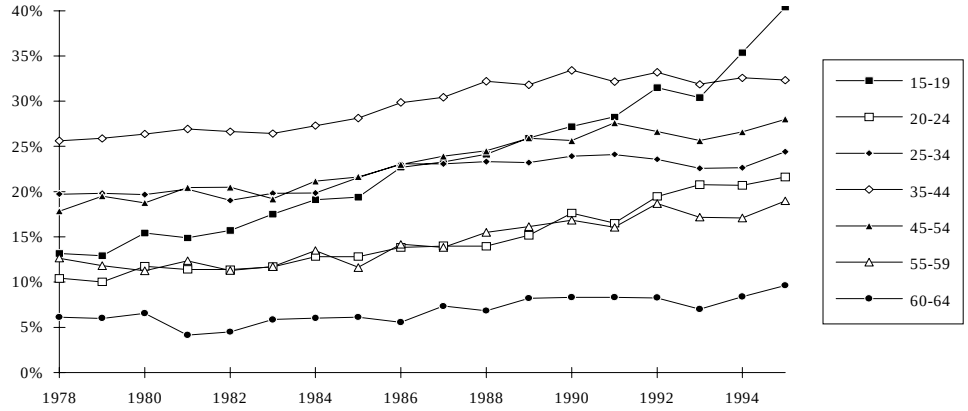


Chart 5. Female - Part-time - Age Specific Participation Rate



In general these factors are slowly moving trends, and while many of them cannot go on forever, it can be expected that the trends will continue, necessarily at a slowing rate, for many years to come. As a general proposition these trends appear to producing a convergence of males and female labour market behaviour. In particular, unmarried women are behaving more and more like men and married women are converging, albeit very slowly, towards unmarried women.

Labour Force Projections

Two central questions are "what scope is there for further growth in female labour force participation and conversely how might this interact with the falling male participation?" and "how are retirement rates related to these participation rate trends"?

The Labour Force Status Model (LFSMOD) generates detailed labour force projections. The model projects persons by labour force status, age, gender and income decile. (Marital status of females is possible but not currently in use.) Labour force status is split by employed/unemployed, full-time/part-time, public/private, wage and salary earners/employers/self employed. Persons not in the labour force will be split by retired/never in labour force/permanently disabled/temporarily not in the labour force using the Retirement Model RETMOD (see Attachment A). Projections for the

participation rates and full and part-time employment for both males and females can be found in charts in Attachment B.

The projections show a significant increase in full-time and part-time employment at older ages as the baby boomers move through. Even with flat projections of participation rates for those 65 and over, the number of wage and salary earners will double over the next 30 years. On top of this, there is a move to self employment at older ages (not charted). Finally, charts B7 and B8 illustrate labour force status by career earning deciles.

Not in the Labour Force - NILF

The participation rate measures the number the proportion of people in the labour force (employed plus unemployed) and conversely the number of people not in the labour force.. In September 1994, the participation rate for all persons implied some three and a half million persons were not in the labour force. Being classified by the ABS as *Not in the Labour Force* does not, however, necessarily mean retired.

A better understanding of not in the labour force is obtained by looking at the ABS definitions found in *Persons Not in the Labour Force - Australia (Cat No. 6220.0).* The ABS divides people into two groups: with 21.7% marginally attached to the labour force and 78.3% without attachment to the labour force. Table C1 gives a detailed break down for males and females. The largest group are persons who state they did not want to work (males 67.8% and females 67.7%). Next comes the group classified as others who wanted to work but were not actively looking for work (males 13.6% and females 18.6%). The group who wanted to work but was neither looking nor available for work makes up 8.1% of the population (males 8.7% and females 7.9%). Persons classified as discouraged job seekers are a low 3% (males 2.7% and females 3.1%).

These people have diverse reasons for not being in the labour force. In 1994 some 30% wanted to work, even though classified as not in the labour force. Not wanting to work does not mean retired either. Their reasons for not wanting to work are often temporary in nature, ranging across: study, holidays, ill health, caring, marriage and child raising. Of those who do not want to work, many only about quarter state they are retired or voluntarily inactive. This group cannot necessarily be considered retired either. Voluntarily inactive can also be temporary. The question on reason for leaving last job does ask if they retired/did not want to work any longer. However, it reflects their reasons at the time and does not necessarily reflect their retirement status at the time of the survey. For example, the number of people who state that they retired from their last job is approximately half those who state they have worked at some time, are currently retired or voluntarily not working and do not want to work any longer.

This analysis would be considerably simplified if the ABS had asked the survey respondents the simple question, if they were retired or not and if they expect to take up employment again at sometime. A corresponding question on partial retirement might also be investigated.

RETIREMENT AND EARLY RETIREMENT

Retirement can be a complicated process. People may not just retire directly from work. Those in full-time work may take part-time work, become unemployed, possibly becoming a discouraged job seeker before taking the decision to leave the work force permanently (see chart 6). The question is what definition of retirement should we use and can it be measured? As indicated above, these conceptual issues are compounded by the lack of direct data on the number of retired persons.

Conceptually full retirement occurs when a person leaves the work force and never re-enters it. In reality there is always the possibility that circumstances will change and a retired person will decide to go back to work.. The chances of returning to the work force would appear, however, to be greater the earlier the age of retirement. For many applications the concept of partial retirement may be more appropriate. There is a strong tendency to reduce the number of hours worked as people approach retirement. This is observed in the data as a shift from full-time to part-time work. It is therefore important to distinguish between retirement from full-time employment and retirement from part-time employment.

Persons who have stopped working full-time and do not want to work full-time again include those:
1. now working part-time employment or unemployed looking for part-time employment
2. not in labour force who would like to work part-time at some time in the future.

To complicate the picture even further, there are a group of people who have never worked full-time or never worked at all. Again, these people need not be retired and depending on their age, there may be a high probability that they will take up some form employment.

How many people are retired?

We do not really know. As indicated above, the ABS do not collect information in such a way as to make for a definitive answer, even if retirement could be defined.

As already noted, the NILF survey divides people into "with marginal attachment to the Labour Force" and "without.....". The question on "Main activity when not in the labour force" provides some insight into this split. Table C2 shows "main activity" split around 45 year years of age. It is clear that for those under 45 the main activities are education for males and education and home duties for females. For persons over 45 the main activities are retired and/voluntarily inactive and illness/injury/disability/handicap plus home duties for females.

Using these general patterns we have constructed age specific decision rules to allocate people as retired. The first of our measures uses a minimal approach and provides what we consider to be a lower bound on the number of people retired (Table 1). The second measure attempts to allocate people to retired if they appear unlikely work again (Table 2).

The estimates separate retirement into those moving directly to retirement, illness, home duties and permanently disabled. Both sets show the dramatic rise in direct retirement at the 55 to 59 age group for both males and females.

The ABS *Retirement and Retirement Intentions* survey provides an answer for retirement from full-time work. They ask the questions "At what age did you leave/last have a full-time job?" and "Does ..... intend to look for, or take-up full-time work at any time in the future? The survey, however, is only conducted on people over 45 years old and to complicate matters further, treats those working part-time hours who consider they are working full-time as full-time. So, although it collects information on retirement age, it introduces significant biases which must be sorted out, particularly if one attempts to impute retirement patterns for those under 45 (particularly for females).

Combining all these data, Chart 7 shows our best estimate of the number of people partially and fully retired as at November 1994. For retirement income modelling we treat persons as retired who are under the SGC and taxation cut-off income of $5400 a year. On current wage structures we calculate

Chart 6. Retirement Dynamics

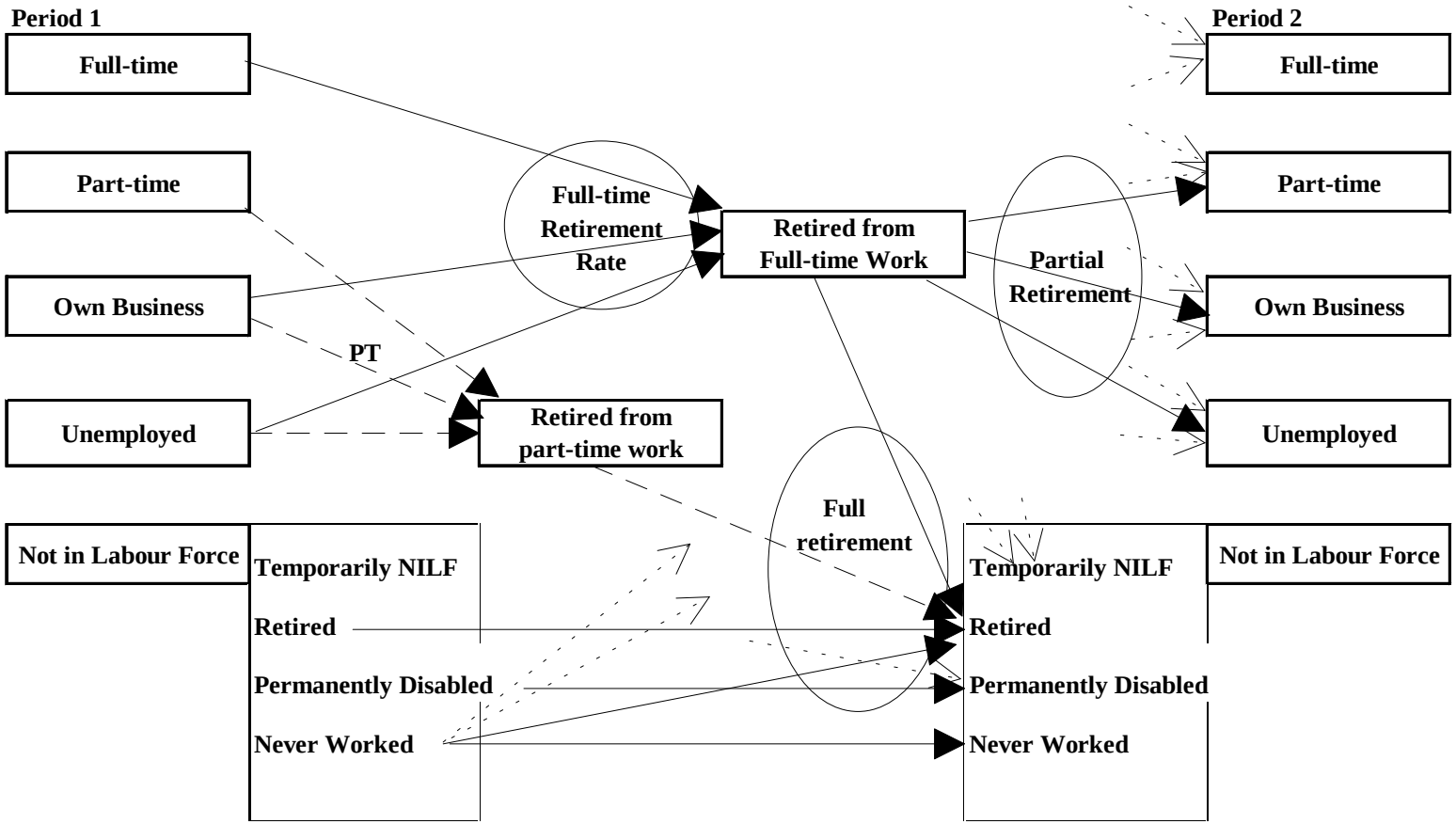


Table 1. Estimates of Number of Retired Persons - Lower Estimates

	Persons ('000)						Proportion of NILF				
	Directly Retired	Illness etc	Home duties	Perm Disabled	Total	NILF	Directly Retired	Illness etc	Home duties	Perm Disabled	Total
MALES											
15-19				1.4		264.1				0.5%	
20-24				2.0	2.0	84.8				2.3%	2 3%
25-29	0.4			3.2	3.5	33.0	1 2%			9.6%	10.8%
30-34	0 9			2.9	3.8	41.2	2 1%			7.1%	9 2%
35-39	1 5			5.2	6.8	37.9	4.0%			13.8%	17.8%
40-44	2 5			4.2	6.7	45.4	5.6%			9.2%	14.8%
45-49	9 9	5.3	1.7	4.4	21 3	47.9	20.6%	11.0%	3.5%	9.2%	44 3%
50-54	10 9	9.1	4.2	7.2	31.4	61.1	17.8%	15.0%	6.8%	11.8%	51.4%
55-59	41.0	18.4	5.8	8.9	74 1	98.6	41.5%	18.7%	5.9%	9.0%	75 2%
60-64	106.0	30.9	7.0	10.0	153.9	175.9	60.2%	17.6%	4.0%	5.7%	87 5%
65-69	218.7	14.6	10.7	8.8	252.8	271.8	80.4%	5.4%	3.9%	3.3%	93.0%
70+					562.0	562.0					100.0%
TOTAL					1118.3	1723.7					64 9%
FEMALES											
15-19						245.0					
20-24				2.1	2.1	160.1				1.3%	1 3%
25-29	0 2			1.2	1.4	190.9	0 1%			0.6%	0.7%
30-34				3.2	3.2	248.1				1.3%	1 3%
35-39	0 3			1.0	1.3	208.5	0 2%			0.5%	0.6%
40-44	1 3			3.8	5.0	160.3	0.8%			2.3%	3 1%
45-49	3 3	1.8	97.5	3.0	105.7	169.4	2.0%	1.1%	57.6%	1.8%	62.4%
50-54	11 1	6.4	103.1	4.7	125.2	172.8	6.4%	3.7%	59.6%	2.7%	72 5%
55-59	37.0	5.6	133.0	4.4	180.0	218.1	17.0%	2.6%	61.0%	2.0%	82 5%
60-64	78 2	5.0	185.6	3.6	272.4	299.6	26.1%	1.7%	62.0%	1.2%	90 9%
65-69	104.8	5.8	189.0	5.1	304.7	328.6	31.9%	1.8%	57.5%	1.6%	92.7%
70+					846.0	846.0					100.0%
TOTAL					1847.1	3247.3					56 9%

Table 2. Estimates of Number of Retired Persons - Upper Estimates

	Persons ('000)						Proportion of NILF				
	Retired	Illness etc	Home duties	Perm Disabled	Total	NILF	Retired	Illness etc	Home duties	Perm Disabled	Total
MALES											
15-19	1.4				1.4	264.1	0 5%				0 5%
20-24	2.0				2.0	84.8	2 3%				2 3%
25-29	3 2				3.2	33.0	9.6%				9.6%
30-34	4.0				4.0	41.2	9.7%				9.7%
35-39	7 9				7.9	37.9	20.9%				20 9%
40-44	9.4				9.4	45.4	20.7%				20.7%
45-49	24 5				24 5	47.9	51.1%				51 1%
50-54	41.7				41.7	61.1	68.3%				68 3%
55-59	84.0				84.0	98.6	85.2%				85 2%
60-64	167.7				167.7	175.9	95.3%				95 3%
65-69	271 5				271.5	271.8	99.9%				99 9%
					562.0	562.0					100.0%
					1179.2	1723.7					68.4%
FEMALES											
15-19						245.0					
20-24	2.4				2.4	160.1	1 5%				1 5%
25-29	5.6				5.6	190.9	2 9%				2 9%
30-34	27.0				27.0	248.1	10.9%				10 9%
35-39	35 1				35 1	208.5	16.9%				16 9%
40-44	54.7				54.7	160.3	34.1%				34 1%
45-49	94 3				94 3	169.4	55.7%				55.7%
50-54	139.7				139.7	172.8	80.9%				80 9%
55-59	203.4				203.4	218.1	93.3%				93 3%
60-64	293.7				293.7	299.6	98.0%				98.0%
65-69	328.6				328.6	328.6	100.0%				100.0%
70+					846.0	846.0					100.0%
TOTAL					2030.5	3247.3					62 5%

that this translates to around 10 hours of part-time work. In the event we have used 16 hours a week, available in the *Retirement and Retirement Intentions* survey, as a reasonable approximation.

As at November 1994 we estimate that there were some 2.9 million fully retired persons, 0.4 million partially retired persons and 3.1 persons retired from full-time work.

Some Retirement Analysis

As working definitions we divide retirement into a number of categories:

- Normal retirement - 65 for males - 60 for females*
- Late retirement - Retiring after normal retirement
- Early retirement - retiring between 55 to normal retirement age
- Very early retirement - from 45 to 55
- Mid-career retirement - from 30-45
- Start-of-career retirement - from 15-30

Work force and retirement patterns of males and females are very different. Table 3 shows that in 1986, while nearly all males over 45 had had a full-time job at some time, 20% of females over 45 never had. This ratio for females fell to 16% in 1994 and is expected to fall further. Further modelling of this process will be necessary. More important however is the different retirement behaviour of females. This is emphasised by table 4 which shows that while only some 7% of males had retired from full-time work before they are 45, nearly 60% of females had done so. That is many females had retired from full-time work at start or mid-career.

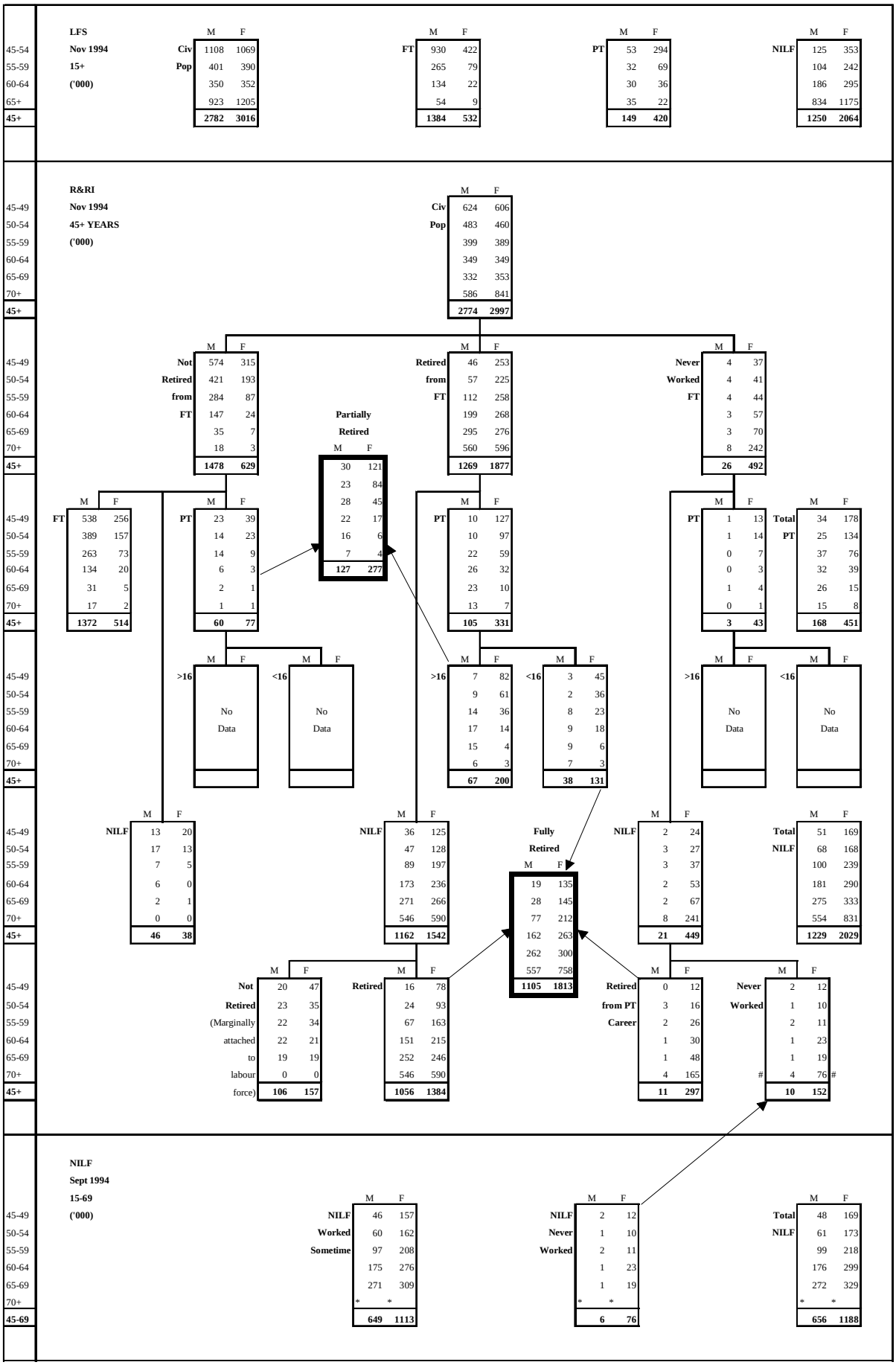
Table 3. Proportion of persons aged 45 and over who had never had a full-time job

	1983	**1986**	**1989**	**1992**	**1994**
Males	-	0.8%	0.7%	1.0%	1.0%
Females	-	20.1%	17.7%	16.2%	16.4%

Table 4. Proportion of persons aged 45 and over who had retired from full-time work before they were 45

	1983	**1986**	**1989**	**1992**	**1994**
Males	3.6%	5.2%	5.7%	7.0%	7.2%
Females	61.9%	60.2%	60.7%	59.9%	56.5%

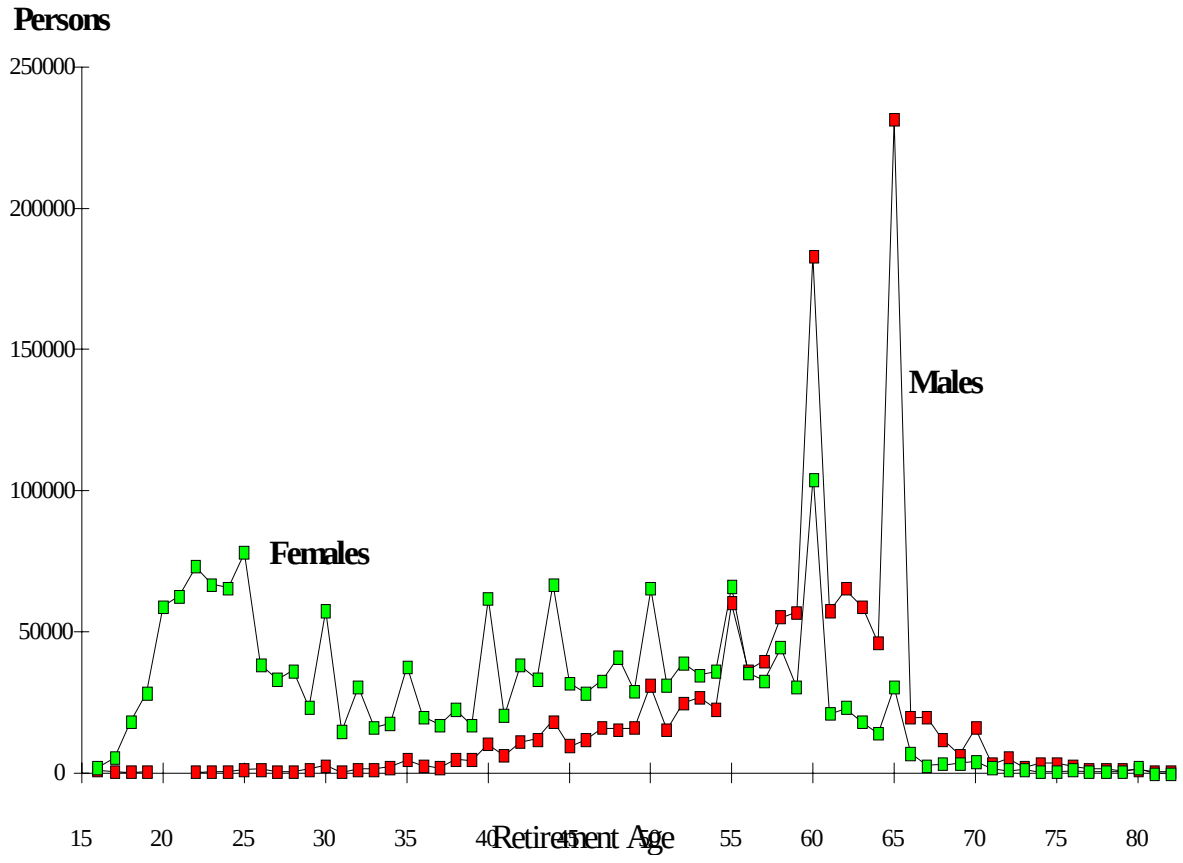
Chart 7. Estimates of the Number of Age Specific Full and Partial Retired Persons



Retirement Dynamics

Chart 8 illustrates the difference between males and females. Male retirement from full-time work does not occur to any degree until they pass 40. The retirement rate progressively increases until pension age of 65. Apart from retirement when they got married, females, on the other hand, appear to have a relatively constant retirement rate from full-time work across all ages until they reach 60 years of age. Remember that this data is for persons over 45. We would expect that rate of retirement for females between 20 and 25 will have fallen for those now under 40. This is an area of current investigation.

Chart 8. Age of Retirement from Full-time Work - Persons Over 45 - Nov 1994



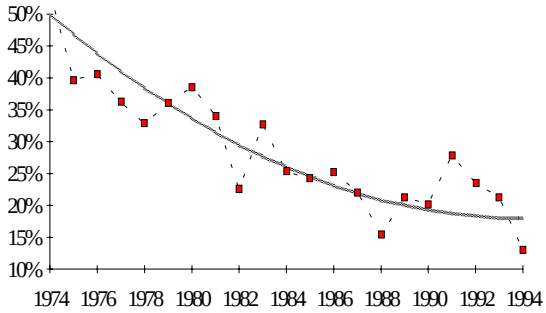
To capture retirement dynamics we need to measure the phenomena of early retirement.

Using information contained in the *Retirement and Retirement Intentions* surveys, time series of age-specific retirement rates have been modelled.

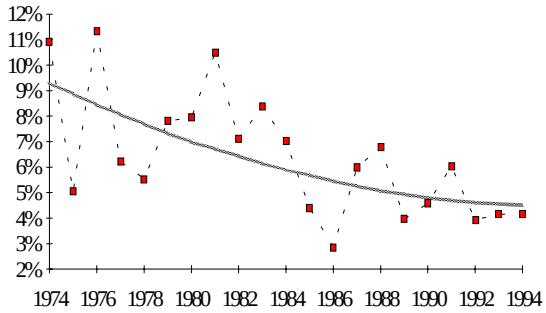
Chart 9 shows that the retirement rate for males at age 65 and females at age 60 (the pension ages) has fallen significantly. The underlying calculations assume that the death rate is similar between persons in the labour force and persons not in the labour force. Kestenbaum (1985) suggests that this is not the case for the United States. He estimates that the probability of death can be at least two times higher for persons not in the labour force. Applying a correction of this magnitude to our estimates would make the fall in pension age retirement rate even larger.

Chart 9. Retirement Rate at Pension Age

Males - 65 Years of Age



Females - 60 Years of Age



Using matrices of age retired from full-time work by current age from the five surveys of *Retirement and Retirement Intentions*, permits the estimation of age-specific retirement rates. Chart 10 shows that since 1960, early retirement rates from full-time work, for both males and females, have quadrupled for persons aged 45 to 59.

All in all, these charts clearly show that early retirement is a real phenomena for both males and females. The results also suggest that the increases in early retirement may have slowed and might even be stabilising. New data from next *Retirement and Retirement Intentions* survey should throw some light on this issue.

Are Participation Rates a Indicator of Retirement?

Most analysis of early retirement, both in Australia and overseas, treat the changes in participation rate as a measure of early retirement (see bibliography). These studies have used the fall in age-specific participation rate as an indicator of early retirement. This methodology is highly suspect. Firstly, as already pointed out, on our estimates, the retired only make up around 60% of those classified as Not in the Labour Force. Secondly, the movements between paricipation rates and retirement rates can be in the opposite directions. For example, those who have never worked and those with some marginal attachment to the labour force not only respond to the economic cycle, but show underlying structural shifts. This is particularly true for females. Female participation rates are rising, implying that non-participation (ie numbers in NILF) are falling at the same time as age specific retirement rates are positive and rising. This phenomena can be seen by comparing charts 10 and 11. Chart 11 shows the corresponding annual change in full-time non-participation rate. Ignoring the noise, it shows that the trend in exits from full-time employment for males is positive in line with a positive retirement rate. However for females we see a negative trend along side a positive retirement rate.

These analyses form the basis for our new retirement model RETMOD. This model, when linked to LFSMOD, will provide retirement projections to the year 2059 for input into the Retirement Income Modelling Task Force's aggregate superannuation model, RIMGROUP.

Chart 10. **Average Age-specific Retirement Rates from Full-time Work**
(percentage of single year age-specific population)

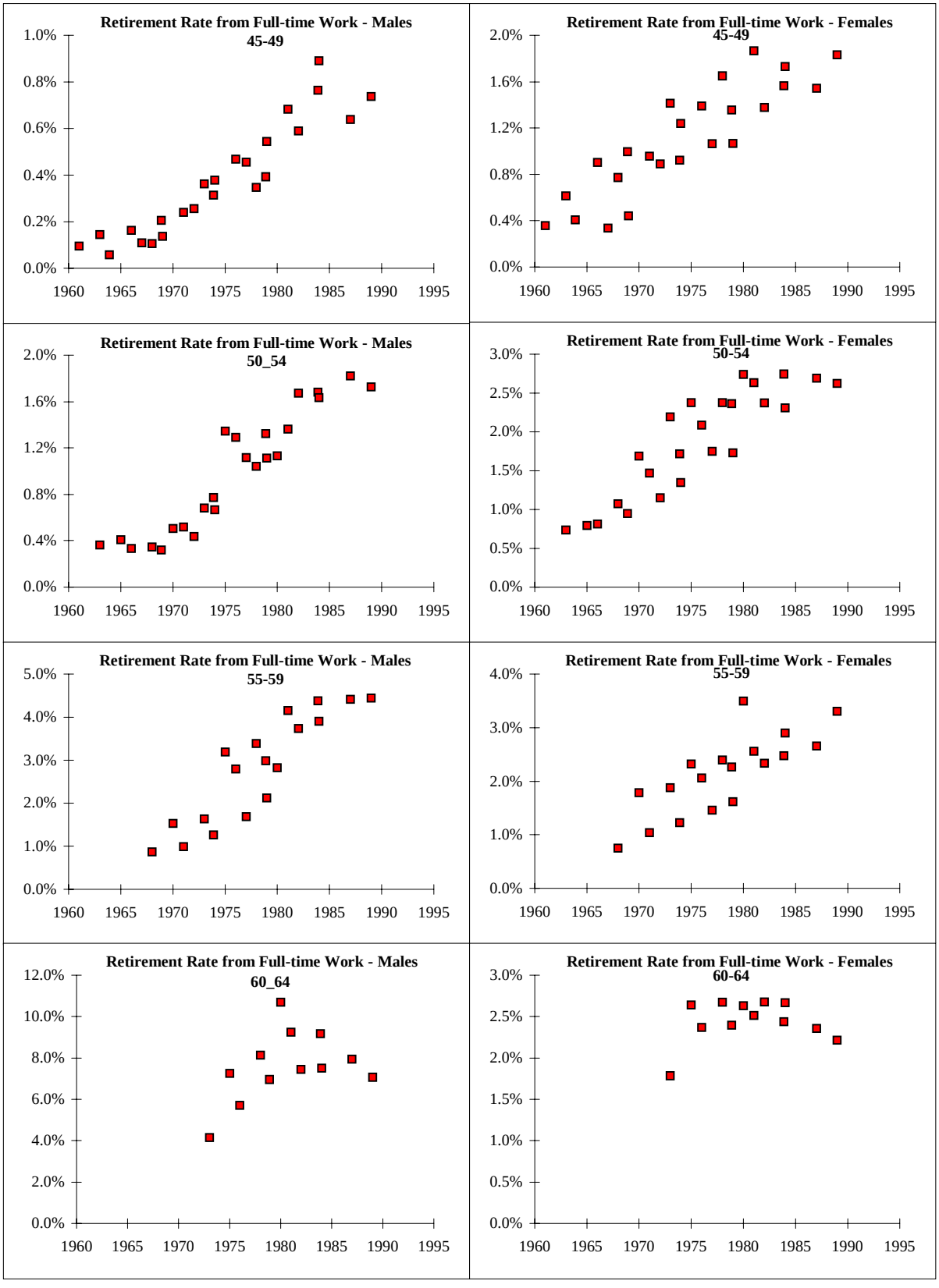
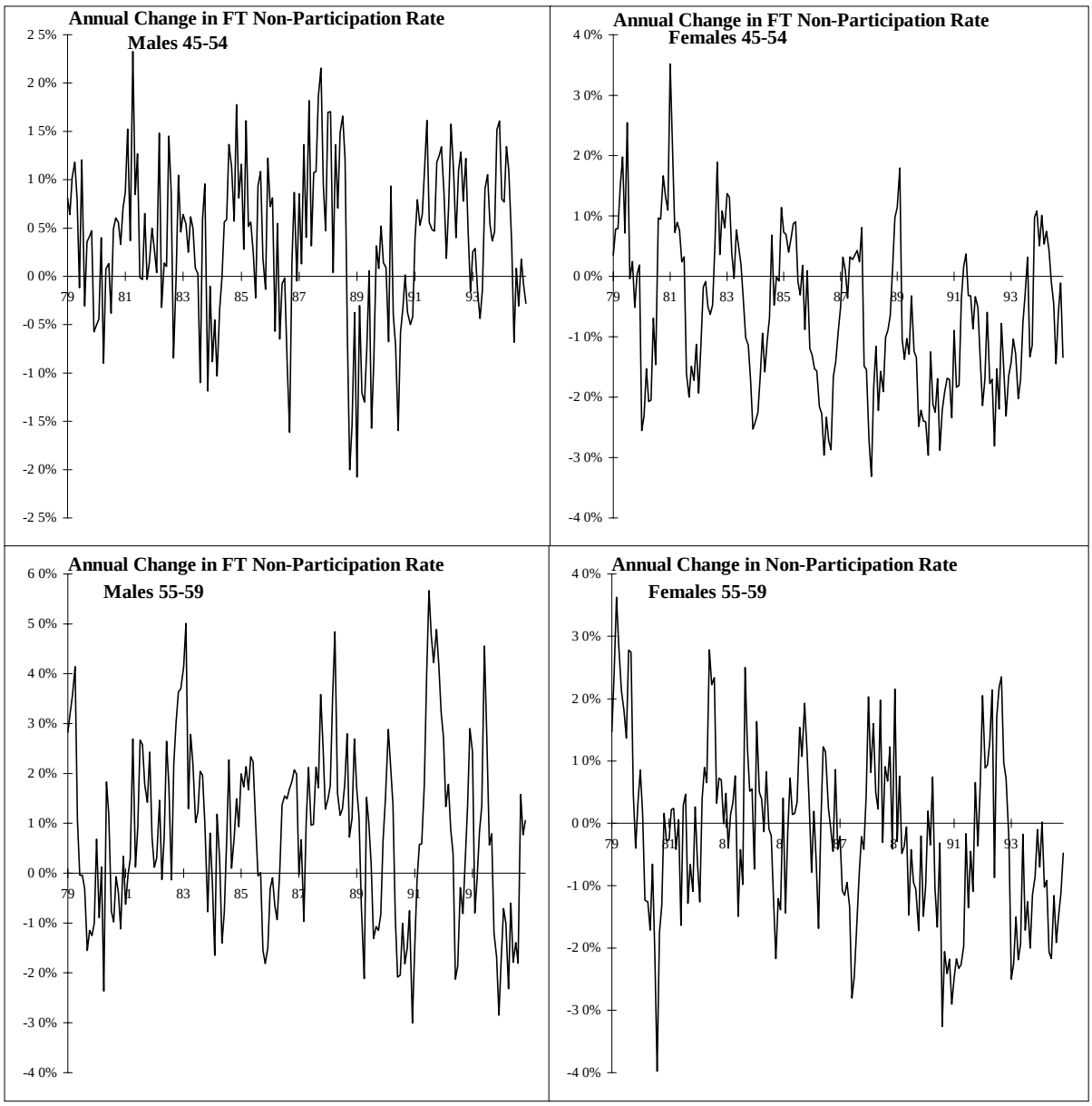


Chart 11. Annual Change in Non-Participation Rates



USE OF SUPERANNUATION BENEFITS AND SOCIAL SECURITY PAYMENTS

Early retirement has the potential to impose significant costs on the retiree and on the Commonwealth Government. The retiree loses future earnings and the government may pay significant amounts in JOBSEARCH and NEWSTART allowances while losing taxation revenue from that individual. If the early retiree runs down superannuation assets, this can lead to higher age pension payments than would otherwise have been the case. If the early retiree dissipates superannuation benefits, then the share of those benefits represented by tax concessions will not achieve their objectives of lowering retirement social security outlays and of better incomes in retirement. It is also possible that the availability of significant superannuation benefits could play a role in early retirement.

New statistical evidence of the relationships between early retirement, superannuation benefits and use of the social security system can be used to look at:

- the proportion of retirees who retire early;
- why people say they retire early;
- the age distribution of early retirees, in relation to significant ages set in legislation;
- the size of superannuation benefits received by early and age pension age retirees;
- whether the superannuation benefits are large enough to potentially affect social security payments;
- use of social security payments in early retirement in relation to the size of superannuation benefits; and
- whether benefits are dissipated or used in ways which would lower social security outlays.

Data Sources

The following examination is based on two special data sources acquired by the Retirement Income Modelling Task Force:

- The **18,481 record highly disaggregated file from the ABS November 1994 Retirement and Retirement Intentions Survey** giving details of age of retirement from full time work, retirement scheme membership, size and use of superannuation lump sums, main income source just after retirement (and now) as well as reasons for retirement.
- The **highly disaggregated file of 63,000 records summarising all 1992/93 personal tax returns**. The ATO file contains superannuation and taxation aggregate amounts and person counts for the all tax filers by fine income detail, individual years of age, taxation status, self employment status, gender and occupation. Particularly important for the current paper are the ETP data on the file.

The ABS Retirement Survey file is valuable for exploring the interrelationships between retirement from full time work, superannuation benefits and use of social security. The file is so highly disaggregated that it can be used to do detailed analysis of relationships between variables.

Administrative data sources do not have this breadth and often don't have this level of disaggregation. However, the ABS survey is often limited to 'main' income source and 'main' use type variables which do not allow for quantification. For example, the survey records the main use of lump sums, rather than the amount of money which was used in different ways. Another limitation of the ABS survey is that it is based on 'any responsible adult' responses rather than personal interview. What an adult member of the household recalls may not necessarily be what happened, but it is often close. It is therefore wise to check the estimates derived from the ABS survey with other sources including administrative sources.

In this paper estimates from our detailed personal taxation summary file on the distribution of superannuation lump sums are used as a cross-check on the ABS estimates on the size of lump sums. However, the taxation data do not give information on the use of lump sums. The taxation data is not sufficiently disaggregated to be treated as though it is unit records. This means that it is not possible to clearly disentangle the relationships between size of ETP (eligible termination payment) and receipt of Australian Government pensions on the file. It is also not possible to distinguish retirement ETPs from change of job ETPs or from drawdowns from rollover accounts.

Unfortunately, RIM does not have social security data which elucidate the issues of this paper. DSS usually sees people after they have taken their superannuation lump sum and invested or spent parts of it. This means that it is difficult to look at superannuation issues using DSS administrative data. The data RIM has on JSA/NSA clients does not include duration on payment, which would be an important characteristic in defining the 'early retired' on these payments.

The Popularity of Early Retirement and Reliance on Social Security

The remainder of the analysis in this paper uses the ABS Survey definition of 'retirement from full-time work'. This is a reasonable approximation to retirement as defined earlier in this paper for men and remains one of the better available indicators for women.

The ABS survey indicated that there were 3,146,000 Australians retired from full-time work in November 1994. Of these, 2,490,500 (79%) retired before age pension age. This estimate does not treat those receiving service pension at service pension age as early retirees. Of retired men, 68% retired early. Of retired women, 87% retired before age pension age.

Table 5 shows that 52% of men who retired 11-20 years before age pension age had a social security payment as their main income source at retirement. For those retiring 6-10 years early the corresponding estimate is 37% and for those retiring up to 5 years early it is 38%.

For women the corresponding estimates are lower at 8%, 26% and 28% respectively. The women's estimates are principally lower because they are far more likely to live of someone else's income at retirement. The figure for 11-20 years is artificially lowered by the non-collection by ABS of income source information for those retiring before age 45.

The estimates for men could be underestimates of the importance of social security as a main source of income. Those claiming superannuation and investment income as a main source, may well be part-rate pensioners or allowees. Even without adjustments for such a bias, the ABS estimates show that early retirement is common and likely to impose substantial costs on the social security system.

Table 5. Early Retirement by Main Source of Income at Retirement

SUMMARY ANALYSIS OF NOVEMBER 1994 ABS RETIREMENT SURVEY DATA
TABLE POPULATION: THOSE WHO HAD RETIRED FROM FULLTIME WORK

sex Males

	Retirement in relation to pension age											
	Retired at pension age		Retired up to 5 years before AP age		Retired 6-10 years before APA		Retired 11-20 years before APA		Retired more than 20 years before APA		ALL	
	population numbers		population numbers		population numbers		population numbers		population numbers		population numbers	
	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %
Main source of income at retirement- sum												
Social Security payment	273334	67 16	123507	37 09	94217	37 91	98211	52 02			589269	46 43
Part-time work	9341	2 3	12687	3 81	15491	6 23	14556	7 71			52075	4 1
Superannuation	29073	7 14	73642	22 12	51663	20 79	15641	8 28			170019	13 4
Investments	70537	17 33	94126	28 27	60707	24 43	35847	18 99			261217	20 58
Someone elses income	10728	2 64	14166	4 25	13547	5 45	12096	6 41			50536	3 98
Propertybusinessother	14004	3 44	14842	4 46	12880	5 18	12451	6 59			54177	4 27
Not Applicable									91891	100	91891	7 24
ALL	407018	100	332969	100	248505	100	188802	100	91891	100	1269185	100

sex Females

	Retirement in relation to pension age											
	Retired at pension age		Retired up to 5 years before AP age		Retired 6-10 years before APA		Retired 11-20 years before APA		Retired more than 20 years before APA		ALL	
	population numbers		population numbers		population numbers		population numbers		population numbers		population numbers	
	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %
Main source of income at retirement- sum												
Social Security payment	139246	56 03	56805	28 65	54168	26 28	30341	7 92			280559	14 95
Part-time work	8844	3 56	11693	5 9	18543	9	20911	5 46			59991	3 2
Superannuation	18192	7 32	10484	5 29	4112	2	1481	0 39			34269	1 83
Investments	37255	14 99	30971	15 62	22557	10 95	12406	3 24			103188	5 5
Someone elses income	36366	14 63	82126	41 42	100664	48 84	91827	23 97			310982	16 57
Propertybusinessother	8630	3 47	6208	3 13	6047	2 93	5885	1 54			26770	1 43
Not Applicable							220273	57 49	840840	100	1061113	56 54
ALL	248533	100	198287	100	206091	100	383122	100	840840	100	1876873	100

ALL

	Retirement in relation to pension age											
	Retired at pension age		Retired up to 5 years before AP age		Retired 6-10 years before APA		Retired 11-20 years before APA		Retired more than 20 years before APA		ALL	
	population numbers		population numbers		population numbers		population numbers		population numbers		population numbers	
	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %	Est No	Col %
Main source of income at retirement- sum												
Social Security payment	412580	62 94	180312	33 94	148385	32 64	128552	22 48			869828	27 65
Part-time work	18185	2 77	24380	4 59	34034	7 49	35467	6 2			112067	3 56
Superannuation	47265	7 21	84127	15 84	55775	12 27	17122	2 99			204288	6 49
Investments	107792	16 44	125096	23 55	83264	18 32	48253	8 44			364405	11 58
Someone elses income	47094	7 18	96291	18 13	114211	25 12	103922	18 17			361519	11 49
Propertybusinessother	22635	3 45	21050	3 96	18927	4 16	18336	3 21			80948	2 57
Not Applicable							220273	38 51	932731	100	1153003	36 65
ALL	655551	100	531256	100	454596	100	571925	100	932731	100	3146058	100

Table 6. Voluntary Early Retirement and Use of Social Security

SUMMARY ANALYSIS OF NOVEMBER 1994 ABS RETIREMENT SURVEY DATA

TABLE POPULATION: THOSE WHO HAD RETIRED FROM FULLTIME WORK EARLY

sex Males

	Whether retirement voluntary									
	Voluntary work related reasons		Family reasons		Involuntary work or health reasons		Other		ALL	
	population numbers		population numbers		population numbers		population numbers		population numbers	
	Est.No.	Col. %	Est.No.	Col. %	Est.No.	Col. %	Est No.	Col. %	Est.No.	Col. %
Main source of income at retirement- sum										
Social Security payment	48409	17.17	9705	31.06	257134	47.76	687	6.47	315935	36.64
Other Sources	224958	79.8	16865	53.96	206727	38.4	5793	54.59	454342	52.7
Not Applicable	8536	3.03	4682	14.98	74540	13.84	4132	38.94	91891	10.66
ALL	281903	100	31252	100	538400	100	10612	100	862168	100

sex Females

	Whether retirement voluntary									
	Voluntary work related reasons		Family reasons		Involuntary work or health reasons		Other		ALL	
	population numbers		population numbers		population numbers		population numbers		population numbers	
	Est.No.	Col. %	Est.No.	Col. %	Est.No.	Col. %	Est No.	Col. %	Est.No.	Col. %
Main source of income at retirement- sum										
Social Security payment	31787	12.21	33597	3.51	73239	19.16	2691	9.88	141313	8.68
Other Sources	149720	57.52	95971	10.01	170143	44.5	10080	36.99	425914	26.16
Not Applicable	78799	30.27	828904	86.48	138930	36.34	14479	53.13	1061113	65.17
ALL	260306	100	958472	100	382312	100	27251	100	1628340	100

ALL

	Whether retirement voluntary									
	Voluntary work related reasons		Family reasons		Involuntary work or health reasons		Other		ALL	
	population numbers		population numbers		population numbers		population numbers		population numbers	
	Est.No.	Col. %	Est.No.	Col. %	Est.No.	Col. %	Est No.	Col. %	Est.No.	Col. %
Main source of income at retirement- sum										
Social Security payment	80196	14.79	43302	4.38	330373	35.88	3378	8.92	457249	18.36
Other Sources	374678	69.1	112835	11.4	376869	40.93	15873	41.92	880256	35.34
Not Applicable	87336	16.11	833586	84.22	213470	23.19	18611	49.16	1153003	46.3
ALL	542209	100	989724	100	920712	100	37863	100	2490508	100

Reasons for Retiring Early

Table 6 examines whether those retiring do so for voluntary reasons and whether their main income source is social security.

Of the 2,490,500 early retirees, 542,200 (22%) retired for **voluntary work related reasons** such as 'retired', 'did not want to work any longer', 'wanted to work part-time', 'early retirement package', or 'returned to studies'. Of the 862,200 male early retirees, 33% were voluntary on the basis of this classification. Of the 1,628,300 female early retirees, 16% could be classified as voluntary.

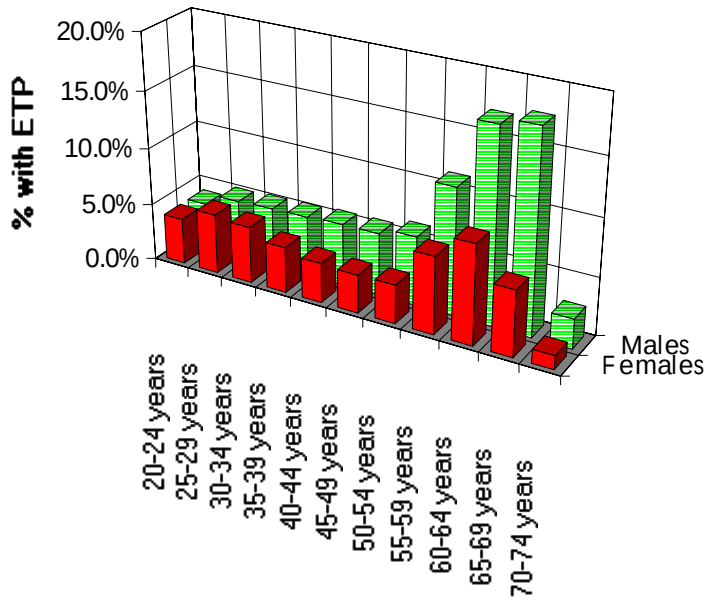
Females are far more likely to retire for **family reasons** such as 'to get married', 'pregnancy, to have children', 'to look after family, house or someone else'. These reasons for leaving their last full-time job were given by 59% of female early retirees. Only 4% of men cited these reasons.

If we define **involuntary retirement** to include reasons such as 'retrenched', 'job was temporary', 'own ill health', 'business closed down', 'unsatisfactory work arrangements' or 'employer thought too old' then 37% of early retirees did so involuntarily (62% of males and 23% of women).

Involuntary retirees are more than twice as likely as voluntary retirees to make use of social security at retirement. 36% of involuntary retirees had social security as a main income source whereas only 15% of voluntary retirees did. For men this difference is magnified - 48% of involuntary compared with 17% of voluntary retirees.

One policy dilemma is whether policies such as raising preservation age in order to prevent very early voluntary retirement will disadvantage the majority of retirees who retire for involuntary and family reasons. The retirement data, the labour force participation data and the tax office data show considerable growth in early retirement from age 55.

Chart 12. Proportion of Taxfilers with ETP by Age and Gender



The proportion of taxfilers with an ETP increases dramatically after age 55. For males, the rate of taking ETPs rises from 6.0% for 50-54 year olds to 11.1% for 55-59 year olds. The preservation age

of 55 and the change in tax rates applied to ETPs at age 55 may well be factors in this almost doubling of the rate of taking ETPs. Females also show an almost doubling in the rate of taking lump sums at age 55 - the rate rising from 3.4 to 6.7% of tax filers. Chart 12 provides details. Preservation age and the higher taxation of pre-preservation employer funded superannuation may play a role in current retirement patterns and retrenchment practices. There has also been speculation about whether the availability of larger superannuation benefits leads to earlier retirement than would otherwise have been the case.

Size of Lump Sums and Early Retirement

The ABS survey does provide limited evidence that those with larger lump sums retire earlier. That is, the income effect slightly dominates the 'age' effect of further accumulations by working longer. Table 7 shows that those with high lump sums in the ABS survey are less likely to work until age pension age. Those with lump sums over $50,000 are more likely to retire 6-20 years early. This group are also more likely to invest their lump sums and less likely to have social security as a main income source before retirement(see Tables 11 and 12).

Table 7. ABS Survey - Early Retirement and Size of Lump Sum

SUMMARY ANALYSIS OF NOVEMBER 1994 ABS RETIREMENT SURVEY DATA
TABLE POPULATION: ALL PERSONS OVER 44 YEARS

Percentage distribution of population numbers

FOR ALL PERSONS

	Retirement in relation to pension age							
amount of lump sum	Never worked	Not retired	Retired at pension age	Retired up to 5 years before AP age	Retired 6 - 10 years before APA	Retired 11-20 years before APA	Retired more than 20 years before APA	ALL
Not applicable	9.58	39.35	10.05	7.72	6.69	9.23	17.38	100
Less than 10000	.	.	35.61	35.49	16.89	12.01	.	100
10000 and under 20000	.	.	36.38	30.33	21.58	11.71	.	100
20000 and under 40000	.	.	35.56	32.01	28.34	4.09	.	100
40000 and under 60000	.	.	27.01	45.25	18.39	9.34	.	100
60000 and under 80000	.	.	34.82	38.62	18.97	7.59	.	100
80000 and under 100000	.	.	31.86	46.6	10.63	10.91	.	100
100000 and under 150000	.	.	23.65	36.26	24.59	15.5	.	100
150000 and under 200000	.	.	11.91	42.9	33.08	12.11	.	100
200000 and under 250000	.	.	12.04	24.85	38.34	24.77	.	100
250000 and over	.	.	14.5	19.52	58.4	7.58	.	100
Did not know amount received	.	.	9.29	29.66	36.68	24.37	.	100

However, this result is not supported by the taxation office data. Table 8 shows the distribution of the size of large ETPs by age of receipt in 1992/93.

Table 8. ATO Data on Size of ETPs by Age - 1992/93

Distribution of ETPs 1992/93 by Size and Age: ATO data						
Size	**Male Age Groups**			**Female Age Groups**		
of ETP	**55-59**	**60-64**	**65-69**	**50-54**	**55-59**	**60-64**
($000s)	*(percentages within age)*			*(percentages within age)*		
Up to 10k	2.84	2.92	12.68	49.25	42.73	40.70
10-20k	31.52	38.74	19.38	35.97	24.74	24.99
20-30k	19.44	21.4	12.41	7.48	13.04	12.49
30-40k	13.51	10.85	12.98	3.07	6.25	6.48
40-50k	8.02	6.21	6.44	1.29	2.89	3.78
50-60k	4.04	3.82	5.72	0.69	2.40	3.24
60-70k	3.81	2.67	7.06	0.64	2.00	2.36
70-80k	2.94	2.89	1.74	1.09	1.37	3.22
80-90k	2.43	1.58	4.67	1.26	0.94	2.10
90-100k	1.06	1.09	3.43	0.60	0.78	0.74
100-150k	4.67	4.16	5.81	2.03	1.48	4.75
150-200k	2.66	1.36	3.78	0.85	1.12	2.43
200-500k	2.74	2.1	3.53	0.11	0.27	0.90
500-1000k	0.25	0.16	0.31		0.01	0.01
over 1000k	0.04	0.04	0.07	0.01		
%Total 50k+	24.64	19.87	36.12	7.28	10.37	19.75
% Total 80k+	13.85	10.49	21.6	4.86	4.60	10.93
No. of ETPs	**33,994**	**42,486**	**33,167**	**10,045**	**14,266**	**13,770**

Interpretation of the ATO data is difficult because between age 55 and 65 rollover accounts can essentially be used as concessionally taxed investment accounts, with the retiree drawing down funds as required. This usage is encouraged by the JSA/NSA income and assets tests which ignores funds in rollover accounts.

ARE SUPERANNUATION LUMP SUMS LARGE ENOUGH TO AFFECT SOCIAL SECURITY PAYMENTS?

In his 1992 paper on *Superannuation and the Age Pension: Double-dip or Top-Up*, Mr David Kalisch used ABS survey data to show that about one quarter of lump sums were large enough to effect pension payments. He defined this as an amount large enough to provide a lifetime annuity which would fill the married pension free area - or about $100,000.

With the announcement of the deeming policy to apply from July 1996 a new measure is proposed - the financial asset amount which is large enough to produce deemed income which would fill the free area. The extremely disaggregated data in RIM's dataset from the ABS Retirement Survey allows limits to be calculated as appropriate for single and married persons and for benefits(JSA/NSA) and pensions. The calculated limits for November 1994 and the cutoffs used in the dataset are shown below.

Cutout	Financial asset deemed to fill free area - single person	Financial asset deemed to fill free area - couple	Single Limit Used	Couple Limit Used
Pensions	$42,000	$72,229	$40,000	$80,000
Benefit	$30,857	$30,857	$40,000	$40,000

Using these cutouts, the estimated number of persons who retired in the last four years and had received a lump sum which would lower pension is 67,800 (58,600 men and 9,200 women). An additional 21,300 retirees had a lump sum which would affect benefit payments (17,200 men and 4,100 women). Details are given in Table 9. Of those responding on the size of ETPs, about 39% had a retirement lump sum large enough to affect pension and another 12% had a retirement lump sum which would fill the benefit but not the pension income test free area. Lump sums were large enough to affect either pension or benefit payments for 61% of males with a recorded lump sum, 26% of females and 51% of persons.

Table 9. Potential Effect of Lump Sums on Social Security Payments

Whether Lump sum Could Affect Social Security Payments
Persons Retiring in Previous 4 Years ABS Retirement Survey, November 1994

	Males N	Males %	Females N	Females %	Persons N	Persons %
Would not affect benefit	47592	*38.6%*	38972	*73.7%*	86564	*49.1%*
Would Affect Benefit	17214	*14.0%*	4094	*7.7%*	21308	*12.1%*
Would Affect Pensions	58588	*47.5%*	9786	*18.5%*	68374	*38.8%*
Total	123394	*100.0%*	52852	*100.0%*	176246	*100.0%*

The taxation data give us another opportunity to test this estimate. The ATO data is a summary of all tax filer records, but the data available to RIM does not distinguish between job change ETPs and retirement ETPs. Drawdowns from rollover funds cannot be distinguished from final termination payments. A priori, the ATO data should show more ETPs and lower average amounts.

The ATO data also does not enable married and single persons to be separated. Given that the ABS data shows that 75% of persons retiring are married, the married free areas for benefits and pensions in 1992/93 were used to produce Table 10.

Table 10. Potential Effect on Benefit of ETPs in 1992/93 if Deeming Were Applicable ATO data for 1992/93

POTENTIAL EFFECT ON BENEFIT OF ETP	ALL Ages			Aged 50-64		
	Males	Females	Persons	Males	Females	Persons
Would not affect payment	230,010	154,723	384,733	60,500	31,740	92,240
Would Affect Benefit, not pension	55,248	9,989	65,237	30,265	4,547	34,812
Would affect pension	27,515	3,791	31,306	13,466	1,794	15,260
TOTAL with ETP	312,773	168,503	481,276	104,231	38,081	142,312
	Percentages					
Would not affect payment	73.5%	91.8%	79.9%	58.0%	83.3%	64.8%
Would Affect Benefit, not pension	17.7%	5.9%	13.6%	29.0%	11.9%	24.5%
Would affect pension	8.8%	2.2%	6.5%	12.9%	4.7%	10.7%
TOTAL with ETP	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

In 1992/93, 20% of all ETPs would have been large enough to affect social security payments if the new deeming policy were applicable. For males, 26% of ETPs would have been large enough to affect payment. Many of these ETPs were not received by retirees, let alone early retirees. Of ETPs received by people aged 50-64, 35% were large enough to affect DSS payments if a deeming policy were applicable (11% pension and 25% benefit). About 42% of ETPs received by 50-64 year old males would have been large enough to affect payments (13% pensions and 29% benefits).

This confirms the results from the analysis of the ABS Retirement Survey, that a significant proportion of ETPs received by the early retired would have the potential to affect payment if placed in a financial investment. The use of social security by the early retired and the disbursement of lump sums have always been issues of public discussion.

Use of Social Security by the Early Retired

The ABS Retirement Survey does not record the amount of social security payments received nor does it measure total income. It does say whether different types of social security payment were the main income source at retirement or now. This allows some analysis of the receipt of social security before age pension age and after, and also analysis of increased dependency on social security as retirement progresses.

Of the existing retired who retired over the age of 45:

- 41% had an early retirement and used social security as a main income source (40% for men and 42% for women);
- 25% had retired at or after age pension age and used social security as a main income source (27% for men and 23% for women);
- 34% claimed not to have used social security as their main source of income in retirement (33% for men and 34% for women); and
- 9% had moved onto social security as a main income source during their retirement (8% of men and 10% of women).

Of those who retired after age 45 who had a lump sum large enough to reduce pension, only 31% received social security as a main income source during their retirement thus far (30% of men and

33% of women). This suggests that at least 70% of retirees with larger lump sums do not entirely dissipate them. Superannuation does lower social security outlays.
Table 11 shows that within the group whose lump sums would have been large enough to affect pension, those who retired earlier are less likely to have had social security as a main source of income.

Table 11. Early Retirement and Retirees whose Lump sums would affect Pension

ABS Retirement Survey, November 1994

	Retirement in relation to pension age				
	Retired at pension age	Retired up to 5 years before AP age	Retired 6 to 10 years before APA	Retired 11 to 20 years before APA	ALL
Use of social security as main income source					
Not yet pension age, in receipt soc sec since retired		16.03	5.96	14.2	9.32
Moved to soc sec in early retirement	.	10.97	6.92	11.24	7.45
Retired to age or service pension	29.77	.	.	.	6.22
Moved to soc sec after APA retirement	14.53	.	.	.	3.04
Other social security	.	11.87	.	3.77	4.66
Never had soc sec as main income	55.7	61.13	87.12	70.79	69.3
ALL	100	100	100	100	100

The Disbursement of Lump Sums

The disbursement of lump sums which would be large enough to affect pension has been a matter of considerable interest and speculation. Table 12 summarises the more detailed data available from the ABS survey. Of those with a lump sum which would affect pension, 84% rolled it over or invested it, 13% payed bills (house, car or other debts) and 3% mainly used it to go on a holiday or give support to family members or for other purposes. Table 12 also shows that investment is more common amongst those who had not had social security as a major source of retirement income.

From Table 12 it would appear that there may be few ‘double dippers’. The estimate is 16% of those receiving a lump sum which would affect pension if we include those who pay off bills, and only 3% if we accept investment in a house, a car or in clearing debts as an appropriate use of a lump sum. Irrespective of the definition, ‘double dippers’ are estimated to be a small percentage of all those retired in the last four years. However, these estimates do not show how much of lump sums are spent on non-investment purposes. The ABS survey merely records the main use without monetary amounts. The ABS data also do not reveal whether amounts initially rolled over were spent on conspicuous consumption a short time after retirement. It does not enable RIM to revise its 25% dissipation assumption.

Table 12. Summary of Disbursement of Lump Sums Which Would Affect Pension

Subset: Potential Effect of Lump Sum on payment: Would affect pension					
	Summary of Main use of Lump Sum				
	Rolled over	Invested	Pay bills	Holiday family other	ALL
Use of social security as main income source					
Social Security used as main income source	10,089	4,755	5,120	1,025	20,989
Never had social security as main income source	31,539	10,685	4,008	1,152	47,384
ALL	41,628	15,440	9,128	2,177	68,373
Distribution of Percentages					
Social Security used as main income source	48.1%	22.7%	24.4%	4.9%	100.0%
Never had social security as main income source	66.6%	22.5%	8.5%	2.4%	100.0%
ALL	60.9%	22.6%	13.4%	3.2%	100.0%

CONCLUSIONS

On the basis of the best evidence currently available, we can currently conclude that:

- early retirement is an increasing phenomena for men and women;
- rates of early retirement increase dramatically at the superannuation preservation age of 55;
- involuntary and family retirements outnumber voluntary retirements by more than 3 to 1;
- early retirement leads to substantial use of social security payments;
- more than a third of superannuation benefits being received by retirees are large enough to affect social security payments;
- those with larger benefits tend to invest them and not to have social security as a main income source;
- there is not much evidence for significant non-investment use of large lump sums.

ATTACHMENT A

OVERVIEW OF RIM TASK FORCE MODELS

DEMOGRAPHIC MODELS

RIM Task Force has a number of models which provide the disaggregated demographic projections. The demographic variables of interest include population totals, sex and age structure, fertility, deaths, migration, labour force status by full/part-time and public/private, disability, retirement, pensions and career earning profiles by deciles. These projections are produced by a set of annual demographic models for Australia to the year 2059. The models include a population model (POPMOD), a life expectancy model (LIFE), a labour force status model (LFSMOD), a financial assets model (ASSMOD) , a retirement model (RETMOD) and a set of career earning procedures (CEPROC).

POPMOD - Population Model

POPMOD provides annual projections of Australia's population by year for males and females by single year of age up to 100 plus years. The model is driven by parameter matrices for fertility, mortality and overseas migration. The overseas migration sub-model accepts projection of permanent and long-term arrivals and departures and measures of category jumping. POPMOD is based on ABS population projection methodology (Bacon 1994)

LIFE - Life expectancy Model

The life expectancy model calculates survival rates, survivors to age x, deaths at age x to x+n, life table populations and life expectancy for males and females by single year of age up to 100 plus years. The estimates are constructed from the mortality parameters used in POPMOD.

LFSMOD - Labour Force Status Model

This is long-run annual model of the Australian labour force to capture structural (trend) behaviour at fine detail (see chart 1). The model projects persons by labour force status, age, gender and income decile. (Marital status of females is possible but not currently in use.) Labour force status is split by employed/unemployed, full-time/part-time, public/private, wage and salary earners/employers/self employed. Persons not in the labour force are split by retired/never in labour force/permanently disabled/temporarily not in the labour force . There is no short-run behavioural response in LFSMOD, the model simply runs off the observed underlying long-run movements of key, and hopefully stable, parameters, which are estimated as non-linear trends with consistent asymptotic values. Apart from these time-varying parameter matrices, the model's only exogenous inputs are population projections from a population model, such as POPMOD, and aggregate unemployment rates for males and females.

ASSMOD - Financial Assets Model*

This model will provide annual projections of non-superannuation financial assets (ordinary savings and equities) and housing assets for males and females by age group. Because of asset switching between married couples, the model redistributes family assets between husband and wife to estimate assets held by individuals. Asset distributions by gender, age and income will be projected.

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* Under construction

RETMOD - Retirement Model*
This model will provide annual projections of partial and full retirement by gender, age and income decile. Because of the limited data available to model the underlying trends, this model will be provide with an easy user interface to permit user defined assumptions to be applied.

Although these models are being developed to provide inputs to the RIM microsimulation models, they operate as stand-alone EXCEL systems and can be used as is, or modified to meet other policy analysis needs.

CEPROC - Career Earning Procedures
This is a set of complex procedures used to estimate career earning profiles by labour force status, age, gender and income decile. The procedures allocate the population by labour force status to each career earning decile. These allocations are used to construct the Income Decile Proportion parameters used in LFSMOD. Because of the complexity of these procedures, and the fact that they are a mixture of SAS and EXCEL, they have not been packaged as a stand alone.

SUPERANNUATION MODELS

INDMOD - Individual Model
INMOD is a lifecycle projection model of superannuation and retirement incomes for hypothetical individuals and couples written in EXCEL.

RIMHYPO - Retirement Income Modelling Hypothetical Model
RIMHYPO - which is a very detailed lifecycle projection model of working life incomes, superannuation, other savings and retirement incomes for hypothetical individuals and couples written in SAS.

RIP - Retirement Income Policy Model
RIP is the Task Force's enhanced version of the National Mutual Retirement Income Policy Model which tracks the aggregate superannuation accumulations and retirement incomes of age gender cohorts and which gives estimates of the national saving and fiscal impact of superannuation policies.

MEMSUPER - Member Superannuation Model
MEMSUPER is a static microsimulation model of employee personal superannuation based on a highly disaggregated summary file from the ABS Superannuation survey 1993.

SEMSUPER - Self Employed Member Superannuation Model
SEMSUPER is a static microsimulation model of self employed personal superannuation based on a highly disaggregated summary file from the 1992/93 individual taxation returns.

RIMGROUP - Retirement Income Modelling Group Superannuation Model
RIMGROUP is a new aggregate projection model. RIMGROUP projects the superannuation, other savings and retirement incomes of age, gender, career income decile groups of the population by tracking mortality, labour force status, sector of employment, income and type of superannuation fund across every year of a group's working life. Calculations are done at the average for the group and accumulated assets are pooled. The approach is hence at a level of aggregation above unit records but below age-gender cohorts. The model gives projections on both the 'quantum and distribution' of taxation, saving, social security payments and tax concessions.

Chart A1.

Labour Force Status Model - LFSMOD

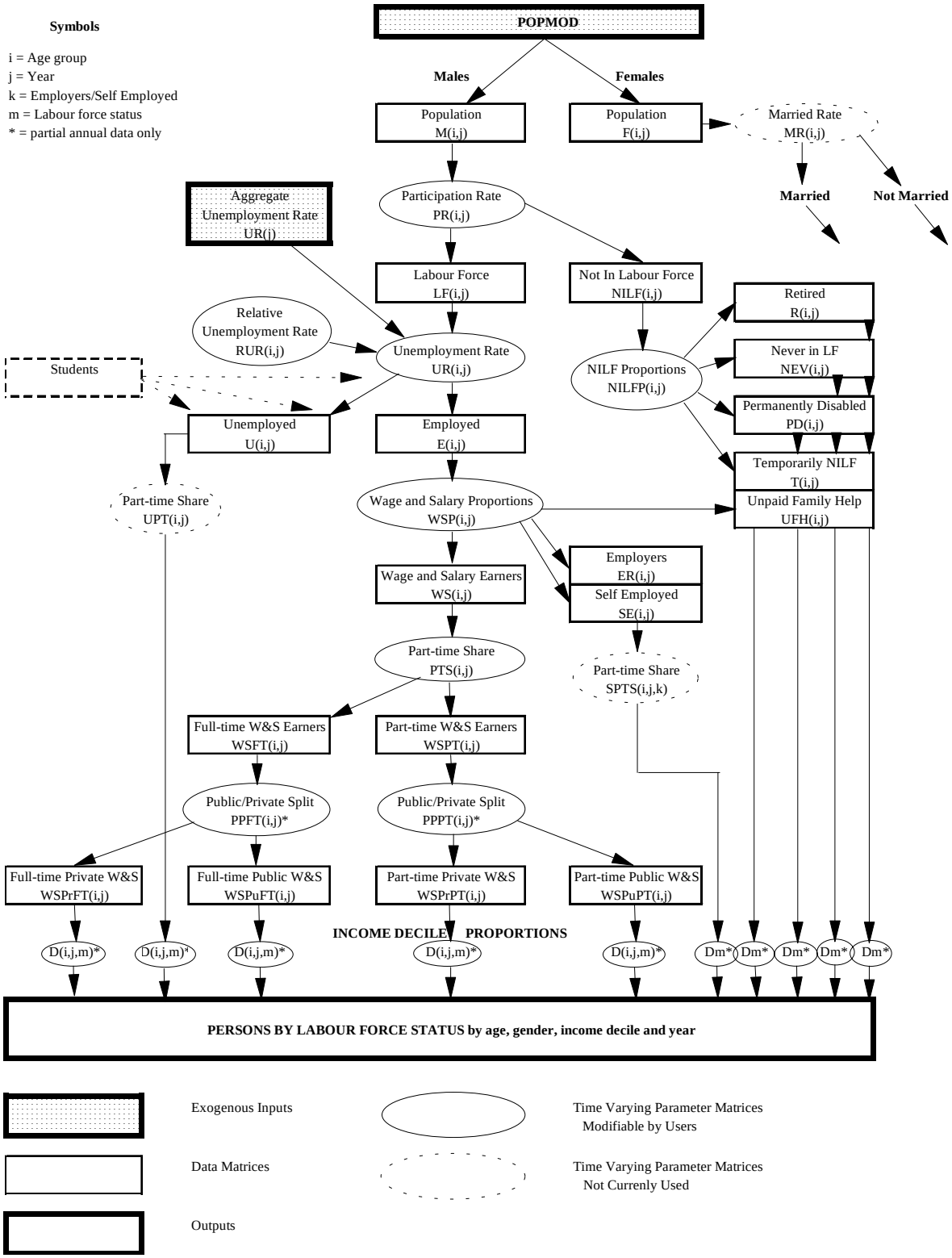


Chart B1. **LFSMOD - Participation Rate - Males** **ATTACHMENT B.**

historic data and long-run projections

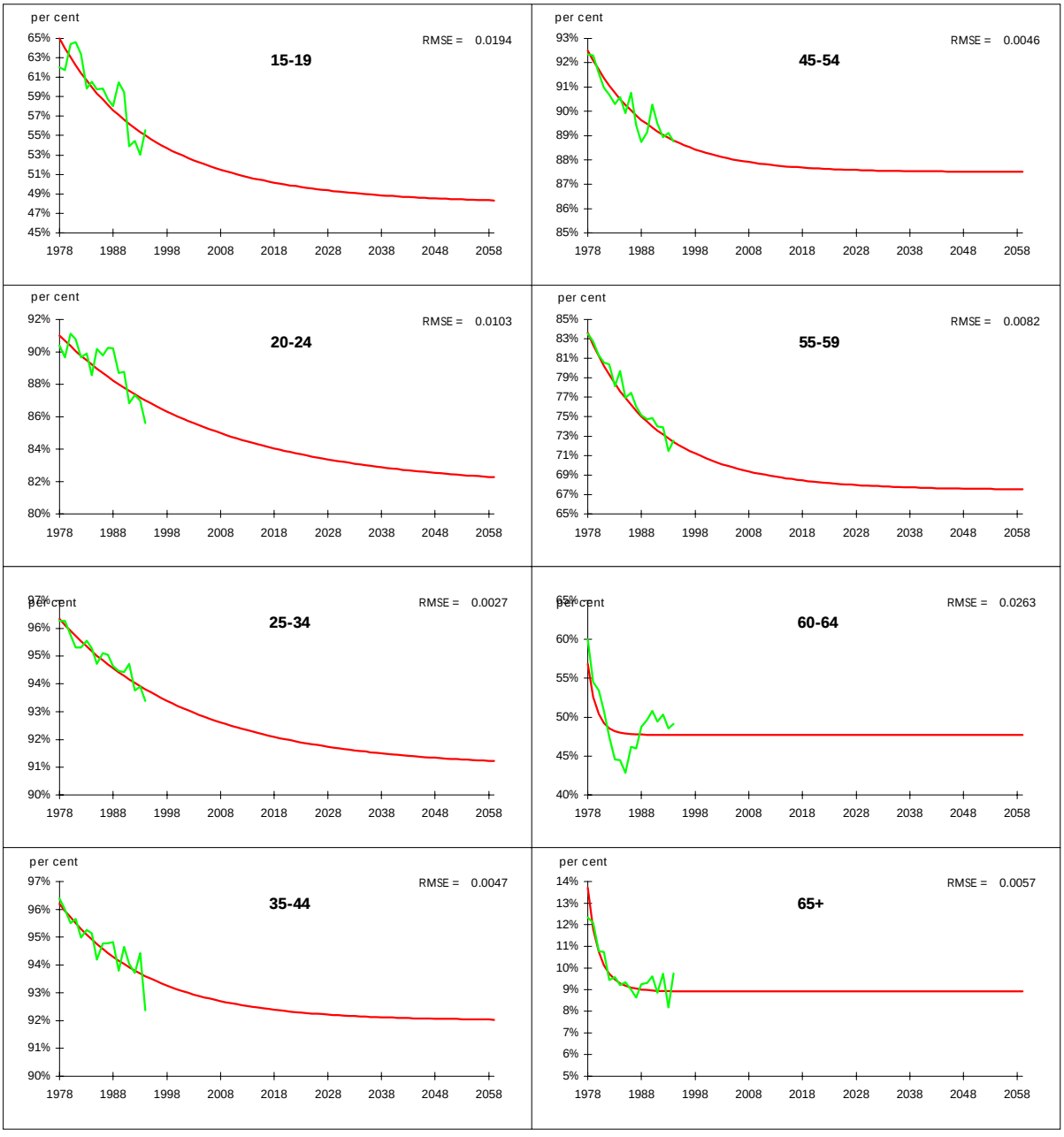


Chart B2. **LFSMOD - Full-time Wage and Salary - Males**

historic data and long-run projections

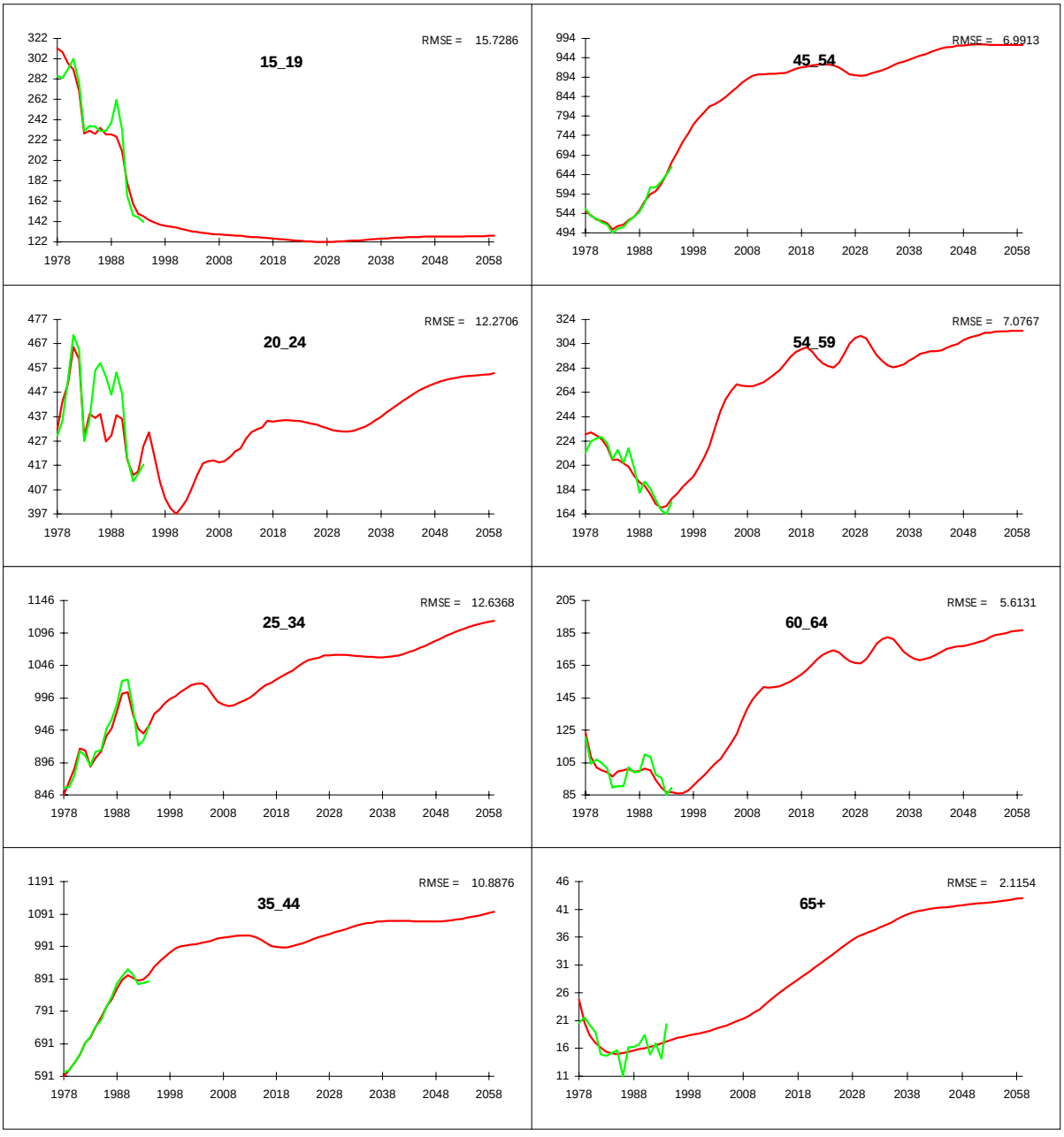


Chart B3. **LFSMOD - Part-time Wage and Salary - Males**

historic data and long-run projections

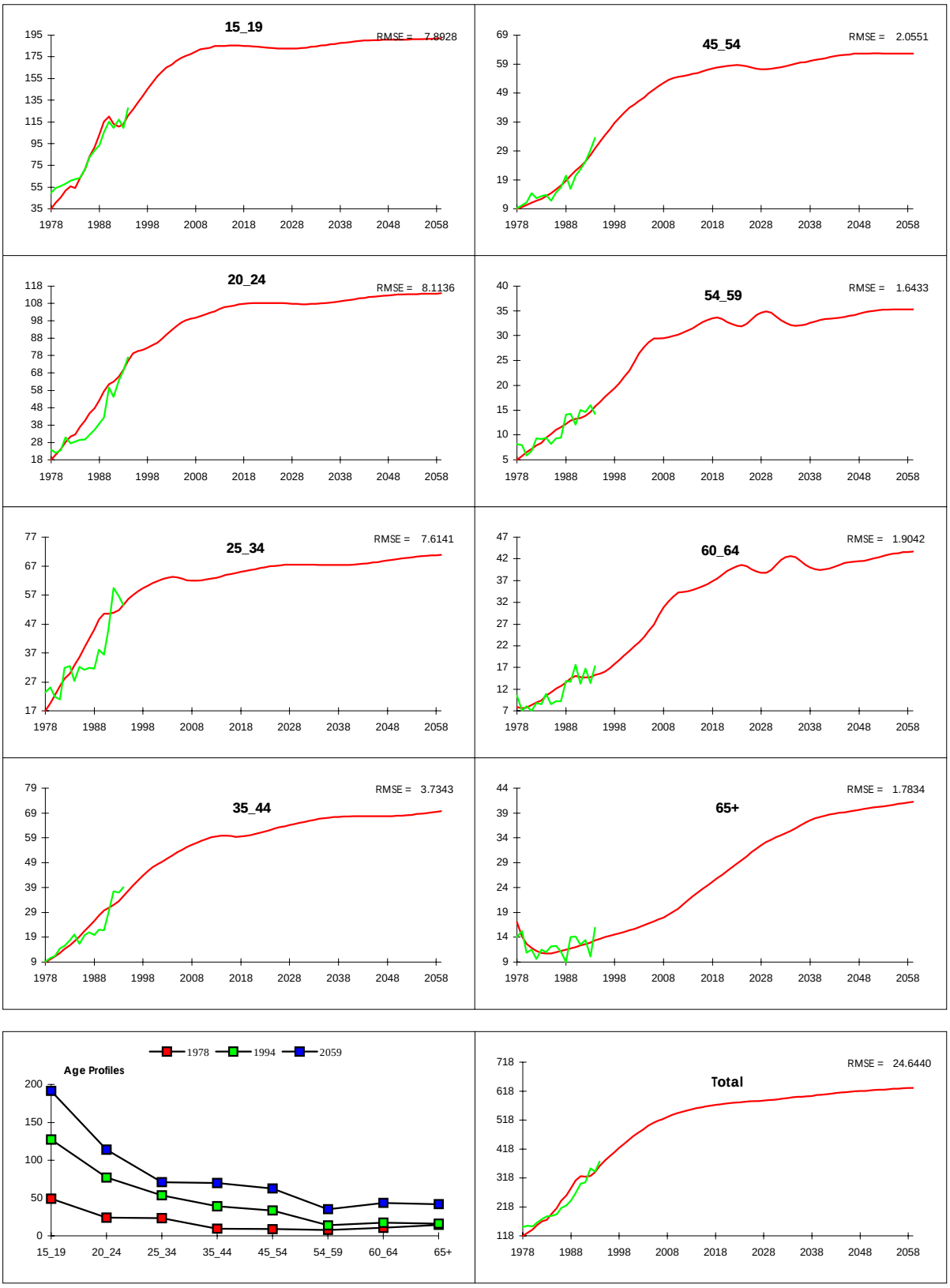


Chart B4. **LFSMOD - Participation Rate - Females**

historic data and long-run projections

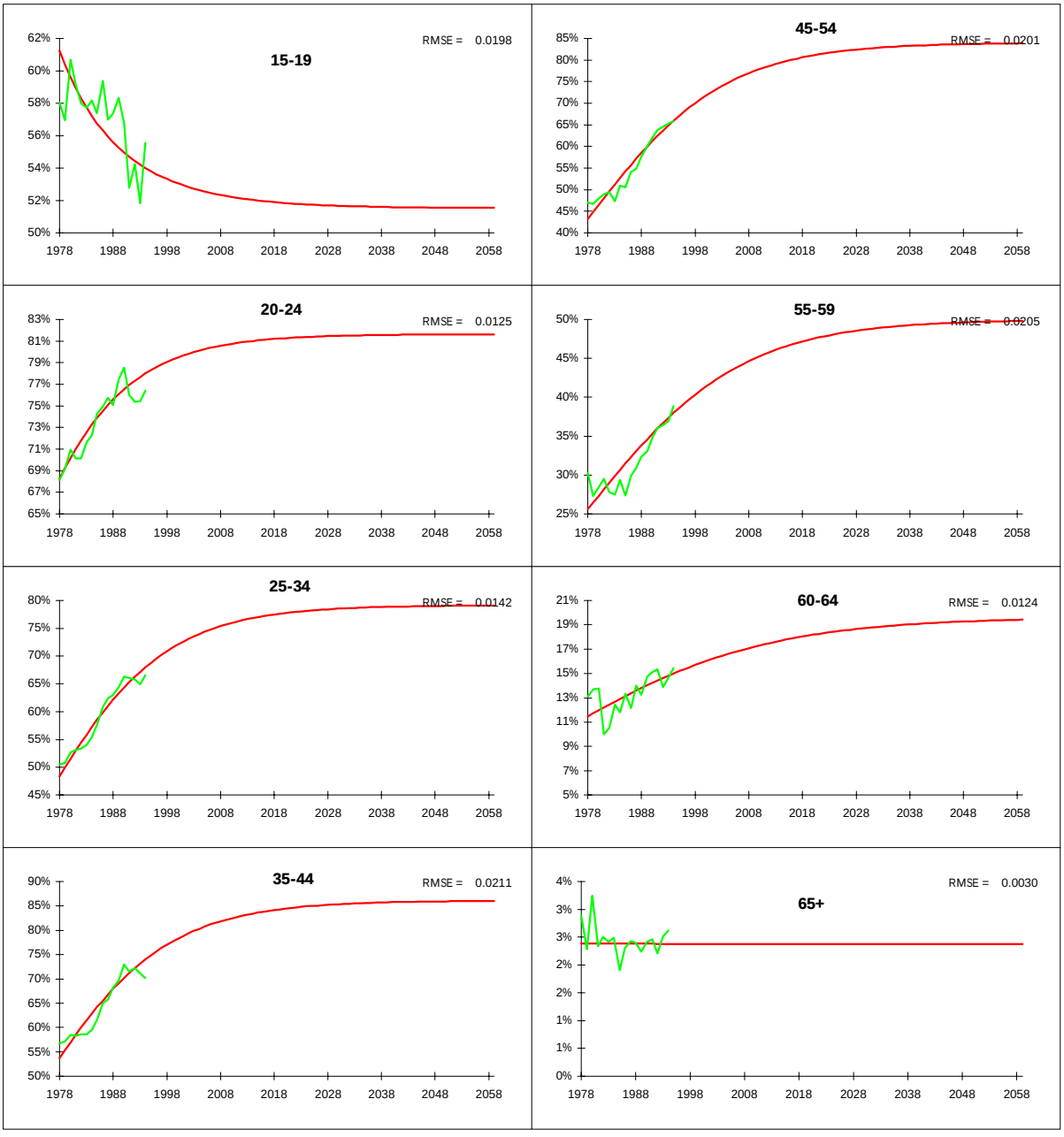


Chart B5. **LFSMOD - Full-time Wage and Salary - Females**

historic data and long-run projections

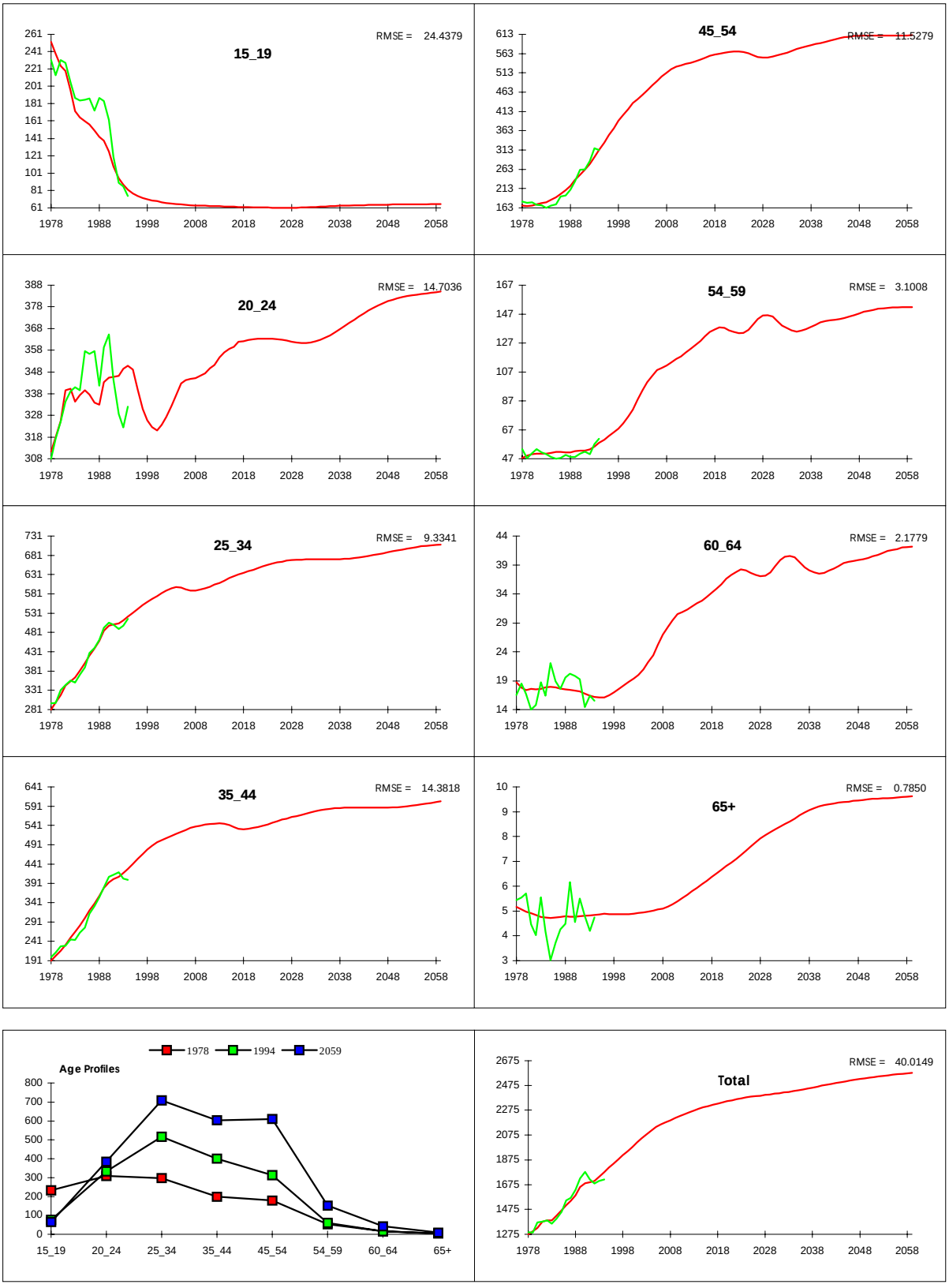


Chart B6. **LFSMOD - Part-time Wage and Salary - Females**

historic data and long-run projections

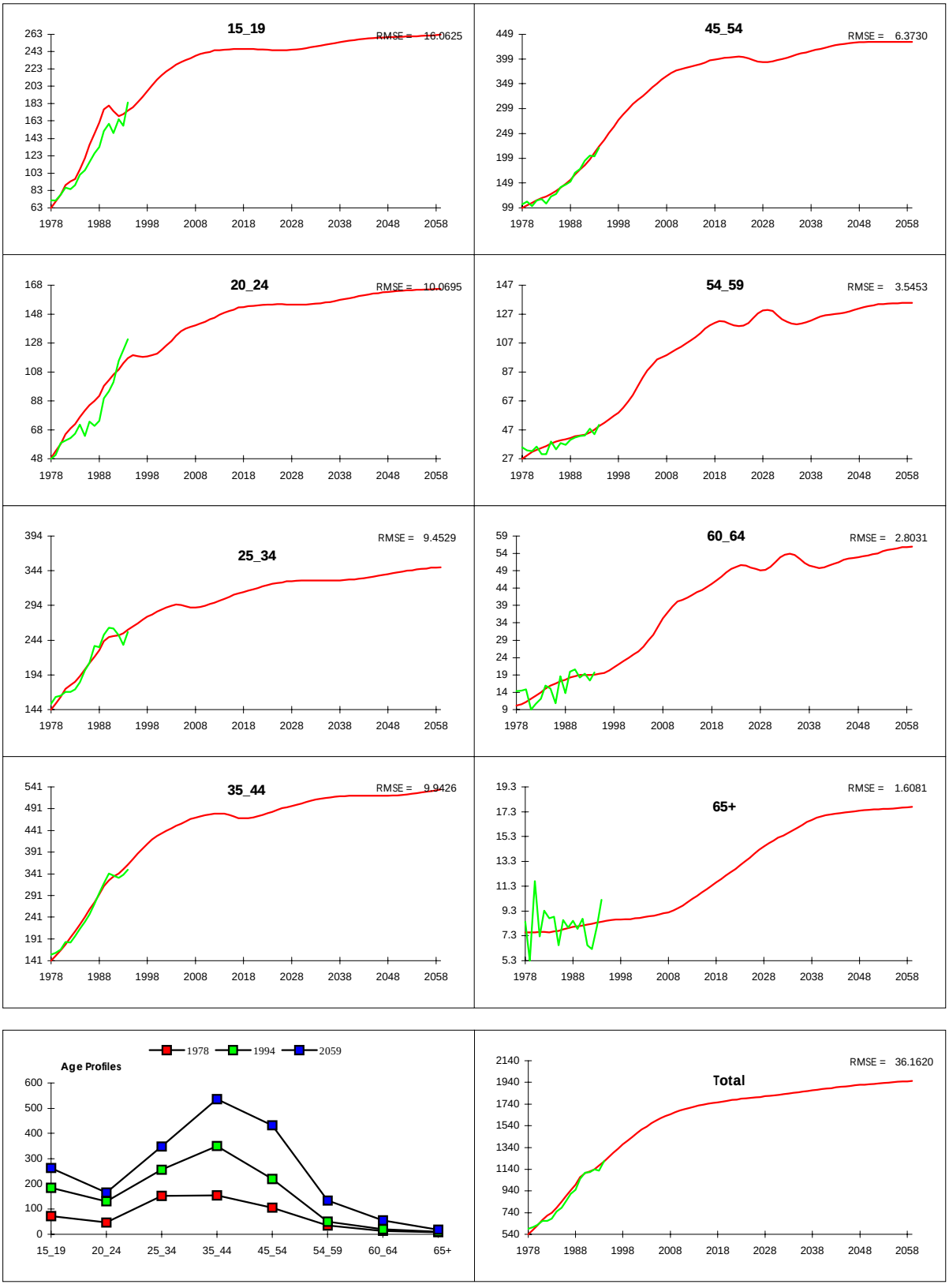


Chart B7. Career Earning Deciles by Age and Labour Force Status - Males

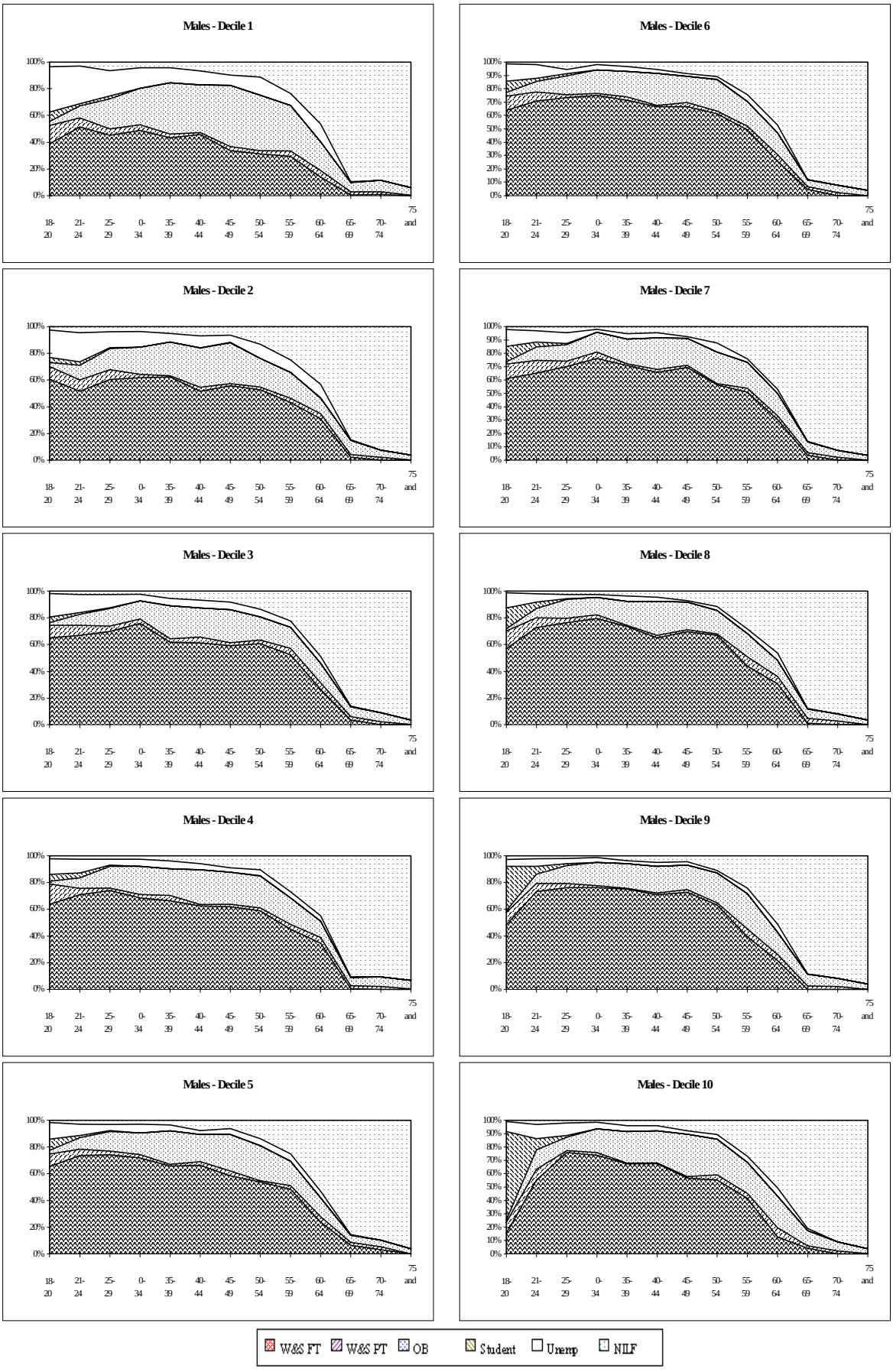
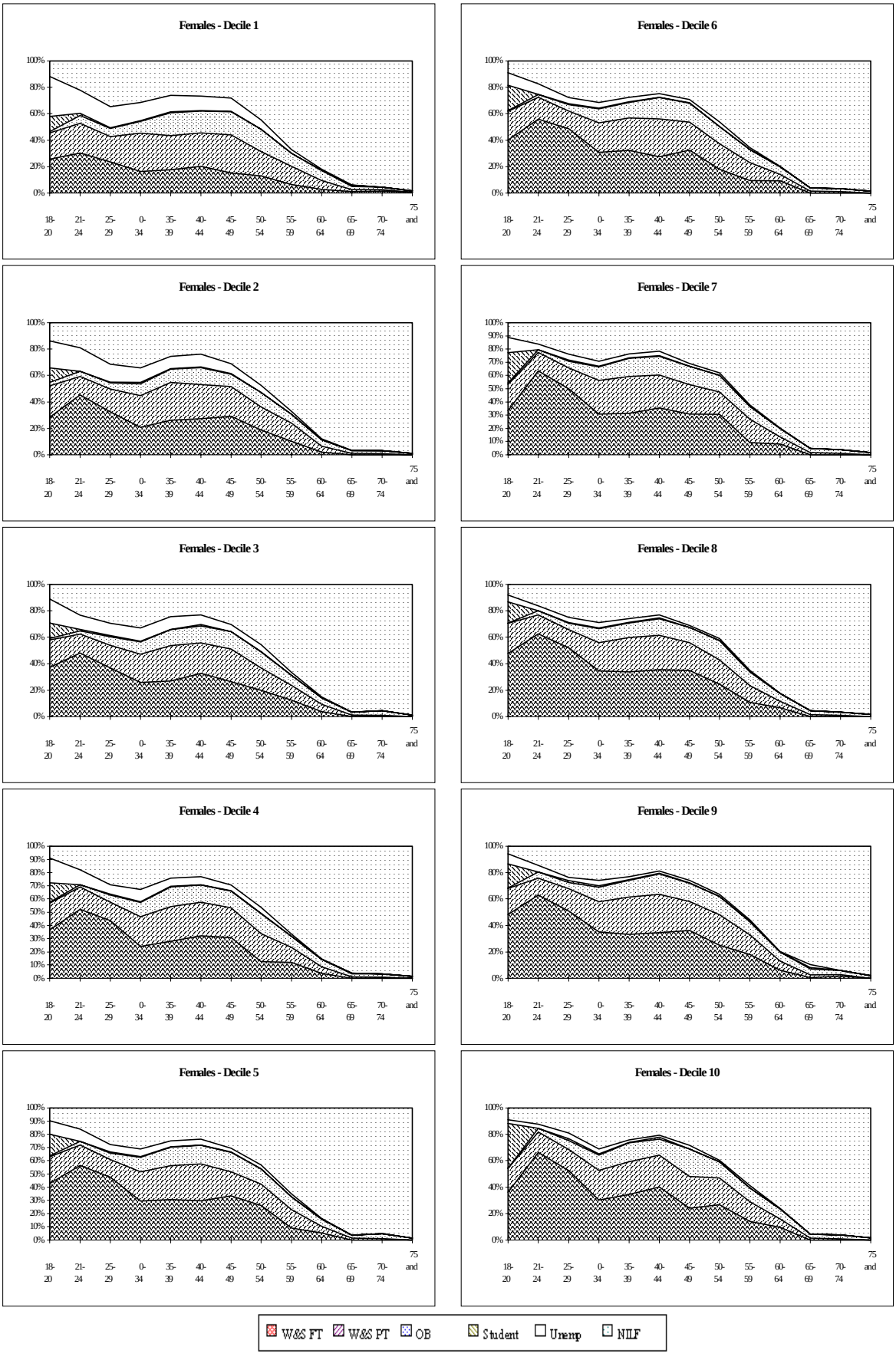


Chart B8. Career Earning Deciles by Age and Labour Force Status - Females



ATTACHMENT C

Table C1.

Persons Not in the Labour Force - Age-specific Proportions - Sept 1994

MALES

AGE	With marginal attachment to the labour force				Without marginal attachment to the labour force			ALL
	Wanted to work and were actively looking for work		Wanted to work but were not actively looking for work		Wanted to work but neither looking nor available for work	Did not not want to work	Permanently Disabled	
	Available to start within 4 weeks	Not available to start within 4 weeks	Discoraged job seekers	Others				
15-19	1.5%	1.4%	1.1%	23.0%	11.0%	61.5%	0.5%	100.0%
20-24	3.3%	4.2%	1.9%	21.3%	13.9%	53.1%	2.3%	100.0%
25-29	4.8%	1.9%	3.5%	20.8%	17.8%	41.5%	9.6%	100.0%
30-34	2.8%	2.0%	1.8%	25.9%	20.0%	40.5%	7.1%	100.0%
35-39	2.3%	0.8%	0.8%	21.2%	17.7%	43.4%	13.8%	100.0%
40-44	3.8%	0.8%	1.3%	22.5%	17.6%	44.7%	9.2%	100.0%
45-49	1.7%	0.0%	1.7%	11.7%	13.1%	62.5%	9.2%	100.0%
50-54	1.0%	0.8%	0.4%	17.1%	13.1%	55.8%	11.8%	100.0%
55-59	0.5%	0.0%	4.8%	12.2%	6.6%	66.8%	9.0%	100.0%
69-64	0.7%	0.0%	5.0%	3.9%	3.8%	80.9%	5.7%	100.0%
65-69	0.0%	0.1%	3.5%	3.3%	1.3%	88.6%	3.3%	100.0%
All	1.3%	0.9%	2.7%	13.6%	8.7%	67.8%	5.0%	100.0%

Table C2.

Persons Not in the Labour Force - Age-specific Proportions - Sept 1994

FEMALES

AGE	With marginal attachment to the labour force				Without marginal attachment to the labour force			ALL
	Wanted to work and were actively looking for work		Wanted to work but were not actively looking for work		Wanted to work but neither looking nor available for work	Did not not want to work	Permanently Disabled	
	Available to start within 4 weeks	Not available to start within 4 weeks	Discoraged job seekers	Others				
15-19	2.0%	1.9%	1.3%	23.4%	11.1%	60.4%	0.0%	100.0%
20-24	3.1%	2.1%	2.0%	33.2%	15.5%	42.8%	1.3%	100.0%
25-29	1.7%	0.2%	1.6%	36.0%	16.0%	43.9%	0.6%	100.0%
30-34	1.4%	0.4%	1.9%	33.1%	12.9%	49.0%	1.3%	100.0%
35-39	1.0%	0.4%	3.8%	33.6%	11.2%	49.4%	0.5%	100.0%
40-44	0.4%	0.3%	6.3%	24.2%	10.1%	56.4%	2.3%	100.0%
45-49	1.2%	0.7%	6.9%	18.5%	8.1%	62.8%	1.8%	100.0%
50-54	0.6%	0.4%	5.1%	10.9%	5.4%	75.0%	2.7%	100.0%
55-59	0.4%	0.2%	3.8%	6.6%	3.3%	83.6%	2.0%	100.0%
69-64	0.0%	0.0%	2.7%	3.0%	1.3%	91.8%	1.2%	100.0%
65-69	0.0%	0.0%	1.7%	1.0%	0.2%	95.5%	1.6%	100.0%
All	1.0%	0.5%	3.1%	18.6%	7.9%	67.6%	1.3%	100.0%

Table C3.

Persons Not in the Labour Force

Attachment to Labour Force- Proportions

MALES

AGE 15-44 years

	Attachment to Labour Force							
	Within 4 weeks	Not 4 weeks	Discouraged worker	Marg Att Other	Not available	Didn't want to work	Perm disabled	ALL
Main Activity								
Home duties/c	8 7%	10 2%	4 2%	8 4%	4 1%	3 7%	2 5%	5 0%
Education	45 7%	76 4%	42 8%	67 8%	60 7%	79 3%	2 5%	69 9%
Retired/volunt	12 3%	0 0%	15 3%	3 2%	1 9%	2 7%	10 9%	3 4%
Illness/injury/d	7 7%	6 4%	1 3%	9 6%	27 3%	11 3%	80 1%	15 4%
Looking after	0 0%	4 8%	0 0%	0 6%	2 2%	0 6%	0 0%	0 9%
Travel/moving	5 6%	0 0%	4 0%	3 9%	0 5%	0 5%	0 0%	1 4%
Worked in unp	0 0%	0 0%	11 6%	1 0%	0 2%	0 9%	2 4%	1 0%
Unpaid leave	0 0%	0 0%	0 0%	1 2%	0 3%	0 2%	0 0%	0 4%
Other	20 0%	2 2%	20 8%	4 1%	2 8%	0 7%	1 7%	2 6%
ALL	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%

AGE 45-69 years

	Attachment to Labour Force							
	Within 4 weeks	Not 4 weeks	Discouraged worker	Marg Att Other	Not available	Didn't want to work	Perm disabled	ALL
Main Activity								
Home duties/c	8 6%	0 0%	17 1%	7 8%	4 6%	4 9%	1 1%	5 3%
Education	0 0%	41 4%	1 6%	2 8%	2 1%	0 6%	0 0%	0 9%
Retired/volunt	21 8%	0 0%	65 6%	40 6%	22 1%	68 7%	22 8%	61 5%
Illness/injury/d	20 3%	25 8%	5 0%	31 5%	58 6%	20 5%	74 3%	25 7%
Looking after	15 9%	0 0%	0 0%	0 7%	5 9%	1 8%	0 5%	1 8%
Travel/moving	14 0%	0 0%	0 9%	4 8%	1 1%	0 9%	0 0%	1 1%
Worked in unp	0 0%	0 0%	2 2%	4 4%	0 8%	1 8%	0 8%	1 9%
Unpaid leave	0 0%	0 0%	1 4%	0 8%	0 0%	0 0%	0 0%	0 1%
Other	19 4%	32 9%	6 4%	6 6%	4 7%	0 7%	0 5%	1 6%
ALL	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%

FEMALES

AGE 15-44 years

	Attachment to Labour Force							
	Within 4 weeks	Not 4 weeks	Discouraged worker	Marg Att Other	Not available	Didn't want to work	Perm disabled	ALL
Main Activity								
Home duties/c	50 1%	16 6%	84 6%	75 5%	62 9%	63 6%	15 7%	66 6%
Education	38 8%	76 8%	10 0%	19 6%	29 7%	31 8%	2 8%	27 5%
Retired/volunt	1 5%	0 0%	0 9%	0 5%	0 0%	0 6%	2 7%	0 5%
Illness/injury/d	3 9%	1 9%	1 3%	2 0%	5 1%	2 7%	77 8%	3 4%
Looking after	2 1%	0 0%	0 0%	0 6%	0 6%	0 4%	0 0%	0 5%
Travel/moving	3 0%	0 0%	0 0%	0 8%	0 4%	0 1%	0 0%	0 4%
Worked in unp	0 7%	0 0%	0 3%	0 3%	0 7%	0 3%	1 0%	0 4%
Unpaid leave	0 0%	0 0%	0 0%	0 0%	0 6%	0 1%	0 0%	0 1%
Other	0 0%	4 7%	3 0%	0 8%	0 0%	0 4%	0 0%	0 6%
ALL	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%

AGE 45-69 years

	Attachment to Labour Force							
	Within 4 weeks	Not 4 weeks	Discouraged worker	Marg Att Other	Not available	Didn't want to work	Perm disabled	ALL
Main Activity								
Home duties/c	49 8%	81 8%	75 2%	73 4%	63 1%	67 2%	16 5%	66 9%
Education	10 0%	0 0%	1 0%	3 4%	7 1%	0 4%	0 0%	0 9%
Retired/volunt	2 4%	0 0%	12 8%	6 2%	5 9%	22 3%	13 3%	20 2%
Illness/injury/d	15 2%	18 2%	0 6%	6 2%	12 2%	3 7%	66 6%	5 1%
Looking after	16 6%	0 0%	0 9%	3 2%	8 9%	3 2%	3 6%	3 3%
Travel/moving	0 0%	0 0%	0 7%	1 4%	0 2%	0 4%	0 0%	0 5%
Worked in unp	0 0%	0 0%	5 9%	4 7%	2 7%	2 4%	0 0%	2 6%
Unpaid leave	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%
Other	6 0%	0 0%	2 9%	1 6%	0 0%	0 4%	0 0%	0 6%
ALL	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%	100 0%

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PUBLICATIONS BY THE RETIREMENT INCOME MODELLING TASK FORCE

Conference and Other Papers

1. *Tax Expenditures & Measuring the Long Term Costs & Benefits of Retirement Incomes Policy*, Colin Brown, Conference Paper 93/1
2. *Saving for Retirement: The Benefits of Superannuation for Individuals and the Nation*, Phil Gallagher, George Rothman & Colin Brown, Conference Paper 93/2
3. *Retirement Income Modelling & Policy Development in Australia*, Phil Gallagher & Dr Alan Preston, Conference Paper 93/3
4. *Response to the Senate elect Committee on Superannuation for Analysis of the Effects of Allowing Withdrawals from Superannuation Funds for Housing Deposits*, Retirement Income Modelling Paper 94/1
5. *Taxation of Superannuation and Disposable Income in Retirement*, Anne McDiarmid, Women & Superannuation Seminar, Conference Paper 94/1
6. *The Distribution of Private Sector Superannuation Assets by Gender, Age and Salary of Members*, Colin Brown, Conference Paper 94/2
7. *The Impact of Population & Labour Force Scenarios on Superannuation, Tax Expenditures & Pension Costs*, George Rothman & Bruce Bacon, Conference Paper 94/3
8. *Submissions to the Strategic Review of the Pensions' Income & Assets Test*, Phil Gallagher
9. *Measuring the Adequacy of Retirement Incomes*, Colin Brown, Conference Paper 95/1
10. *The Distribution of Superannuation by Sector, Account Type and Personal Characteristics*, George Rothman, Conference Paper 95/2
11. *The Policy Use of the Products of the Retirement Income Modelling Task Force*, Phil Gallagher, Conference Paper 95/3
12. *Projecting Labour Force, Earnings, Assets and Retirement Behaviour*, Bruce Bacon, Conference Paper 95/4
13. *Labour Force Status, Earnings, Asset Accumulation, Retirement Behaviour and Long-run Projections*, Bruce Bacon, Conference Paper 95/5

Selected Technical Papers

1. *RIM Population and Demographic Modelling*, Bruce Bacon, Working Paper 94/2
2. *The RIP Model: System Documentation*, Working Paper 94/3
3. *The RIP Model: User Manual*, Working Paper 94/5
4. *Legislative References & Assumptions for RIMHYPO*, Colin Brown & Anne McDiarmid, Technical Paper No. 95/1

Copies of these papers are available from the Treasury. Written requests should be sent to The Director, Retirement Income Modelling Task Force, The Treasury, Parkes Place, Parkes, ACT 2600. Telephone requests can be made to Kay Hutchins on 06 263 3934.