Appendix B: Labour force projections and sensitivity analysis assumptions

This appendix details age-specific labour force trends and projections underpinning the central scenario and a description of assumptions used in the higher labour force participation and lower mortality scenarios.

Labour force participation trends and projections

Under the central scenario, labour force participation is assumed to continue recent trends, with age-specific male participation stabilising from its downward trend and age-specific female labour force participation rising.

While total labour force participation is projected to decline as the proportion of Australia's population aged over 65 grows, some age groups are expected to experience rising labour force participation based on recent trends (Chart B1).[1]

Labour force participation rates for women in most age groups have increased significantly over the past 20 years, with most growth occurring in part-time labour force participation. This trend is projected to continue, but may be limited over the longer term by child-raising and caring activities in which women traditionally play a large part.

Male labour force participation rates for most age groups have decreased over the past 20 years. Underlying this trend is a significant decrease in full-time participation and a smaller increase in part-time participation.

Young men and women under the age of 20 are now more likely to participate in the labour force on a part-time rather than full-time basis. More than 20 per cent of men aged 60 to 64 who are in the labour force are part-time.

1 The methodologies used for trend analysis and projections are discussed in Bacon 1999.

Chart B1: Total labour force participation trends and projections by age group and gender

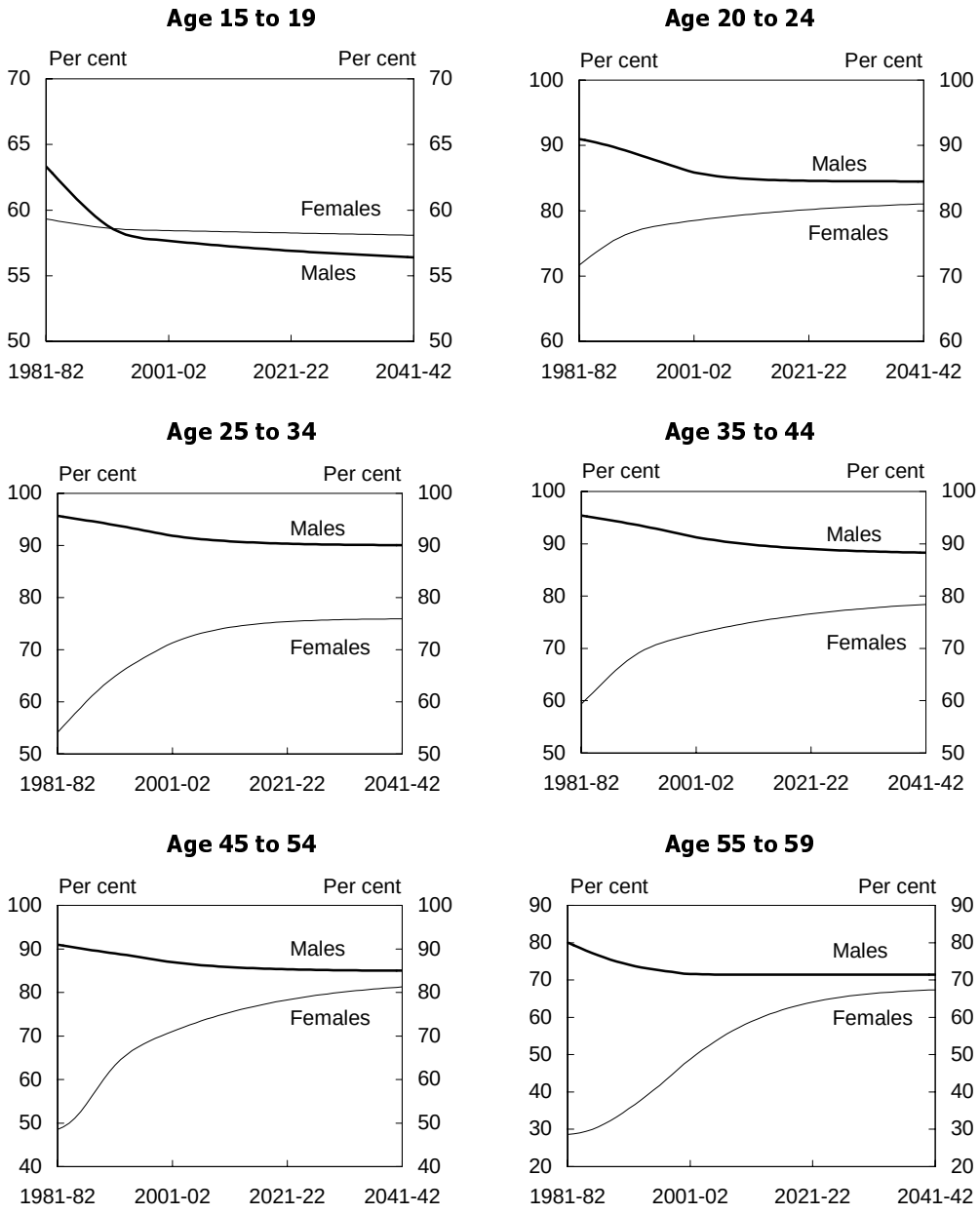
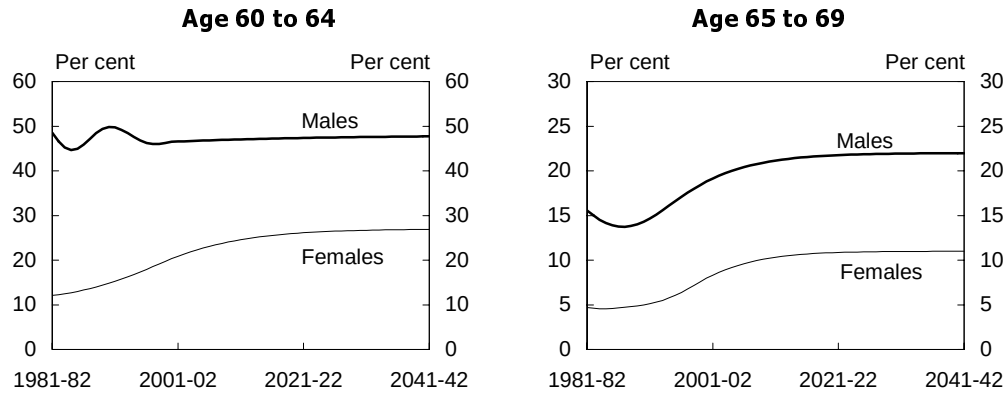


Chart B1: Total labour force participation trends and projections by age group and gender (continued)



Source: ABS Cat. No. 6291.0.40.001 and Treasury trends and projections.

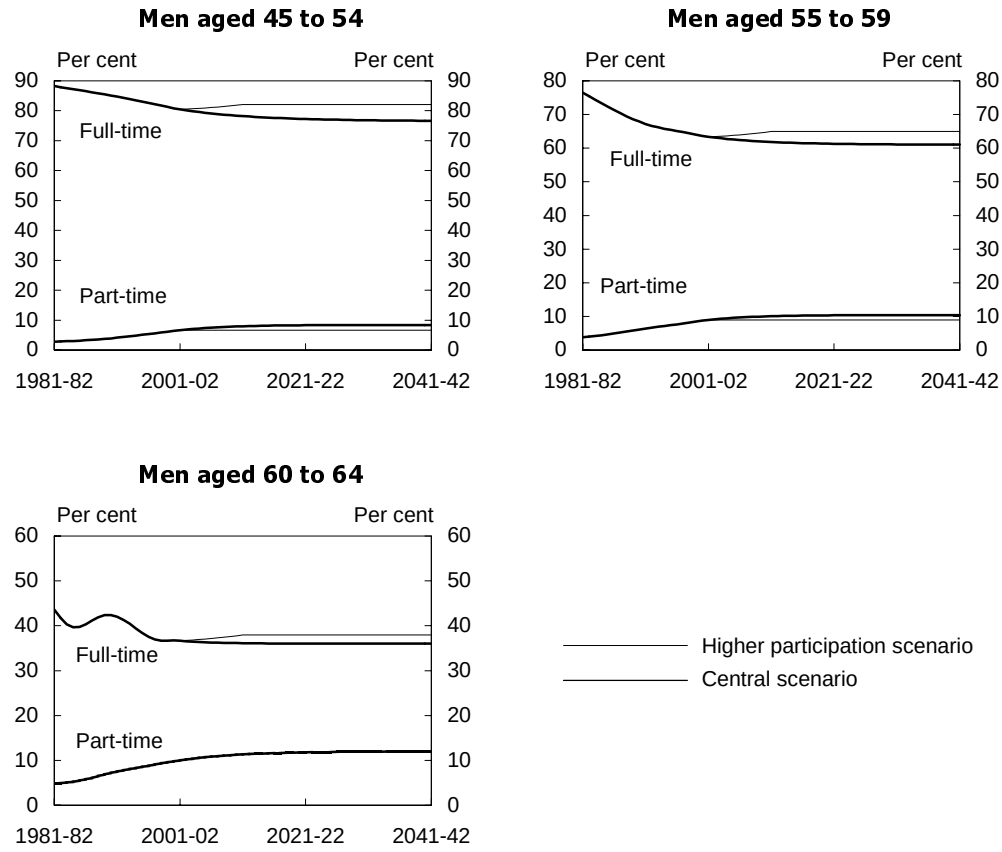
Higher labour force participation scenario

The higher labour force participation scenario assumes that the decade-long trend of declining full-time labour force participation among men aged over 45 is reversed and labour force participation increases. The recent declines may reflect factors that are avoidable, possibly due to choice, but may also be due to some older men having difficulty finding new employment if retrenched. An increase in the labour force participation of this group would have the benefit of improving their superannuation accumulation and their health and lifestyle in retirement.

The scenario assumes a 5 per cent increase in the projected rates of full-time labour force participation for men aged 45 to 64 by 2011-12. Thereafter, full-time participation rates for these age ranges are assumed to stabilise. As a result of the increase in full-time labour force participation, part-time labour force participation for men aged between 45 and 60 years, which has been trending upwards in recent years, is assumed to stabilise rather than continue to rise. For those aged 60 to 64, part-time labour force participation is currently at quite low levels, and trends were not adjusted for the alternative scenario. Men aged 60 to 64 are much more likely to leave the workforce altogether on ceasing full-time work than to opt for part-time work. Chart B2 provides a comparison of the full-time and part-time participation rates of men aged 45 to 64 under this scenario and the central scenario.

Unemployment rates are assumed not to vary under this scenario, although they may rise in practice. If the additional hours worked by men in these age ranges resulted in the displacement of other would-be full-time workers, the unemployment rate would increase, with resulting effects on government spending on unemployment allowances.

Chart B2: Higher full-time labour force participation of male older workers, trends and projections



Source: ABS Cat. No. 6291.0.40.001 and Treasury trends and projections.

Lower mortality scenario

The central projections assume that mortality continues to decline at a rate similar to that of the past 25 years until 2003 and gradually slow to a rate similar to the decline over the last 100 years by 2028. For the lower mortality scenario, mortality is assumed to decline at a faster rate. A rate of decline similar to that of the past 25 years is applied until 2010, gradually slowing to a rate similar to the decline over the last 100 years by 2050.

Over the last three years, Australian crude death rates have declined steadily, despite the growing proportion of aged people within the population. The recent rate of decline has been faster than the average annual reduction in mortality rates over the last 25 years. As much of this improvement appears to be related to advances in medical technology and pharmaceuticals, the high standard of Australia's health system and improvements in public health education, increased life expectancy at least

equal to that experienced in the last 25 years might continue for some time into the future.

The life expectancies under this lower mortality scenario were formulated by applying age-specific improvement factors to current death rates. Life expectancies are higher in the lower mortality scenario (Table B1).

Table B1: Projected life expectancy at birth for low mortality scenario (years)

	2002	2012	2022	2032	2042
Males	77.2	79.4	81.3	82.8	83.9
Males improvement over central scenario	0	0.1	0.6	1.1	1.4
Females	82.6	84.5	86.1	87.4	88.5
Females improvement over central scenario	0	0.1	0.4	0.7	1.0

Source: Treasury projections.

Lower mortality increases the number of people in older age groups (65 and over), but this effect is slight and mainly apparent from 2032 onwards (Table B2).

Table B2: Population projections for age ranges for low mortality scenario (millions)

						Central scenario
	2002	2012	2022	2032	2042	*2042*
0 to 14	3.9	3.8	3.8	3.8	3.7	*3.7*
15 to 64	13.2	14.6	15.1	15.3	15.4	*15.4*
65 to 84	2.2	2.7	3.8	4.8	5.2	*5.1*
85+	0.3	0.4	0.5	0.8	1.2	*1.1*
Total	**19.6**	**21.5**	**23.2**	**24.7**	**25.6**	***25.3***

Source: Treasury projections.