
Gambling revenue

The gambling industry is subject to the Australian Government's GST, as well as a wide range of State taxes, license fees and levies. This paper focuses on State Government own-revenue from gambling (revenue from the GST is discussed in technical paper 11 and chapter 11). It explores the relationship between gambling and age and examines the likely trends in gambling revenue over the next 40 years.

10.1 Gambling revenue and taxation

Gambling taxation represents a significant share of State Governments' own-tax revenue. In 2002-03, State governments collected nearly \$4 billion in revenue from gambling, representing 11 per cent of State taxation revenue (ABS 2004a)¹ and 0.55 per cent of GDP.

Revenue from electronic gaming machines in pubs and clubs accounts for over half of gambling revenue collected by State governments. Revenue from lotteries is also significant, representing 25 per cent of total gambling revenue. The remaining revenue is generated mainly from casino gaming and racing.

Over 60 per cent of State gambling revenue is collected in two jurisdictions — New South Wales and Victoria. However, in per capita terms Victoria (over \$350 per adult) and South Australia (\$300 per adult) collect the most gambling revenue (compared with the Australian average of \$260 per adult).

There are wide disparities in taxation rates (government revenue as share of expenditure) for gambling across jurisdictions as well as between different forms of gambling. The highest taxation rates are in South Australia, Western Australia and Victoria, where revenue from gambling is over 30 per cent of expenditure. In contrast, the Northern Territory, ACT and New South Wales have the lowest taxation rates with revenue from gambling representing less than 20 per cent of expenditure. By form of gambling, taxation rates vary from 65 per cent on lottery products, 25 per cent on gaming machines, 18 per cent on racing and 12 per cent on casino table games.

¹ When GST is not included as a State tax.

10.2 Gambling and age

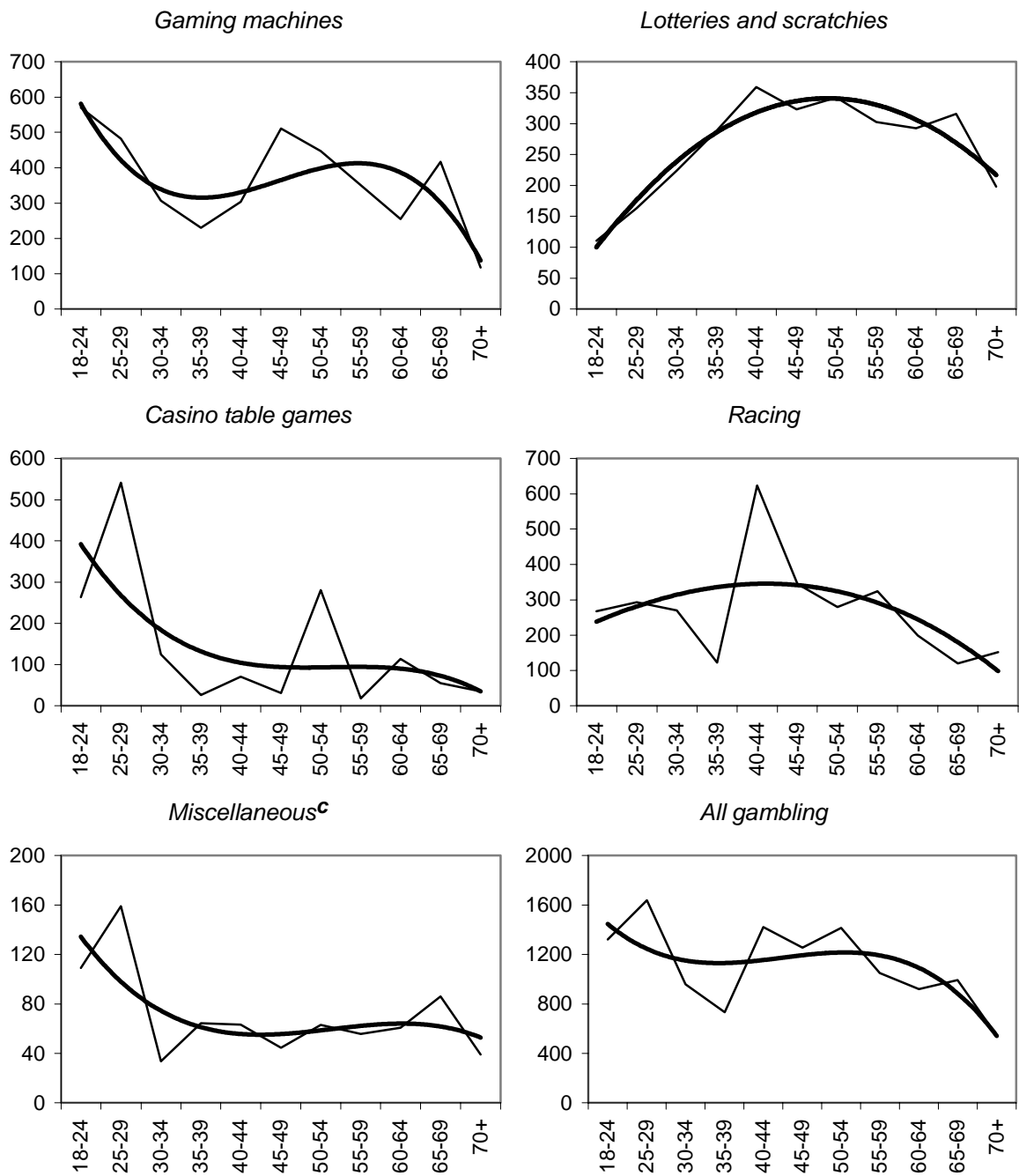
To assess the impact of an ageing population on gambling revenue, information is needed on which age groups contribute the most to gambling revenue. The ABS collects data on household gambling expenditure, through its Household Expenditure Survey (HES). The strength of the survey is that it is a national survey, conducted every five years and has a large sample size. However, gambling expenditure is severely underestimated in the survey. Survey respondents are typically unwilling to report actual expenditure (losses) or may not know how much money they spent on gambling during the reporting period. For example, the most recent HES in 1998-99 found that the average household spends \$302 each year on gambling (ABS 2000, cat. 6535.0). This corresponds to an estimated expenditure of \$2.2 billion for Australia — significantly less than the \$12 billion expenditure estimate by the Tasmanian Gaming Commission for 1998-99 (based on reliable industry-based data). Given these problems, the HES does not constitute a reliable basis for estimating spending by age groups.

Recognising this problem, the Commission's national gambling survey conducted in 1999 as part of the inquiry into Australia's Gambling Industries asked questions on outlays (the amount of money a gambler takes to a gambling venue and uses to gamble) as well as expenditure (PC 1999a). An analysis of the Commission's survey data found that outlays by age group offered a smoother and more preferred series for examining patterns of spending on gambling by age groups (essentially, because outlays are always positive). However, a number of outliers are present in the data, an inherent problem of many surveys. To overcome this the Commission estimated trimmed means, but these did not significantly improve the estimates.

Despite outliers, the trends depicted in the data are credible.

- 18 to 24 year olds outlay the most on gaming machines; after the age of 60-65 years outlays on gaming machines fall rapidly.
- Outlays on lotteries increase progressively up to 50-54 years, after which they decrease with age.
- As age increases, outlays on casino table games fall.
- Outlays on racing increase up to the 44-45 age group and then progressively decrease with age.
- 18 to 34 year olds outlay the most on miscellaneous gambling (which comprises mainly sports betting, keno and minor gaming such as bingo).
- Overall, 18 to 30 year olds spend the most on gambling. Between the ages of 30-34 years and 55-59 years, outlays by age are similar. However, after 55-59 years outlays on gambling fall considerably (figure 10.1).

Figure 10.1 **Gambling outlays per person^a, survey data and trends^b**



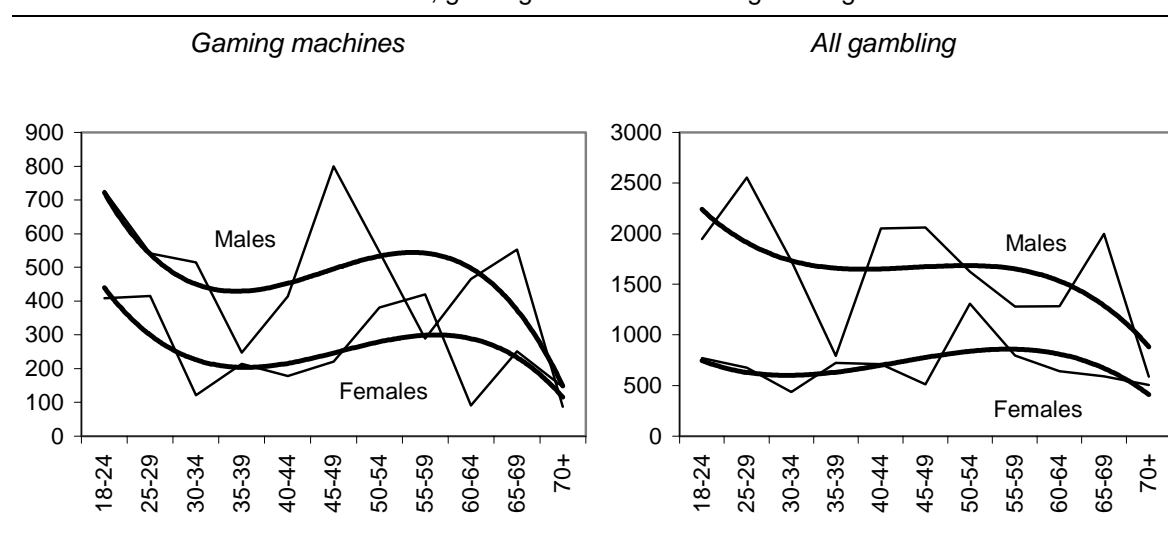
^a Per person over the age of 18; ^b trends are based on third degree polynomials; ^c miscellaneous includes keno, sports betting, bingo, internet casino and other.

Data source: PC national gambling survey, PC (1999a).

The Commission also considered outlays on gambling by males and females. Males, on average outlay more on gambling than females. However, the trends between age groups are consistent. The only exception was casino gaming, where the male and female trends were driven by a few outliers. Figure 10.2 shows the similar age-based trends for males and females for gaming machines, and gambling as a whole.

Figure 10.2 Gambling outlays per person^a, survey data and trends^b

Males and females, gaming machines and all gambling



^a Per person over the age of 18; ^b trends are based on third degree polynomials.

Data source: PC national gambling survey, PC (1999a).

The Commission consulted a number of researchers about evidence from recent State surveys relating to gambling by age. Researchers indicated that while survey data on expenditure is understated, there is a clear relationship between gambling and age, with young males spending the most and older age groups the least.

For example, the 2001 Queensland Household Gambling Survey found:

Non-gamblers are quite distinct from the general population. This group are more likely to be over 55, and less likely to be in their middle working years (35-54) (p.8)....

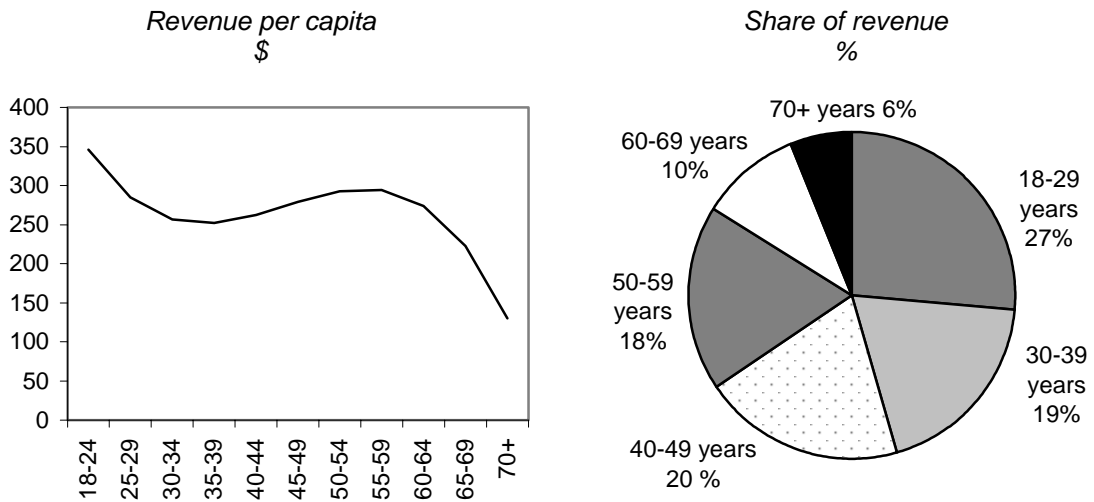
A major concern in the problem gambling group is the disproportionate representation of men. The 18-34 age bracket predominates... Also significant is the smaller number of problem gamblers in the 55+ age cohort (Queensland Government Treasury 2002, p. 12).

This is consistent with the trends depicted in the Commission's survey data.

There is a consistent relationship between outlays on gambling by age group and revenue by age group. Therefore, aged based trends in outlays can be applied to aggregate revenue to provide estimates of revenue by age group.

Of the \$4 billion in gambling revenue collected by State governments in 2002-03 the majority, 27 per cent, was from those aged 18 to 29 years. In comparison, 60 to 69 year olds accounted for 10 per cent and the over 70 years age group accounted for less than 6 per cent of gambling revenue. In per capita terms, each person aged 18 to 24 on average paid \$345 in gambling taxes in 2002-03, compared with \$130 paid by each person aged over 70 years (figure 10.3).

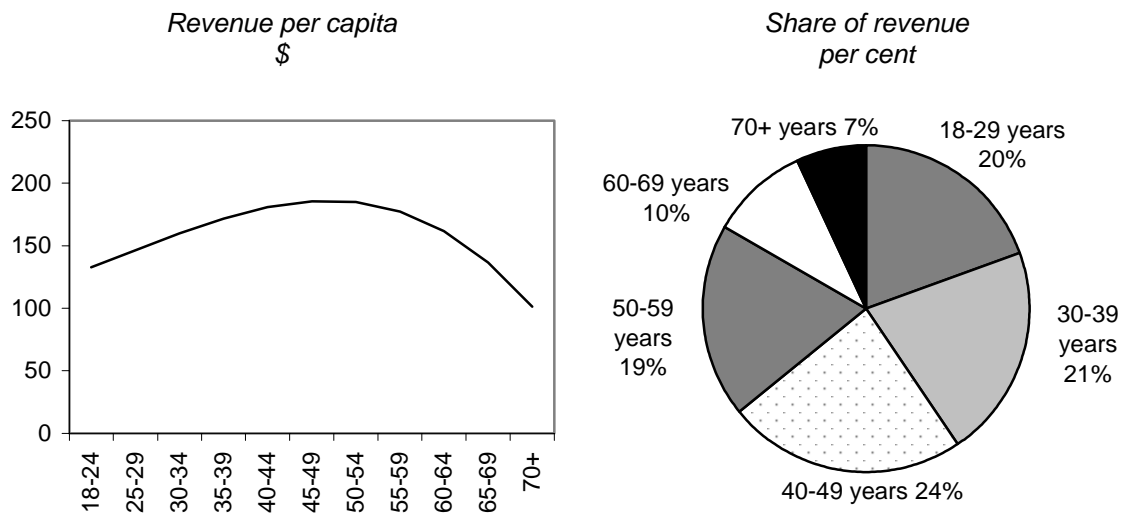
Figure 10.3 Revenue collected from gambling by age group, 2002-03



Data source: Commission estimates.

The trends depicted in figure 10.3 are similar for most States. The exception is Western Australia, which does not have gaming machines. Unlike the other States (where the majority of gambling revenue is from gaming machines) over 60 per cent of revenue in Western Australia from gambling is from lotteries. As a consequence, in Western Australia the share of government revenue for those aged 18 to 29 years is significantly lower than the national average. However, for those over 50 years revenue shares are consistent with the national average (figure 10.4).

Figure 10.4 Gambling by age group, Western Australia, 2002-03



Data source: Commission estimates.

10.3 Revenue is increasing over time

State revenue from gambling has risen rapidly over the last two decades. The exception was in 2000-01 when revenue decreased 17 per cent from the previous year with the introduction of the GST (box 10.1).

- Between 1988-89 and 1999-00 revenue from gambling more than doubled, increasing from \$1.5 billion in 1988-89 to \$4.4 billion in 1999-00.
- Since the introduction of the GST revenue from gambling has continued to rise, increasing from \$3.6 billion in 2000-01 to \$3.9 billion in 2002-03.

Gambling taxation as a share of State governments' own-tax revenue has also been increasing. In 1991-92 the States raised about 9 per cent of taxation revenue from gambling. Prior to the introduction of the GST in 1999-00 this had increased to almost 12 per cent. Currently, gambling forms 11 per cent of State governments' own-tax revenue.

Much of this growth has come from gaming machines. Government revenue from lotteries, casinos and racing has remained relatively stable over the period (figure 10.5)

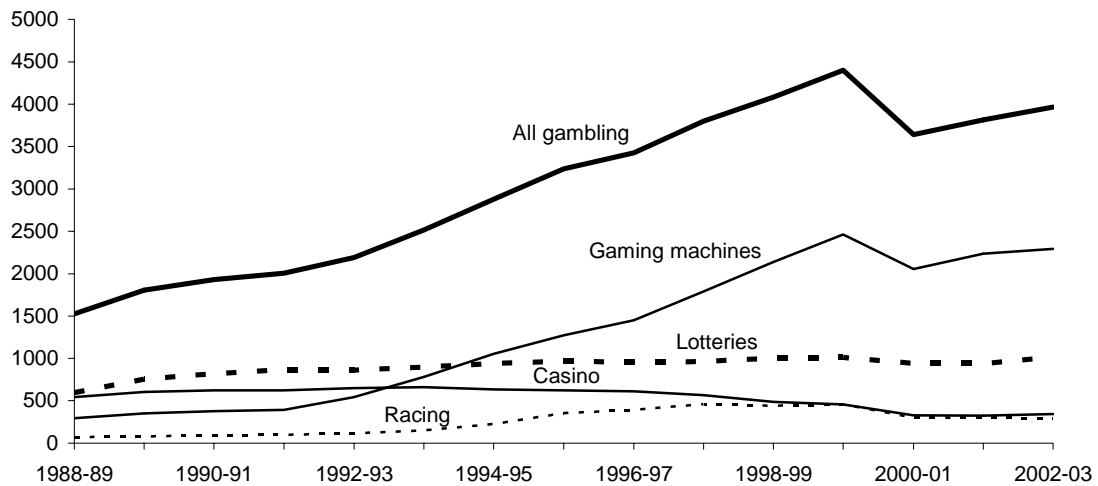
Box 10.1 A note on the introduction of the GST

Gambling tax rates were effectively reduced from 1 July 2000 with the introduction of the GST.

Under the Intergovernmental Agreement on the Reform of Commonwealth – State Financial Relations it was agreed that GST revenue would be distributed to the States and in return, the States would forego revenue and accept additional expenditure responsibilities. Essentially, the reduction in State gambling tax rates were to 'make room' for the Australian Government's 10 per cent GST on gambling.

As a consequence, gambling revenue data in 2000-01 are not directly comparable with those of preceding years.

Figure 10.5 **State Government revenue from gambling**
1988-89 to 2002-03^a



^a Does not include GST. The decline in revenue between 1999-00 and 2000-01 is associated with the introduction of the GST and Intergovernmental Agreement on the Reform of Commonwealth – State Financial Relations.

Data source: Tasmanian Gaming Commission (2004).

Future trends in gambling revenue

Growth in State gambling revenue over the last two decades has been driven by increased consumer expenditure, which has resulted from much greater access to gambling opportunities. For example:

- an expansion in the number of gaming machine licences has resulted in gaming machines being available in hotels and clubs throughout Australia (other than Western Australia); and
- the advent of interactive gambling products such as internet sports betting and telephone betting mean that consumers now no longer have to leave home to gamble.

Over the next 40 years technological change is likely to lead to the introduction of new forms of gambling and even greater access to gambling products. It is not known how governments will respond to these new gambling products. However, the Interactive Gambling Act 2001, which prohibits the provision of some interactive gambling services, signals the intention of the Australian Government to stop some forms of internet gambling.

Even if new products are introduced to the market, it is not clear that these will have a significant impact on government revenue. Since 1998-99, gambling expenditure

as a share of household expenditure has remained relatively constant at about 3.4 per cent. (TGC 2004) Unless completely novel forms of gambling are introduced that capture new market niches, it is likely that any increased expenditure on new products will be offset by a fall in the market share of existing forms of gambling. Accordingly, the Commission has not projected a significant increase in expenditure on gambling as a share of household income. Assuming that new gambling products are likely to be taxed at similar rates to existing products, this in turn means that new products are unlikely to have a significant effect on aggregate gambling revenue.

Future revenue from gambling will also be determined by taxation policy. Average taxation rates on gambling fell from 38 per cent in 1988-89 to 33 per cent in 1999-00, but since the introduction of the GST have remained constant at about 25 per cent. The Commission assumes that current taxation rates are maintained to 2044-45.

10.4 Methodology for projections

The Commission used State estimates of gambling tax rates, combined with age-based trends on gambling outlays from the Commission's national gambling survey, to project the likely trends in gambling revenue.

- Estimates of gambling outlays per capita (from the Commission's national gambling survey conducted in 1999) were smoothed by fitting trendlines based on third degree polynomials to remove the effects of outliers (figure 10.1).
- These trends were applied to State estimates of government revenue from gambling (published by the Tasmanian Gaming Commission) to produce estimates of government revenue per person by age group in 2002-03 (for example, figures 10.3 and 10.4).
- Estimates of future revenue per capita were based on the projected annual percentage increase in household disposable income. Projections of gross product were used as a proxy for household income.
- Projections of total revenue were made by combining projected revenue per capita with demographic projections.

The Commission used this approach to project the trends in gambling revenues by age group and type of gambling (including gaming machines in hotels and clubs, racing, sports betting, lotteries, minor gaming, and casino gaming) for each State. Although males spend more on average than females, it was not necessary to project gambling revenue separately for males and females because (as discussed in section 10.2) their relative outlays by age are consistent.

The methodology assumes constant shares of revenue by age group over time in any given gambling form. Increases in gaming opportunities in the last decade may result in expenditure patterns by age group being different in the future. However, in the absence of panel data, it is not possible to allow for any age cohort effects.

10.5 Results

Two major demographic factors will influence spending on gambling in the future.

- Firstly, the adult share of the population is expected to increase over the next 40 years for all jurisdictions. This will increase the proportion of the population that gamble and (all else equal) result in an increase in gambling expenditure.
- Secondly, the share of population in older age groups, is projected to increase. This will offset increasing gambling expenditure as older age groups have a relatively lower propensity to gamble.

If the ageing effect outweighs the effect of a growing adult population gambling expenditure and revenue is projected to fall over time. This occurs in most States (table 10.1). The exception is the Northern Territory where the adult effect outweighs the ageing population, explaining the small rise in gambling revenue to GSP. In Western Australia the two effects effectively cancel each other out and there is a slight increase in gambling revenue to GSP.

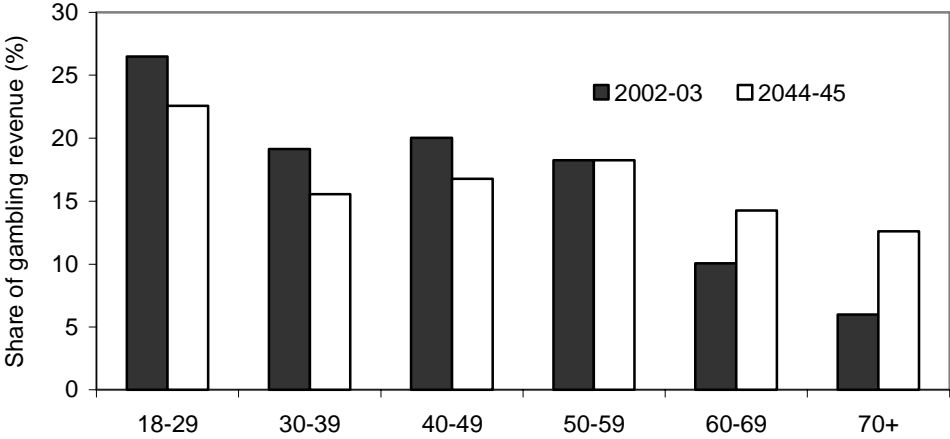
Table 10.1 **State revenue from gambling, projections**
Per cent of gross product

	2002-03	2008-09	2014-15	2024-25	2034-35	2044-45
New South Wales	0.477	0.484	0.485	0.476	0.471	0.469
Victoria	0.683	0.693	0.696	0.682	0.673	0.670
Queensland	0.492	0.497	0.500	0.490	0.484	0.483
South Australia	0.701	0.713	0.715	0.695	0.681	0.680
Western Australia	0.278	0.284	0.286	0.284	0.282	0.282
Tasmania	0.580	0.586	0.585	0.565	0.554	0.552
Northern Territory	0.389	0.396	0.403	0.407	0.411	0.414
ACT	0.319	0.323	0.322	0.316	0.313	0.313
All jurisdictions (sum)	0.523	0.527	0.528	0.515	0.506	0.502

Source: Commission estimates.

Demographic change is also expected to have a significant effect on the share of gambling revenue attributed to older age groups. For example, in 2002-03 the Commission estimates that 6 per cent of revenue from gambling was collected from the over 70 years age group. In 2044-45 this share is projected to increase to 13 per cent (figure 10.6). This trend is consistent for all States.

Figure 10.6 Revenue shares by age group, 2002-03 and 2044-45



Data source: Commission estimates.