

# **Statistical data and spreadsheet analysis for Indigenous and non-Indigenous populations and imprisonment rates, 2001/2005 and 2011**

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The statistical data (spreadsheets for 2001/05 and 2011) were assembled from the following sources:

(1) Data for 2001 (population) and 2005 (imprisonment) sourced from

Australian Bureau of Statistics (ABS) (2001). Population distribution, Indigenous Australians, 2001. Commonwealth of Australia.

Australian Bureau of Statistics (ABS) (2005). 4517.0 -- Prisoners in Australia 2005. Commonwealth of Australia.

(2) Data for 2011 sourced from

Australian Bureau of Statistics (ABS) (2011a). 2011 Census Counts -- Aboriginal and Torres Strait Islander Peoples. Commonwealth of Australia.

Australian Bureau of Statistics (ABS) (2011b). 4517.0 -- Prisoners in Australia, 2011. Commonwealth of Australia.

Notes for each spreadsheet:

Cols 1, 2 and 3 are estimates of the **entire** Australian population, including adults and children.

Col 4: Overall imprisonment rate is calculated for the **adult** population. It includes those sentenced and unsentenced (in 2001, unsentenced prisoners were 20 percent of the prison population; in 2011, they were 23 percent) and based on a census taken on 30 June in 2005 and in 2011.

It is the total number of prisoners divided by the total number in the estimated adult population (this is normally those 18 years of age and older). However, in 2001 in Queensland and Victoria, it was 17 and older; and in Queensland in 2011, it was 17 and older), and then multiplied by 100,000 because it is expressed as a rate per 100,000 individuals.

Col 5: Indigenous imprisonment rate is the total number of Indigenous prisoners divided by the total number of estimated adult Indigenous people, and then multiplied by 100,000 because it is expressed as a rate per 100,000 individuals. The rate is age standardised, which means it adjusts for differing age distributions in the Indigenous and non-Indigenous populations (see ABS 2011b, Explanatory Notes, para. 33-38 for detail). The ABS recommends using age standardised rates in comparing the two populations.

Indigenous status is determined when a person enters prison. He/she is asked 'whether they identify as being of Aboriginal or Torres Strait Islander origin' (ABS, 2005, Prisoners in Australia, note 12).

Col 6: Non-Indigenous imprisonment rate is the total number of non-Indigenous prisoners divided by the total number of estimated adult non-Indigenous people, and then multiplied by 100,000 because it is expressed as a rate per 100,000 individuals. The rate is age standardised, which means that it is adjusted for differences in the Indigenous and non-Indigenous populations.

Col 7: This number is referred to as the 'disproportionality in imprisonment' or simply the 'ratio' of Indigenous to non-Indigenous imprisonment. It is calculated by dividing Col 5 by Col 6. (Note that the ratio reported by the ABS in 2005 for SA was 13.2, but my calculation shows it to be 13.1.)

Columns 4, 5, and 6 can be used in another way. In Column 4 for 2011 data, we see that the overall imprisonment rate for Victoria is 109 per 100,000 adult population. We can move the decimal three places and say that .109 percent (or one-tenth of 1 percent Victorian adults are imprisoned).

Compare this with the overall age-standardised Indigenous incarceration rate of 1868 per 100,000 in 2011. This translates to about 2 percent of adult Indigenous people incarcerated.

### **Interpreting the data for 2001 (population) and 2005 (incarceration)**

#### **Chart 1**

State/territory variation in Indigenous populations and imprisonment, based on population data 2001

Data sorted by state and then by territory (alpha)

1. NSW is the most populous state. This is important because if we analyse any national indicator of crime and justice, it often reflects the NSW experience.
2. Variability across the country.

The Indigenous share of the population is lowest in VIC (.6 percent or less than 1 percent) and highest in the NT (nearly 30 percent).

3. States with the highest number of Indigenous people are NSW and QLD.

**Chart 2**

The data are now sorted by the Indigenous share of the population. What do we see?

1. In general, when the Indigenous share of the population is low (that is, less than 2 percent, as is the case in VIC, the ACT, and SA), the overall imprisonment rate is low.

2. As the Indigenous share of the population increases, we see an increase (in general) in the overall imprisonment rate. The exception is TAS (with a greater than average Indigenous share of the population, at 3.5 percent, but a generally low incarceration rate).

This suggests that when the Indigenous share of the population is low, the jurisdiction's overall incarceration rate is also low; and when it is high, the jurisdiction's incarceration rate is high. The exception is TAS.

3. The NT, which has the highest Indigenous share in the population, has an extraordinary high overall imprisonment rate in Australia.

**Chart 3**

The data are now sorted by the by the age-standardised Indigenous incarceration rates in 2005. What do we see?

1. States with relatively low incarceration rates (less than 1000 per 100,000 pop) are TAS, the ACT, and VIC.

Mid-range (1200 to 1600) are SA, Qld, NT, and NSW.

Topping the chart: WA, with a very high Indigenous incarceration rate.

Thus, while the NT has an extraordinarily high overall imprisonment rate compared to any other jurisdiction in Australia, WA has the highest Indigenous imprisonment rate.

**Chart 4**

The data are now sorted by the age-standardised Indigenous to non-Indigenous imprisonment ratio. What do we see?

1. The ratio is

- lowest in TAS
- 'average' (9 to 11) in the ACT, QLD, NSW, NT, and VIC;
- high (13) in SA
- very high (19) in WA

To summarise:

In 2005, there is a relationship between the Indigenous share of a state/territory population and its overall imprisonment rate, although TAS is an exception.

NT, with the highest share of Indigenous people has the highest overall incarceration rate. VIC, with the lowest share, has the lowest overall incarceration rate.

WA has the highest Indigenous incarceration rate and the highest disproportionality ratio in imprisonment.

On average, the age-standardised rate of incarceration for Indigenous people is 12 times that of non-Indigenous.

If crude, not age-standardised, data are used, the ratio is 16.

### **Interpreting the data for 2011 (population and incarceration)**

#### **Chart 1**

State/territory variation in Indigenous populations and imprisonment, based on population data 2011

The data sorted by state and then by territory (alpha)  
What do we see?

1. NSW is the most populous state. This is important because if we analyse any national indicator of crime and justice, it often reflects the NSW experience.
2. Variability across the country.

The Indigenous share of the population is lowest in VIC (.7 percent or less than 1 percent) and highest in the NT (nearly 30 percent).

3. States with the highest number of Indigenous people are NSW and QLD.

**From 2001 to 2011: There have been increases in the population across all jurisdictions; but otherwise, no change in interpreting population data over the decade.**

#### **Chart 2**

The data are sorted by the Indigenous share of the population. What do we see?

1. In general, when the Indigenous share of the population is low (that is, less than 2 percent, as is the case in Victoria and the ACT), the overall imprisonment rate is low.
2. As the Indigenous share of the population increases, we see an increase (in general) in a jurisdiction's overall imprisonment rate.

This relationship holds for 5 of 8 jurisdictions. However, the exceptions are TAS, SA, and QLD. TAS has a greater than average Indigenous share of the population (4 percent), but a comparatively very low Indigenous imprisonment rate. This was also observed in the 2005 data.

**In 2011, we see a change in what was observed in the 2005 data. Overall imprisonment rates in QLD and SA were nearly the same in 2011 (158 and 156, respectively), but QLD has a higher Indigenous share of the population (3.6 percent) than does SA (1.9 percent).**

**From 2005 to 2011, there has been an increase in SA in the overall incarceration rate (from 123 to 156 per 100,000), but a decrease in the overall rates for QLD (from 177 to 158 per 100,000).**

3. The NT, which has the highest Indigenous share in the population, has a very high overall imprisonment rate in Australia (NT is 762 per 100,000, whereas the Australian average is 167 per 100,000).

### **Chart 3**

The data are sorted by the by the age-standardised Indigenous incarceration rate in 2011. What do we see?

1. States with relatively low incarceration rates (less than 1000 per 100,000 pop) are TAS, ACT, and VIC. (TAS is the lowest.)

Mid-range (1400 per 100,000) is Qld

Higher (2000 to 2222 per 100,000) is NSW, NT, and SA

Topping the chart: WA, with a very high Indigenous incarceration rate (over 3000 per 100,000).

**The 2011 incarceration data show change from that in 2005.**

**Incarceration rates have decreased somewhat in TAS (from 559 to 486 per 100,000, rate of decrease of 13 percent) stayed about the same in QLD (1304 to 1397, rate of increase of 7 percent).**

**However, in all other jurisdictions, there are increases, with an average rate of increase of 20 percent. The raw number increase is greatest for WA, the NT, and SA. The rate of increase is over 35 percent for the ACT, NT, and SA, with SA having the highest rate of increase (70 percent), as the Table below shows.**

### **Age-standardised incarceration rates per 100,000 Indigenous adults in 2005 and 2011**

				raw diff	rate of increase
QLD	1304	to	1397	93	7%
WA	2697	to	3106	409	15%
VIC	983	to	1155	172	17%
NSW	1652	to	1985	333	20%
ACT	821	to	1117	296	36%
NT	1441	to	2028	587	41%
SA	1297	to	2209	912	70%
Australia	1561	to	1868	307	20%

**Like 2005 data, while the NT has an extraordinarily high overall imprisonment rate compared to any other jurisdiction in Australia, WA continues to have the highest Indigenous imprisonment rate.**

#### **Chart 4**

The data are now sorted by the ratio of age-standardised Indigenous and non-Indigenous imprisonment rates. What do we see?

1. The ratio is

- lowest in TAS (less than 4)
- 'average' (11 to 14) in the ACT, QLD, NSW, NT, and VIC
- very high in SA (17) and WA (18)

**From 2005 to 2011, the ratio has increased from 12 to 14.**

**The ratio for SA has increased from 13 to 16.7 and is now close to that in WA (18.3).**

If crude, not age-standardised, data are used, the ratio is 18.

**2001 population data  
and 2005 imprisonment  
data**

Chart 1

(1) Data sorted by state/territory							
	column 1	column 2	column 3	column 4	column 5	column 6	column 7
State/Territory	N of Indigenous people	Total N in the population	Indigenous population share	overall impris rate (per 100,000)	Indigenous impris rate (per 100,000)	non-Indigenous impris rate (per 100,000)	ratio
New South Wales	135,319	6,609,304	2.0	188	1652	158	10.5
Victoria	27,928	4,822,663	0.6	94	983	91	10.8
Queensland	126,035	3,635,121	3.5	177	1304	138	9.5
South Australia	25,620	1,514,854	1.7	123	1297	99	13.1
Western Australia	66,069	1,906,114	3.5	229	2697	144	18.7
Tasmania	17,442	472,931	3.7	150	559	149	3.7
Northern Territory	57,550	200,019	28.7	576	1441	135	10.7
Australian Capital Territory	3,941	321,680	1.2	110	821	93	8.8
<b>Australia</b>	<b>460,140</b>	<b>19,485,278</b>	<b>2.4</b>	<b>163</b>	<b>1561</b>	<b>129</b>	<b>12.1</b>

Note: ABS data say the ratio for SA is 13.2, but I calculate it to be 13.1

Chart 2

(2) Data sorted by Ind pop share (i.e., by column 3)							
	column 1	column 2	column 3	column 4	column 5	column 6	column 7
State/Territory	N of Indigenous people	Total N in the population	Indigenous population share	overall impris rate (per 100,000)	Indigenous impris rate (per 100,000)	non-Indigenous impris rate (per 100,000)	ratio
Victoria	27,928	4,822,663	0.6	94	983	91	10.8
Australian Capital Territory	3,941	321,680	1.2	110	821	93	8.8
South Australia	25,620	1,514,854	1.7	123	1297	99	13.1
New South Wales	135,319	6,609,304	2.0	188	1652	158	10.5
Queensland	126,035	3,635,121	3.5	177	1304	138	9.5
Western Australia	66,069	1,906,114	3.5	229	2697	144	18.7
Tasmania	17,442	472,931	3.7	150	559	149	3.7
Northern Territory	57,550	200,019	28.7	576	1441	135	10.7
<b>Australia</b>	<b>460,140</b>	<b>19,485,278</b>	<b>2.4</b>	<b>163</b>	<b>1561</b>	<b>129</b>	<b>12.1</b>



Chart 3

<b>(3) Data sorted by Indigenous imprisonment rate (i.e., by column 5)</b>							
	column 1	column 2	column 3	column 4	column 5	column 6	column 7
State/Territory	N of Indigenous people	Total N in the population	Indigenous population share	overall impris rate (per 100,000)	Indigenous impris rate (per 100,000)	non-Indigenous impris rate (per 100,000)	ratio
Tasmania	17,442	472,931	3.7	150	559	149	3.7
Australian Capital Territory	3,941	321,680	1.2	110	821	93	8.8
Victoria	27,928	4,822,663	0.6	94	983	91	10.8
South Australia	25,620	1,514,854	1.7	123	1297	99	13.1
Queensland	126,035	3,635,121	3.5	177	1304	138	9.5
Northern Territory	57,550	200,019	28.7	576	1441	135	10.7
New South Wales	135,319	6,609,304	2.0	188	1652	158	10.5
Western Australia	66,069	1,906,114	3.5	229	2697	144	18.7
<b>Australia</b>	<b>460,140</b>	<b>19,485,278</b>	<b>2.4</b>	<b>163</b>	<b>1561</b>	<b>129</b>	<b>12.1</b>

Chart 4

<b>(4) Data sorted by imprisonment ratio (i.e., by column 7)</b>							
	column 1	column 2	column 3	column 4	column 5	column 6	column 7
State/Territory	N of Indigenous people	Total N in the population	Indigenous population share	overall impris rate (per 100,000)	Indigenous impris rate (per 100,000)	non-Indigenous impris rate (per 100,000)	ratio
Tasmania	17,442	472,931	3.7	150	559	149	3.7
Australian Capital Territory	3,941	321,680	1.2	110	821	93	8.8
Queensland	126,035	3,635,121	3.5	177	1304	138	9.5
New South Wales	135,319	6,609,304	2.0	188	1652	158	10.5
Northern Territory	57,550	200,019	28.7	576	1441	135	10.7
Victoria	27,928	4,822,663	0.6	94	983	91	10.8
South Australia	25,620	1,514,854	1.7	123	1297	99	13.1
Western Australia	66,069	1,906,114	3.5	229	2697	144	18.7
<b>Australia</b>	<b>460,140</b>	<b>19,485,278</b>	<b>2.4</b>	<b>163</b>	<b>1561</b>	<b>129</b>	<b>12.1</b>

## 2011 population and imprisonment data

### Chart 1

<b>(1) Data sorted by state/territory</b>							
	<b>column 1</b>	<b>column 2</b>	<b>column 3</b>	<b>column 4</b>	<b>column 5</b>	<b>column 6</b>	<b>column 7</b>
<b>State/Territory</b>	<b>N of Indigenous people</b>	<b>Total N in the population</b>	<b>Indigenous population share</b>	<b>overall impris rate (per 100,000)</b>	<b>Indigenous impris rate (per 100,000)</b>	<b>non-Indigenous impris rate (per 100,000)</b>	<b>ratio</b>
New South Wales	172,624	6,917,658	2.5	178	1985	146	13.6
Victoria	37,991	5,354,040	0.7	109	1155	105	11.0
Queensland	155,825	4,332,737	3.6	158	1397	119	11.8
South Australia	30,431	1,596,570	1.9	156	2209	132	16.7
Western Australia	69,665	2,239,170	3.1	260	3106	170	18.3
Tasmania	19,625	495,350	4.0	130	486	134	3.6
Australian Capital Territory	5,184	357,219	1.5	107	1117	88	12.8
Northern Territory	56,779	211,944	26.8	762	2028	182	11.2
<b>Australia</b>	<b>548,370</b>	<b>21,507,719</b>	<b>2.5</b>	<b>167</b>	<b>1868</b>	<b>130</b>	<b>14.3</b>

### Chart 2

<b>(2) Data sorted by Ind pop share (i.e., by column 3)</b>							
	<b>column 1</b>	<b>column 2</b>	<b>column 3</b>	<b>column 4</b>	<b>column 5</b>	<b>column 6</b>	<b>column 7</b>
<b>State/Territory</b>	<b>N of Indigenous people</b>	<b>Total N in the population</b>	<b>Indigenous population share</b>	<b>overall impris rate (per 100,000)</b>	<b>Indigenous impris rate (per 100,000)</b>	<b>non-Indigenous impris rate (per 100,000)</b>	<b>ratio</b>
Victoria	37,991	5,354,040	0.7	109	1155	105	11.0
Australian Capital Territory	5,184	357,219	1.5	107	1117	88	12.8
South Australia	30,431	1,596,570	1.9	156	2209	132	16.7
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Queensland	155,825	4,332,737	3.6	158	1397	119	11.8
Tasmania	19,625	495,350	4.0	130	486	134	3.6
Northern Territory	56,779	211,944	26.8	762	2028	182	11.2
<b>Australia</b>	<b>548,370</b>	<b>21,507,719</b>	<b>2.5</b>	<b>167</b>	<b>1868</b>	<b>130</b>	<b>14.3</b>

**Chart 3**

<b>(3) Data sorted by Indigenous imprisonment rate (i.e., by column 5)</b>							
	<b>column 1</b>	<b>column 2</b>	<b>column 3</b>	<b>column 4</b>	<b>column 5</b>	<b>column 6</b>	<b>column 7</b>
<b>State/Territory</b>	<b>N of Indigenous people</b>	<b>Total N in the population</b>	<b>Indigenous population share</b>	<b>overall impris rate (per 100,000)</b>	<b>Indigenous impris rate (per 100,000)</b>	<b>non-Indigenous impris rate (per 100,000)</b>	<b>ratio</b>
Tasmania	19,625	495,350	4.0	130	486	134	3.6
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Western Australia	69,665	2,239,170	3.1	260	3106	170	18.3
<b>Australia</b>	<b>548,370</b>	<b>21,507,719</b>	<b>2.5</b>	<b>167</b>	<b>1868</b>	<b>130</b>	<b>14.3</b>

**Chart 4**

<b>(4) Data sorted by imprisonment ratio (i.e., by column 7)</b>							
	<b>column 1</b>	<b>column 2</b>	<b>column 3</b>	<b>column 4</b>	<b>column 5</b>	<b>column 6</b>	<b>column 7</b>
<b>State/Territory</b>	<b>N of Indigenous people</b>	<b>Total N in the population</b>	<b>Indigenous population share</b>	<b>overall impris rate (per 100,000)</b>	<b>Indigenous impris rate (per 100,000)</b>	<b>non-Indigenous impris rate (per 100,000)</b>	<b>ratio</b>
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<b>Australia</b>	<b>548,370</b>	<b>21,507,719</b>	<b>2.5</b>	<b>167</b>	<b>1868</b>	<b>130</b>	<b>14.3</b>