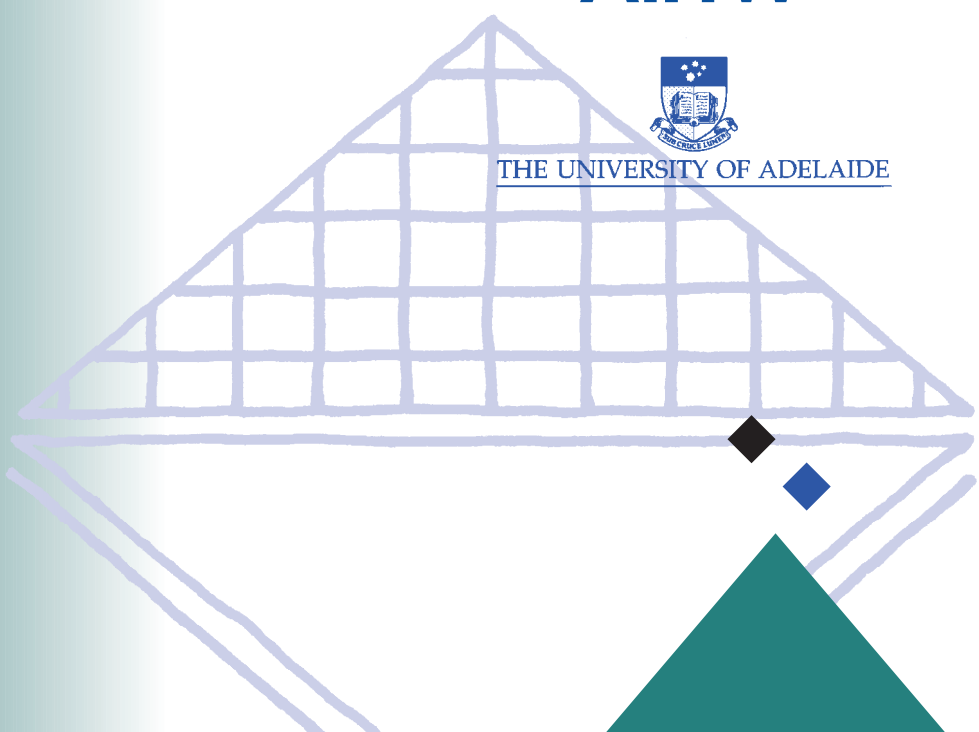


Dental practitioner statistics Australia, 1994

FSP Szuster
AJ Spencer



THE UNIVERSITY OF ADELAIDE



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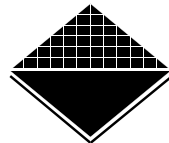
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**Dental Practitioner
Statistics
Australia, 1994**

F S P Szuster
A J Spencer



AUSTRALIAN INSTITUTE OF
HEALTH & WELFARE



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Contents

	Page
Introduction:	1
Practising dentists: State/Territory	2
Age	4
Hours worked per week.....	6
Origin of initial qualification	8
Area of practice	9
Specialty	10
Type of practice.....	10
Geographic regions.....	12
 Figures: Practising dentists	
1. Australia, rate of dentists per 100,000 population, 1933 to 1994	2
2. State/Territory, rate of dentists per 100,000 population	3
3. Age by sex of dentists.....	5
4. Hours worked per week by sex of dentists	7
5. Geographic region by State/Territory, rate of dentists per 100,000 population	13
 Tables: Practising dentists	
1. State/Territory by sex of dentists	3
2. Age by sex of dentists by State/Territory	4
3. Age by sex of dentists.....	5
4. Hours worked per week by State/Territory	6
5. Hours worked per week by sex of dentists	6
6. Origin of initial qualification by State/Territory	8
7. Area of main practice by State/Territory	9
8. Area of main practice by sex of dentists	9
9. Dentists in specialist or restricted practice, specialty by State/Territory	10
10. Type of main practice by State/Territory	11
11. Type of main practice by sex of dentists	12
12. Geographic region of main practice by State/Territory	13
13. Rate of dentists per 100,000 population, statistical division	14

Appendices:	
	1. Practising and employed dentists in Australia,..... 16 1933 to 1994
	2. Practising dentists, OECD countries 17
	3. Questionnaire 18
	4. Estimated resident population, 30 June 1994 20

Introduction

This report has been prepared by the Australian Institute of Health and Welfare's Dental Statistics and Research Unit (DSRU), in conjunction with the Dental Boards and Health Authorities. Established in 1988 the DSRU is a collaborative unit of the Australian Institute of Health and Welfare and aims to improve the oral health of Australians through the collection, analysis and reporting of dental statistics and research on the dental labourforce, dental health status, dental practices and use of dental services.

This report presents national health labourforce statistics for registered dental practitioners and is part of a national data set agreed by the Australian Health Minister's Advisory Council to facilitate appropriate health planning and administration.

Data were collected by the State and Territory dental boards as part of the annual renewal of registrations which occurred predominantly at the end of 1994. A copy of one of the questionnaires (for Tasmania) is included as Appendix 3 to provide an example of the data set and question wording that have been used to collect the data for this report. The specific timing of the data collection in each State and Territory was:

New South Wales – October 1994	South Australia – December 1994
Victoria – December 1994	Tasmania – December 1994
Queensland – January 1994	Northern Territory – September 1994
Western Australia – December 1994	Australian Capital Territory – June 1994

The collection aims to identify dentists':

- (i) practising status;
- (ii) age and sex distribution;
- (iii) university/country of initial qualification;
- (iv) pattern of hours worked by practising dentists;
- (v) main area and type of practice;
- (vi) specialty areas of practice; and
- (vii) geographic distribution.

The response rate to the data collection was 90.1% but complete data were not available for all responding dental practitioners. For all estimates, the assumption was made that non-respondents to the survey in each State/Territory had the same labourforce characteristics as respondents, and the survey data were scaled up to State/Territory totals.

Note: Where figures have been rounded (*e.g.* percentages), discrepancies may occur between sums of the component items and totals.

Practising dentists

Figure 1 presents the rate of dentists per 100,000 population in Australia from 1933 to 1994. The data points are presented in Appendix 1. It can be seen that throughout the twentieth century there has been considerable change in the level of supply of dental practitioners, with the most notable feature being the decline in the post World War II period through to the end of the 1960s, followed by a return to levels at approximately 40 dentists per 100,000 in the 1980s and early 1990s.

It can also be seen that the period of the 1980s and early 1990s has been one of considerable stability with the numbers of practising dentists keeping up with the growth of the Australian population.

It is believed that the data from the Population Censuses is consistently below the series collected with annual registration by the State/Territory Dental Boards through the omission of some dentists, particularly those absent from practice (eg overseas at the time of the Census).

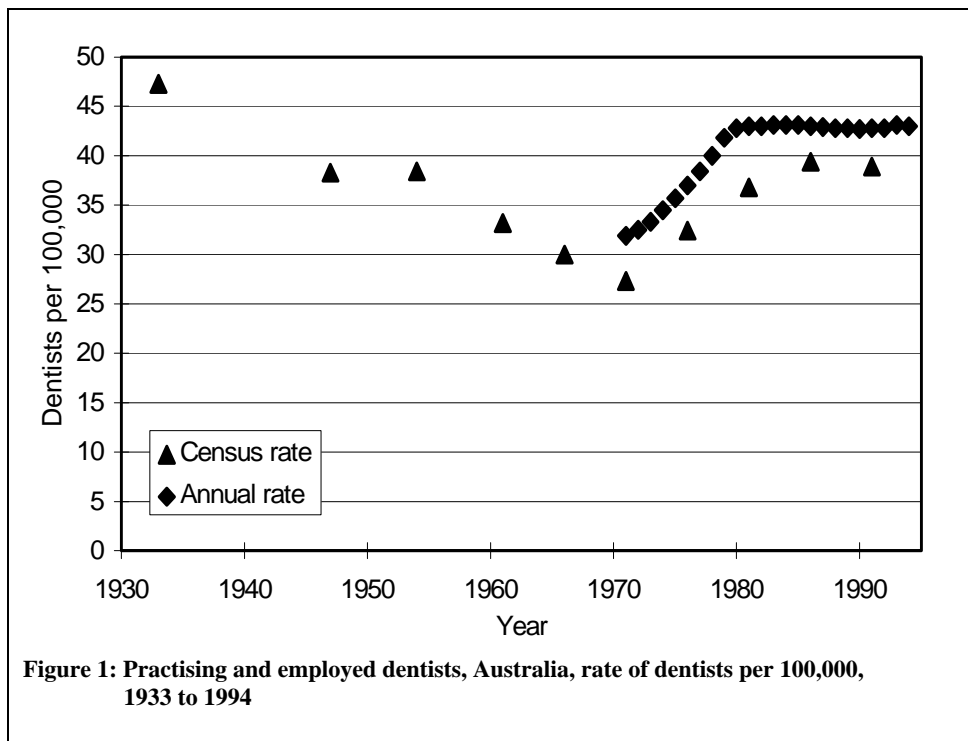


Table 1 presents the practising dentists by sex for States/Territories with the percentage female and the rate per 100,000 estimated resident population. It can be seen that in 1994 there were 7,667 dentists practising in Australia with 18.4% female ranging from 16.6% in Queensland to 27.3% in the Northern Territory.

Table 1: Practising dentists[†], State/Territory by sex of dentists, 1994

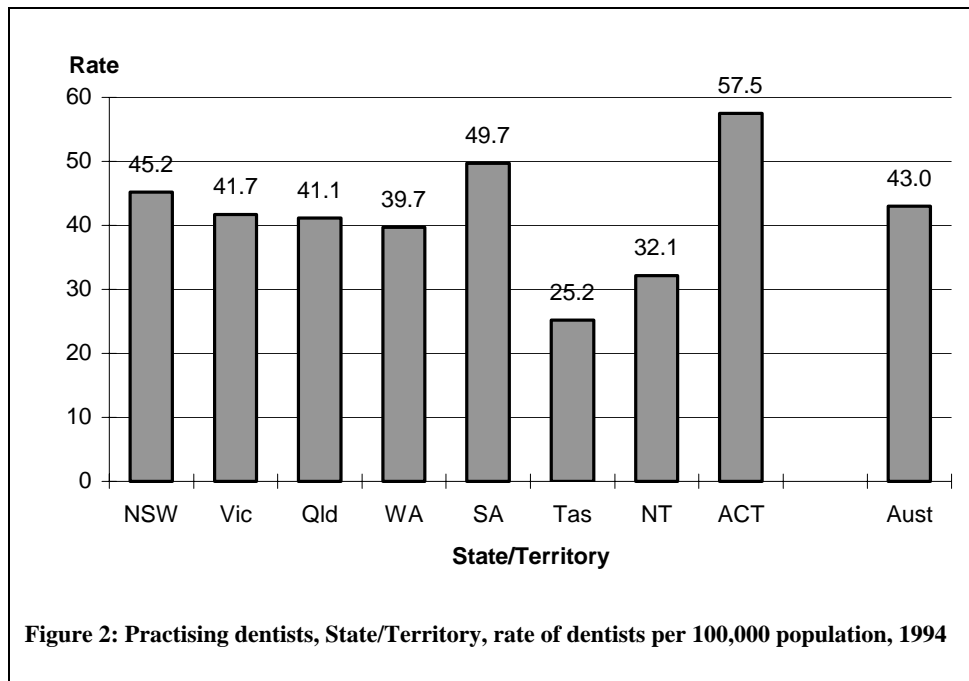
State/Territory	Male	Female	Persons	% Female	Rate*
New South Wales	2256	477	2733	17.5	45.2
Victoria	1492	375	1867	20.1	41.7
Queensland	1096	218	1314	16.6	41.1
Western Australia	554	121	675	17.9	39.7
South Australia	590	141	731	19.3	49.7
Tasmania	96	23	119	19.3	25.2
Northern Territory	40	15	55	27.3	32.1
Australian Capital Territory	136	37	173	21.4	57.5
Total	6260	1407	7667	18.4	43.0

[†] practising solely/mainly in this State/Territory and adjusted to take account of non-response and not stated practising status

* Rate: practising dentists per 100,000 estimated resident population. See Appendix 4 for estimated resident population at 30 June 1994.

There was an overall rate of 43.0 practising dentists per 100,000 estimated resident population in 1994. Although international comparisons need to be treated with caution due to the different arrangements of the dental workforce in different countries, it can be seen from Appendix 2 that among the 24 OECD countries Australia is the 19th ranked country (from highest to lowest) and is below the average rate of practising dentists for all OECD countries (56.6).

The relatively large variation about this national average rate of 43.0 for the smaller States and Territories is graphically shown in Figure 2 with the lowest rate of 25.2 in Tasmania to the highest rate of 57.5 in the Australian Capital Territory.



From Table 2 and Table 3 and Figure 3, it can be seen that the percentage of female dentists is highest in the youngest age groups (39.5% in the 20–24 age group and 37.0% in the 25–29 age group), diminishing in the practising dentists aged 45 years and older (4.4% in the 60–64 age group and 4.7 in the 65+ age group). This pattern is evident for all States/Territories.

The percentage of dentists in the youngest age group (20–29 years) was lowest in Tasmania (9.2%) with the highest percentage in the Northern Territory (20.0%). For the oldest age group (60+ years) the Northern Territory clearly has the lowest percentage (3.6%) with the highest in New South Wales (15.4%) and Tasmania (15.1%).

Table 2: Practising dentists[†], age by sex of dentists by State/Territory, 1994

Age group (years)	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
20–29									
Male	209	150	104	53	48	7	7	11	589
Female	119	96	51	26	40	4	4	13	353
<i>Total</i>	<i>328</i>	<i>246</i>	<i>155</i>	<i>79</i>	<i>88</i>	<i>11</i>	<i>11</i>	<i>24</i>	<i>942</i>
30–39									
Male	673	395	310	149	155	26	10	36	1754
Female	214	150	103	46	53	8	6	19	599
<i>Total</i>	<i>887</i>	<i>545</i>	<i>413</i>	<i>195</i>	<i>208</i>	<i>34</i>	<i>16</i>	<i>55</i>	<i>2353</i>
40–49									
Male	618	439	297	181	243	25	16	47	1866
Female	98	87	45	30	36	7	3	4	310
<i>Total</i>	<i>716</i>	<i>526</i>	<i>342</i>	<i>211</i>	<i>279</i>	<i>32</i>	<i>19</i>	<i>51</i>	<i>2176</i>
50–59									
Male	351	272	243	115	73	20	5	25	1104
Female	30	27	15	13	9	4	2	–	100
<i>Total</i>	<i>381</i>	<i>299</i>	<i>258</i>	<i>128</i>	<i>82</i>	<i>24</i>	<i>7</i>	<i>25</i>	<i>1204</i>
60+									
Male	405	236	142	56	71	18	2	17	947
Female	16	15	4	6	3	–	–	1	45
<i>Total</i>	<i>421</i>	<i>251</i>	<i>146</i>	<i>62</i>	<i>74</i>	<i>18</i>	<i>2</i>	<i>18</i>	<i>992</i>
Total									
Male	2256	1492	1096	554	590	96	40	136	6260
Female	477	375	218	121	141	23	15	37	1407
Total	2733	1867	1314	675	731	119	55	173	7667

(percentages)

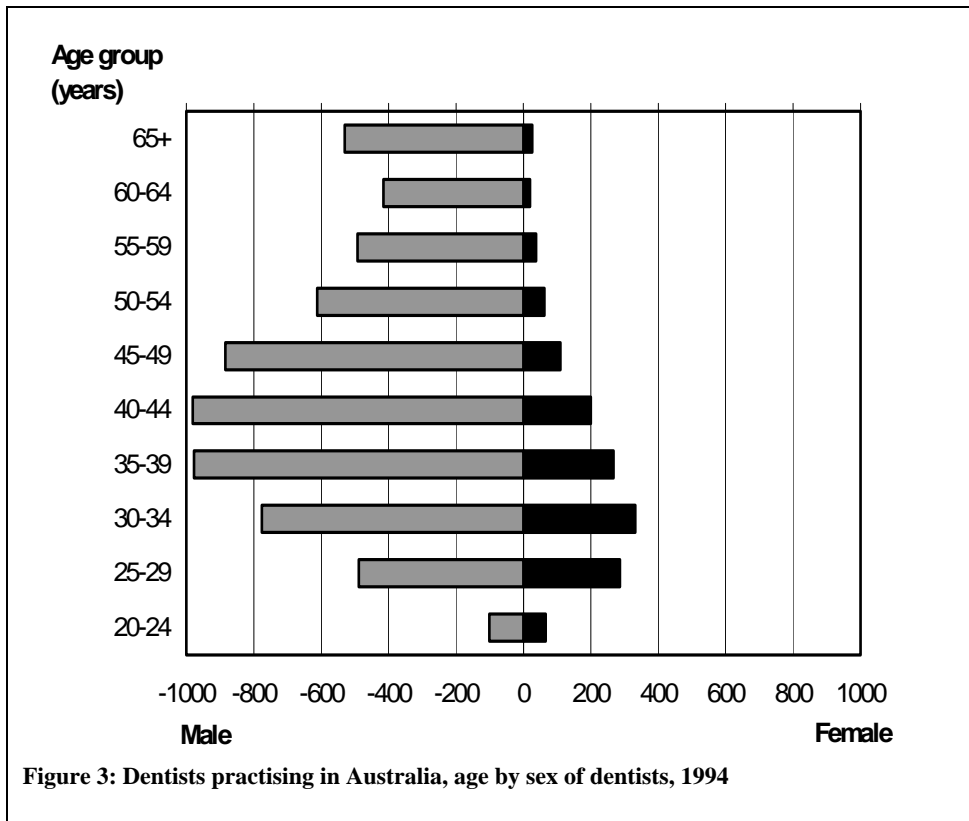
Age group (years)	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
20–29	12.0	13.2	11.8	11.7	12.0	9.2	20.0	13.9	12.3
30–39	32.5	29.2	31.4	28.9	28.5	28.6	29.1	31.8	30.7
40–49	26.2	28.2	26.0	31.3	38.2	26.9	34.5	29.5	28.4
50–59	13.9	16.0	19.6	19.0	11.2	20.2	12.7	14.5	15.7
60+	15.4	13.4	11.1	9.2	10.1	15.1	3.6	10.4	12.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

[†] practising solely/mainly in this State/Territory

Table 3: Practising dentists, age by sex of dentists, 1994

Age group (years)	Males		Females		Persons		Female
	No.	%	No.	%	No.	%	%
20-24	101	1.6	66	4.7	167	2.2	39.5
25-29	488	7.8	287	20.4	775	10.1	37.0
30-34	777	12.4	332	23.6	1109	14.5	29.9
35-39	977	15.6	267	19.0	1244	16.2	21.5
40-44	981	15.7	200	14.2	1181	15.4	16.9
45-49	885	14.1	110	7.8	995	13.0	11.1
50-54	612	9.8	62	4.4	674	8.8	9.2
55-59	492	7.9	38	2.7	530	6.9	7.2
60-64	416	6.6	19	1.4	435	5.7	4.4
65+	531	8.5	26	1.8	557	7.3	4.7
Total	6260	100.0	1407	100.0	7667	100.0	18.4

It can also be seen that the highest numbers of practising dentists are aged between 30 and 49 years (59.1%). There is then a gradual decrease in numbers with increasing age. However, nearly one in five practising dentists (19.9%) are aged 55 years and older and therefore approaching retirement age.



Not all dentists were working an equal number of hours per week in dental practice. Table 4 presents the level of activity of dentists measured by hours worked per week. In 1994, 85.5% of dentists reported working 30 or more hours per week. From Table 5 it can be seen that there is a lower percentage of practising female dentists reporting 40 hours or more (33.6% compared to 62.9% for practising male dentists). For those working less than 30 hours per week there were 10.5% of practising male dentists compared to 32.4% of practising female dentists in those 'part-time' groups in 1994. These differences are evident in Figure 4 where the difference in area between the bar charts demonstrates the ratio of male to female dentists.

Table 4: Practising dentists, hours worked per week by State/Territory, 1994

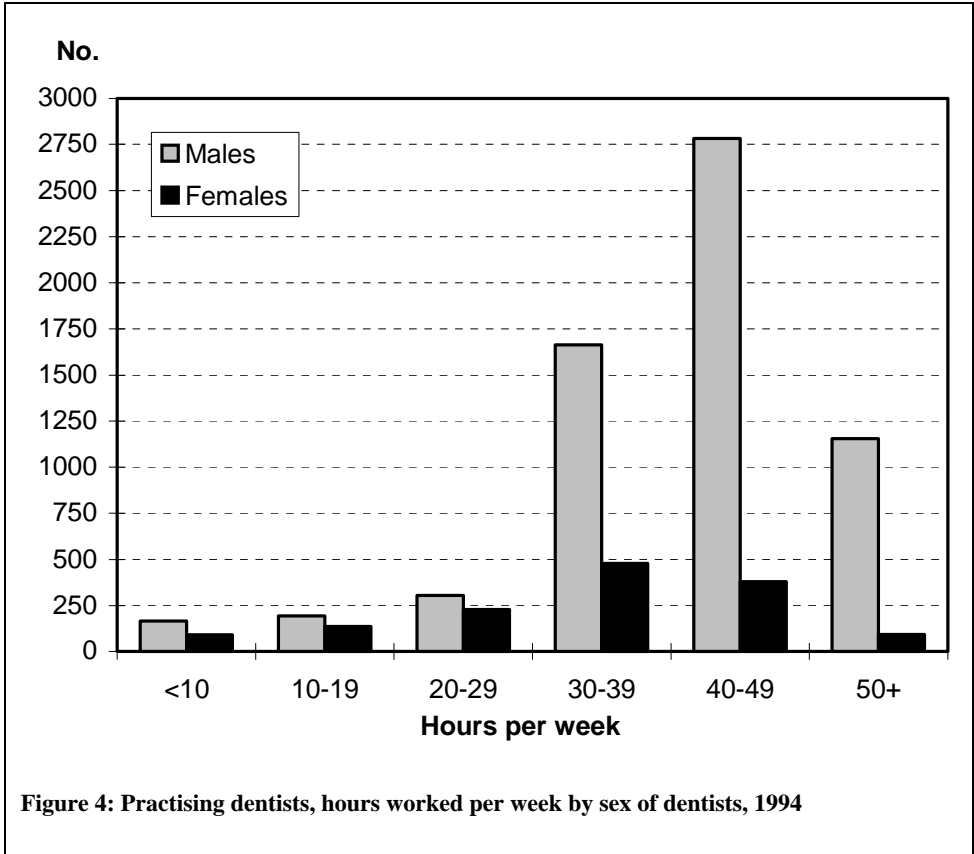
Hours worked per week	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Less than 10 hours	59	124	29	17	14	6	1	6	256
10–19 hours	110	98	50	31	31	2	1	6	329
20–29 hours	189	138	71	57	52	5	3	15	530
30–39 hours	682	540	329	227	260	42	20	42	2142
40–49 hours	1141	704	607	265	286	60	23	77	3163
50 hours or more	552	263	228	78	88	4	7	27	1247
Total	2733	1867	1314	675	731	119	55	173	7667

(percentages)

Hours worked per week	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Less than 10 hours	2.2	6.6	2.2	2.5	1.9	5.0	1.8	3.5	3.3
10–19 hours	4.0	5.2	3.8	4.6	4.2	1.7	1.8	3.5	4.3
20–29 hours	6.9	7.4	5.4	8.4	7.1	4.2	5.5	8.7	6.9
30–39 hours	25.0	28.9	25.0	33.6	35.6	35.3	36.4	24.3	27.9
40–49 hours	41.7	37.7	46.2	39.3	39.1	50.4	41.8	44.5	41.3
50 hours or more	20.2	14.1	17.4	11.6	12.0	3.4	12.7	15.6	16.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 5: Practising dentists, hours worked per week by sex of dentists, 1994

Hours worked per week	Males		Females		Persons	
	No.	%	No.	%	No.	%
Less than 10 hours	164	2.6	92	6.5	256	3.3
10–19 hours	192	3.1	137	9.7	329	4.3
20–29 hours	303	4.8	227	16.1	530	6.9
30–39 hours	1664	26.6	478	34.0	2142	27.9
40–49 hours	2784	44.5	379	26.9	3163	41.3
50 hours or more	1153	18.4	94	6.7	1247	16.3
Total	6260	100.0	1407	100.0	7667	100.0



The five dental faculties in Australia are located at the Universities of Sydney, Melbourne, Queensland, Adelaide and Western Australia. In total 85.9% of practising dentists obtained their initial qualification at an Australian dental faculty. It can be seen in Table 6 that the majority (5,574 or 72.7%) of dentists practise in the same State as their initial qualification (ie the sum of 2,153, 1,269, 1,053, 639 and 460). It is not surprising to see that the highest percentage of practising dentists in the Australian Capital Territory obtained their initial qualification from the University of Sydney.

Table 6: Practising dentists[†], origin of initial qualification by State/Territory, 1994

Origin of initial qualification	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
University of Sydney	2153	70	65	23	18	8	6	102	2445
University of Melbourne	51	1269	35	14	8	20	3	8	1408
University of Queensland	110	69	1053	10	11	14	8	28	1303
University of Adelaide	68	110	31	11	639	28	23	12	922
University of Western Aust	11	18	5	460	3	3	5	1	506
<i>Total Australian initial qualification</i>	<i>239</i>	<i>1536</i>	<i>1189</i>	<i>518</i>	<i>679</i>	<i>73</i>	<i>45</i>	<i>151</i>	<i>6584</i>
New Zealand	59	62	33	na	8	11	–	4	207
United Kingdom & Ireland	121	120	58	na	21	26	6	14	428
Asia	60	75	11	na	21	5	1	2	205
Other	100	74	23	na	2	4	3	2	243
<i>Total overseas initial qualification</i>	<i>340</i>	<i>331</i>	<i>125</i>	<i>157</i>	<i>52</i>	<i>46</i>	<i>10</i>	<i>22</i>	<i>1083</i>
Total	2733	1867	1314	675	731	119	55	173	7667

(percentages)

Origin of initial qualification	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
University of Sydney	78.8	3.7	4.9	3.4	2.5	6.7	10.9	59.0	31.9
University of Melbourne	1.9	68.0	2.7	2.1	1.1	16.8	5.5	4.6	18.4
University of Queensland	4.0	3.7	80.1	1.5	1.5	11.8	14.5	16.2	17.0
University of Adelaide	2.5	5.9	2.4	1.6	87.4	23.5	41.8	6.9	12.0
University of Western Aust	0.4	1.0	0.4	68.1	0.4	2.5	9.1	0.6	6.6
<i>Total Australian initial qualification</i>	<i>87.6</i>	<i>82.3</i>	<i>90.5</i>	<i>76.7</i>	<i>92.9</i>	<i>61.3</i>	<i>81.8</i>	<i>87.3</i>	<i>85.9</i>
New Zealand	2.2	3.3	2.5	na	1.1	9.2	–	2.3	2.7
United Kingdom & Ireland	4.4	6.4	4.4	na	2.9	21.8	10.9	8.1	5.6
Asia	2.2	4.0	0.8	na	2.9	4.2	1.8	1.2	2.7
Other	3.7	4.0	1.8	na	0.3	3.4	5.5	1.2	3.2
<i>Total overseas initial qualification</i>	<i>12.4</i>	<i>17.7</i>	<i>9.5</i>	<i>23.3</i>	<i>7.1</i>	<i>38.7</i>	<i>18.2</i>	<i>12.7</i>	<i>14.1</i>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

† practising solely/mainly in this State/Territory

Of those who qualified initially overseas, the largest number qualified in the United Kingdom and Ireland (5.6%) followed by Other (3.2%), Asia (2.7%) and New Zealand (2.7%). There are higher percentages of dentists who initially qualified in the United Kingdom and Ireland practising in Tasmania (21.8%) and the Northern Territory (10.9%).

Dentists practise in a range of settings. The distribution according to their main area of work is presented in Table 7 and Table 8 shows that similar percentages of practising dentists in each State/Territory are general practitioners (84.6%) with a small percentage in specialist and restricted practice (10.3%). A higher percentage (11.4%) of male dentists compared to female dentists (5.6%) are in specialist or restricted practice.

Table 7: Practising dentists[†], area of main practice* by State/Territory, 1994

Area of main practice	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
General practice	2373	1535	1131	577	578	106	48	141	6489
Specialist/restricted practice	229	222	138	71	92	9	4	28	793
Administration	35	12	12	7	8	–	3	4	81
Teaching/education/research	51	41	26	14	46	–	–	–	178
Other	45	57	7	6	7	4	–	–	126
Total	2733	1867	1314	675	731	119	55	173	7667

(percentage)

Area of main practice	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
General practice	86.8	82.2	86.1	85.5	79.1	89.1	87.3	81.5	84.6
Specialist/restricted practice	8.4	11.9	10.5	10.5	12.6	7.6	7.3	16.2	10.3
Administration	1.3	0.6	0.9	1.0	1.1	–	5.5	2.3	1.1
Teaching/education/research	1.9	2.2	2.0	2.1	6.3	–	–	–	2.3
Other	1.6	3.1	0.5	0.9	1.0	3.4	–	0.6	1.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

† practising solely/mainly in this State/Territory

* main practice defined as practice with largest hours worked per week

Table 8: Practising dentists, area of main practice* by sex of dentists, 1994

Area of main practice	No.	%	No.	%	No.	%
General practice	5264	84.1	1225	87.1	6489	84.6
Specialist/restricted practice	714	11.4	79	5.6	793	10.3
Administration	66	1.1	15	1.1	81	1.1
Teaching/education/research	123	2.0	55	3.9	178	2.3
Other	93	1.5	33	2.3	126	1.6
Total	6260	100.0	1407	100.0	7667	100.0

* main practice defined as practice with largest hours worked per week

The reported specialty areas are presented in Table 9. In all States and Territories nearly half of the reported specialists were orthodontists (418 or 47.7%). Of the remaining specialty areas oral surgery (147) and prosthodontics (107) were the next largest. It is clearly evident that the smaller States and Territories reported few or no specialist dentists in the remaining categories. However it should be noted that for the Northern Territory, in addition to the four specialist dentists whose main practice location was in the Northern Territory, there were a further six specialist dentists whose main practice location were in other States but who had additional practices in the Northern Territory.

Table 9: Practising dentists[†], in specialist/restricted practice, specialty by State/Territory, 1994

Specialty	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Orthodontics	140	100	67	42	44	7	3	15	418
Oral surgery	46	46	21	8	18	1	–	7	147
Periodontics	24	24	14	8	6	1	1	4	82
Endodontics	17	19	8	8	9	–	–	1	62
Prosthodontics	27	29	18	16	16	–	–	1	107
Paedodontics	2	15	12	6	7	–	–	1	43
Other	8	–	2	4	3	–	–	1	18
Total	264	233	142	92	103	9	4	30	877

[†] practising solely/mainly in this State/Territory

Dentists practise in either private or public types of practice. Within the private sector the type of practice can be defined according to whether the dentist practises alone (solo) or in some arrangement with other dentists (partnership, associateship, assistant or locum).

Table 10 and Table 11 present the types of main practice of dentists by State/Territory and sex. Dentists were predominantly in the private sector (81.4%) with solo practice and associateships the major types of main practice (46.3% and 14.3% respectively) with assistants (10.1%) and partnership (9.6%) comprising the next most substantial practice types. For the public sector the predominant type of main practice was dental hospital with 6.5%. The public sector included tertiary education in the five mainland States.

There was quite a marked difference in type of main practice for male and female dentists. A lower percentage of female dentists worked in the private sector types of main practice (67.4%) than male dentists (84.6%). This difference was reflected in solo, associateship and assistant practice. In 1994, 25.2% of female dentists practised in solo practice, while 51.0% of male dentists were in solo practice. The same relativity exists for associateships, where there were 8.3% of female dentists and 15.7% of male dentists. For assistant types of main practice, the percentage differences were reversed, with 22.2% of female dentists compared to 7.4% of male dentists being in assistant types of practice.

There were a higher percentage of female dentists in the public sector in 1994, 31.1% compared with 14.5% of male dentists who worked in the public sector. As most assistants, locums, industry and public sector types of practice are salaried rather than self-employed practice, it is evident that a higher percentage of female dentists were in salaried employment (54.7%) than male dentists (23.0%).

Table 10: Practising dentists[†], type of main practice* by State/Territory, 1994

Type of main practice	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Private sector:									
Solo	1420	823	590	323	260	57	16	58	3547
Partnership	278	159	112	84	79	11	3	10	736
Associateship	363	284	156	92	137	9	9	47	1097
Assistant	215	261	145	35	61	16	7	33	773
Locum	16	28	19	21	3	1	–	–	88
<i>Total private sector</i>	<i>2292</i>	<i>1555</i>	<i>1022</i>	<i>555</i>	<i>540</i>	<i>94</i>	<i>35</i>	<i>148</i>	<i>6241</i>
Public sector:									
Dental hospital	169	99	125	57	44	4	3	–	501
Other hospital	104	44	45	8	19	3	–	–	223
School dental service*	12	33	47	24	24	13	na	2	155
Health centre	54	45	20	8	29	–	8	11	175
Tertiary education	28	32	28	9	44	–	–	–	141
Other public (inc. defence)	45	21	21	11	29	4	9	12	152
<i>Total public sector</i>	<i>412</i>	<i>274</i>	<i>286</i>	<i>117</i>	<i>189</i>	<i>24</i>	<i>20</i>	<i>25</i>	<i>1347</i>
Industry	5	2	2	–	1	1	–	–	11
Other	24	36	4	3	1	–	–	–	68
Total	2733	1867	1314	675	731	119	55	173	7667

(percentages)

Type of main practice	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Private sector:									
Solo	52.0	44.1	44.9	47.9	35.6	47.9	29.1	33.5	46.3
Partnership	10.2	8.5	8.5	12.4	10.8	9.2	5.5	5.8	9.6
Associateship	13.3	15.2	11.9	13.6	18.7	7.6	16.4	27.2	14.3
Assistant	7.9	14.0	11.0	5.2	8.3	13.4	12.7	19.1	10.1
Locum	0.6	1.5	1.4	3.1	0.4	0.8	–	–	1.1
<i>Total private sector</i>	<i>83.9</i>	<i>83.3</i>	<i>77.8</i>	<i>82.2</i>	<i>73.9</i>	<i>79.0</i>	<i>63.6</i>	<i>85.5</i>	<i>81.4</i>
Public sector:									
Dental hospital	6.2	5.3	9.5	8.4	6.0	3.4	5.5	–	6.5
Other hospital	3.8	2.4	3.4	1.2	2.6	2.5	–	–	2.9
School dental service*	0.4	1.8	3.6	3.6	3.3	10.9	na	1.2	2.0
Health centre	2.0	2.4	1.5	1.2	4.0	–	14.5	6.4	2.3
Tertiary education	1.0	1.7	2.1	1.3	6.0	–	–	–	1.8
Other public (inc. defence)	1.6	1.1	1.6	1.6	4.0	3.4	16.4	6.9	2.0
<i>Total public sector</i>	<i>15.1</i>	<i>14.7</i>	<i>21.8</i>	<i>17.3</i>	<i>25.9</i>	<i>20.2</i>	<i>36.4</i>	<i>14.5</i>	<i>17.6</i>
Industry	0.2	0.1	0.2	–	0.1	0.8	–	–	0.1
Other	0.9	1.9	0.3	0.4	0.1	–	–	–	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

† practising solely/mainly in this State/Territory

* school dental service not separately collected from other public in the Northern Territory
main practice defined as practice with largest hours worked per week

Table 11: Practising dentists, type of main practice* by sex of dentists, 1994

Type of main practice	Males		Females		Persons	
	No.	%	No.	%	No.	%
Private sector:						
Solo	3193	51.0	354	25.2	3547	46.3
Partnership	592	9.5	144	10.2	736	9.6
Associateship	980	15.7	117	8.3	1097	14.3
Assistant	461	7.4	312	22.2	773	10.1
Locum	67	1.1	21	1.5	88	1.1
<i>Total private sector</i>	<i>5293</i>	<i>84.6</i>	<i>948</i>	<i>67.4</i>	<i>6241</i>	<i>81.4</i>
Public sector:						
Dental hospital	325	5.2	176	12.5	501	6.5
Other hospital	159	2.5	64	4.5	223	2.9
School dental service*	108	1.7	47	3.3	155	2.0
Health centre	112	1.8	63	4.5	175	2.3
Tertiary education	97	1.5	44	3.1	141	1.8
Other public (incl. defence)	109	1.7	43	3.1	152	2.0
<i>Total public sector</i>	<i>910</i>	<i>14.5</i>	<i>437</i>	<i>31.1</i>	<i>1347</i>	<i>17.6</i>
Industry	9	0.1	2	0.1	11	0.1
Other	48	0.8	20	1.4	68	0.9
Total	6260	100.0	1407	100.0	7667	100.0

* main practice defined as practice with largest hours worked per week
school dental service not separately collected from other public in Northern Territory

The geographic distribution of practising dentists by capital city/rest of state is presented in Table 12 and Figure 5. When presented as the rate per 100,000 estimated resident population it is evident that there is a clear difference in the rate between the capital cities (overall rate of 51.2) and the rest of state (rate of 28.7). When examined in this context it can be seen that, with the exception of Hobart and the rest of Queensland, there is considerable similarity in the capital city rates and the rest of state rates. Therefore it can be considered that much of the variation in rates between States and Territories was comprised of the variation in the percentage of the State population in each capital city. In particular, the Australian Capital Territory (57.5 dentists per 100,000) is comparable with Adelaide (59.4) and Sydney (54.8), whereas on a State/Territory basis it appeared to be far above all others. Similarly, Tasmania (with 25.2 dentists per 100,000) is comparable with the non-metropolitan areas of New South Wales (29.6), Victoria (25.5), Western Australia (23.4) and South Australia (23.4). However, in comparison with other States it appeared to be far below all others.

Table 12: Practising dentists, geographic region of main practice* by State/Territory, 1994

Geographic region of main practice	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Capital city	2048	1541	730	567	62	62	33	173	5796
Rest of state	685	326	584	108	92	57	22	–	1871
Total	2733	1867	1314	675	731	119	55	173	7667

Rate: practising dentists per 100,000 population**

Geographic region of main practice	NSW	Vic	Qld	WA	SA	Tas	NT	ACT	Total
Capital city	54.8	48.2	50.2	45.8	59.4	31.9	42.3	57.5	51.2
Rest of state	29.6	25.5	33.5	23.4	23.4	20.5	20.5	–	28.7
Total	45.2	41.7	41.1	39.7	49.7	25.2	32.1	57.5	43.0

* main practice defined as practice with largest hours worked per week

** see Appendix 4 for estimated resident population at 30 June 1994

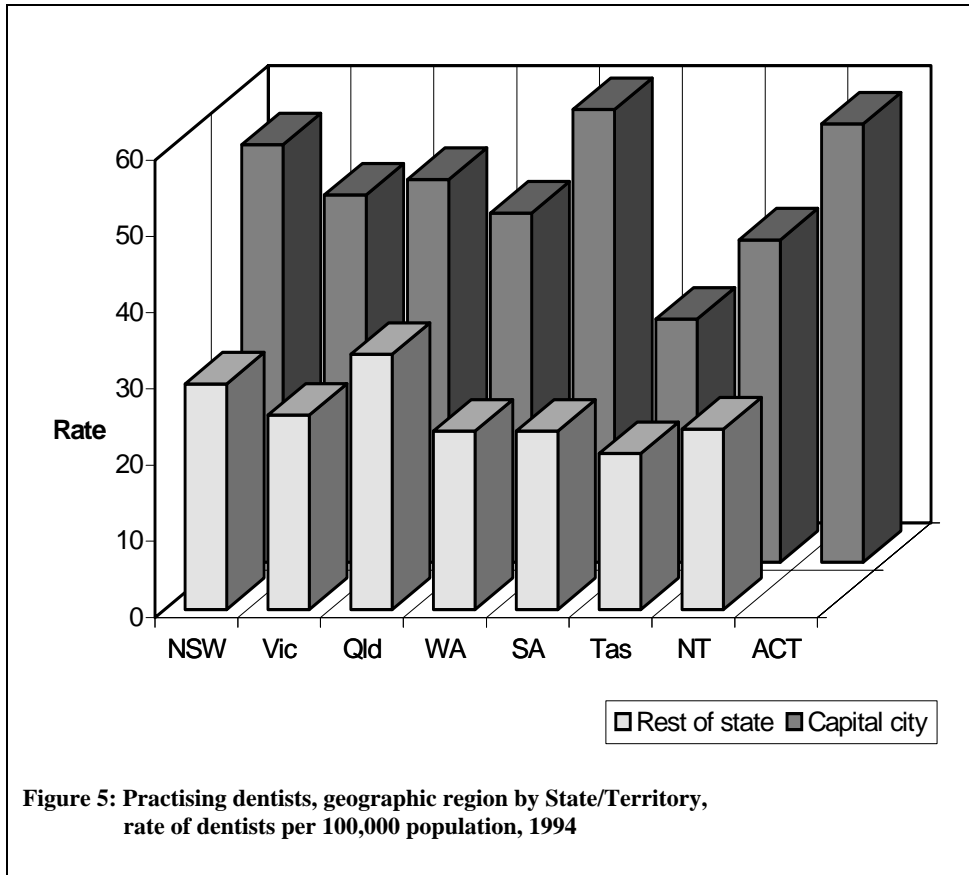


Figure 5: Practising dentists, geographic region by State/Territory, rate of dentists per 100,000 population, 1994

Table 13 presents the geographic distribution of practising dentists by statistical division. These are presented as the number of practising dentists and the rate per 100,000 population. This rate includes an adjustment to take account of non-response and not stated practising status. It can be seen from these data that there are considerable differences in the rates between the non-capital city statistical divisions. For example, Richmond-Tweed with 41.7 dentists per 100,000 population, Far North Queensland (41.3) and Moreton (39.9) are all close to the national average of 43.0, while the lowest rates were reported in rural divisions of Western Australia.

Table 13 Practising dentists, rate* of dentists per 100,000 population, statistical division, 1994

Statistical division	Population	No of practising dentists	Rate*
New South Wales			
Sydney	3,736,700	2048	54.8
Hunter	551,450	156	28.3
Illawarra	363,800	109	30.0
Richmond-Tweed	194,300	81	41.7
Mid-North Coast	257,100	76	29.6
Northern	187,350	51	27.2
North Western	118,650	29	24.4
Central West	173,500	44	25.4
South Eastern	177,800	56	31.5
Murrumbidgee	150,250	42	28.0
Murray	110,600	33	29.8
Far West	27,700	8	28.9
Victoria			
Melbourne	3,196,700	1541	48.2
Barwon—Western District	339,050	92	27.1
Central Highlands—Wimmera	186,750	53	28.4
Loddon-Campaspe—Mallee	244,000	70	28.7
Goulburn—Ovens-Murray	271,200	51	18.8
All Gippsland	237,800	60	25.2
Queensland			
Brisbane	1,454,400	730	50.2
Moreton	558,700	223	39.9
Wide Bay-Burnett	216,100	52	24.1
Darling Downs	203,500	66	32.4
South West	28,800	8	27.8
Fitzroy	179,200	52	29.0
Central West	13,100	4	30.5
Mackay	116,300	33	28.4
Northern	192,400	58	30.1
Far North	196,000	81	41.3
North West	37,800	7	18.5

Table 13 (continued)

Statistical division	Population	No of practising dentists	Rate*
Western Australia			
Perth	1,238,850	567	45.8
South West	159,100	54	33.9
Lower Great Southern	50,000	17	34.0
Upper Great Southern	20,250	4	19.8
Midlands	50,950	3	5.9
South Eastern	53,050	6	11.3
Central	61,250	14	22.9
Pilbara–Kimberley	67,650	10	14.8
South Australia			
Adelaide	1,076,100	639	59.4
Outer Adelaide	102,200	27	26.4
Yorke-Lower North	44,700	8	17.9
Murray Lands	66,900	18	26.9
South East	62,000	13	21.0
Eyre	32,700	9	27.5
Northern	84,700	17	20.2
Tasmania			
Greater Hobart	194,200	62	31.9
Southern	33,300	3	9.0
Northern	133,200	31	23.3
Mersey-Lyell	111,800	23	20.6
Northern Territory			
Darwin	78,100	33	42.3
NT balance	93,000	22	23.7
Australian Capital Territory	300,900	173	57.5
Australia	17,835,700	7,667	43.0

*Rate: practising dentists per 100,000 estimated resident population

Source: Australian Bureau of Statistics, Catalogue Numbers 3201.0, 3210.1, 3207.2, 3201.3, 3203.5, 3204.4, 3204.6, 3201.7

APPENDIX 1

Practising and employed dentists in Australia, 1933 to 1994

Year	Population census	Registration board
	Employed dentists rate	collections Practising dentists rate*
1933	47.3	
1947	38.3	
1954	38.4	
1961	33.2	
1966	30.0	
1971	27.3	31.9
1972		32.5
1973		33.3
1974		34.5
1975		35.7
1976	32.4	37.0
1977		38.4
1978		40.0
1979		41.8
1980		42.8
1981	36.8	43.0
1982		43.0
1983		43.1
1984		43.1
1985		43.1
1986	39.4	43.0
1987		42.9
1988		42.8
1989		42.8
1990		42.7
1991	38.9	42.8
1992		42.8
1993		43.1
1994		43.0

Source: Department of Labour and National Services,
Professional and Technical Manpower Study No.1: Dentists, 1970
Australian Bureau of Statistics, unpublished Population Census tables
P.D. Barnard, Facts and Figures, unpublished historical series
DSRU, Dental Practitioner Statistics

APPENDIX 2

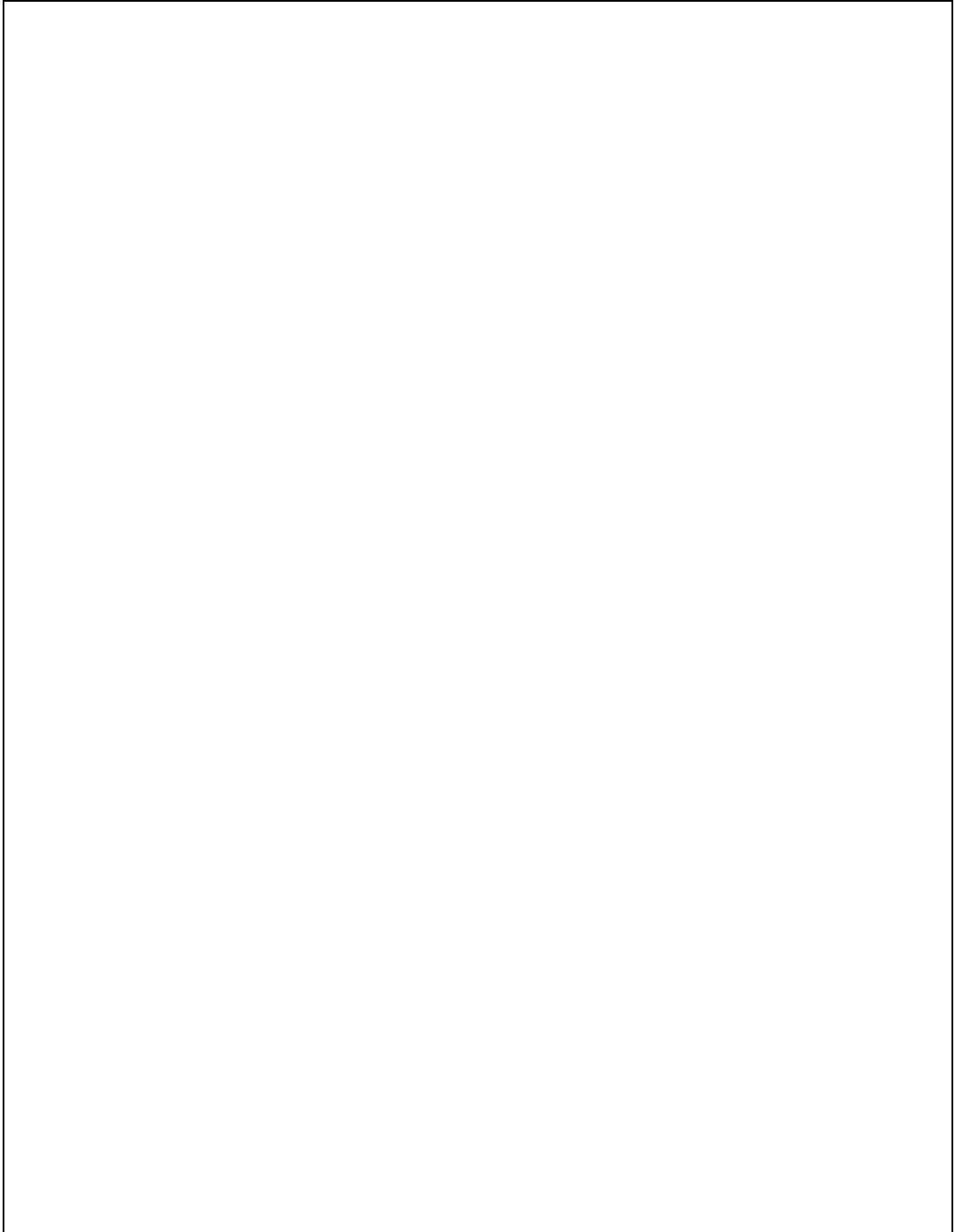
Practising dentists, OECD countries

Country	Year	Population	Practising dentists	Rate per 100,000 population
Greece	1994	10,426,000	10,865	104.2
Iceland	1994	267,000	273	102.2
Sweden	1995	8,788,000	8,879	101.0
Finland	1995	5,107,000	4,761	93.2
Norway	1995	4,332,000	3,645	84.1
Germany	1995	81,594,000	60,616	74.3
Belgium	1995	10,127,000	6,983	69.0
France	1994	57,900,000	39,499	68.2
Japan	1994	124,960,000	79,092	63.3
United States	1994	270,700,000	164,452	60.8
Italy	1992	56,757,000	31,195	55.0
Netherlands	1990	14,952,000	7,900	52.8
Canada	1992	28,436,000	14,897	52.4
Denmark	1995	5,223,000	2,712	51.9
Luxembourg	1993	396,000	203	51.3
Switzerland	1994	7,037,000	3,479	49.4
Austria	1995	8,045,000	3,687	45.8
Ireland	1996	3,554,000	1,568	44.1
Australia	1994	17,835,700	7,667	43.0
New Zealand	1995	3,561,000	1,346	37.8
United Kingdom	1995	58,079,000	21,806	37.5
Spain	1994	39,150,000	13,242	33.8
Portugal	1995	9,815,000	2,532	25.8
Turkey	1995	60,838,000	11,550	19.0
Total		887,879,700	502,831	56.6

Source: Organisation for Economic Cooperation and Development, unpublished table

APPENDIX 3

Questionnaire



APPENDIX 4

Estimated resident population, 30 June 1994

State/Territory	Capital city	Rest of State/Territory	Total
New South Wales	3,736,700	2,312,500	6,049,200
Victoria	3,196,700	1,278,800	4,475,500
Queensland	1,454,400	1,741,700	3,196,100
Western Australia	1,238,850	462,200	1,701,100
South Australia	1,076,100	393,200	1,469,400
Tasmania	194,200	278,300	472,500
Northern Territory	78,100	93,000	171,100
Australian Capital Territory	300,900	—	300,900
Total	11,275,950	6,559,750	17,835,700

Sources: Australian Bureau of Statistics, Catalogue Numbers 3201.0, 3210.1, 3207.2, 3201.3, 3204.5, 3204.4, 3204.6, 3201.7

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1. *Child Dental Health Survey, Australia 1989*
2. *Child Dental Health Survey, Australia 1990*
3. *Inventory of Dental Public Health Data Collections in Australia, 1980-1990*
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