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## INTRODUCTION

### **The annual dentist labour force survey**

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Each year, as part of the annual registration process for dentists in NSW, an Annual Labour Force Survey is sent to each dentist currently registered with the Dental Registration Board of New South Wales. This report provides an overview of information from the 2001 workforce survey.

The response rate to the survey was 86.2% in 2000, and 86.1% in 2001, showing a stable response rate overall. The continued support of the Dental Registration Board of New South Wales, professional organisations and dentists participating in the survey is appreciated.

#### **Availability of survey information**

The most recent summary of the Annual Survey data were produced in 2002, reporting on data collected in 2000. This profile reproduces the same data as for the previous year. Additional survey analysis data such as additional cross tabulations can be obtained by forwarding a written request to the contact address in the front of the publication. Contact should be made to clarify the information required and to determine if a fee may apply. A charging policy is available on request.

Strict procedures are followed to ensure the privacy of individual dentists who respond to the Survey. There is no access to identifying data, as individual names and addresses are not included by the Board on the data file. Survey information will not be made available in any format that enables the identification of individual respondents.

## Methodology

### Timing of the 2001 Survey

Information from the 2001 Annual Labour Force Survey relates to the 2001 registration renewal period. Renewal notices and surveys were forwarded in September 2001 to dentists registered with the Dental Registration Board of New South Wales at that time. The renewal fee was due by the early December in order for the dentist to be retained on the register, as non-financial dentists had their status altered on the data base by the end of December, 2001 and by Board consent in February, 2002. Survey respondents completed the survey with information about their usual working situation at that time. Information regarding the registration status of dentists was provided by the Board which related to the period from February 2001 to end January 2002.

### Labour force Survey coverage

Information from the Annual Labour Force Survey does not cover all registered dentists in NSW. Only those registrants renewing their registration are forwarded a survey form. This excludes:

- **New registrants:** New registrants include new local graduates, interstate graduates and overseas trained dentists registering for the first time with the NSW Board who have had their qualifications recognised in NSW. These persons will normally not receive the labour force survey, but some new registrants may receive the survey form if they also renew in the same financial year.
- **Restorations:** Restorations are persons who have been restored to the register after a period in which they were not financial. These persons will not normally receive the annual survey. Some dentists are restorations because of late payment of the renewal fee and may have returned a survey form.

Some dentists are restorations due to late payment, and they are removed from the register and then reinstated on receipt of the payment of the renewal fee. This group have been defined as **technical restorations**. These dentists have usually completed a survey form, and therefore if they have provided survey data they have been included in the data analysis for this profile. This is a variation from previous years, where the definition of respondents was those dentists **renewing** their registration or enrolment who completed or part completed a survey form.

For compatibility with other 2000 and 2001 profiles prepared for health workforce groups registered in NSW, the definition of response has been applied to those respondents who completed the question on workforce status. In addition, it has been identified that a number of dentists have not completed the question on workforce status, but have completed the majority of the remainder of the survey form including the provision of a New South Wales postcode for work location, as well as other data such as hours worked. It was therefore decided for data completeness, to include both of those categories in the definition of respondents, as a workforce status could be derived.

The adoption of these changes in the approach to survey coverage, and definition of respondents, means that the data will now be compatible with definitions of the workforce used by the Australian Institute of Health & Welfare in preparing national profiles. However, it also means that the raw data on workforce size may show variation from years previous to 2000. This is also discussed in the Section on "Response Rate to Workforce Survey".

### Figures have not been adjusted for non-response

Data in this publication have not been adjusted for unknown information (both survey non-response and registration data such as year of birth or sex). When interpreting the tables, consideration should be given to the impact of unknown data:

- The absence of data due to non-response results in an under-representation of the size of the labour force in individual tables.
- The labour force characteristics of non-respondents may differ from the characteristics of survey respondents (for example, respondents may be more likely than non-respondents to be in the labour force). Weighting the survey data according to non-response alone may result in an overestimation or under-estimation in some categories.
- The labour force characteristics of dentists who are not part of the survey target group (that is, new registrants and restorations) may differ from the characteristics of the survey population.

### Calculating total unknown data for the survey

In determining the total unknown data for a particular question, consideration should be given to:

- **Unknown data for the question or questions comprising the table**, as indicated at the foot of each table. This may also include information that is unknown due to registration data (eg, year of birth) being unavailable from the Board.
- **Non-response to any filtering questions**. Data on second and third practice location/job will be affected by the lack of the explicit question “Do you work from other location(s), and if so how many?” The number of persons with second and third practice locations/jobs can be estimated from the highest response to any one question (Tables 3.10, n=719 for second practice location, Table 3.7 n=185 for third practice location) and can be used to estimate unknown data in relevant questions.
- **Non-response to the survey**. Survey response rates are presented in Table 1.1.

It should be noted that limitations in the survey data prevent a distinction between non-response and alternatives such as “no”, “other” or “zero”. Information regarding this is noted at the foot of the relevant tables.

### Conventions used in this publication

Throughout this publication, figures within the tables may not add to the total shown where it has been necessary to round numbers. Percentages printed as 0.0 may denote less than 0.05%.

*Italics* are used to report unknown data.

- is used in place of zero (0).

**Bold** is used to indicate a total or subtotal.

— denotes not applicable.

n/a denotes data is not available.

### Category of Dentist Registration

In 2001, there were 4,057 dentists financially registered with the Dental Registration Board of NSW, an increase of 39 compared to the numbers registered in 2000. Of these, 975 (22.8%) were female and 3,080 (76.0%) were male, with two registrants with unknown sex. Table 1.1 provides an overview of the number of dentists in each category of registration.

**Table 1.1: Persons registered as Dentists in NSW, 2001**

Category of registration	No.		%		No.		%	
	Female		Male		Total			
New registrants	62	47.0%	70	53.0%	132	100.0%		
"True" restorations	2	15.4%	11	84.6%	13	100.0%		
"Technical" restorations	1	20.0%	4	80.0%	5	100.0%		
Renewals	911	23.3%	2,995	76.6%	3,906	99.9%		
Deletions	32	18.2%	144	81.8%	176	100.0%		

**Note:** 1 The table includes information on dentists who were financial with the Board during 2001. Some dentists are included in more than one category during the twelve month period.  
2 Two renewals had sex unknown, and therefore the total number of renewals was 3,908.

Care should be taken when interpreting this data as some individual dentists are included in more than one of the categories during the twelve month period.

## Response rate to Labour Force Annual Survey

The response rate to the 2001 Dentist Labour Force Annual Survey was 86.1 per cent, a similar level to the 1999 response rate of 86.2 per cent. The response rate over the three year period shows a very stable rate overall, despite the change in definition of renewals and inclusion of responses where work status can be derived for 2000 and 2001.

**Table 1.2: Response Rate to Dentist Annual Labour Force Survey, 1999, 2000 and 2001**

	No.		Rate		No.		Rate		No.		Rate	
	1999				2000				2001			
<b>Formal response rate</b>												
<i>Survey respondents</i> <sup>1</sup> who were <i>renewals</i> <sup>2</sup>	3,280		3,327		3,369							
<i>Total renewals</i> <sup>2</sup>	3,777	86.8%	3,860	86.2%	3,913	86.1%						

**Notes:** 1. A "survey respondent" is defined as a renewal or technical registration who provides information to the question on work status, or whose work status can be derived from other data. With these adjustments, there were 45 dentists who did not return a survey form, and 499 survey forms with work status question unanswered and no capacity to derive the work status from a NSW postcode for place of work.  
2. A renewal is defined to include a person who paid their registration fee on time, or who was a renewal but was late in paying the renewal fee, and was therefore taken off the roll and then restored (ie technical restoration). There were 5 technical restorations in the 2001 data set.

Determining the response rate to the survey is complicated by the relationship between the survey and the renewal process. While new registrants and restorations do not generally receive the survey, some may if they also receive a renewal notice within the twelve month survey period. Additionally, some persons sent renewal notices do not renew their registration and therefore do not return surveys.

All survey responses from financially registered dentists are presented in Tables 1.3 and 1.4. Tables 3.1 to 3.27 describe the working renewals cohort only.

## Work Status

**Table 1.3: Work status of Dentist Labourforce Survey respondents<sup>1</sup>, NSW, in 2001**

Work Status	No.	%	No.	%	No.	%	%	%
	Female		Male		Total		Excludes N/R <sup>2</sup>	Female
<b>Working in dentistry</b>								
Only in NSW	616	68.5%	2,022	68.1%	2,638	68.2%	78.3%	23.4%
Mainly in NSW, but also in other states	13	1.4%	49	1.7%	62	1.6%	1.8%	21.0%
Mainly in other states, but also in NSW	5	0.6%	48	1.6%	53	1.4%	1.6%	9.4%
Only in states other than NSW	22	2.4%	87	2.9%	109	2.8%	3.2%	20.2%
Overseas	50	5.6%	185	6.2%	235	6.1%	7.0%	21.3%
<b>Not Working in dentistry</b>								
Not working and not looking for work	56	6.2%	148	5.0%	204	5.3%	6.1%	27.5%
Currently not working, but looking for work	9	1.0%	14	0.5%	23	0.6%	0.7%	39.1%
Working, not in dentistry	11	1.2%	32	1.1%	43	1.1%	1.3%	25.6%
<b>Work Status Unknown</b>								
Non-response to survey	117	13.0%	382	12.9%	499	12.9%		23.4%
<b>Total</b>	<b>899</b>	<b>100.0%</b>	<b>2,967</b>	<b>100.0%</b>	<b>3,866</b>	<b>100.0%</b>	<b>100.0%</b>	<b>23.3%</b>

**Notes:**

1. There were 3,866 forms from dentists renewing their registration, of whom 499 did not reply to the question on working status, and did not provide a NSW postcode for place of work (see Note 1 to Table 1.2).  
There were two respondents with sex unknown. Therefore 3,367 dentists provided data on working status and sex.
2. Percentages are recalculated to determine the proportion of respondents by work status, excluding non-response to survey.

There were 2,700 working renewal survey respondents in 2001 (excluding two respondents with sex unknown). Working renewals are those respondents who:

- Were financially registered and renewed their registration in 2001 or were technical restorations as their renewal lapsed until they became financial again
- Returned a labour force survey indicating their work status or provided sufficient data for a status of working in NSW to be derived; and
- Indicated that their work status was one of the following two categories:
  - Working in dentistry only in NSW
  - Working in dentistry mainly in NSW, but also in other states (see Table 1.3)

## Dentists seeking work

Table 1.4: Seeking work in Dentistry in NSW, 2001

Nature of work sought	No.		%		No.		%	
	Female	Male	Total	Female	Male	Total	Female	
Looking for work in dentistry								
- either full time or part time	2	5	7	22.2%	33.3%	29.2%	28.6%	
- full time	1	3	4	11.1%	20.0%	16.7%	25.0%	
- part time	6	7	13	66.7%	46.7%	54.2%	46.2%	
<b>Total</b>	<b>9</b>	<b>15</b>	<b>24</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>37.5%</b>	
Non-response (but seeking work in dentistry):	2	0	2	18.2%	0.0%	7.7%		

**Note:** Table includes only those survey respondents in Table 1.3 who indicated that they were not currently working but looking for work, or currently working but not in dentistry AND who were looking for work in dentistry (n=26)

Table 1.4 shows that there were 26 respondents who were looking for work in dentistry, of the total of 66 survey respondents who were either currently not working and looking for work or currently working in other than dentistry.

## Estimating Workforce Size

The 1999 Profile of the Medical Workforce in NSW (NSW Health Department, 1999) estimated the size of the medical workforce in New South Wales, using the following approach:

- Assume the proportion of survey respondents working in NSW represents the proportion of all renewals working in NSW (80.1% for dentists in 2001)
- Assume 90% of new registrants are working in NSW
- Assume 80% of other registrants are working in NSW (excluding deletions)

When applied to the dentist data, this results in an estimated 3,138 working renewals, 119 working new registrants, and 10 working registrants in other categories, with a total estimated workforce size of 3,267 dentists. This approach assumes that the non respondents to the survey have the same work status profile as respondents.

## Estimating Full-Time Equivalent Workforce (FTE)

The numbers of hours worked by dentists on average per week for all jobs together (see Table 3.23) can be converted to full-time equivalents (FTEs) which becomes a measure of the productive workforce. This is shown in Table 3.15, where the total hours worked by dentists in each age and hours worked group are divided by 35 to calculate the FTE workforce. Thirty five hours is used as the measure of full time work based on labour force definitions developed by the Australian Bureau of Statistics. A ratio of FTEs to the total headcount workforce can then be calculated, to determine the relative productivity of the workforce.

Table 3.15 has not been adjusted to the estimated size of the workforce accounting for non response. The full-time equivalent dentist workforce is 2,972.9, which when divided by the number of dentists recording hours (n=2,534) results in an FTE ratio of 1.1732. Therefore dentists are on average 17.3% more productive than a 35 hour per week participant in the labour force. The FTE ratio of 1.1732 applied to the estimated workforce size of 3,267 headcount results in an estimated FTE workforce of 3,832.8 FTE dentists in the workforce in NSW in 2001.