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## Dental practice activity by geographic location



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**T**his research report provides information on the practice activity of dentists in Australia in relation to their geographic location. Data are presented on dentist age, type of practice, time worked per year, number of patient visits supplied, waiting time for an appointment, and perceived practice busyness by geographic location (classified as major city or regional/remote). This information is provided for dentists in private general practice from 2003–04.

### Summary

- The age distribution of dentists varied by geographic location. A higher percentage of dentists aged 30–39 years were at major city locations (27.0%) compared to regional/remote locations (14.8%).
- A lower percentage of dentists in solo practice with no other dentists were at major city locations (40.8%) compared to regional/remote locations (49.0%).
- Hours per year devoted to work were similar for dentists at major city locations (1,725 hours per year) compared to regional/remote locations (1,640 hours per year).
- The number of patient visits supplied was lower for dentists at major city locations (2,495 visits per year) compared to regional/remote locations (2,756 visits per year).
- Waiting time for an appointment for a dental visit was lower for dentists at major city locations (1.6 weeks) compared to regional/remote locations (3.9 weeks).
- A lower percentage of dentists at major city locations (17.0%) perceived themselves to be busier than they would prefer to be compared to dentists at regional/remote locations (33.7%).

### Data collection

Findings presented in this publication are based on data collected for the Longitudinal Study of Dentists' Practice Activity. This study is based on a random sample of dentists from the dental registers of each state and territory in Australia. Data have been collected at 5-year intervals between 1983–84 and 2003–04. At each wave of the study, a supplementary sample has been added – drawn at random from among those dentists who were newly registered since the previous wave of the study.

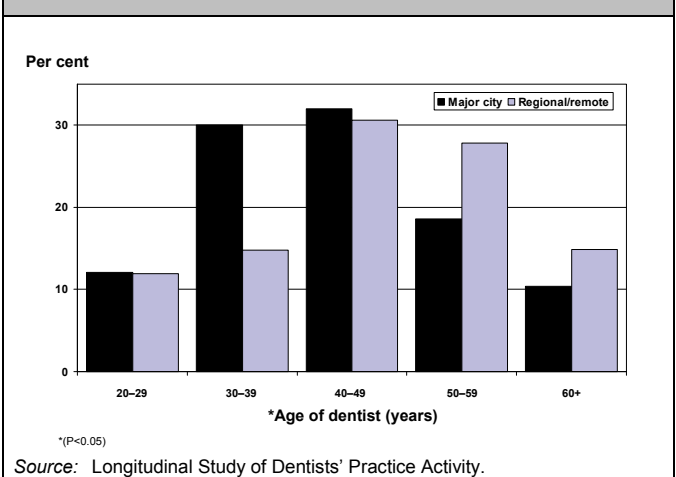
The findings presented are based on data that have been weighted using the age and sex distribution of dentists in Australia to produce representative estimates of the population of dentists, and are restricted to dentists in private general practice from 2003–04.

See the back of the report for details on response and unweighted age distribution by sex of dentist and time of study.

### Dentist characteristics

The age distribution of dentists by location is presented in Figure 1. The age distribution of dentists varied by geographic location.

**Figure 1: Age of dentist by geographic location**

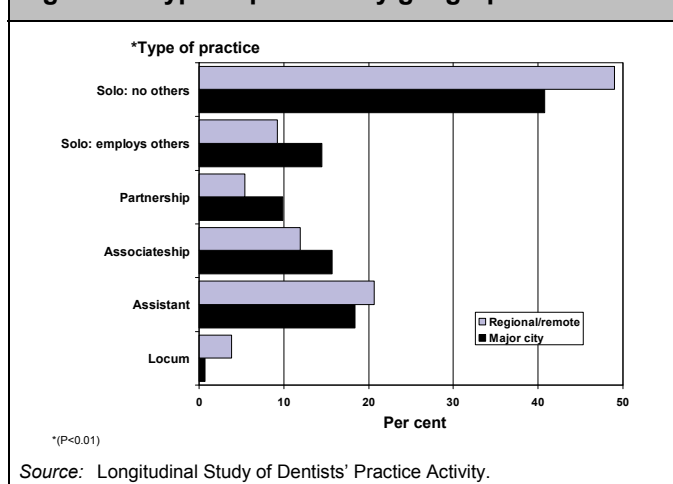


A higher percentage of dentists aged 30–39 years were at major city locations (27.0%) compared to regional/remote locations (14.8%). In contrast the percentage of dentists aged 50–59 years was lower at major city locations (18.6%) compared to regional/remote locations (27.8%).

### Type of practice

The distribution of type of practice varied by geographic location, as presented in Figure 2. The highest percentages of dentists were from solo practices with no other dentists at both major city (40.8%) and regional/remote (49.0%) locations.

**Figure 2: Type of practice by geographic location**



### Practice activity

Measures of practice activity are presented in Table 1 by geographic location. The amount of time devoted to work was similar by geographic location.

Location	Hours per year	Visits per year	Waiting time (weeks)
Major city	1,725	2,495	1.6
Regional/remote	1,640	2,756	3.9

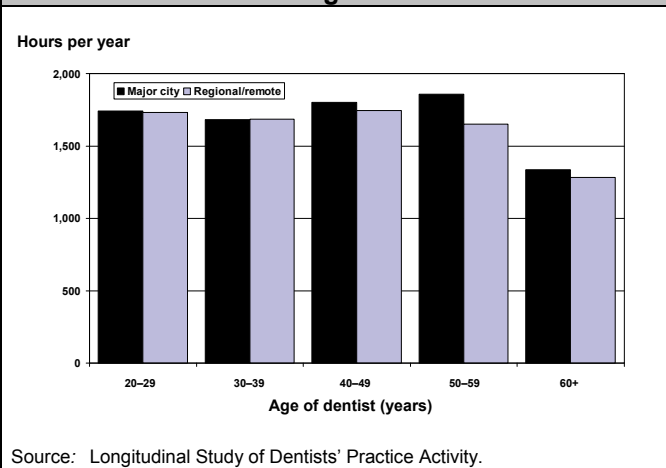
However, the number of patient visits supplied per year and the waiting time for an appointment for a dental visit were both lower for dentists at major city locations compared to dentists at regional/remote locations.

### Hours per year by age and location

The mean number of hours per year devoted to work is presented by age of dentist and

geographic location in Figure 3. Regardless of geographic location, the number of hours worked per year was similar across age groups of dentists aged between 20–29 years and 50–59 years, but lower among dentists aged 60 years or more. Within age groups of dentists, there was little variation in hours per year worked by geographic location.

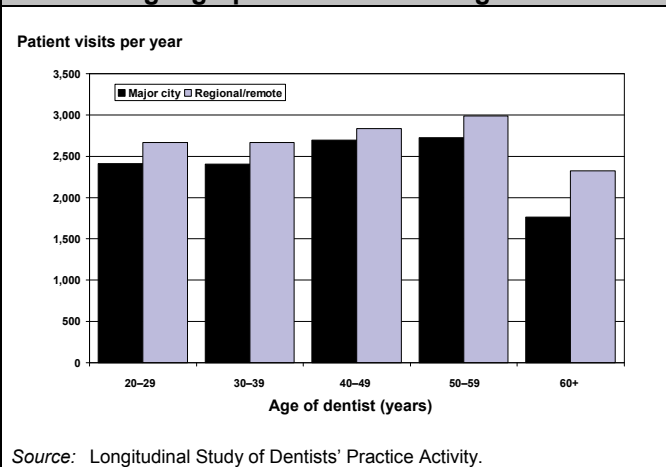
**Figure 3: Hours per year worked by geographic location and age of dentist**



### Visits per year by age and location

The mean number of patient visits per year supplied is presented by age of dentist and geographic location in Figure 4. There was a general trend for the number of patient visits supplied per year to increase across successively older age groups up to those aged 50–59 years, with lower number numbers of patient visits supplied by dentists aged 60 years or more.

**Figure 4: Patient visits supplied per year by geographic location and age of dentist**

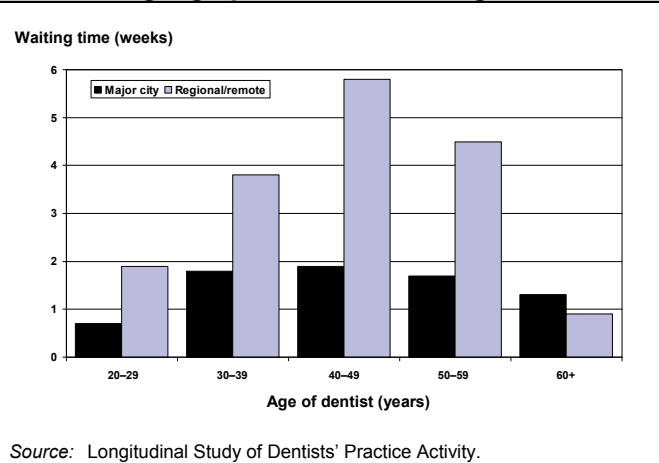


In all age groups there was a trend for lower numbers of patient visits per year supplied by dentists at major city locations compared to regional/remote locations.

## Waiting time for an appointment

The average waiting time for an appointment for a dental visit is presented by age of dentist and geographic location in Figure 5. In general, waiting times were lower for younger and older dentists, aged 20–29 years and 60 years or more respectively, compared to dentists aged between 30–39 and 50–59 years. Waiting times for an appointment were lower for dentists at major city locations compared to regional/remote locations for age groups below 60 years of age.

**Figure 5: Waiting time for an appointment by geographic location and age of dentist**



## Perceived practice busyness

The level of perceived practice busyness is presented in Table 2 by geographic location. At both major city (61.4%) and regional/remote locations (63.1%) the majority of dentists perceived themselves to be as busy as they would prefer.

**Table 2: Perceived practice busyness (per cent) by geographic location**

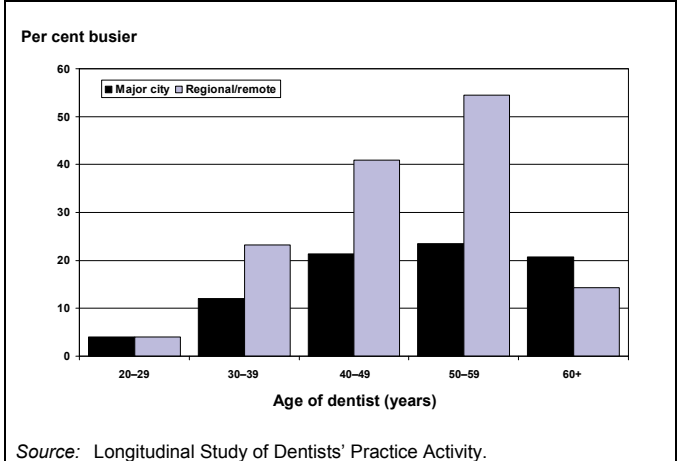
	As busy	Less busy	Busier
<b>Location</b>			
Major city	61.4	21.6	17.0
Regional/remote	63.1	3.2	33.7

However, a lower percentage of dentists at major city locations (17.0%) perceived themselves to be busier than they would prefer compared to dentists at regional/remote locations (33.7%).

## Busyness by age and location

The percentage of dentists who reported a perception of being busier than they would prefer is presented by age of dentist and geographic location in Figure 6. There was a general trend for perceived practice busyness to increase across successively older age groups of dentists up to those aged 50–59 years before declining among those aged 60 years or more.

**Figure 6: Perceived practice busyness by geographic location and age of dentist**



While there was negligible difference in the percentage of dentists who reported being busier than they would prefer among those aged 20–29 years, there were differences observed among older age groups of dentists. For dentists aged between 20–29 years and 50–59 years, there were lower percentages reporting being busier at major city locations compared to regional/remote locations. This pattern was reversed among those aged 60 years or more.

## Discussion

The findings presented in this report can be interpreted in the context of previous reports of the dental labour force by geographic location.

Differences in provision of dental services have been observed by geographic location (Brennan & Spencer 2007), with dentist workloads outside of major city locations marked by higher rates of tooth extraction and lower rates of preventive services.

Availability of dentists varies by location, ranging from 57.6 dentists per 100,000 at major city locations to 18.1 per 100,000 at remote locations (Teusner et al. 2007).

## Response

Table 3 shows the sample and response statistics across the five waves of the study. At each time over 1,000 dentists were sampled, with response numbers varying from 730 dentists in 1983–84 to 962 dentists in 2003–04.

Response rates to the study were in excess of 70% at each wave, varying between 71.2% in 1998–99 and 76.0% in 2003–04.

	Sampled	Responded	% Response
Time of study	n	n	%
1983–84	1,033	730	73.4
1988–89	1,166	855	75.5
1993–94	1,212	817	73.9
1998–99	1,416	943	71.2
2003–04	1,567	962	76.0

## Age distribution by sex

Table 4 shows the age distribution by sex of dentist at the 2003–04 wave of the study. The highest percentage of male dentists was in the 40–49 years age group (35.7%), and the highest percentages of female dentists were in the 30–39 years (31.6%) and 40–49 years (34.1%) age groups.

	Male	Female
2003–04	Per cent	Per cent
20–29	10.0	21.1
30–39	22.0	31.6
40–49	35.7	34.1
50–59	22.7	11.9
60+	9.6	1.4

There was a higher percentage of female dentists in the 20–29 years age group (21.1%) compared to male dentists (10.0%). However, there were higher percentages of male dentists in the 40–49 years (22.7%) and 60+ years (9.6%) age groups compared to female dentists (11.9% and 1.4% respectively).

## Location characteristics

For this research report dentists were classified as practising at either a major city or regional/remote location based on the postcode of their main practice using the ASGC index of remoteness (ABS 2001).

The majority of dentists were from major city locations (79.9%), with just 20.1% from regional/remote locations.

The sex distribution was similar by geographic location. The majority of dentists were male for both major city locations (77.4%) and for regional/remote locations (75.4%).

## References

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*The AIHW Dental Statistics and Research Unit (DSRU) is a collaborating unit of the Australian Institute of Health and Welfare established in 1988 at The University of Adelaide, located in the Australian Research Centre for Population Oral Health (ARCPOH), School of Dentistry, The University of Adelaide. DSRU aims to improve the oral health of Australians through the collection, analysis and reporting of information on oral health and access to dental care, the practice of dentistry and the dental labour force in Australia.*

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