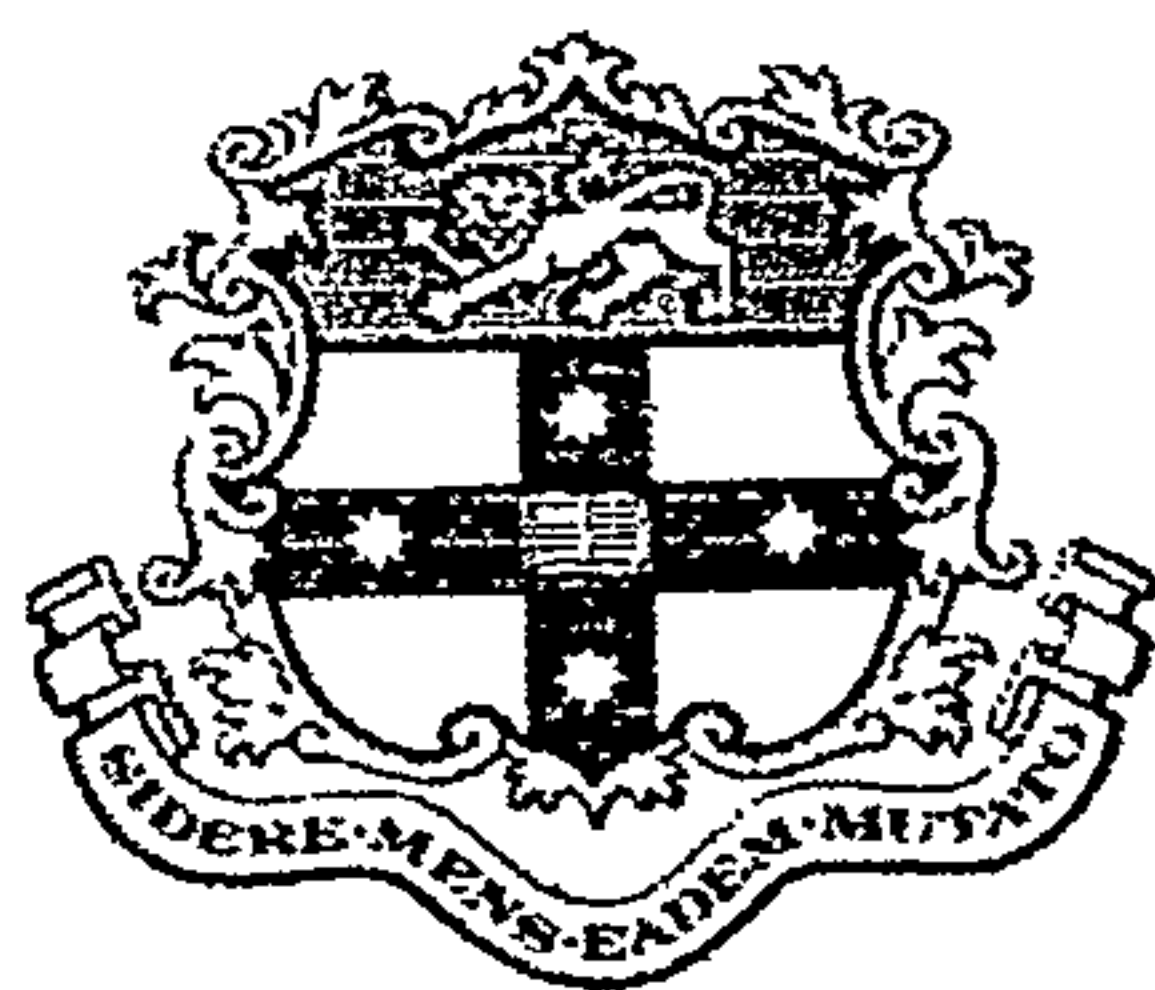


**The Changing Profile and Characteristics
of
Undergraduate Dental Students
at the
University of Sydney : 1992 - 1996.**



A handwritten signature in black ink, appearing to be 'Dr Suresh Kanji Patel'.

Dr Suresh Kanji Patel B.D.S. (Otago)

A thesis submitted in partial requirement for the degree of

MASTER OF DENTAL SCIENCE

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SUMMARY

The present study aims to derive some information by a survey questionnaire on the changing profile, social characteristics and background information of 251 undergraduate dental students from 1992 to 1996 at the Faculty of Dentistry, University of Sydney in 1996. An 81.0 percent response rate was obtained and thus the sample was considered to be representative of this total group.

The mean age of dental students was 21. 4 years. The male to female ratio was 55. 5 to 44. 5 percent. There is a very diverse ethnic mix of the dental students with 70. 4 percent of dental students being born overseas. Australian - born dental students only comprised of 29. 6 percent. 91. 0 percent of the dental students were Australian citizens with 1. 6 percent being International students. English is regarded as the first language for only 41. 4 percent of the dental students. 46. 4 percent of the dental students indicated their decision to enter dentistry was made late in high school. 84. 3 percent of dental students had come directly from high school. with 96. 4 percent of coming from the New South Wales State. 80. 0 percent of dental students attended high school in an Australian Government metropolitan area. 75. 2 percent of the dental students are living in their parents home.

Australian - born parents comprised only 10. 5 percent of the sample. The proportion of Asian - born parents was 69. 3 percent. Professional occupations were highly represented for parents (32. 1 percent). Parents were well educated with 52. 4 percent having an University degree.

51. 0 percent of dental students indicated that their first preference for field of study was dentistry. Dental students were mostly influenced in their choice of a dental career by their parents (83. 3 percent). The most predominant motives for choosing dentistry as a career was the desire to work independently (70 .0 percent).

43. 5 percent of dental students were in favour of an " Intern Year. " After graduation 59. 6 percent of dental students intend to enter the private sector, 76. 9 percent preferred to practice within the New South Wales State and 48. 8 percent declared they could anticipate an earning within the range of \$ 0 - 55, 000. 35. 1 percent of the dental students intended to specialise.

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These bonds and friendships will last forever in our hearts.

Finally I would like to thank my wonderful wife, Vilas for her patience and guidance in the last three years of my life and to my children, Alishea and my unborn child.

Dedicated To

My beloved Wife,

Vilas

To whom I love so dearly and who will always be in my heart

My lovely children,

Alishea and the New baby

and

To My Father and Mother,

Kanji Morar and Laxmi Morar Patel

Who had faith in me and supported me

through the good times and the hard times.

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LIST OF ABBREVIATIONS

ABS - Australian bureau of statistics

APR - Australian permanent residence

IS - International student

N - Number

% - Percent

() - Year group eg 1992 (5) refers to the fifth year group who entered the Faculty of Dentistry in 1992.

CHAPTER 1.0. INTRODUCTION

1.1. Background

Research on students choosing dentistry in Australia as a career extends back to the early 1960s. Most comparisons made over time with different Universities, same Universities and different years and comparisons over time have shown results to be consistent. The selection of student applicants for dental school quota positions has received considerable attention in the dental literature on dental education throughout the world.

The issue of selecting students for dental schools is of absolute importance and should be viewed with some concern as this has implications for the size and composition of the dental workforce in the future.

Weinstein P et al, in 1993 reported that of all the health professions, dentistry requires the highest standard of practical skill. Being a narrow and restricted field, dentistry offers few opportunities for the non - practical person and thus requires special skills.

The qualities, knowledge and skills of a dentist are influenced by many factors. Some of these factors are affective before the dental student commences the undergraduate course and other factors are affective during the course. Latter factors relate to the curriculum and influences both personally and academically, which lecturers and experiences have on students during the course.

Robinson G, in 1975 reported that dental education has been heavily influenced in recent years by the work of learning theorist and behavioural scientists who have advocated an academic technology based upon the establishment of behavioural objectives, presentation of information to students and objective measurement of student's performance.

The appropriate number of dental students and dental schools a country requires to maintain a profession of optimum size has in recent years been a matter of considerable concern in many developed countries. In the 1950's and 1960's there was marked growth in the training facilities for dentist in many countries.

Goodman and Weyant, 1990, Simonsen in 1994 and others have reported that in some countries in the 1970s, an over - estimation of future needs of the dental workforce had occurred. Which resulted in an increase in the recruitment of dental students in the 1980s to be followed by in the last decades reduced intake of dental students and closures of schools.

In New Zealand, a demonstrated need for an upgrading of the Faculty of Dentistry resulted in a new building for the School of Dentistry, occupied since 1961. The provision for increased number of graduates at that time was only modest. The mean number of graduates per year from 1962 to 1984 inclusive was 49. 3. Pressures for an additional clinical school in Auckland were resisted.

In Australia, the intake quota of first year dental students to Australian dental schools has declined in the last two decades and is forecast to continue to decline into the near future. The clear trend internationally is towards a declining output of new graduates in keeping with the reduction in overall demand for dental services.

The aims of this thesis are :

- 1.0. To determine some insight into the social characteristics of dental students at the University of Sydney, from 1992 to 1996.
- 2.0. To obtain some extensive background information of dental students of the University of Sydney, from 1992 to 1996.

- 3.0. To examine possible changes in the future composition of the undergraduate population of dental students.
- 4.0. To compare the social profile of undergraduate dental students to previous studies in Australia in 1994, 1976 - 85, and in New Zealand in 1992.
- 5.0. To determine some insight into dental students predisposition after graduation in areas of career opportunities.
- 6.0. To obtain some insight why dental students at the University of Sydney choose dentistry as a career option.
- 7.0. To determine some insight into the profile of the dental workforce in the New South Wales State upon graduation of dental students from the Faculty of Dentistry, University of Sydney.

The author surveyed dental students in August 1996 who entered the dental school in 1992, 1993, 1994, 1995 and 1996.

Chapter 2 gives an account of the methodology adopted to achieve the results.

Chapter 3 outlines the survey findings.

Chapter 4 makes comparisons with previous surveys performed.

In the final chapter various aspect of the thesis are discussed before conclusions are made.

Data relating to dental students in years 1, 2, 3, 4 and 5 are with held by the author at the Discipline of Public Health Dentistry. The analysis of data comparing individual year groups were not included in this thesis but will be published at a later date.

CHAPTER 2.0. METHODOLOGY

2.1. Theoretical framework

A self - administered survey questionnaire was distributed and completed in August 1996 by undergraduate dental students in their first, second, third, fourth and fifth years at the Faculty of Dentistry, University of Sydney. The survey questionnaire was four pages which consisted a total of 21 questions, with the provision for the dental students to circle, tick or respond with textural information.

The survey questionnaire was divided into three sections.

The first section sought background information on age, gender, country of birth, country of citizenship, length of time in Australia, language proficiency, last secondary school attended, parental background (country of birth, present or last paid occupation and highest educational level obtained) and main residence while at University.

The second section sought information on the dental students' choice of dentistry as a career ; preferences for University studies, when the decision was made to choose dentistry as a career, when the dental students commenced the course. Within this section a Likert - type scale where responses ranged from 1 to 5 from least influence to greatest influence was used for two questions.

The third section of the survey questionnaire sought information on the dental students' aspirations after graduation ; whether they would support an intern year, which dental sector would the dental students enter after graduation and in which location, anticipated nett income and whether the dental students intend to specialise or not and if yes, in which field.

2.2. The samples

The sample comprised of dental students in their first, second, third, fourth and fifth years at the Faculty of Dentistry, University of Sydney in 1996. The sample comprised of 251 dental students ; first year, 59 dental students ; second year, 55 dental students ; third year, 40 dental students ; fourth year, 53 dental students ; fifth year, 44 dental students.

2.3. Administration

This study was administered by the Discipline of Public Health Dentistry at the University of Sydney in August 1996 with assistance from the Faculty of Dentistry.

2.3.1. Dental student survey questionnaire pre - test

The dental student survey questionnaire went through two pre - tests prior to data collection with Postgraduate students within the discipline and with several meetings with Associate Professor PD Barnard. These pre - tests resulted in a few changes, principally for clarification ; a few questions were deleted and a few new questions were asked as information was requested.

2.3.2. Staff training

The size and duration of the project and the distribution of the sample required the use of 2 teams. In order to ensure accuracy of data collection and analysis a thorough and detailed field team training session was implemented. These seminars were conducted at the Discipline of Public Health Dentistry.

2.3.3. Field design elements

The consent of the Dean of the Dental school, Head of the school for Dental studies and other appropriate bodies was sought before the dental students were approached. Initial approval for the survey was obtained from various sources.

A covering letter and the survey questionnaire (Appendix 1 and 2) describing the survey and asking for participation was delivered in August, 1996 to the appropriate bodies and representatives of each year a week before the survey was being conducted. This pre - contact letter and survey questionnaire was an important step in securing participation of all the staff and dental students.

Initial contact and data collection with dental students in the first, second, third and fourth year occurred within the lecture theatre, ten minutes prior to the conclusion of their lecture occurred in September, 1996. Fifth year dental students initial contact and data collection occurred during their clinical sessions. The contact times were scheduled when the author was able to conduct the survey for data collection and when the times were appropriate for the dental students and staff members involved.

Participation in the survey was completely voluntary and anonymous by dental students at the Faculty of Dentistry at the University of Sydney. A self - administered survey questionnaire was distributed by the author and completed by dental students in their first, second, third, fourth and fifth years.

The questionnaire was then collected and analysed in September 1996 by the author and the other member of the team. Edit checks were necessary on the questionnaires so obvious errors or omissions could be rectified.

2.4. Data analysis

2.4.1. Coding

The survey questionnaire required full coding. For questions that were related to occupation, country of birth and languages the author adopted the Australian Bureau of Statistics 1991, Census Directory of Classification. All other questions were coded independently by the author (Appendix 4).

2.4.2. Data entry

Data entry for the survey questionnaire were carried out at the Discipline of Public Health Dentistry, University of Sydney using a computer program developed for this purpose. Initial data was loaded onto the Microsoft Office Excel spreadsheet and then analysed with the SPSS statistical program with assistance from Poppy Sindhusake.

2.4.3. Weighting

To derive unbiased estimates of dental student parameters, sampling weights were introduced to a few questions, which differentially weighted the sample data to reflect the level of disproportionality in the sample relative to the population.

Also, questions that related to influences in choosing dentistry as a career and reasons for choosing dentistry as a career the author introduced a pooling technique. This was achieved by tallying the 4 and 5 responses on the likert scale for the greatest influence and tallying 1, 2 and 3 for the least influence.

For purposes of comparison of some data in this thesis, father and mother data were tallied and then the mean was obtained and compared. The 1st year after graduation to the 2nd - 5th year after graduation were tallied to give us the early years in practice.

2.4.4. Analysis

Cleaning and basic analysis of the returned survey questionnaires was undertaken by the author at the Discipline of Public Health Dentistry, University of Sydney. Data was summarised by and tests for their significance were carried out using the Chi - square and Student's *t* tests to test the validity ($p < 0.05$) of apparent differences of the distributions, means and percentages that were derived.

2.5. Sample response (Table 1, Figure 1)

The selection process identified 309 dental students at the University of Sydney. Questionnaires were completed by 251 dental students. The response rate for the completion of the survey questionnaire was 81.0 percent.

The response rate varied for each year.

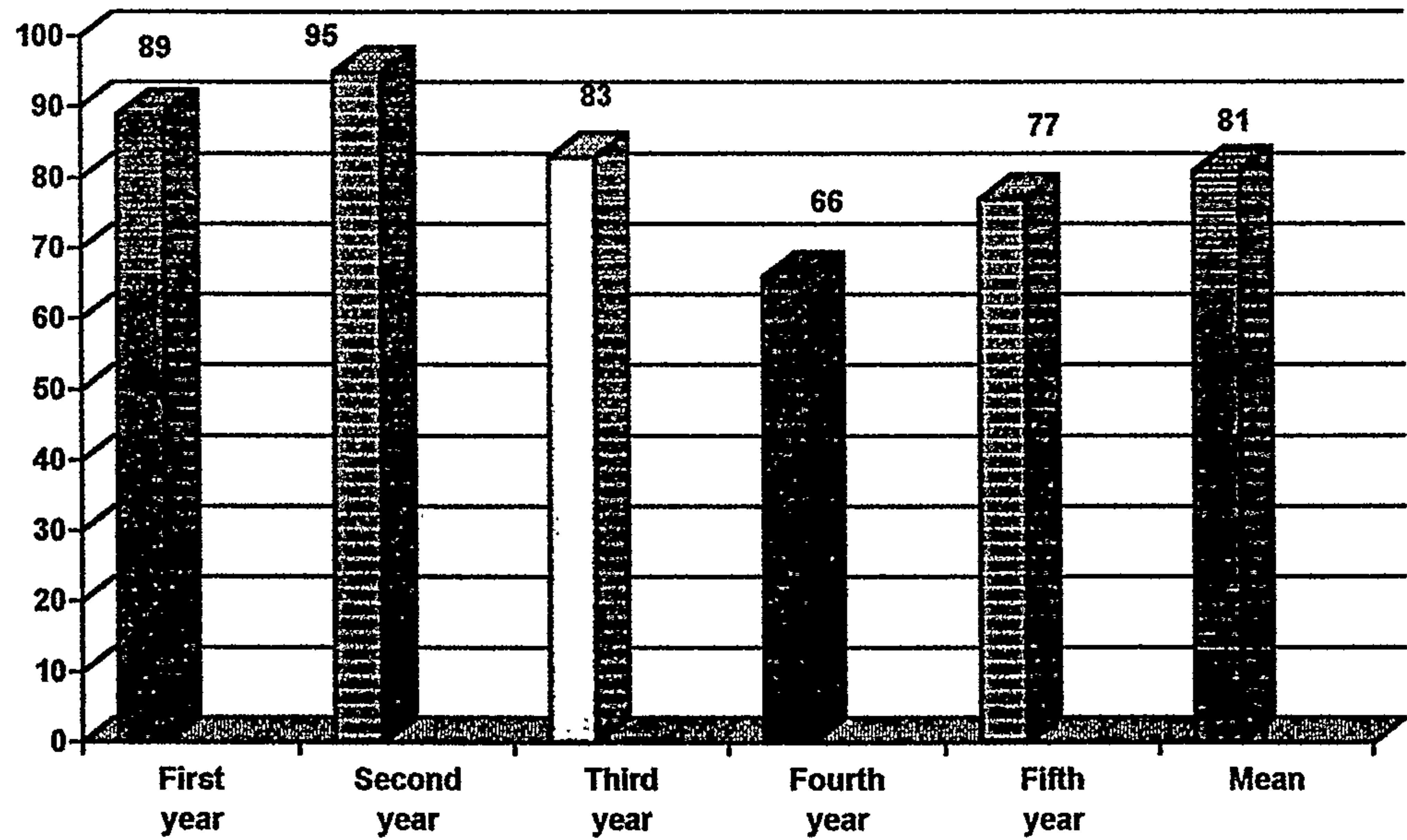
89.0 percent response rate for first year dental students (59 from 66 students) ; 95.0 percent response rate for second year dental students (55 from 58 students) ; 83.0 percent response rate for third year dental students (40 from 48 students) ; 66.0 percent response rate for the fourth year dental students (53 from 80 students) and 77.0 percent response rate from the fifth year dental students (44 from 57 students).

Possible reason for non completion of the questionnaire were no contact with the dental student's ie. absent at the time the questionnaire was administered, dental student refusal to complete and, or other.

Table 1 **Sample response of the survey questionnaire from undergraduate dental students at the University of Sydney, 1996.**

Year	Number	Roll	Percent
1992 (5)	44	57	77. 0
1993 (4)	53	80	66. 0
1994 (3)	40	48	83. 0
1995 (2)	55	58	95. 0
1996 (1)	59	66	89. 0
TOTAL	251	309	81. 0

Figure 1 **Percent response rate of the survey questionnaire from undergraduate dental students at the University of Sydney, 1996.**



CHAPTER 3.0. SURVEY FINDINGS

3.1. Background Information

3.1.1. Sample (Table 1, 2, Figure 1, Appendix 5)

The total sample return from 251 dental students represented 81. 0 percent of all first year dental students who entered the dental faculty from 1992 to 1996. The number of dental students responding each year varied.

The response rate for first year dental students in 1996 was 89. 0 percent, which represented 59 dental students from a total sample of 66 students.

The response rate for second year dental students in 1996 was 95. 0 percent, which represented 55 dental students from a total sample of 58 students.

The response rate for third year dental students in 1996 was 83. 0 percent, which represented 40 dental students from a total sample of 48 students.

The response rate for fourth year dental students in 1996 was 66. 0 percent, which represented 53 dental students from a total sample of 80 students.

The response rate for fifth year dental students in 1996 was 77. 0 percent, which represented 44 dental students from a total sample of 57 students.

3.1.2. Age (Table 2, 3, 4 Figure 2, Appendix 6)

Dental students were asked to supply their age at their last birthday. The most common age of dental students at the end of their last birthday was 21. 4 years. 79. 9 percent of all dental students were aged 20 years and over.

The mean age of dental students in the first year was 19. 1 years. The mean age of dental students in the second year was 21. 1 years. The mean age of dental students in the third year was 21. 2 years. The mean age of dental students in the fourth year was 24. 1 years. The mean age of dental students in the fifth year was 24. 1 years.

The most common age of male dental students at the end of their last birthday was 22 years. The mean age of male dental students in the first year was 20 years. The mean age of male dental students in the second year was 21 years. The mean age of male dental students in the third year was 22 years. The mean age of male dental students in the fourth year was 23 years. The mean age of male dental students in the fifth year was 25 years.

The most common age of female dental students at the end of their last birthday was 21 years. The mean age of female dental students in the first year was 19 years. The mean age of female dental students in the second year was 21 years. The mean age of female dental students in the third year was 21 years. The mean age of female dental students in the fourth year was 22 years. The mean age of female dental students in the fifth year was 24 years.

Analysis by the “ t ” test indicted that there were no statistical significant differences between male and female ages ($P < 0. 05$).

Table 2 Sample number and mean age - by gender and year of undergraduate dental students at the University of Sydney, 1996.

Year	Mean	Standard Deviation	Median
1992 (5)	24. 1	3. 24	23
1993 (4)	22. 3	2. 51	22
1994 (3)	21. 2	1. 76	21
1995 (2)	21. 1	2. 82	20
1996 (1)	19. 1	2. 16	18

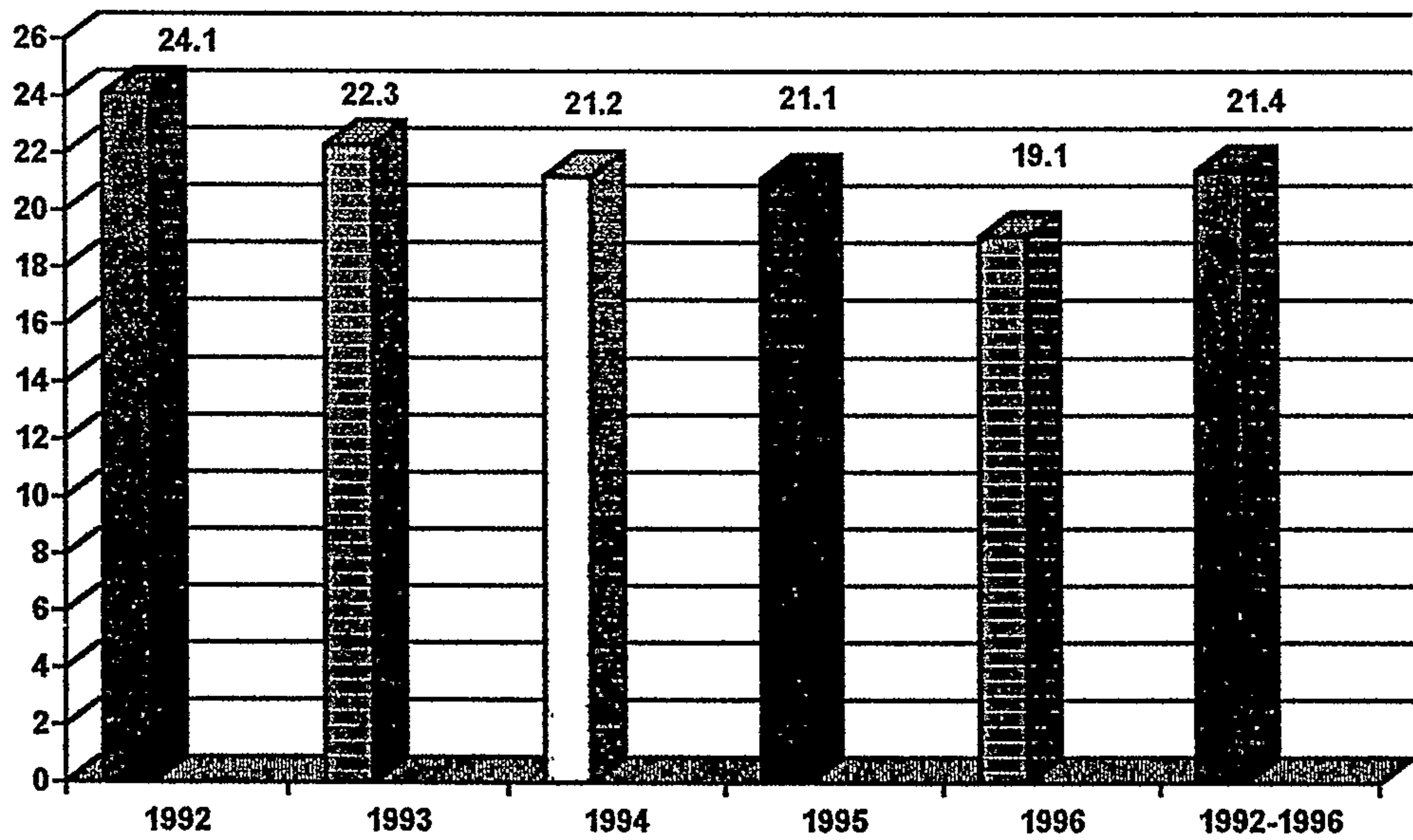
Table 3 Age - by gender of undergraduate dental students at the University of Sydney, 1996.

Gender	Mean	Standard Deviation	Median
Males	22	0. 39	21
Females	21	0. 43	21

**Table 4 Age - by year of undergraduate dental students at the
University of Sydney, 1996.**

Year	Mean	Standard Deviation	Median
1992 (5)	24. 1	3. 24	23
1993 (4)	22. 3	2. 51	22
1994 (3)	21. 2	1. 76	21
1995 (2)	21. 1	2. 82	20
1996 (1)	19. 1	2. 16	18

**Figure 2 Mean age - by year of undergraduate dental students at the
Faculty of Dentistry, University of Sydney, 1996.**



3.1.3. Gender (Table 5, Figure 3, 4, Appendix 7)

Of the total 251 dental students surveyed, 55. 8 percent were males and 44. 2 percent were females. Figure 3, shows a steady increase in female dental students enrolment since 1992 (50. 0 percent in 1992 to 52. 2 percent in 1996).

Figure 4, shows the gender distribution of all dental students at the Faculty of Dentistry in 1996.

Table 5 Gender distribution of undergraduate dental students at the University of Sydney, 1996.

Gender	1992 (5)		1993 (4)		1994 (3)		1995 (2)		1996 (1)		Total	
	N	%	N	%	N	%	N	%	N	%	N	%
Male	22	50	36	67.9	19	47.5	35	63.6	28	47.5	140	55.8
Female	22	50	17	32.1	21	52.5	20	36.4	31	52.5	111	44.2
Total	44	100	53	100	40	100	58	100	59	100	251	100

Figure 3 Gender distribution (percent) of all undergraduate dental students at the University of Sydney, 1996.

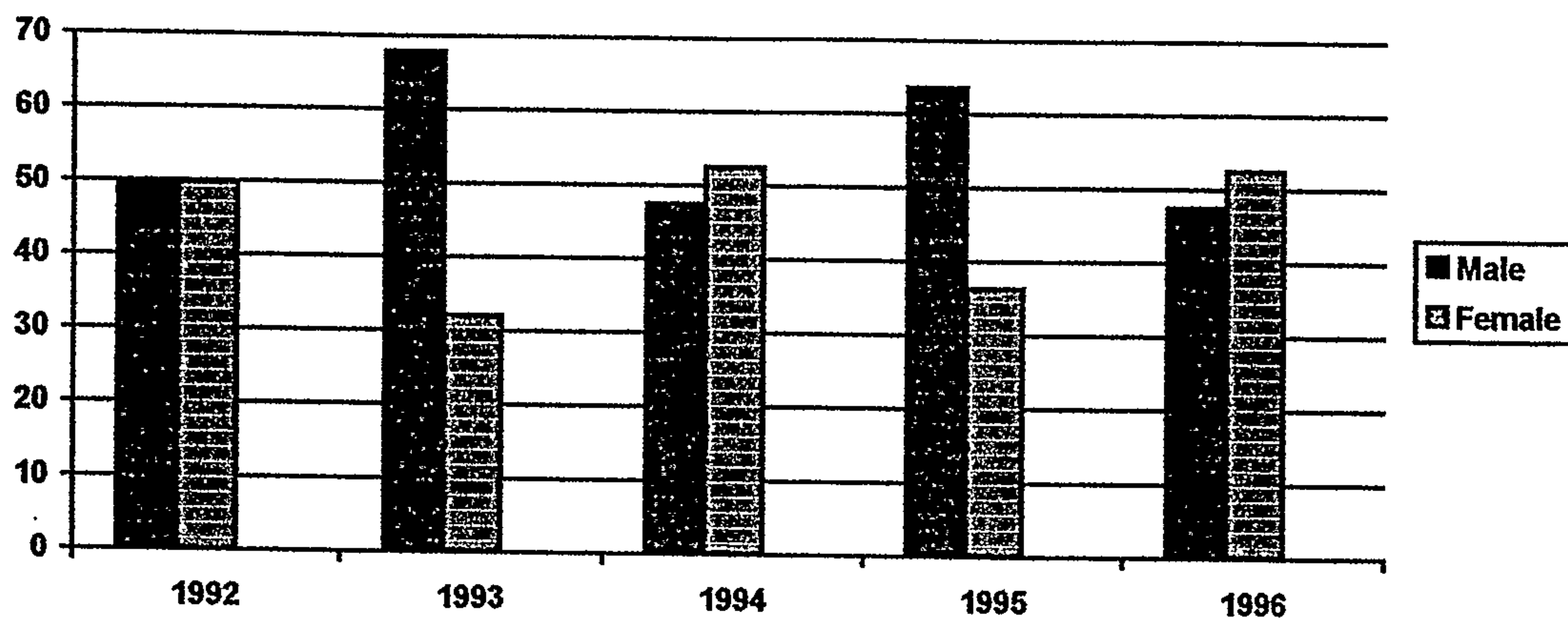
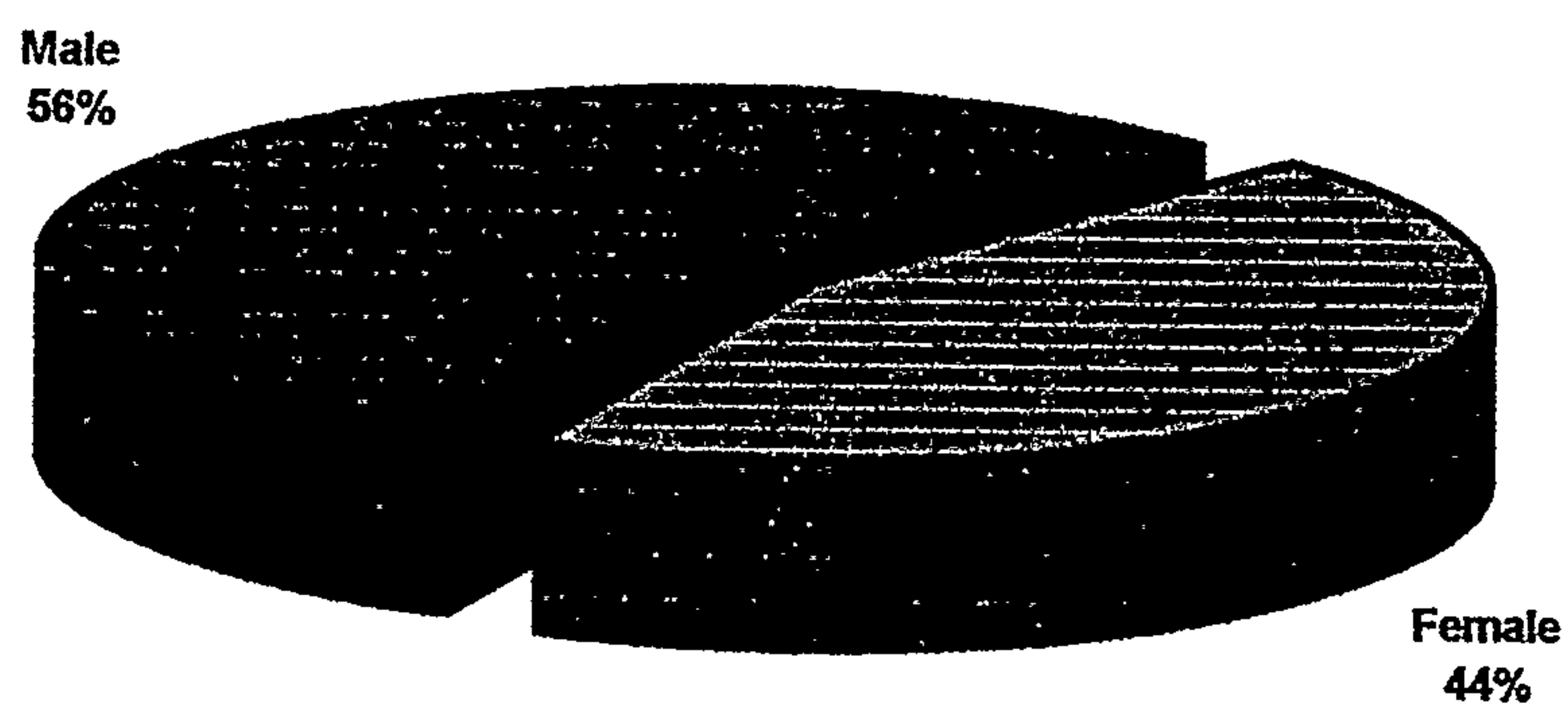


Figure 4 Gender distribution (percent) for all undergraduate dental students at the University of Sydney, 1996.



3.1.4. Ethnic background composition

3.1.4.1. Country of birth (Table 6, Figure 5, Appendix 8)

Dental students were asked to state their country of birth. Australian - born dental students comprised of 29. 6 percent of the total. Asian - born dental students comprised of 59. 8 percent of which, 18. 8 percent originated in Vietnam and 12. 8 percent originated in Hong Kong.

The fact that many of the Australian - born dental students are first generation from non - English speaking ethnic groups can be seen in the table 11 and figure 10.

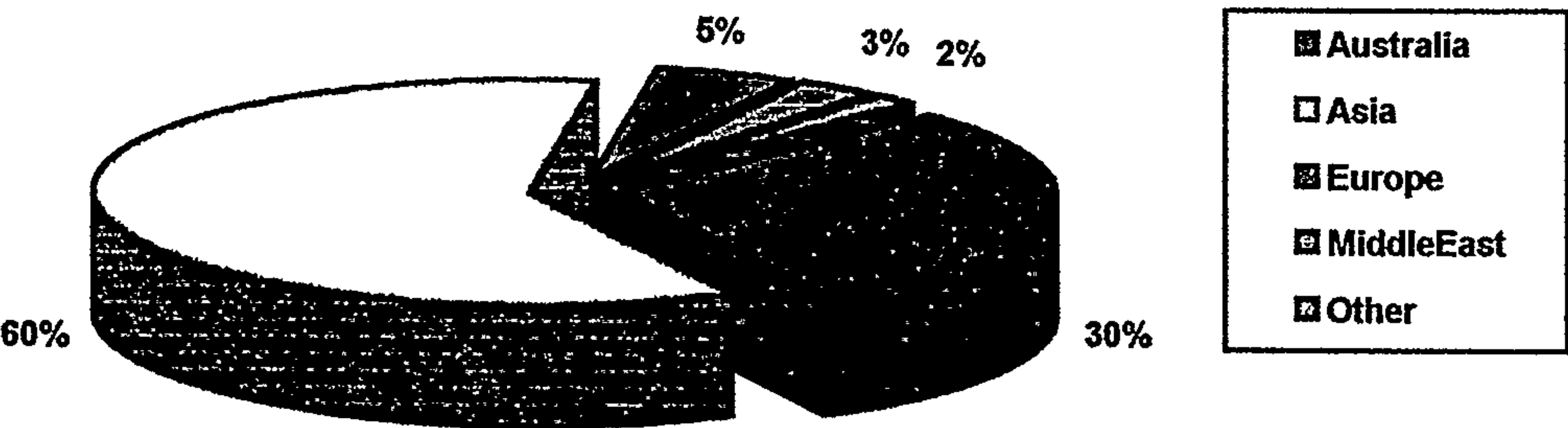
Australian - born parents comprise only 10. 5 percent of the total and 73. 6 percent of parents were born in Asia, of which Vietnamese - born parents comprise 21. 5 percent, Hong Kong - born parents comprise 13. 2 percent and Korean - born parents comprise 9. 9 percent of the total.

**Table 6 Country of birth of undergraduate dental students at the
University of Sydney, 1996.**

Country of birth	1992 - 1996	
	N=	Percent
Australia	74	29. 6
* Asia	148	59. 8
Europe	12	5. 2
MiddleEast	8	3. 2
**Other	7	1. 6

(* Asia ; SouthEast Asia, NorthEast Asia, Southern Asia)
(** Other ; Oceania, Northern, Southern and Eastern Africa, Northern and Southern America)

**Figure 5 Country of birth for undergraduate dental students at the
University of Sydney, 1996.**



3.1.4.2. Asian ethnicity (Table 7, Figure 6, Appendix 8)

Asian - born dental students comprised of 59. 8 percent of which, 18. 8 percent originated in Vietnam and 12. 8 percent originated in Hong Kong. 7. 6 percent of dental students originated in Korea and 3. 2 percent of dental students originated in China.

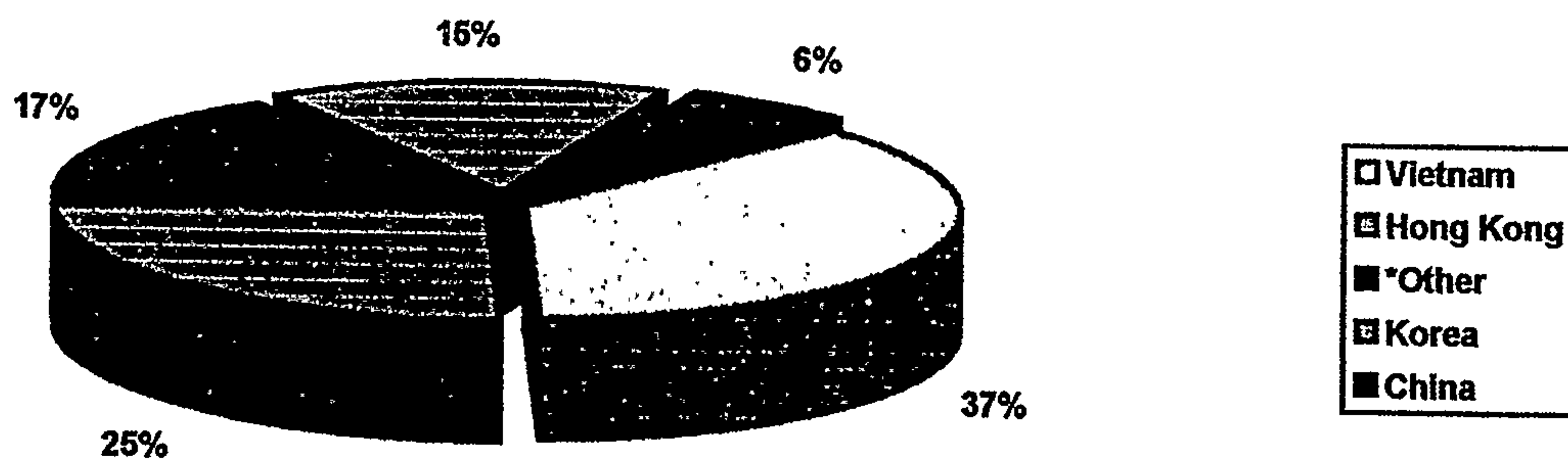
There were 8. 4 percent of dental students who originated from “ other ” countries which includes Burma, Cambodia, Taiwan, Laos, Macau, Malaysia, Nepal, Indonesia, Thailand, Singapore and Philippines.

Table 7 **Country of birth of Asian undergraduate dental students at the University of Sydney, 1996.**

Asian Ethnicity	1992 - 1996	
	N=	Percent
Vietnam	47	18. 8
Hong Kong	32	12. 8
*Other	21	8. 4
Korea	19	7. 6
China	8	3. 2
Total	(N= 148)	59. 8

(* Other ; Burma, Cambodia, Taiwan, Laos, Macau, Malaysia, Nepal, Indonesia, Thailand, Singapore, Philippines)

Figure 6 **Country of birth (percent)of Asian undergraduate dental students at the University of Sydney, 1996.**



3.1.4.3. Country of citizenship (Table 8, Figure 7, 8 Appendix 10)

Dental students were asked to state their country of citizenship and whether they considered themselves to be an Australian permanent resident or an International student and years of residences in Australia.

91.0 percent of all the dental students were Australian citizens. 13. 2 percent were citizens of other countries which included China, Hong Kong and Vietnam. Some dental students also stated they were citizens of Australia and other countries. All dental students who were citizens of other countries were Australian Permanent Residents. There were only 4 International students which represented 1. 6 percent of all dental students.

The mean number of years of residence in Australia by students was 15 years.

Table 8 Country of citizenship and Years in Australia of undergraduate dental students at the University of Sydney, 1996.

Citizenship and Years in Australia	Australia		Other				Years in Australia
			*APR		**IS		
	N=	%	N=	%	N=	%	
Total (N= 251)	229	91	33	13. 2	4	1. 6	15

* APR - Australian permanent residence

** IS - International student

Figure 7 **Country of citizenship of undergraduate dental students
at the University of Sydney, 1996.**

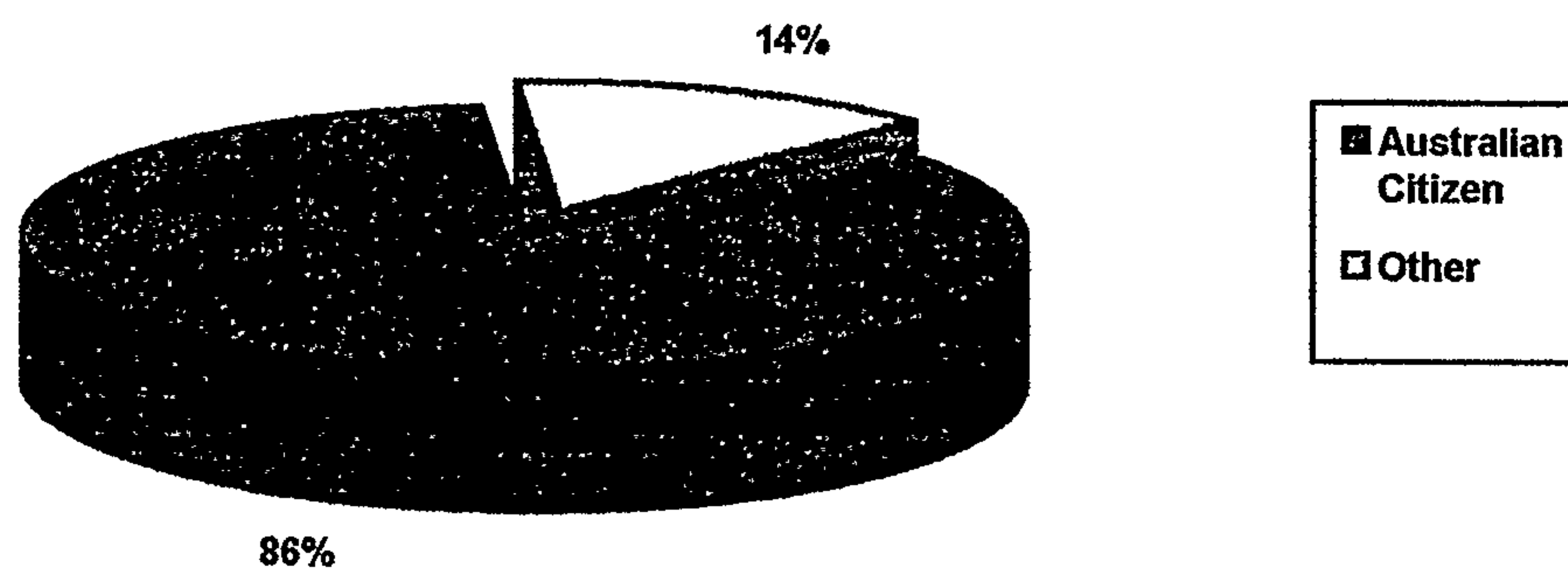
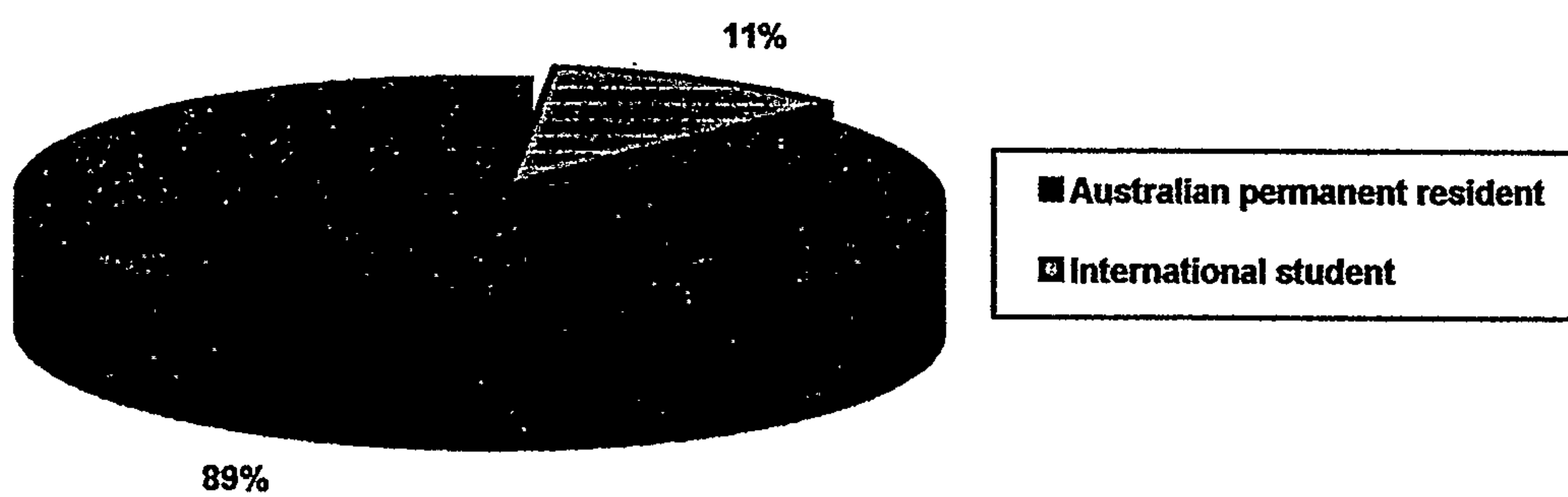


Figure 8 **“ Other ” Country of citizenship of undergraduate dental students
at the University of Sydney, 1996.**



3.1.5. Language Proficiency (Table 9, Figure 9, Appendix 11)

3.1.5.1. First Language

English is regarded as the first language for 41. 4 percent of dental students. 16. 7 percent speak Vietnamese as their first language, 15. 1 percent speak Cantonese. 8. 0 percent speak Korean as their first language. 7. 6 percent speak Mandarin as their first language. 11. 1 percent speak a variety of other languages which include Arabic, Bulgarian, Filipino, German, Gujarati, Hebrew, Hindi, Hockien, Japanese, Kanakini, Laotian, Lebanese, Macedonian, Malay, Marathi, Persian, Romanian, Spanish and Tamil.

(NB Lebanese should be strictly included with the Abrabic language however students survey returns defined Lebanese as an separate language).

3.1.5.2. Other languages

Dental students were asked which other languages do they speak. 18. 7 percent of all dental students also speak Cantonese. 13. 1 percent of dental students speak Vietnamese followed by Mandarin 7. 6 percent, Korean 7. 6 percent, and 36. 0 percent which speak languages included in the * other group.

3.1.5.3. Most common language spoken.

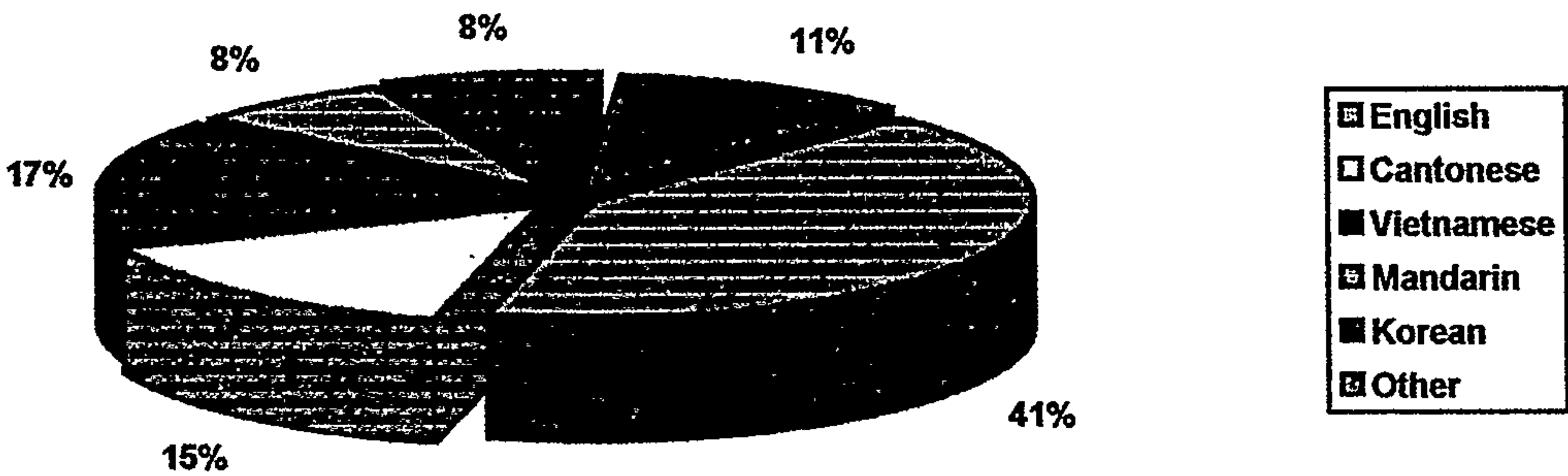
Dental students were asked which language they speak the most at their term address. Table 9 reveals that there are many dental students who speak little English in their daily lives outside of the University. 58. 4 percent of dental students speak English as their main language. 13. 5 percent of dental students speak Cantonese. 11. 0 percent of dental students speak Vietnamese. 7. 3 percent of students commonly speak languages included in the * other group.

**Table 9 Language proficiency of undergraduate dental students
at the University of Sydney, 1996.**

Languages	First Language		Other Languages		Most common Language	
	N=	%	N=	%	N=	%
English	103	41. 4	-	-	143	58. 4
Vietnamese	42	16. 7	33	13. 1	27	11. 0
Cantonese	38	15 .1	47	18. 7	33	13. 5
*Other	29	11.1	67	36. 0	24	7. 3
Korean	20	8. 0	19	7. 6	17	6. 9
Mandarin	19	7. 6	19	7. 6	7	2. 9

(* Other includes ; Arabic, Bulgarian, Filipino, German, Gujarati, Hebrew, Hindi, Hockien, Japanese Kanakini, , Lebanese, Loatian, Macedonian, Malay, Marathi, Persian, Romanian, Spanish, Tamil)

**Figure 9 First languages of undergraduate dental students at the University
of Sydney, 1996.**



3.3.6. Students secondary education (Table 10, Figure 10, Appendix 12)

95. 2 percent of dental students were educated in Australian schools. 57. 6 percent of dental students had completed high school in an Australian Government metropolitan school. 34. 8 students had attended an Australian non - Government school.

4. 8 percent of dental students were from overseas schools of which 1. 6 percent attended Government metropolitan schools and 2. 8 percent attended non - Government schools.

60. 4 percent of dental students attended Government schools. 96. 4 percent of dental students attended a metropolitan school.

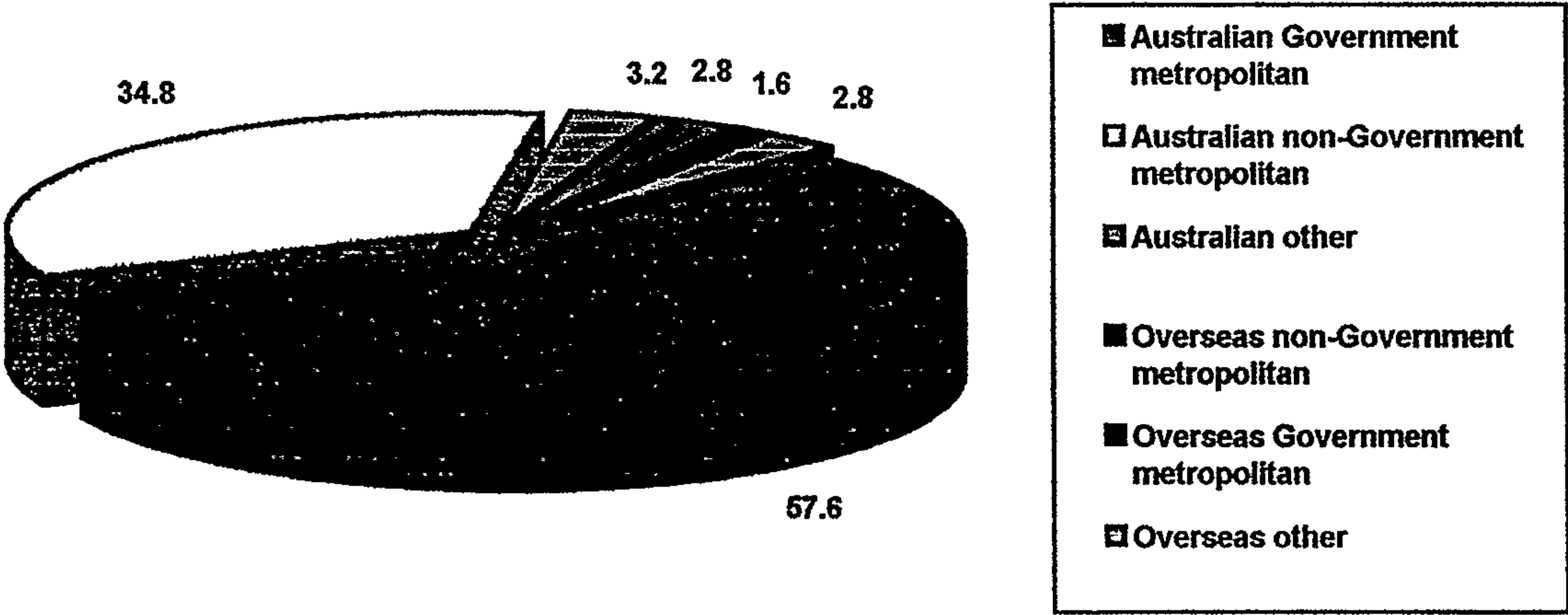
A slightly higher proportion of female dental students (61. 3 percent) compared with males dental students (38. 7 percent) studied in both Australian and overseas Government schools.

Table 10 Location and type of secondary school education of undergraduate dental students at the University of Sydney, 1996.

Location and type of secondary school education	Male		Female		Total	
	N=	%	N=	%	N=	%
Australian Government Metropolitan	79	56. 8	65	58. 6	144	57. 6
Australian Non-Government Metropolitan	46	33. 1	40	16. 0	86	34. 8
Australian *other	5	3. 6	3	2. 7	8	3. 2
Overseas Non-Government Metropolitan	6	4. 3	1	0. 9	7	2. 8
Overseas Government Metropolitan	2	1. 4	2	1. 8	4	1. 6
Overseas *other	1	0. 7	-	-	1	0. 4

(Australian *other ; Australian Government country, Australian non - Government country)
(Overseas *other ; Overseas Government country, Overseas non - Government country)

Figure 10 Location and type of secondary school education of undergraduate dental students at the University of Sydney, 1996.



3.1.7. Parental Background

3.1.7.1. Country of birth (Table 11, Figure 11, Appendix 9)

Dental students were asked to state their parents' country of birth. Australian - born parents comprised 10. 5 percent of the total. Asian - born parents comprised 69. 3 percent of the total, with 18. 9 percent originating in Vietnam and 11. 6 percent in China.

The fact that many of the Australian - born dental students are first generation from non - English speaking ethnic groups can be seen in the figure 11, in which Australian - born parents comprise only 10. 5 percent.

The next largest group of parents originated from Europe with 11. 4 percent of the total followed by the MiddleEast (6. 6 percent).

The smallest proportion of parents' country of birth, were from the ** other groups (1. 9 percent), which include, Oceania, Northern, Southern and Eastern Africa, Northern and Southern American countries.

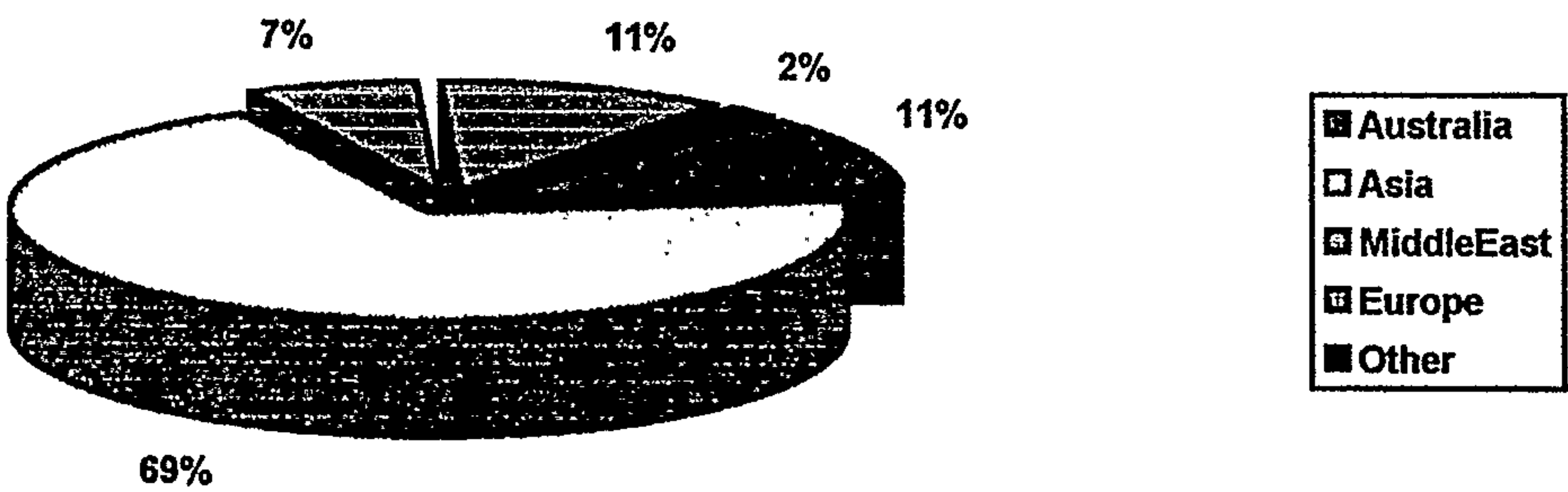
Table 11 **Parents’ country of birth of undergraduate dental students**
at the University of Sydney, 1996.

Country of birth	Father		Mother		Total	
	N=	%	N=	%	N=	%
Australia	32	12. 8	22	8. 8	54	10. 5
*Asia	175	70. 0	180	72. 3	355	69. 3
MiddleEast	17	6. 8	17	6. 8	34	6. 6
Europe	19	7. 6	25	10. 1	59	11. 4
**Other	5	2. 0	5	2.0	10	1. 9

(* Asia ; SouthEast Asia, NorthEast Asia, Southern Asia)

(** Other; Oceania, Northern, Southern and Eastern Africa, Northern and Southern America)

Figure 11 **Parents’ country of birth of undergraduate dental students**
at the University of Sydney, 1996.



3.1.7.2. Present or last paid occupation

(Table 12, Figure 12, Appendix 13)

Professional occupations were highly represented for parents (32. 1 percent) and this was significantly higher than all the other occupations. Other occupations given of parents were managers and administration (15. 9 percent), tradesperson (12. 4 percent) and other (39. 4 percent).

Of the professionals the most commonly represented occupation of parents was medical practitioner (5. 6 percent). There were 0. 8 percent of dental students whose parents were a dentist.

Considering the occupation of the fathers, 24. 0 percent were professionals. Of these 10. 3 percent were medical practitioners and only 1. 3 percent were dentist. The majority of fathers were from the other occupations (30. 0 percent).

Considering the occupation of the mothers, 25. 1 percent were professionals. Of these 2. 9 percent were medical practitioners and only 0. 4 percent were dentist. The majority of professional mothers were from the other occupation (48. 3 percent) which included miscellaneous, labourers and related workers, plant and machine operators, artist and related professionals, salesperson and personal service workers.

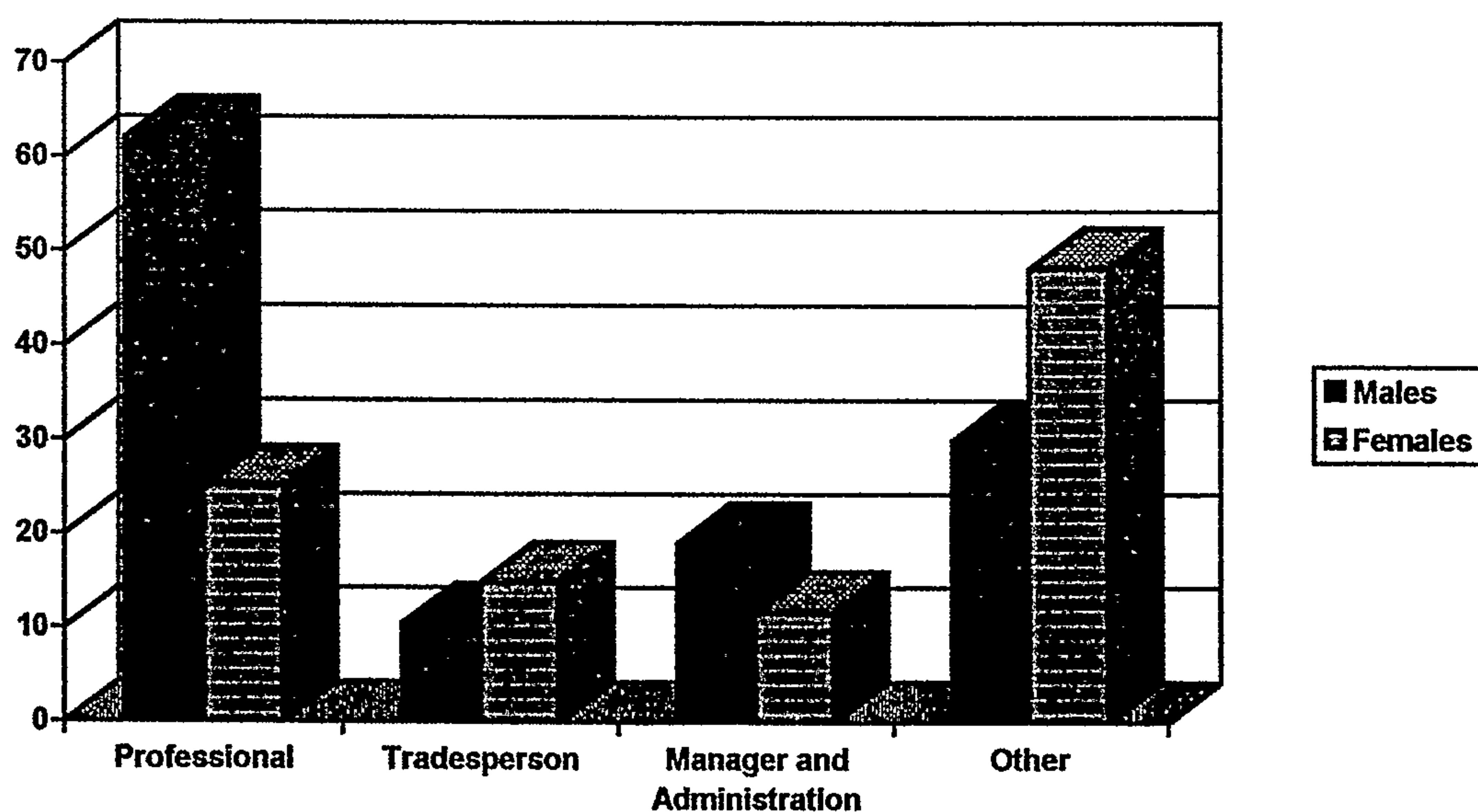
Table 12 Parents present or last paid occupation of undergraduate dental students at the University of Sydney, 1996.

Occupation	Father		Mother	
	N=	%	N=	%
Professional	96	62.1	59	25.1
Tradesperson	25	10.5	35	14.9
Manager and Administration	49	19.1	28	11.7
*Other	74	30.0	116	48.3

(*Other ; Miscellaneous, Labourers and related workers, Plant and machine operators, Artist and related professionals, Salesperson and personal service workers)

(**Occupational categories adopted from ABS, 1991; " Occupation Categories ")

Figure 12 Parents present or last paid occupation of undergraduate dental students at the University of Sydney, 1996.



3.1.7.3. Highest education level (Table 13, Figure 13, Appendix 14)

In 1996, 52. 4 percent of parents had University degrees. 13. 6 percent of parents had other tertiary qualifications. 17. 1 percent of parents had completed the higher school certificate or equivalent and 16. 9 percent of parents had stated other education levels.

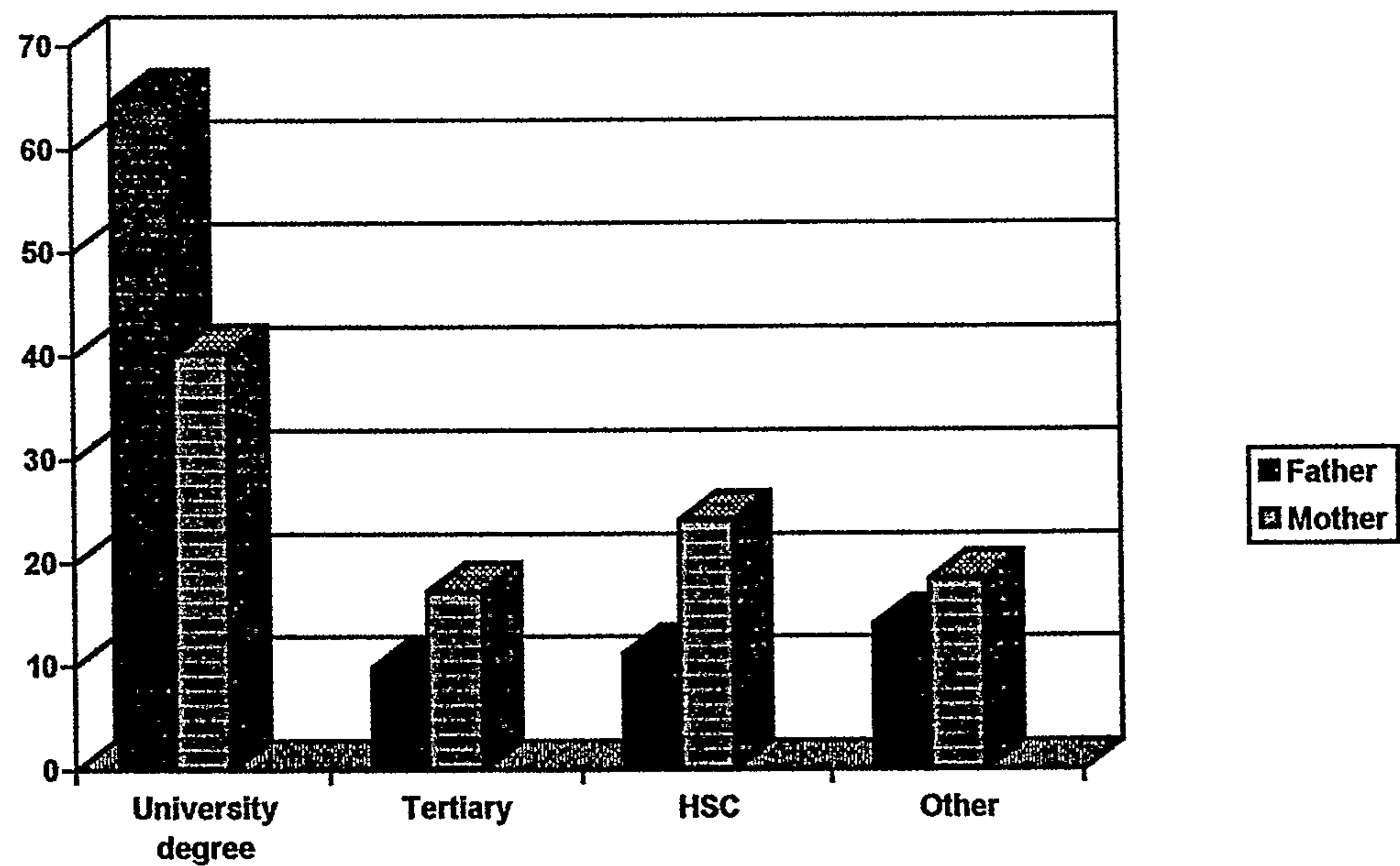
The educational level given for fathers was 64. 9 percent with a University degree and a further 9. 9 percent with other tertiary qualifications. 11. 2 percent of the fathers had completed the higher school certificate or equivalent. 14. 0 percent of the fathers had other educational levels.

Mothers had less University qualifications (40. 2 percent) than fathers and 17. 2 percent had other tertiary education. 24. 2 percent had completed the higher school certificate or equivalent. 18. 4 percent had other educational levels.

Table 13 **Parents' highest education level of undergraduate dental students at the University of Sydney, 1996.**

Educational level	Father		Mother		Total	
	N=	%	N=	%	N=	%
University degree	157	64.9	98	40.2	255	52.4
Other Tertiary	24	9.9	42	17.2	66	13.6
HSC or equivalent	27	11.2	59	24.2	86	17.1
Other	34	14.0	45	18.4	79	16.9
Total	242	100	244	100	486	100

Figure 13 **Parents' highest education level (percent) of undergraduate dental students at the University of Sydney, 1996.**



3.1.8. Students main type of residence and geographic location while attending University.

3.1.8.1. Type of residence (Table 14, Figure 14, Appendix 15)

75. 2 percent of dental students were living in their parents' home while attending University. Only 3. 2 percent of dental students were living in an University college.

There has been a substantial increase in the percentage of dental students living in the category other (19. 6 percent) which includes the home of other relative or family friend, boarding house or lodging, hostel and house or flat rented shared by students.

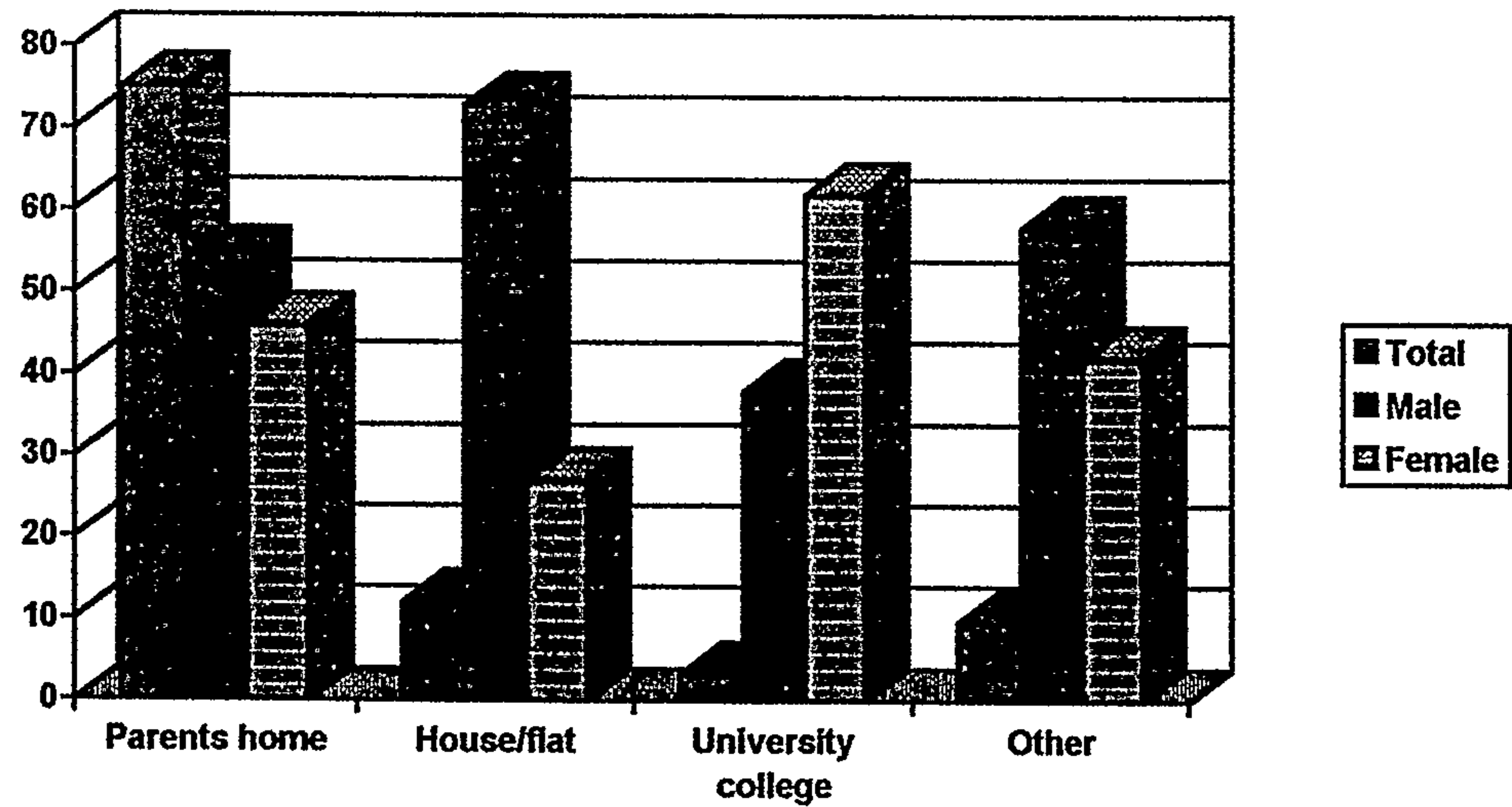
There were no significant differences by gender or year, other than a lower percentage of dental students living in their parents' home in 1996.

Table 14 Main type of residence, by gender of undergraduate dental students at the University of Sydney, 1996.

Main residence	Male		Female		Total	
	N=	%	N=	%	N=	%
Parents home	101	54.0	87	46.0	188	75.2
House / Flat	22	73.0	8	27.0	30	12.0
University college	3	38.0	5	62.0	8	3.2
*Other	14	53.8	12	46.2	26	9.6

(*Other ; Home of relative or family friend, boarding house / lodgings, hostel)

Figure 14 Main type of residence, by gender (percent) of undergraduate dental students at the University of Sydney, 1996.



3.1.8.2. Geographic location (Table 15, Figure 15, Appendix 15)

Dental students were also asked for their postcodes in their main residence while attending University this year. From ones residential postcodes we can identify approximately their socio-economic status. Australian Bureau of Statistics figures indicate indices of advantage and disadvantage according to local Government area. The following suburbs have been grouped together into geographical areas within Sydney.

96. 4 percent of dental students came from the New South Wales State and 3. 6 percent from outer State of which 3. 2 percent came from Queensland and 0. 4 percent of dental students came from Victoria.

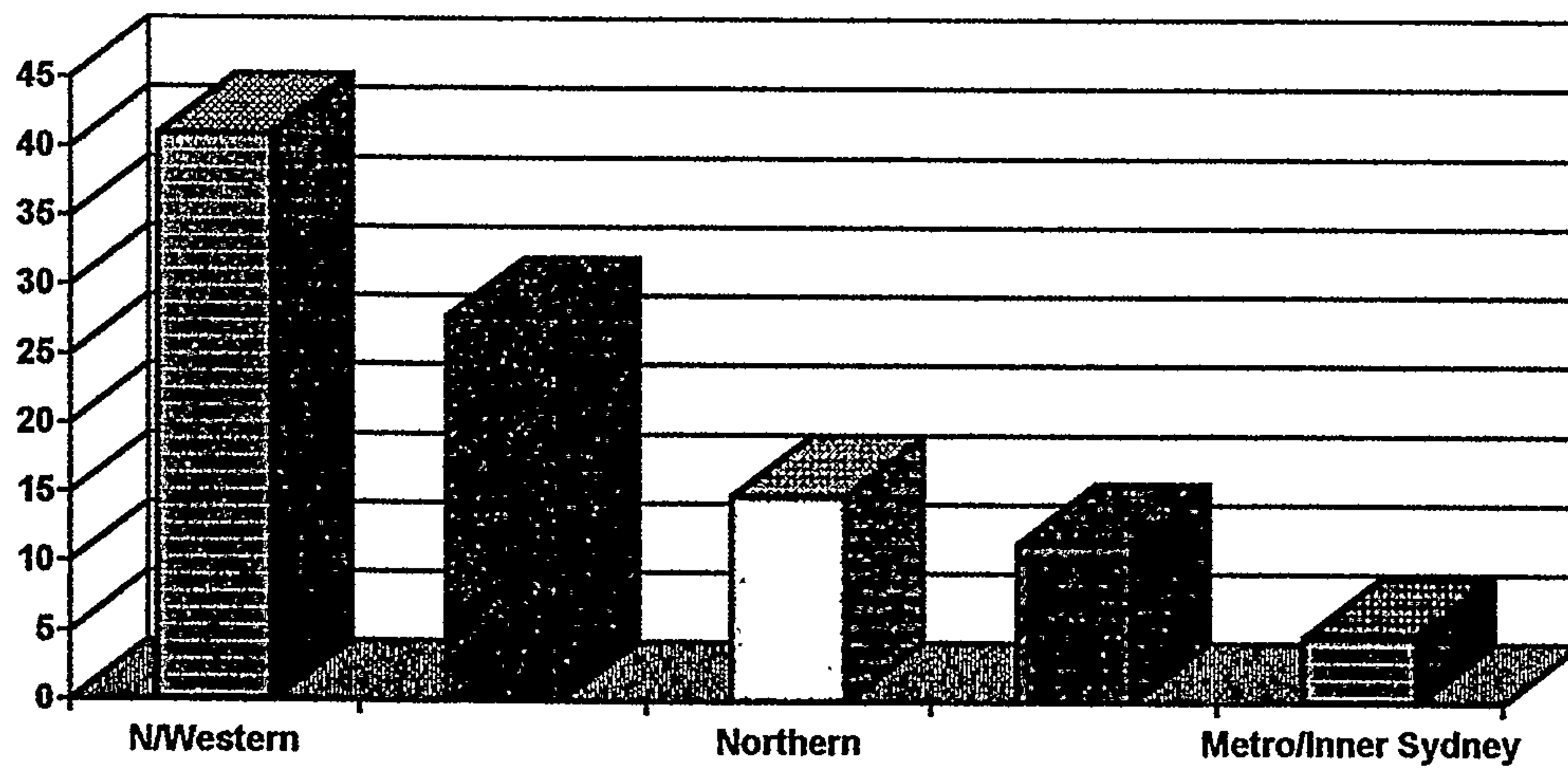
41. 0 percent of dental students resided in the NorthWestern suburbs, 27. 9 percent of dental students resided in the SouthWestern suburbs, 14. 9 percent of dental students in the Northern suburbs, 11. 5 percent of dental students resided in the Eastern suburbs and 4. 8 percent of dental student resided in the Metropolitan Inner Sydney suburb.

There were significant differences by gender, with more females residing in the Northern suburbs than the males.

Table 15 **Geographic location of undergraduate dental students at the University of Sydney, 1996.**

Geographic location	N=	%
NorthWestern suburbs (NW)	93	41. 0
SouthWestern suburbs (SW)	63	27. 8
Northern suburbs	34	14. 9
Eastern suburbs	26	11. 5
Metropolitan Inner Sydney (M.I.S.)	11	4. 8

Figure 15 **Geographic location (percent) of undergraduate dental students at the University of Sydney, 1996.**



3.2. Choice of Dentistry as a Career

3.2.1. Preference for choice of career (Table 16, Figure 16, Appendix 16)

51. 0 percent of all the dental students indicated that their first preference for field of study was dentistry. 46. 6 percent of dental students indicated medicine as their next preference. 3. 3 percent of dental students indicated "other" which includes arts, architecture, commerce, computing, economics, education / teacher, engineering, law, music, nursing, optometry, pharmacy, physiotherapy, psychiatrist, veterinary science and science as their first choice of study.

First year dental students choose dentistry as a first preference due to a selection criteria introduced in 1996 which involved an interview process at the University of Sydney.

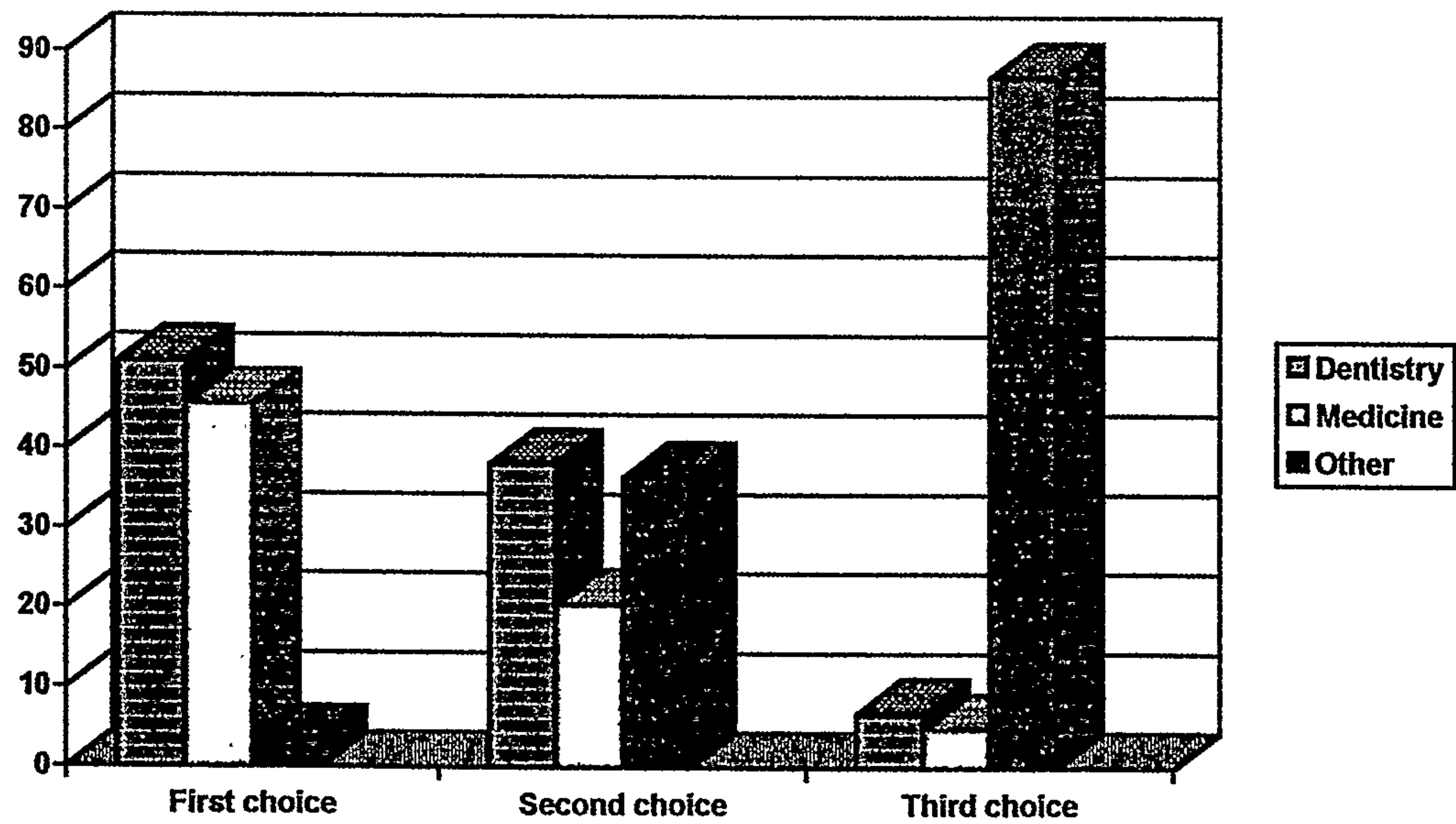
There appeared to be no differences in these preferences for choice of faculty by year, and the only significant differences between male and female dental students were the higher preferences for veterinary science and engineering by the male dental students.

Table 16 **Preference for choice of career of undergraduate dental students at the University of Sydney, 1996.**

Choice of Faculty	1st		2nd		3rd	
	N=	%	N=	%	N=	%
Dentistry	122	51.0	96	38.2	17	6.8
Medicine	109	45.6	96	20.5	10	4.9
*Other	8	3.3	82	36.5	176	86.8

(*Other ; arts, architecture, commerce, computing, economics, education / teacher, engineering, law, music, nursing, optometry, pharmacy, physiotherapy, psychiatrist, veterinary science, science)

Figure 16 **Preference for choice of career (percent) of undergraduate dental students at the University of Sydney, 1996.**



3.2.2. Time of choice of dentistry as a career (Table 17, Figure 17, Appendix 17)

Dental students were asked when did they decide to choose dentistry as a career.

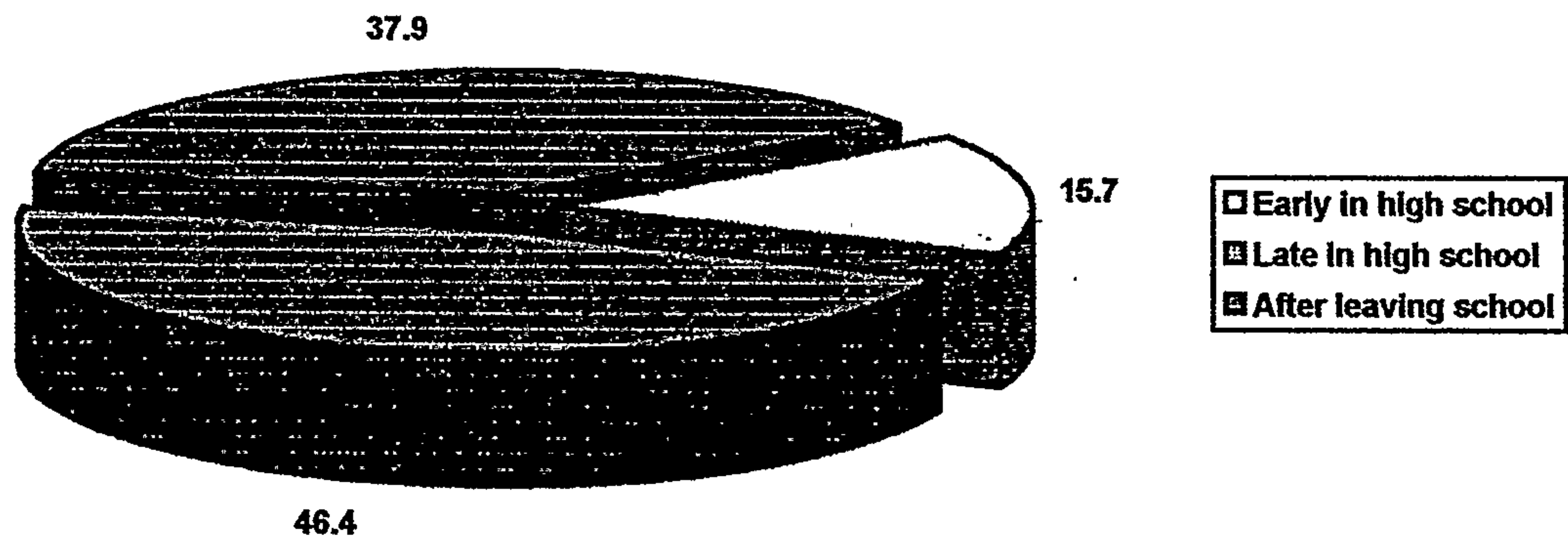
15. 7 percent indicated their decision was made early in high school. 46. 4 percent indicated their decision was made late in high school and 37. 9 percent indicated their decision was made after leaving high school.

There were no statistical significant difference ($P < 0.05$) with the male and female dental students with their decision or year groups.

Table 17 Time of decision of entering dentistry as a career of undergraduate dental students at the University of Sydney, 1996.

Decision time	N=	%
Early in high school	39	15. 7
Late in high school	115	46. 4
After leaving school	94	37. 9

Figure 17 Time of decision (percent) to enter dentistry as a career, of undergraduate dental students at the University of Sydney, 1996



3.2.3. Students occupation prior to dental school (Table 18, Appendix 13)

84. 3 percent of dental students had come directly from high school. 15. 7 percent of dental students that indicated they did not commence the course immediately after high school spent on average 3 years, pursuing other interests.

40. 7 percent had undertaken some tertiary education or were studying previously. the course of study included pharmacy, engineering, radiography, chemist and medical research.

25. 0 percent of dental students that did not commence dentistry immediately were working as professionals in the respective occupational sectors, dental or lab technician, computing, aircraft's pilot, salesperson position and some research work.

9. 4 percent of dental students had some previous employment in the trade sector mostly as vacation jobs, being casual or on part-time basis. Most of the employment was in the hospitality or service industries. A few dental students stated they were on holiday, or involved with a student exchange program before commencing dentistry.

Table 18 Occupation of undergraduate dental students prior to entering the Faculty of Dentistry at the University of Sydney, 1996.

Occupation	N=	%
Studying	14	40. 7
Professional	14	25. 0
Trade	3	9. 4
*Other	6	18. 7

(* Other ; Student exchange , holiday)

3.2.4. Influences in selection of dentistry as a career

(Table 19, 20, Figure 18 , Appendix 19)

Dental students were asked who was their greatest influence in their selection of dentistry as a career option. 74. 7 percent of dental students had stated they choose dentistry due to self motivation. 83. 3 percent of dental students stated their parents were their greatest influences. 25. 4 percent of dental students stated their relative or family friend were their greatest influences. 22. 4 percent of dental students stated their family dentist were their greatest influences. 15. 6 percent of dental students stated other persons (Orthodontist) within the dental profession were their greatest influences.

5. 0 percent of dental students stated their vocational counsellor were their least influences. 3. 0 percent of dental students stated their school teacher were their least influences and other influences in their selection of dentistry as a career included a friend, their own personal character and God.

**Table 19 Persons influencing selection choice of dentistry as a career
for undergraduate dental students, University of Sydney, 1996.**

Influence	N=	%
Parents	156	83. 3
Self motivation	183	74. 7
*Other	109	48. 8
Family friend	58	25. 4

(Other ; family dentist, other person within the dental profession, vocational counsellor, school teacher, friend, God, personal character)*

**Figure 18 Persons influencing selection choice of dentistry as a career for
undergraduate dental students, University of Sydney, 1996.**

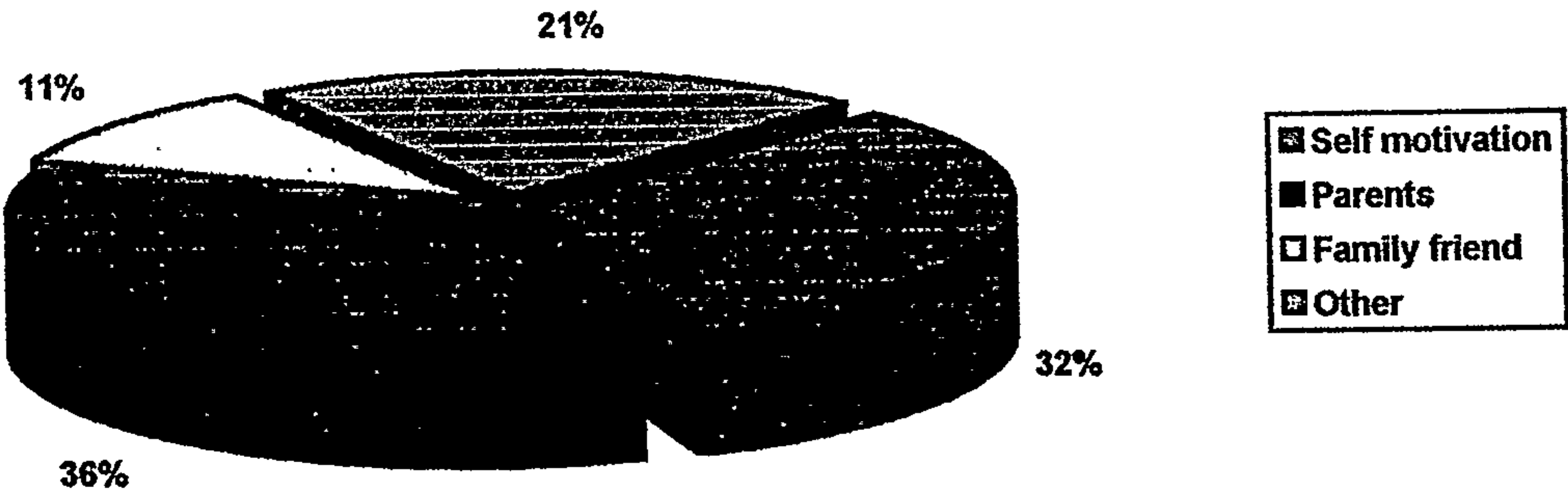


**Table 20 Persons influencing selection choice of dentistry as a career for
undergraduate dental students University of Sydney, 1996.**

	Influencing Selection	N=	%
Greatest Influence	Self motivation	183	74. 7
	Mother	100	42. 0
	Father	98	41. 3
	Relative or family friend	58	25. 4
	Family dentist	50	22. 4
	Other persons within the dental profession	34	15. 6
	Vocational counsellor	11	5. 0
	School teacher	7	3. 0
	Personal character	7	2. 8
Least Influence			

3.2.5. Reasons for choosing dentistry as a career

(Table 21, 22, Figure 19, Appendix 20)

The present study also investigated the motivational factors dental students have for entering the dental profession. Dental students were also asked to state their reasons for choosing dentistry as a career on a nominal scale.

70. 0 percent of dental students stated their most predominant motive was the desire to work independently. 68. 0 percent dental students stated the desire to work for and with people was the next reason. 61. 4 percent of dental students stated monetary advantages of the profession. 60. 4 percent of dental students stated the lifestyle perceived within the profession was their next greatest influence.

20. 1 person of dental students stated their least influence was that they had a better chance of entering and completing a dental course than other courses followed by do not know (4. 8 percent) and personal character (4. 0 percent).

Other reasons that were stated by students included to help the poor in their own country.

Table 21 **Reasons for choosing dentistry as a career option for undergraduate dental students at the University of Sydney, 1996.**

Reasons	N=	%
Desire to work independently	172	70. 0
Desire to work for and with people	136	68. 0
Monetary advantages	148	61. 4
*Other	210	89. 3

(* Other ; Interest in the work of the profession, lifestyle perceived within the profession, better chance of entering and completing a dental course than other course)

Figure 19 **Reasons for choosing dentistry as a career for undergraduate dental students at the University of Sydney, 1996.**

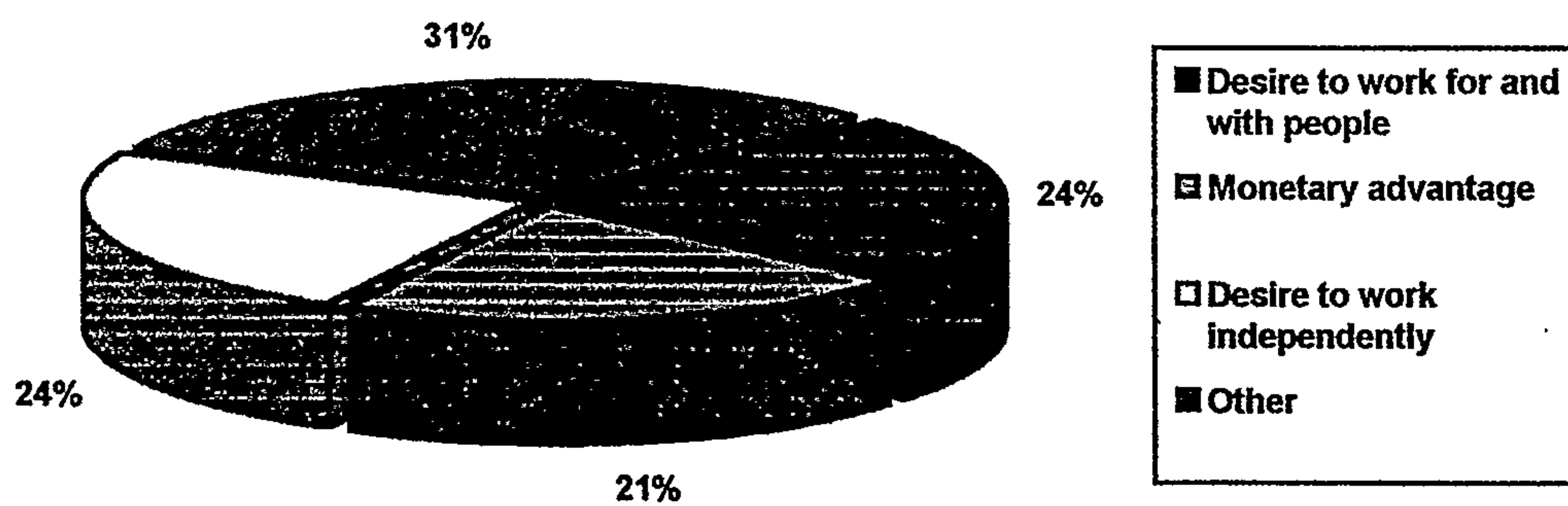


Table 22 **Reasons for choosing dentistry as a career for undergraduate dental students at the University of Sydney, 1996.**

	Reasons (motivational factors)	N=	%
Greatest Influence	Desire to work independently	172	70. 0
	Desire to work for and with people	136	68. 0
	Monetary advantages of the profession	148	61. 4
	Lifestyle perceived within the profession	142	60. 4
	Interest in work of the profession	146	60. 0
	Better chance of entering and completing a dental course than other courses	46	20. 1
	Do not know	12	4. 8
Least Influence	Personal character	10	4. 0

3.2.6. Occupations chosen other than dentistry (Table 23, Appendix 21)

Dental students were asked to state what “ occupation ” they would select other than dentistry as a career. 34. 8 percent of dental students choose the medical profession followed by engineering (7. 1 percent), teaching (5. 6 percent), designer and illustrator (4. 0 percent) and others (50. 6 percent).

Law (2. 5 percent) and pharmacy (3. 0 percent) were not as popular as other occupations as the past studies have indicated.

7. 1 percent of the dental students did not know what other occupations they would select.

Table 23 Occupations chosen other than dentistry for undergraduate dental students at the University of Sydney, 1996.

Occupation	N=	%
*Other	101	50. 6
Medical profession	69	34. 8
Do not know	14	7. 1
Engineering	14	7. 1

(* Other ; Professional, business manager and administration, tradesperson)

3.3. Aspirations after Graduation

3.3.1. Intern Year (Table 24, Figure 20, Appendix 22)

The introduction of an “ Intern Year ” for the final year dental students has been discussed and recommended by various bodies in the dental profession and the dental literature. Changes in the education of dentist should be such to separate the educational requirements from those of clinical competence. This can best be accomplished in the first instance at least, by the immediate implementation of a mandatory pre-registration intern period.

Compelling reasons behind such recommendations is the perceived desirability of consolidating the clinical experience of new graduates for ultimate benefit to both the community and dentistry. With the increase in the body of dental knowledge and the variety and complexity of techniques it is desirable that graduates have the opportunity to consolidate their knowledge and skills through completing an intern year.

An intern year would also allow new graduates to experience their position within the dental health team and to work effectively with specialist and auxiliaries as well as with other types of health care providers. The intern concept envisages that all theoretical education and basic clinical training would be completed and examined at the undergraduate level.

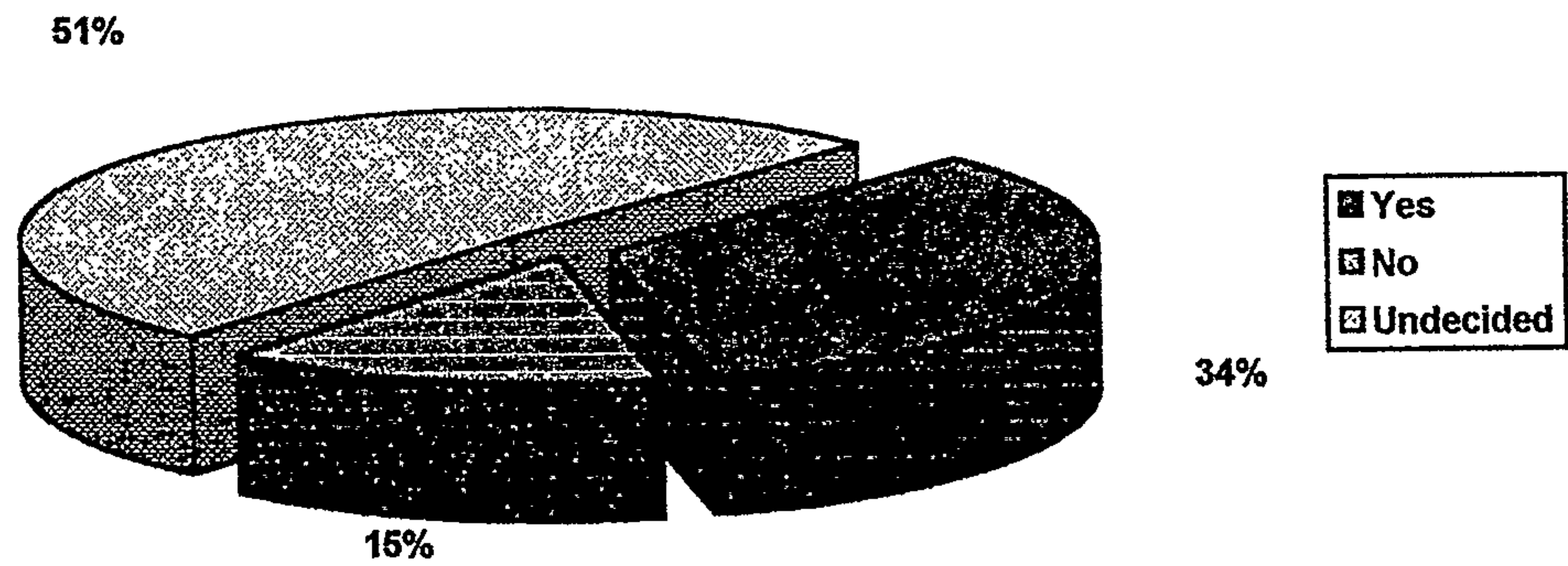
Dental students were asked whether or not they would support an intern year in an hospital or clinic setting after graduation. 34. 2 percent of dental students stated “ yes ” and 14. 6. percent of dental students stated “ no ”. 51. 0 percent of dental students were “ undecided ”.

There were no statistical significant difference ($p < 0.05$) between male and female dental students and between all the years.

**Table 24 Support for an “ Intern Year ” from undergraduate dental students,
at the University of Sydney, 1996.**

Support for an “ Intern Year ”	Yes		No		Undecided	
	N=	%	N=	%	N=	%
Total (N= 251)	90	43. 5	56	27. 1	57	27. 5

**Figure 20 Support for an “ Intern Year ” from undergraduate dental students
at the University of Sydney, 1996.**



3.3.2. Intentions after graduation (Table 25, Figure 21, Appendix 23)

Dental students were asked to state in which dental sector do you wish to intend to enter after graduation. This will provide us with some information on the size and composition of the dental workforce in Australia.

Within the first year after graduation 40. 7 percent of dental students stated they would prefer to work in the State public health services. The next preferred dental sector was an assistant in the private practice sector (36. 5 percent) followed by private practice (7. 9 percent) and other (5. 3 percent), which includes armed forces, post-graduate studies, private company, research work and teaching position. 9. 5 percent of dental students were undecided.

In the 2nd to 5th year category after graduation 34. 4 percent of dental students stated they would be in the private practice sector. The next preferred dental sector was an assistant in private practice (23. 0 percent) followed by State public health services (13. 9 percent), and other (18. 2 percent). 10. 5 percent of dental students were undecided at this stage of their career.

In the remainder of your professional career category 10. 9 percent of dental students were undecided, however 70. 1 percent stated they would be working in private practice. The next preferred dental sector was an assistant in private practice (5. 5 percent) followed by State public health services (4. 5 percent), and other (9. 0 percent).

It appears that the private sector is more appealing to the dental students than the public sector in the remainder of their professional careers.

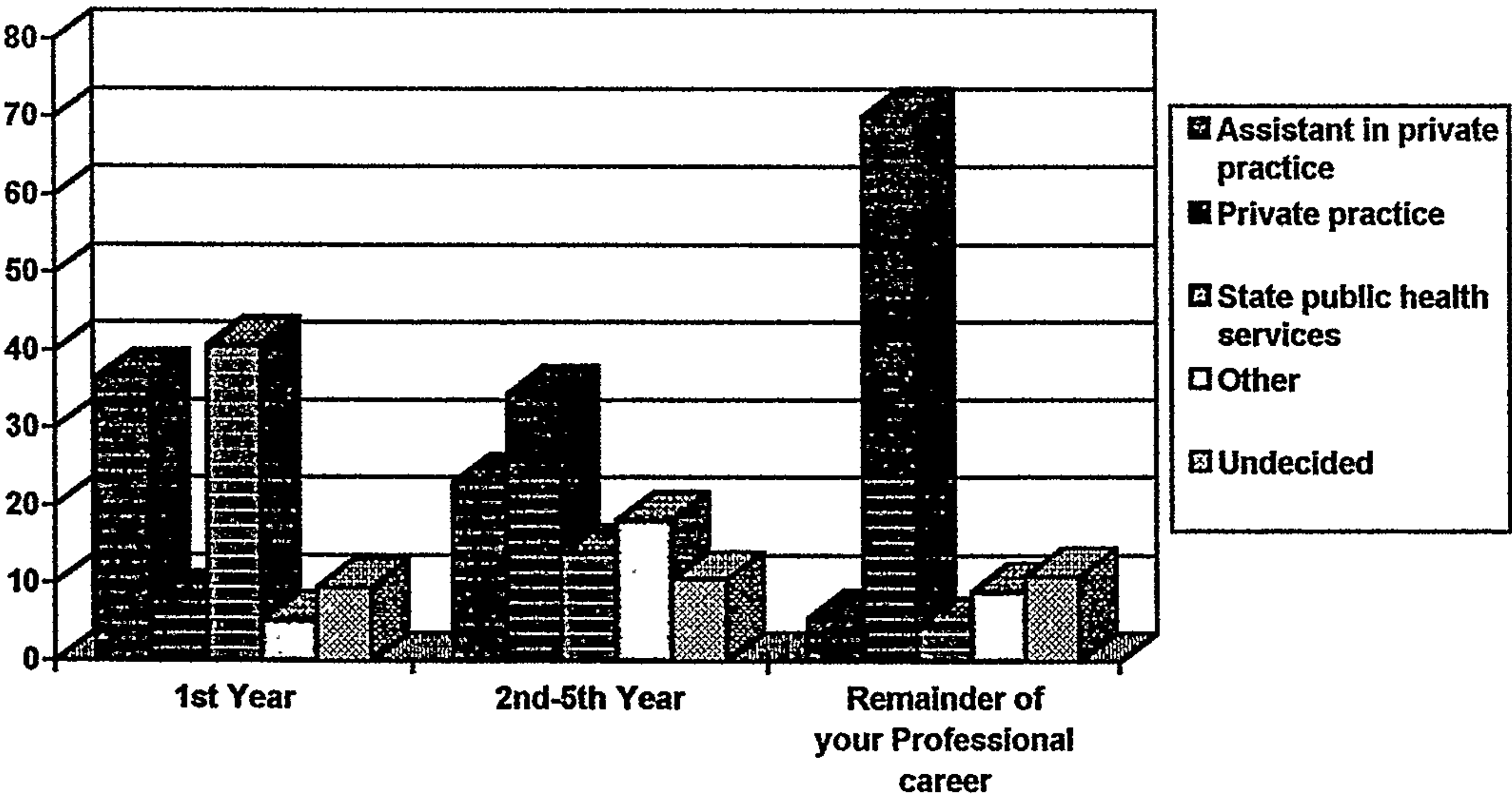
There were no statistical significant differences ($p < 0. 05$) between the male and female dental students or between the year groups.

**Table 25 Dental sector intentions of undergraduate dental students
at the University of Sydney, 1996.**

Dental sector	1st Year		2nd - 5th Year		Remainder of your Professional career	
	N=	%	N=	%	N=	%
Assistant in private practice	88	36. 5	48	23. 0	11	5. 5
Private practice	19	7. 9	72	34. 4	141	70. 1
State public health services	98	40. 7	29	13. 9	9	4. 5
*Other	13	5. 3	38	18. 2	18	9. 0
Undecided	23	9. 5	22	10. 5	22	10. 9

(* Other ; Armed forces, post - graduate studies, private company, research work, teaching position)

**Figure 21 Dental sector intentions (percent) for undergraduate dental
students at the University of Sydney, 1996.**



3.3.3. Location of practice (Table 26, Figure 22, Appendix 24)

Dental students were asked to state where they intended to practice dentistry after graduation. Within the first year after graduation 83. 4 percent of dental students stated they would practice in Australia within the New South Wales State. The next preferred location was their home country (8. 5 percent), followed by Another State or territory (4. 5 percent) and Overseas (3. 0 percent). 0. 5 percent of the dental students were undecided.

In the 2nd to 5th year category after graduation, 69. 1 percent of dental students stated they would practice in the New South Wales State. The next preferred location was overseas (11.0 percent) followed by home country (10. 5 percent), another State or Territory (8. 8 percent) and 0. 4 percent of the dental students were undecided.

In the remainder of your professional career category, 17. 9 percent of dental students were undecided, however 62. 0 percent of dental students indicated they would practice in the New South Wales State. The next preferred location was overseas (14. 4 percent) followed by another State or Territory (4. 4 percent) and their home country (1. 3 percent).

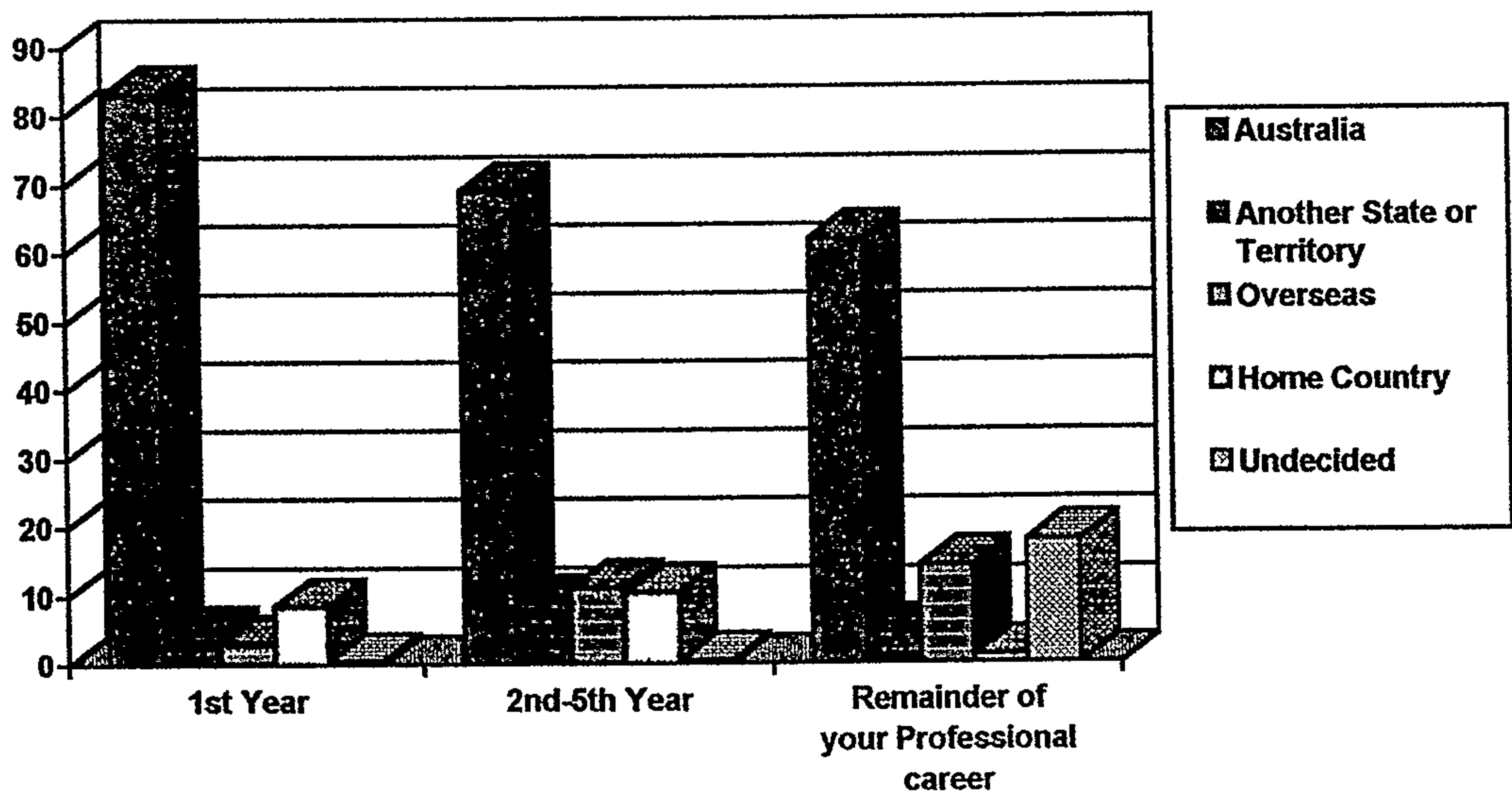
There were no statistical significant differences ($p < 0. 05$) between the male and female dental students or between the year groups.

Comparing Australian and Asian ethnic dental students, a significantly greater number of Asian dental students wished to practice overseas and significantly more Australian dental students wished to practice in Australia.

**Table 26 Location of practice of undergraduate dental students at the
University of Sydney, 1996.**

	1st year		2nd - 5th year		Remainder of your professional career	
	N=	%	N=	%	N=	%
Australia (NSW)	166	83. 4	157	69. 1	142	62. 0
Another State / Territory	9	4. 5	20	8. 8	10	4. 4
Overseas	6	3. 0	25	11. 0	33	14. 4
Home country (If overseas student)	17	8. 5	24	10. 5	3	1. 3
Undecided	1	0. 5	1	0. 4	41	17. 9

**Figure 22 Location of practice (percent) undergraduate dental students at the
University of Sydney, 1996.**



3.3.4. Anticipated nett annual income (Table 27, Figure 23, Appendix 25)

Dental students were asked to state what nett annual income do you anticipate to earn at today's income level after graduation, 5 years after graduation and 10 years after graduation.

78. 8 percent of dental students declared they could anticipate an earning within the range of \$ 0 - 55, 000 after graduation, 3. 9 percent of dental students declared they could earn \$ 56, 000 to \$ 99, 000 and none of the dental students anticipated they could earn over \$ 100, 000 directly after graduation. 17. 3 percent of the dental students simply did not know what they could anticipate to earn in the first year after graduation.

9. 0 percent of dental students declared they could anticipate an earning within the range of \$ 0 - 55, 000 5 years after graduation. 44. 2 percent of dental students declared they could earn \$ 56, 000 to \$ 99, 000 and 17. 0 percent of the dental students anticipated they could earn over \$ 100, 000. 21.0 percent of the dental students simply did not know what they could anticipate to earn 5 years after graduation.

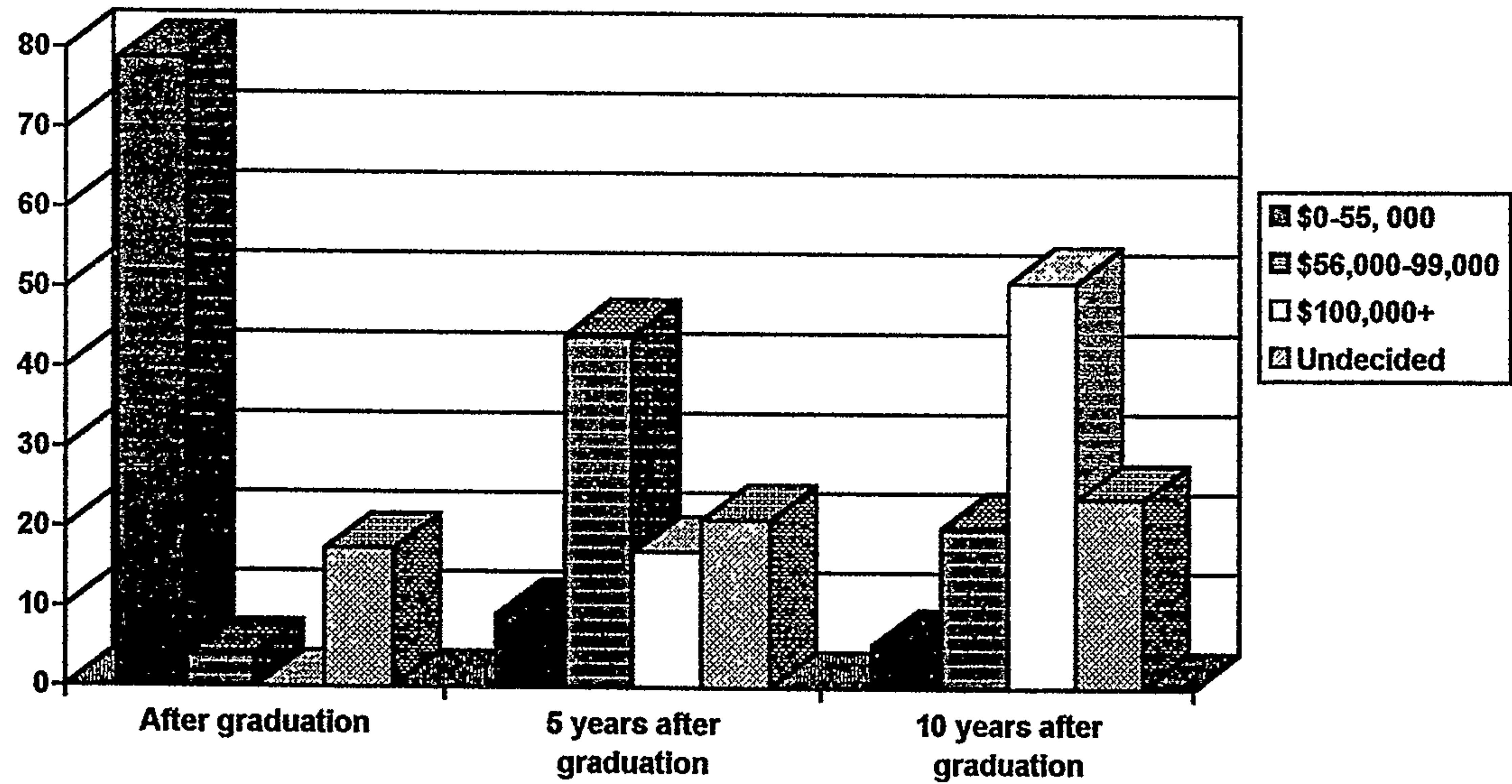
5. 4 percent of dental students declared they could anticipate an earning within the range of \$ 0 - 55, 000 10 years after graduation. 20. 1 percent of the dental students declared they could earn \$ 56, 000 to \$ 99, 000 and 50. 9 percent of dental students anticipated they could earn over \$ 100, 000. 23. 7 percent of the dental students simply did not know what they could anticipate to earn 10 years after graduation.

There were no statistical significant differences ($p < 0. 05$) between the male and female dental students or between the year groups.

Table 27 Anticipated nett annual income of undergraduate dental students at the University of Sydney, 1996.

Anticipated nett income	After graduation		5 years after graduation		10 years after graduation	
	N=	%	N=	%	N=	%
\$ 0 - 55, 000	182	78. 8	40	9. 0	12	5. 4
\$ 56, 000 - 99, 000	9	3. 9	99	44. 2	45	20. 1
\$ 100, 000 +	0	0. 0	38	17. 0	114	50. 9
Do not know	40	17. 3	47	21. 0	53	23. 7

Figure 23 Anticipated nett annual income (percent) of undergraduate dental students at the University of Sydney, 1996.



3.3.5. Specialisation intention

3.3.5.1. Decision to specialise (Table 28, Figure 24, Appendix 26)

The training of specialist will provide a valuable service not only for the dental profession but also to the population at large. They may provide management of very complex cases, provide for the patients of dentists who for a variety of reasons choose not to treat the problems of a particular patient as well as provide much needed expertise in the diagnosis and treatment in which the general dentist has limited training.

The services of specialists could be expected to increase in Australia in the light of the increase in problem in the USA of litigation against dentists who have neglected the dental health of their patients.

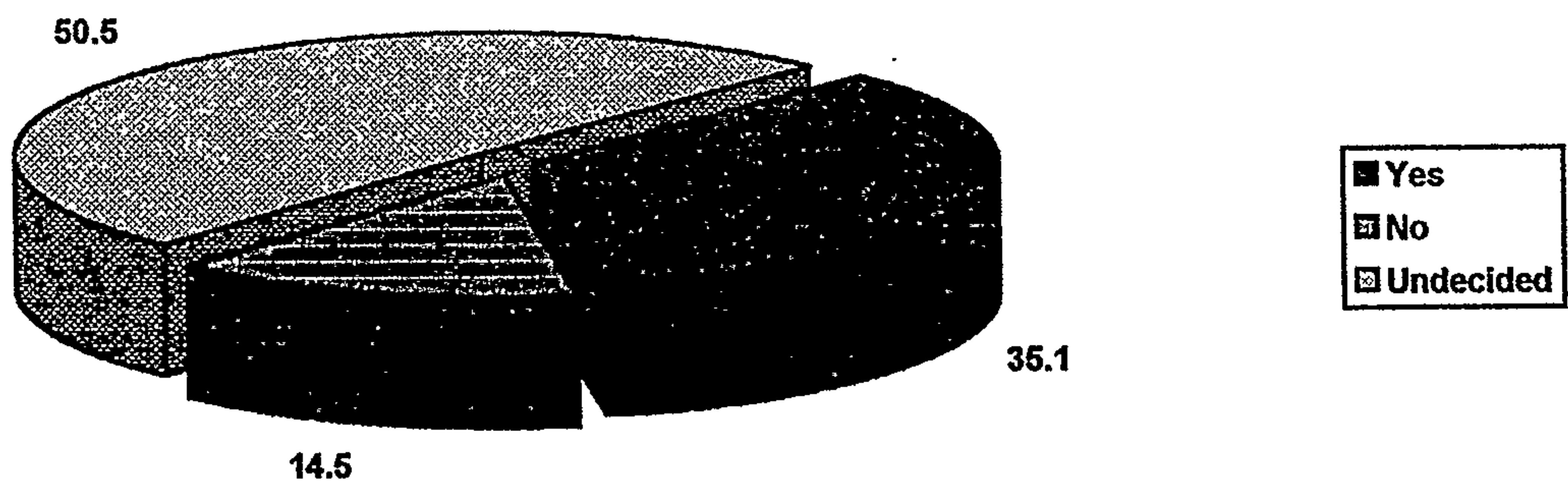
Dental students were asked to state whether they intend to specialise or not and if yes, in which chosen field. 35. 1 percent of dental students intended to specialise after graduation. 50. 5 percent were undecided.

There were no statistical significant differences ($p < 0. 05$) between the male and female dental students or between the year groups.

**Table 28 Intentions of undergraduate dental students to specialise at the
the University of Sydney, 1996.**

Intention to specialise	N=	%
Yes	87	35. 1
No	36	14. 5
Undecided	50	50. 5
Total (N= 251)	173	100. 1

**Figure 24 Intentions of undergraduate dental students to specialise (percent) at
the University of Sydney, 1996.**



3.3.5.2. Specialise field (Table 29, Figure 25, Appendix 26)

Of all the dental students that intended to specialise the most popular specialist field chosen was Orthodontics (41. 6 percent). Followed by Oral Surgery (22. 1 percent), Paediatrics (7. 1 percent) and Other (26. 5 percent) which includes Endodontics, Implantology, Periodontics, Prosthetics and Public Health Dentistry.

2. 7 percent of dental students intended to specialise but were undecided in which specialise field to enter.

The most popular specialist fields chosen by male dental students were Orthodontics (22. 9 percent) followed by Oral Surgery (10. 7 percent).

The most popular specialist fields chosen by female dental students were Other (29. 7 percent) followed by Orthodontics (13. 5 percent).

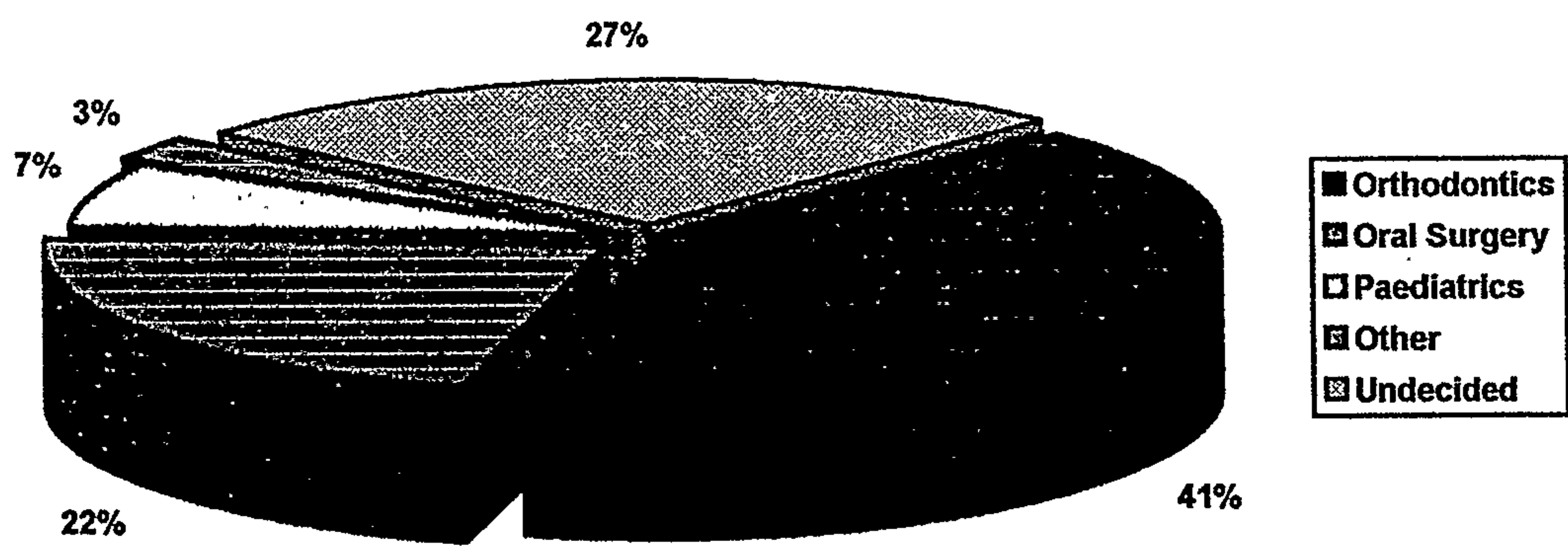
There were no statistical significant differences ($P < 0. 05$) between the male and female dental students or between the year groups.

Table 29 Intentions to specialise by gender and field of undergraduate dental students at the University of Sydney, 1996.

Specialist field	Males		Females		Total	
	N=	%	N=	%	N=	%
Orthodontics	32	22. 9	15	13. 5	47	41. 6
Oral Surgery	15	10. 7	10	9. 0	25	22. 1
Paediatrics	5	3. 6	3	2. 7	8	7. 1
Undecided	2	1. 4	1	0. 9	3	2. 7
*Other	7	4. 9	23	29. 7	30	26. 5

(*Other ; Endodontics, Implantology, Periodontics, Prosthetics, Public Health Dentistry)

Figure 25 Intentions to specialise (percent) by field of undergraduate dental students at the University of Sydney, 1996.



CHAPTER 4.0. COMPARISONS WITH PREVIOUS STUDIES

4.1. Introduction

Over the last 30 years, several surveys of first year undergraduate dental students have been carried out. These include :

The Australian dental student. Survey of Australian dental students (1964)
(Barnard PD, Weam DI, Dowsett MH, Siu SK).

Some social characteristics and background of first year dental students, University of Sydney, 1976 - 85 (Barnard P and Sivaneswaran S, 1992).

The changing profile of undergraduate dental students at the University of Otago, 1992 - 1994
(Dixon G, 1996).

Social profile of first year dentistry students, University of Sydney, 1994 (Gietzelt D, 1994).

A survey published by A. A. Brand, U. M. E. Chikte and C. J. Thomas " Choosing Dentistry as a career - A profile of entering students (1992) to the University of Sydney, Australia was not used for comparison for this present study.

Because some questions were similar to these surveys, valid comparisons can be made with the present study. Information has been taken from the representative study publications for the comparisons presented here.

Valid comparisons will be made with first year dental students entering the Faculty of dentistry in 1976, 1985, 1994 and 1996 at the, University of Sydney, Australia and at Faculty of Dentistry in 1994, University of Otago in New Zealand.

4.2. General Information.

4.2.1. Sample and gender (Table 30, Figure 26, Appendix 5)

During 1996 (59) there were fewer dental students enrolled than in 1976 (120), 1985 (112) and 1994 (63) at the Faculty of Dentistry in Sydney. Dental students were predominantly male at, but the proportion of female dental students has increased from 1976 (18. 0 percent) to 1985 (37. 0 percent) (Barnard and Sivaneswaran, 1992) to 1994 (45. 0 percent) (Gietzelt D, 1994) to 1996 (52. 5 percent).

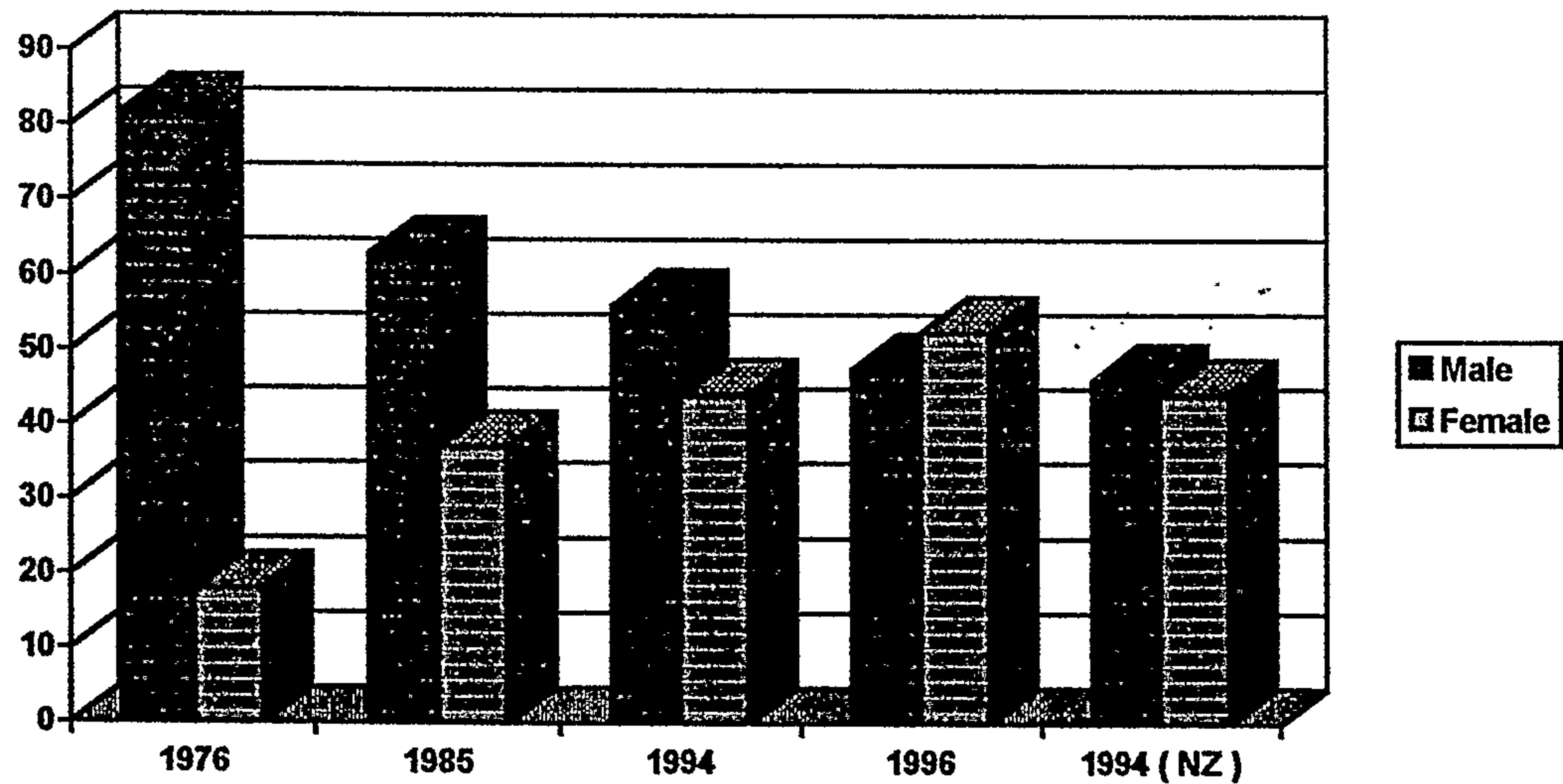
At the Faculty of Dentistry in New Zealand in 1994 there were 49 dental students enrolled. The proportion of female dental students has also increased from 1992 (45. 0 percent) to 1993 (52. 0 percent) to 1994 (54. 0 percent) (Dixon G, 1996).

In the 1964 survey of the Australian dental student population (Barnard 1966, Barnard et al 1967) female dental students accounted for only 5. 0 percent and in the 1957 - 1960 survey at the University of Sydney only 8. 0 percent of dental students were female (Barnard and Siu, 1966).

Table 30 Percent comparison : Samples by gender for first year undergraduate dental students ; University of Sydney and University of Otago.

Samples	1976		1985		1994		1996		1994(NZ)	
	N=	%	N=	%	N=	%	N=	%	N=	%
Males	98	82. 0	64	63. 0	35	56. 0	28	47. 5	23	46. 0
Females	22	18. 0	38	37. 0	28	44. 0	31	52. 5	26	54. 0
Total	120	100	112	100	63	100	59	100	49	100

Figure 26 Percent comparison : Samples by gender for first year undergraduate dental students ; University of Sydney and University of Otago.



4.2.2. Age (Table 31, Figure 27, Appendix 7)

The most common age of dental students at the end of their first year of dentistry in 1976 and 1985 was 19. 7 years and 19. 3 years respectively. 15. 0 percent of dental students were aged 20 years and over (Barnard and Sivanewaran, 1992).

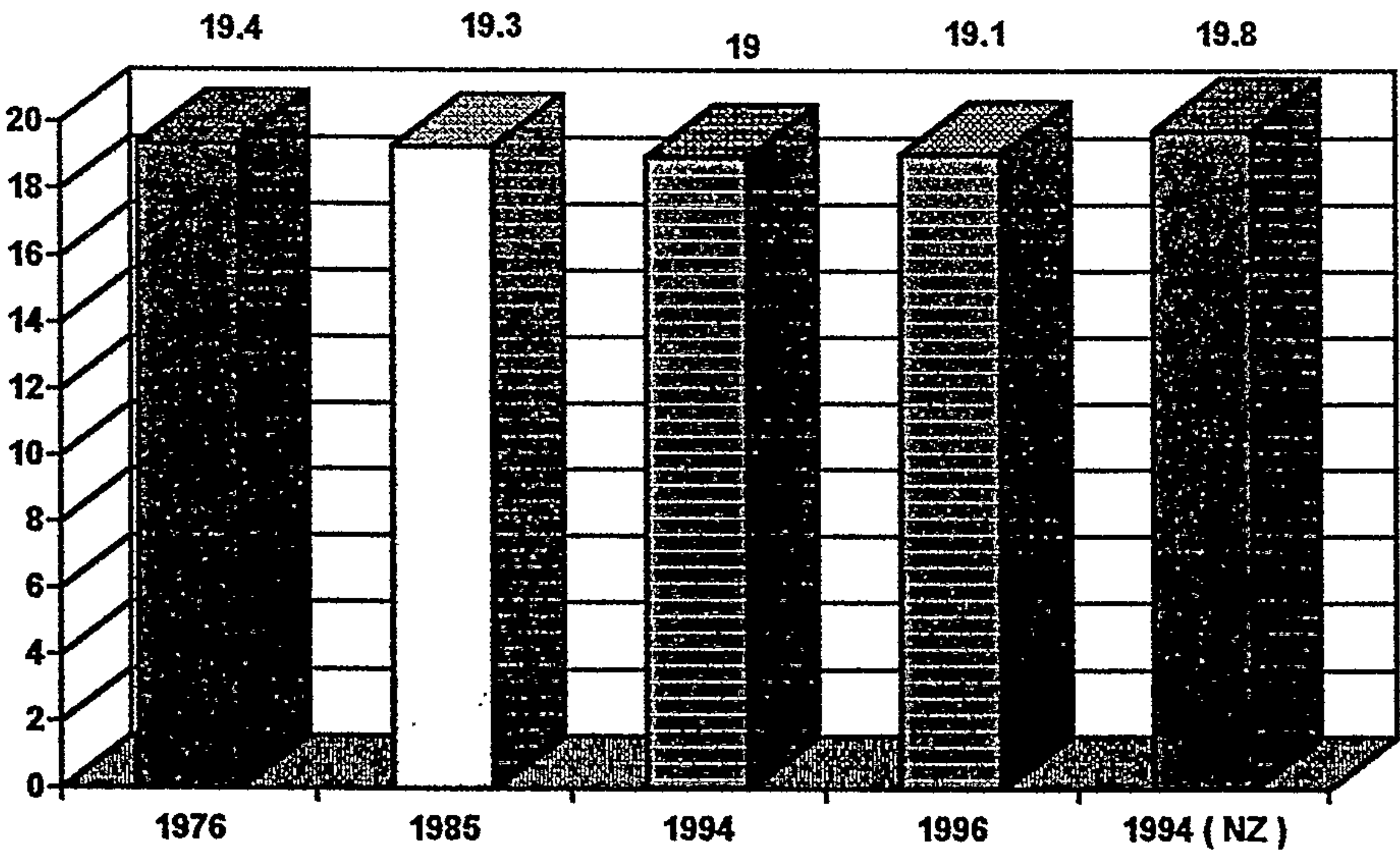
In 1994, the mean age of first year dental students was 19. 4 years with a median value of 18. 8 years. 29. 0 percent of all dental students were 20 years and over.

In 1996, the mean age of first year dental students was 19. 1 years with a median value of 18. 0 years.

Table 31 Comparison of mean age for first year undergraduate dental students ; University of Sydney and University of Otago.

	1976	1985	1994	1996	1994 (NZ)
Mean age	19. 4	19. 3	19. 0	19. 1	19. 8

Figure 27 Comparison of mean age for first year undergraduate dental students ; University of Sydney and University of Otago.



4.2.3. Country of birth (Table 32, Figure 28, Appendix 8)

In 1985, 29 .0 percent of dental students were Australian - born, with 43. 0 percent born in Asia (Barnard and Sivanewaran, 1992).

In 1994, Australian - born dental students comprised 23. 4 percent of the total. Asian - born dental students comprised 64. 1 percent of the total of which 20. 3 percent of the dental students were born in Vietnam and 15. 6 percent were born in Hong Kong (Gietzelt D, 1994).

In 1994, 43. 0 percent of the dental students were New Zealand - born and 45. 0 percent were Asian - born (Dixon G, 1994).

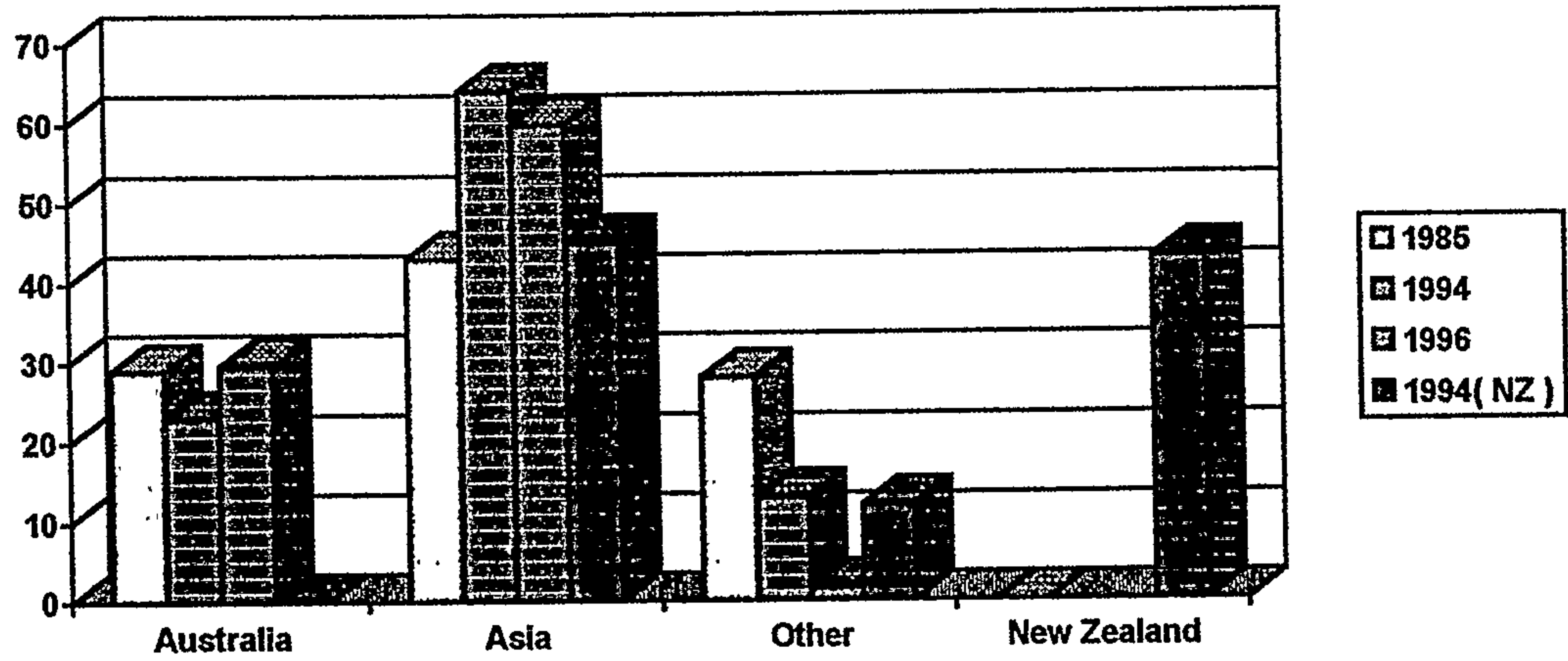
In 1996, Australian - born dental students comprised of 29. 6 percent of the total. Asian - born dental students comprised 59. 8 percent of the total of which, 18. 8 percent originated in Vietnam and 12. 8 percent in Hong Kong.

Table 32 Percent comparison : Country of birth for first year undergraduate dental student ; University of Sydney and University of Otago.

Country of birth	1985	1994	1996	1994 (NZ)
Australian - born	29. 0	23. 0	29. 6	
Asian - born	43. 0	64. 0	59. 8	45. 0
*Other - born	28. 0	13. 0	1. 6	12. 0
New Zealand - born				43. 0

(* Other ; European, Middle East, Africa, America)

Figure 28 Percent comparison : Country of birth for first year undergraduate dental students ; University of Sydney and University of Otago.



4.2.4. Language proficiency (Table 33, Figure 29, Appendix 11)

In 1994, English was regarded as the first language for 30. 6 percent of first year dental students. 20. 0 percent speak Vietnamese as their first language, and 17. 7 percent speak Cantonese as there first language. 32. 0 percent speak a diversity of *other languages as their first language.

In 1996, English is regarded as the first language for 41. 4 percent of dental students. 58. 6 percent regard another language as their first language. 16. 7 percent speak Vietnamese as their first language, 15. 1 percent speak Cantonese. 8. 0 percent speak Korean as their first language. 7. 6 percent speak Mandarin as their first language.

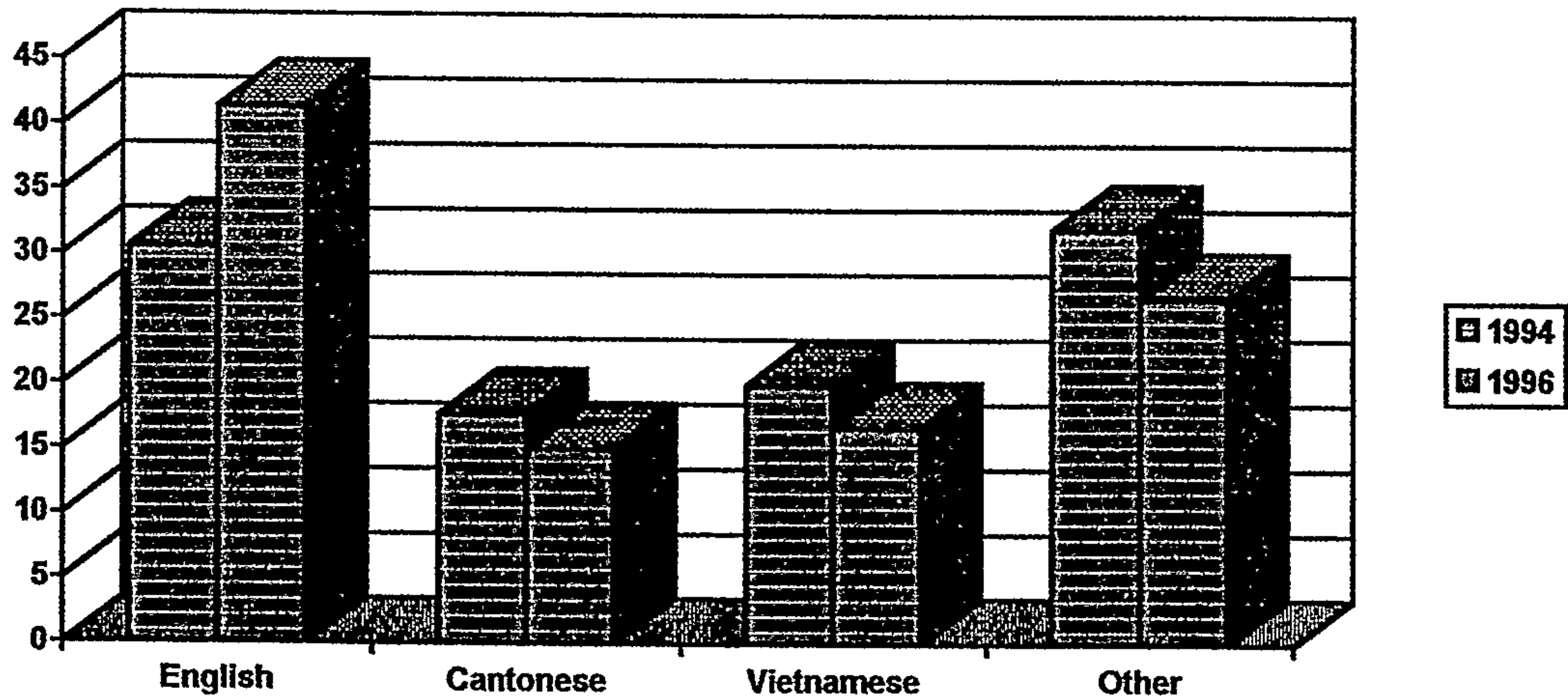
11. 1 percent of dental students speak a variety of other languages which include Arabic, Bulgarian, Filipino, German, Gujarati, Hebrew, Hindi, Hockien, Japanese Kanakini, Lebanese, Loatian, Macedonian, Malay, Marathi, Persian, Romanian, Spanish and Tamil.

Table 33 Percent comparison : Language proficiency of first year undergraduate dental students ; University of Sydney .

First Languages	1994	1996
English	30. 6	41. 4
Cantonese	17. 7	15. 1
Vietnamese	20. 0	16. 7
*Other	32. 0	26. 7

(* Other; Bulgarian, Hindi, Hockien, Japanese, Kanakin, Korean, Laotian, Lebanese, Macedonian, Mandarin, Marathi, Perisan, Romanian, Spanish, Tamil)

Figure 29 Percent comparison : Language proficiency of first year undergraduate dental students ; University of Sydney.



4.2.5. Students secondary education (Table 34, Figure 30, Appendix 12)

In 1976, 82. 0 percent of dental students had completed high school in an Australian Government metropolitan school. The remaining dental students had attended either an Australian non - Government school (8. 0 percent) or schools located interstate or overseas (10. 0 percent). 55. 0 percent of students attended Government schools and 45. 0 percent were from non - Government schools. A slightly higher proportion of female dental students (48. 0 percent) compared with male dental students (43. 0 percent) studied in non - Government schools (Barnard and Sivaneswaran, 1992).

In 1985, 81. 0 percent of dental students had completed high school in an Australian Government metropolitan school. The remaining dental students had attended either an Australian non - Government school (5. 0 percent) or schools located interstate or overseas (14. 0 percent). 53. 0 percent of students attended Government schools and 47 percent were from non - Government schools.

With time, there has been an increase in the proportion of dental students coming from Government schools. There were more dental students with interstate or overseas secondary education in 1985 (16. 0 percent) than in 1976.

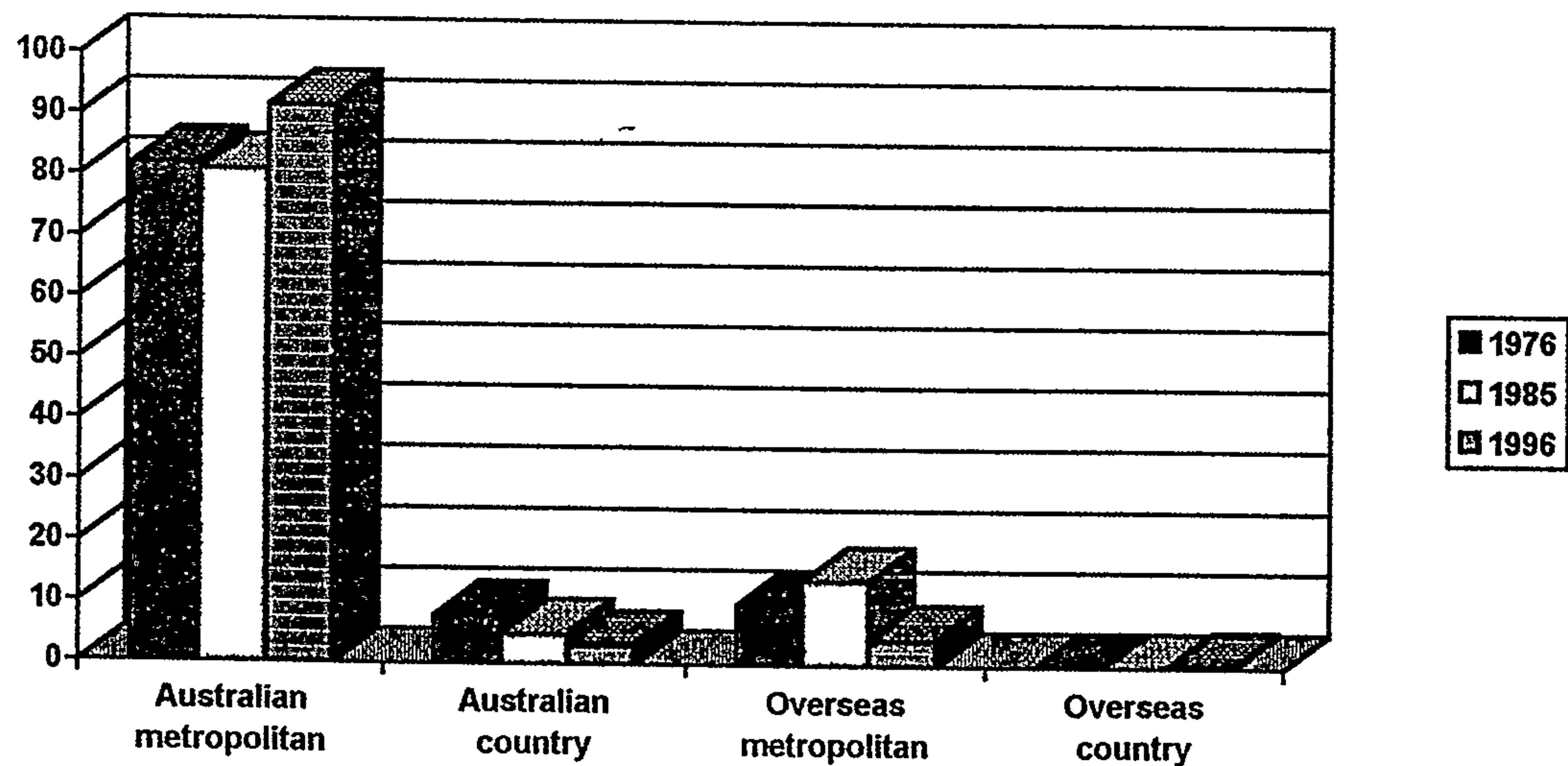
In 1996, 95. 2 percent of dental students were educated in Australian schools. 57. 6 percent of dental students had completed high school in an Australian Government metropolitan school. 34. 8 students had attended an Australian non - Government school. 4. 8 percent of dental students were from overseas schools of which 1. 6 percent attended Government metropolitan schools and 2. 8 percent attended non - Government schools. 60. 4 percent of dental students attended Government schools. 96. 4 percent of dental students attended a metropolitan school.

A slightly higher proportion of female dental students (61. 3 percent) compared with males dental students (38. 7 percent) studied in both Australian and overseas Government schools.

Table 34 Percent comparison : Students' secondary education by location and type of school for first year undergraduate dental students ; University of Sydney.

Secondary school education	1976	1985	1996
Australian Metropolitan : Government and Non - Government	82. 0	81. 0	91. 6
Australian Country : Government and Non - Government	8. 0	5. 0	3. 2
Overseas Metropolitan : Government and Non - Government	10. 0	14. 0	4. 4
Overseas Country : Government and Non - Government	0. 0	0. 0	0. 4

Figure 30 Percent comparison : Students' secondary education by location and type of school for first year undergraduate dental students ; University of Sydney.



4.2.6. Parental Background

4.2.6.1. Country of birth (Table 35, Figure 31, Appendix 9)

In 1994, Australian - born parents comprised 8. 3 percent of the total, with 21. 5 percent originating in Vietnam and 13. 2 percent in Hong Kong. Asian - born parents comprised 73. 6 percent of the total. 18. 1 percent of parents were born in *other countries.

In 1996, Australian - born parents comprised 10. 5 percent of the total. Asian - born parents comprised 69. 3 percent of the total with the largest group (18. 9 percent) originating in Vietnam and 11. 6 percent in China. Many Australian - born students are first generation students from non - English speaking ethnic groups as Australian - born parents comprise only 10. 5 percent.

The next largest group of parents originated from Europe with 11. 4 percent of the total followed by the MiddleEast (6. 6 percent). 1. 9 percent of parents were from the group which included countries from Oceania, Northern, Southern and Eastern Africa, Northern and Southern America.

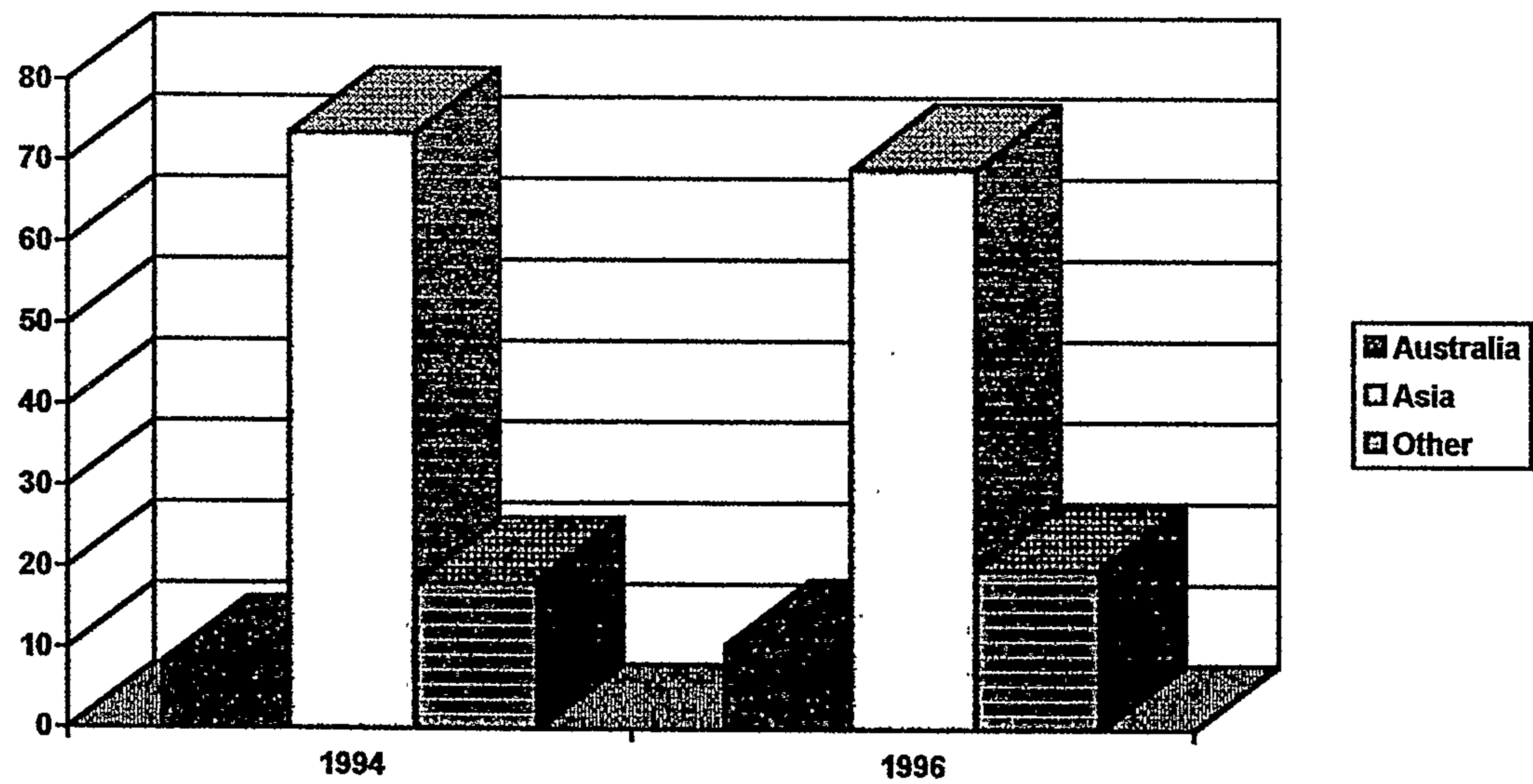
Table 35 Percent comparisons : Country of birth for first year undergraduate dental students ; University of Sydney.

Country of birth	1994	1996
Australia	8. 3	10. 5
*Asia	73. 6	69. 3
**Other	18. 1	19. 9

(* Asia ; SouthEast Asia, NorthEast Asia, Southern Asia)

(* *Other; Europe, MiddleEast, Oceania, Northern, Southern and Eastern Africa, Northern and Southern America)

Figure 31 Percent comparison : Parents' country of birth for first year undergraduate dental students ; University of Sydney.



4.2.6.2. Parents' occupation (Table 36, Figure 32, Appendix 13)

In 1976, for all parents, 30. 0 percent were professionals, significantly higher than for other occupational groups (Barnard P and Sivaneswaran S, 1989). There was no real change in professional occupations of parents over time from 1976 to 1985 as reported by Barnard P and Sivaneswaran S in 1989.

In 1994, professional occupations (which included manager and administration occupations) were highly represented for parents (32 .0 percent) and this was significantly higher than all the other occupations. Other occupations of were tradespersons (38. 0 percent) and Others (30. 0 percent).

Of the professionals the most commonly represented occupations of fathers was medical practitioner (11. 0 percent). There were 4. 0 percent of dental students whose father was a dentist. Considering the occupation of the mothers we can see 24. 0 percent were professionals. Of these 2. 0 percent were medical practitioners and only 3. 0 percent were dentist. The majority of professional mothers were from the other professionals (which included white collar and blue collar occupations) (20. 0 percent) which included teachers, nurses and physiotherapists.

In 1996, Professional occupations were highly represented for parents (32. 1 percent) and this was significantly higher than all the other occupations. Other occupations given of parents were managers and administration (15. 9 percent), tradesperson (12. 4 percent) and other (39. 4 percent).

Of the professionals the most commonly represented occupation of parents was medical practitioner (5. 6 percent). There were 0. 8 percent of dental students whose parents were a dentist.

Considering the occupation of the fathers, 24. 0 percent were professionals. Of these 10. 3 percent were medical practitioners and only 1. 3 percent were dentist. The majority of fathers were from the other occupations (30. 0 percent).

Considering the occupation of the mothers, 25. 1 percent were professionals. Of these 2. 9 percent were medical practitioners and only 0. 4 percent were dentist. The majority of professional mothers were from the other occupation (48. 3 percent) which included miscellaneous, labourers and related workers, plant and machine operators, artist and related professionals, salesperson and personal service workers.

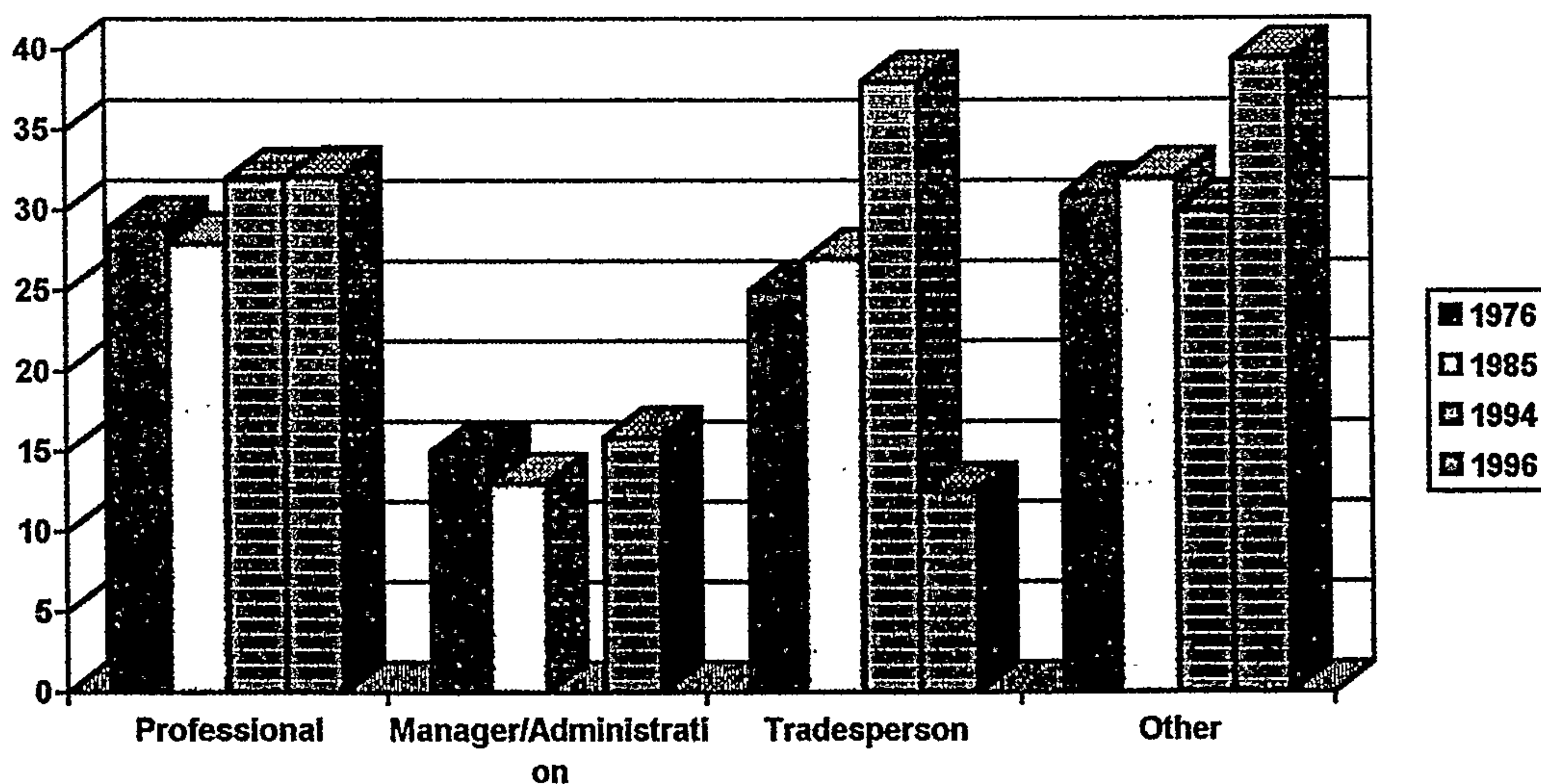
Table 36 **Percent comparison : Parents occupation for first year undergraduate dental students ; University of Sydney.**

Occupation	1976	1985	1994	1996
Professional	29.0	28.0	32.0	32.1
Manager and Administration	15.0	13.0	**	15.9
Tradesperson	25.0	27.0	38.0	12.4
*Other	31.0	32.0	30.0	39.4

(*Other ; Tradesperson / personal services, miscellaneous, labourers and related workers, plant and machine operators)

(** Manager and administration data was combined with the professional category)

Figure 32 **Percent comparison : Parents occupation for first year undergraduate dental students ; University of Sydney.**



4.2.6.3. Parents highest educational level (Table 37, Figure 33, Appendix 14)

In 1976, 36. 0 percent of dental students parents had University degrees. 18. 0 percent of parents had other tertiary qualifications. 23. 0 percent of the parents had completed the higher school certificate or equivalent. 2. 0 percent of parents had not given their educational level and 23. 0 percent had stated other educational levels.

Data was not available to compare fathers educational level with mothers educational levels.

In 1985, 37. 0 percent of dental students parents had University degrees. 24. 0 percent of parents had other tertiary qualifications. 13. 0 percent of parents had completed the higher school certificate or equivalent and 26. 0 percent had stated other educational levels.

In 1996, 52. 4 percent of parents had University degrees. 13. 6 percent of parents had other tertiary qualifications. 17. 1 percent of parents had completed the higher school certificate or equivalent and 16. 9 percent of parents had stated other educational levels.

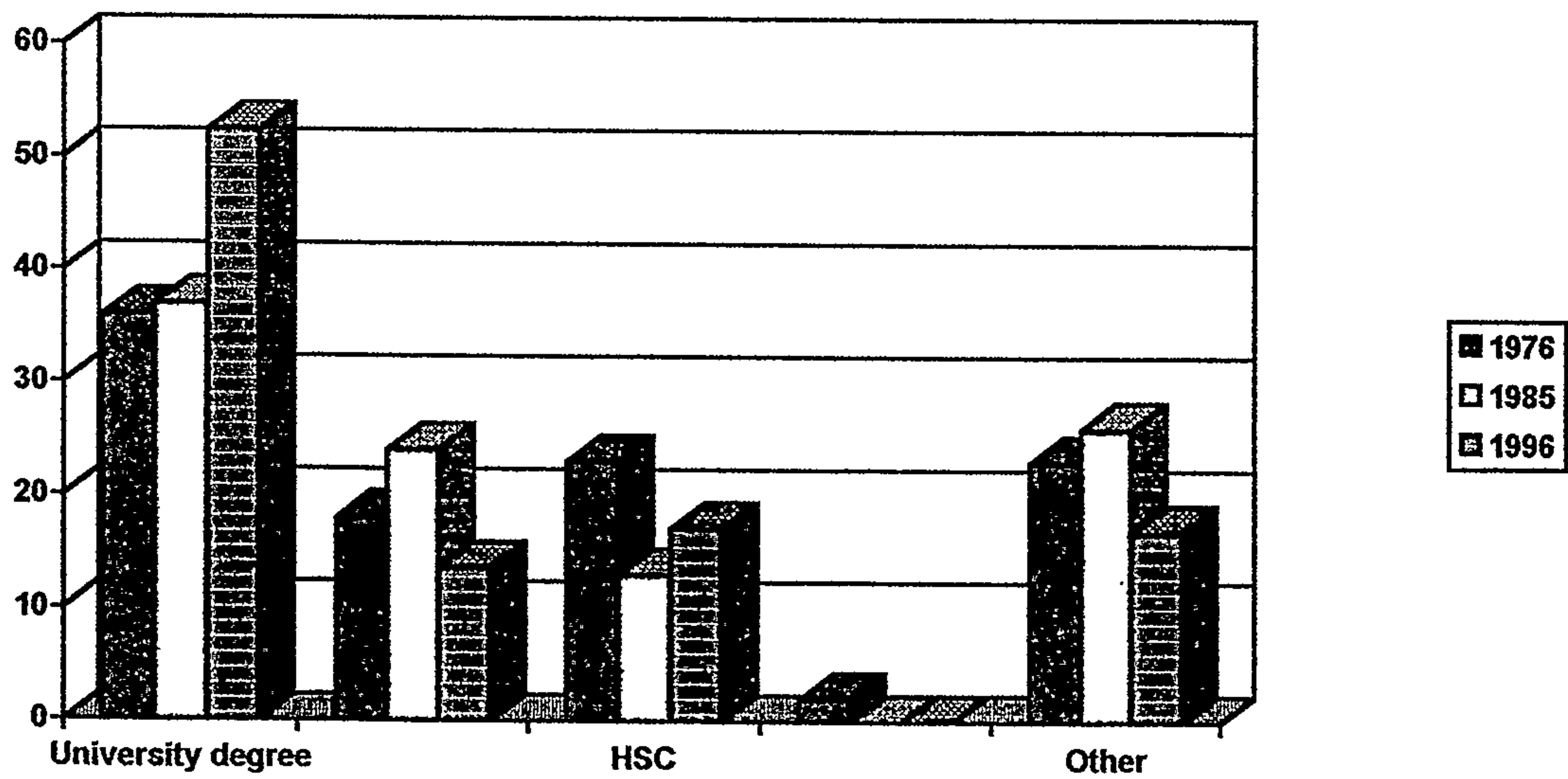
The educational level given for fathers was 64. 9 percent with a University degree and a further 9. 9 percent with other tertiary qualifications. 11. 2 percent of the fathers had completed the higher school certificate or equivalent. 14. 0 percent of the fathers had other educational levels.

Mothers had less University qualifications (40. 2 percent) than fathers (64. 9 percent) and 17. 2 percent had other tertiary education. 24. 2 percent had completed the higher school certificate or equivalent. 18. 4 percent had other educational levels.

Table 37 Percent comparison : Parents highest educational level for first year undergraduate dental students ; University of Sydney.

Education level	1976	1985	1996
University degree	36. 0	37. 0	52. 4
HSC or equivalent	23. 0	13. 0	17. 1
Other	23. 0	26. 0	16. 9
Other Tertiary	18. 0	24. 0	13. 6
Not given	2. 0	0. 0	0. 0

Figure 33 Percent comparison : Parents highest educational level for first year undergraduate dental students ; University of Sydney.



4.2.7. Students residence while attending University

(Table 38, Figure 34, Appendix 15)

In 1976, 75. 0 percent of dental students were living in their parents' home while attending University. 12. 0 percent of dental students were living in an University college. 11. 0 percent of dental students were living in the category of other which included the home of other relative or family friend, boarding house or lodging, hostel and house or flat rented shared by students.

In 1985, 74. 0 percent of dental students were living in their parents' home while attending University. 8. 0 percent of dental students were living in an University college. 18. 0 percent of dental students were living in the category of other which includes the home of other relative or family friend, boarding house or lodging, hostel and house or flat rented shared by students.

In 1996, 75. 2 percent of dental students were living in their parents' home while attending University. Only 3. 2 percent of dental students were living in an University college.

There has been a substantial increase in the percentage of dental students living in the category other (19. 6 percent) which includes the home of other relative or family friend, boarding house or lodging, hostel and house or flat rented shared by students.

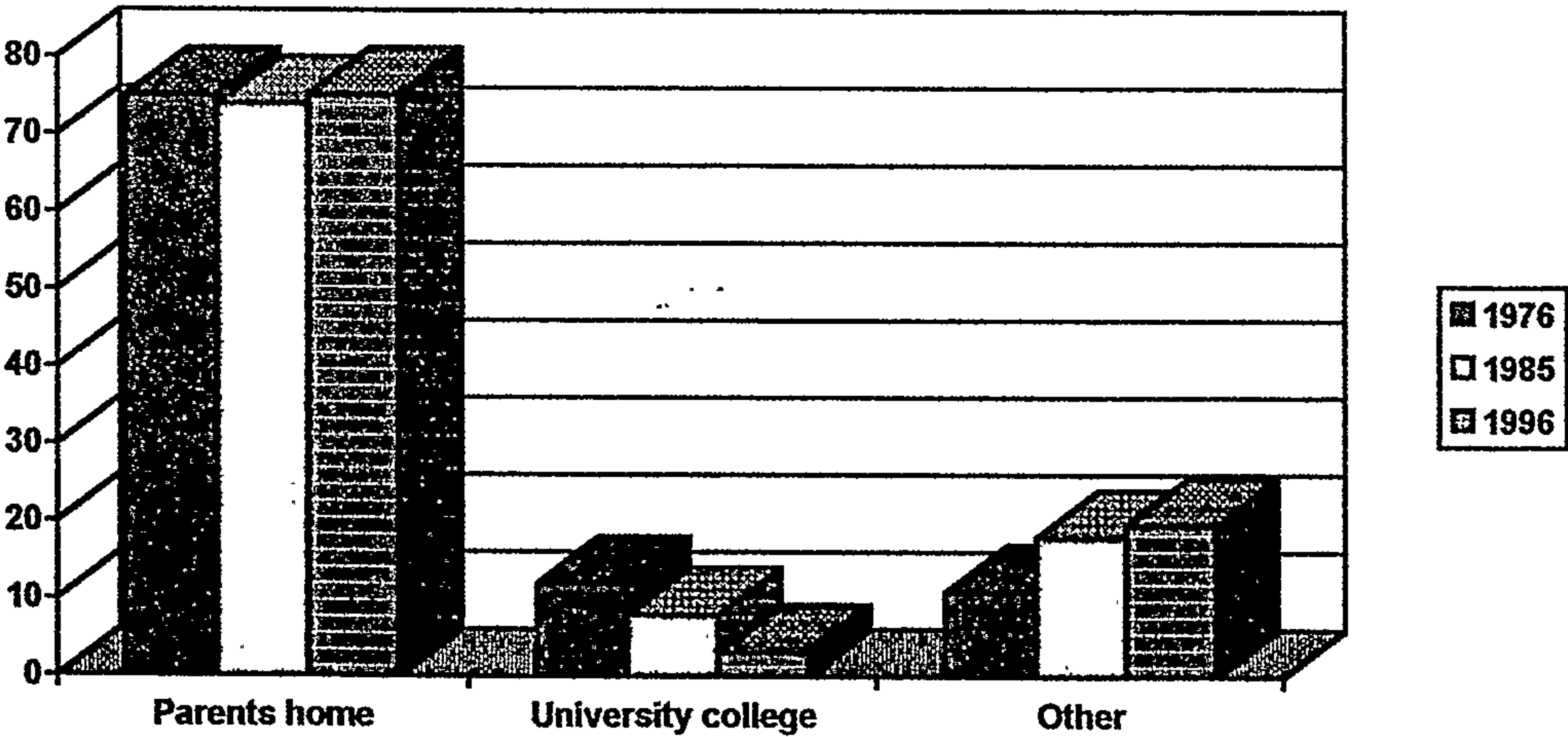
There was no statistical significant differences ($P < 0. 05$) by gender for the students main residence location. *

Table 38 Percent comparisons : Main residence for first year undergraduate dental students ; University of Sydney.

Residence	1976	1985	1996
Parents home	75. 0	74. 0	75. 2
*Other	11. 0	18. 0	19. 6
University college	12. 0	8. 0	3. 2

(*Other ; Home of other relative or family friend, boarding house or lodging, hostel, house or flat rented shared by students)

Figure 34 Percent comparison : Main residence for first year undergraduate dental students ; University of Sydney.



4.2.8. Preference for choice of career (Table 39, Figure 35, Appendix 16)

In 1985, 68. 0 percent of dental students indicated that their first preference for field of study was dentistry. 29. 0 percent of dental students indicated medicine was their first choice. 3. 0 percent of dental students indicated that their first choice was other which included pharmacy, law, science, veterinary science, optometry, engineering, arts, therapy and commerce.

There appeared to be only a slight significant differences between male and female dental students. Male dental students indicated a higher preferences for veterinary science and engineering course.

In 1994, 47. 0 percent of the dental students indicated that their first preference for field of study was dentistry and 43. 0 percent indicated medicine as their next choice. 10. 0 percent of dental students had indicated other as their first choice.

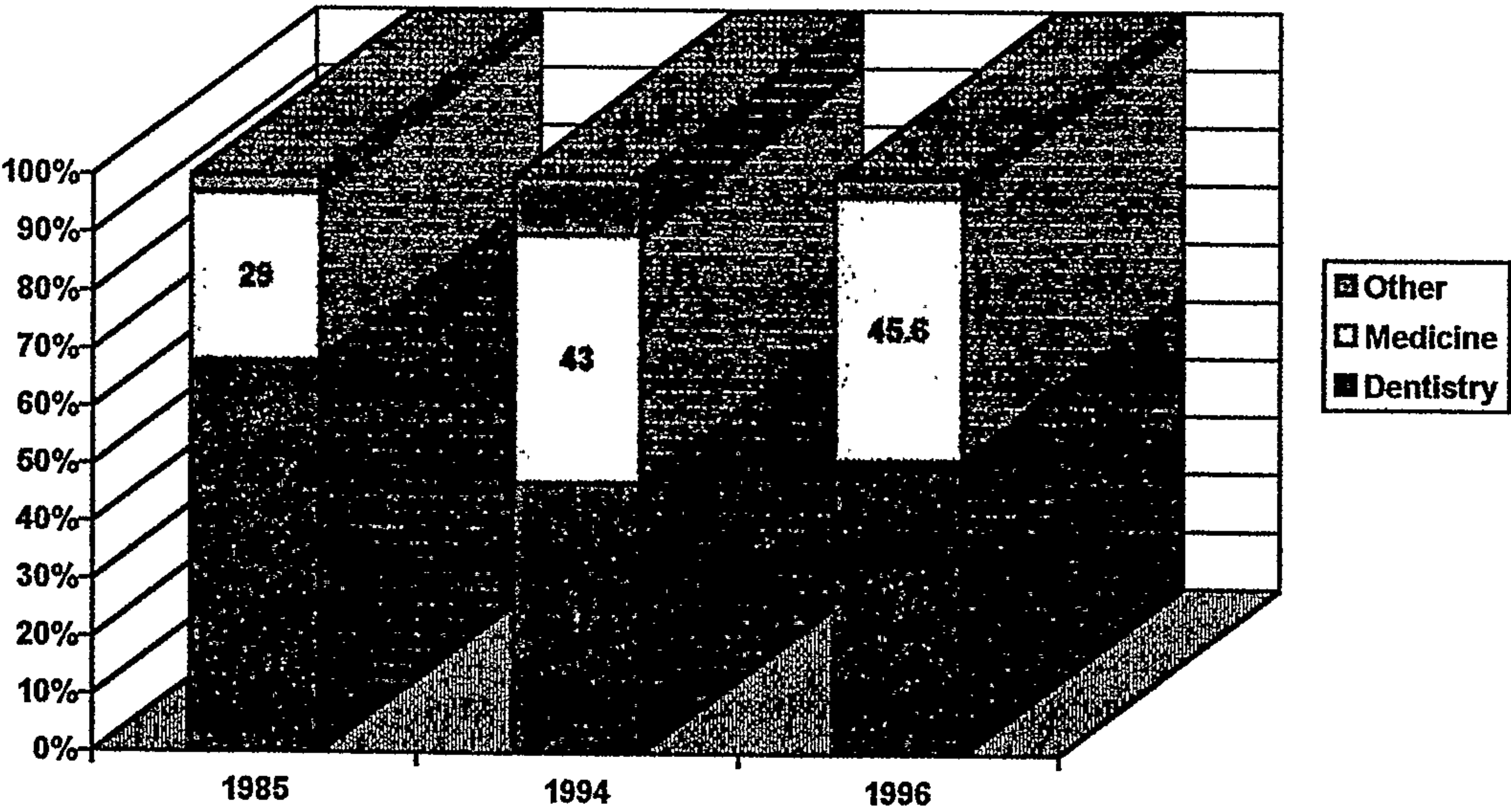
In 1996, 51. 0 percent of the dental students indicated that their first preference for field of study was dentistry and 45. 6 percent indicated medicine as their next choice. 3. 3 percent of dental students had indicated other as their first choice.

Table 39 **Percent comparison : Preference for first choice of career for first year undergraduate dental students ; University of Sydney.**

1st choice of career	1985	1994	1996
Dentistry	68. 0	47. 0	51. 0
Medicine	29. 0	43. 0	45. 6
* Other	3. 0	10. 0	3. 3

(* Other; Pharmacy, law, science, veterinary science, optometry, engineering, arts, therapy, commerce)

Figure 35 **Percent comparison : Preference for first choice of career for first year undergraduate dental students ; University of Sydney.**



4.2.9. Students occupation and studies prior to dental school

(Table 40, Figure 36, Appendix 17, 18)

In 1985, 92. 0 percent of dental students came directly from high school. 3. 0 percent of dental students had been attending another University course. 3. 0 percent of dental students had indicated “ other ” which included a range of activities from holiday, student exchange, dental technician, computing professionals, radiographer and more (appendix 17 and 18). 3. 0 percent of dental students had not given their occupation prior to entering the dental course.

In 1994, 90. 5 percent of dental students had come directly from high school. Only one person had a previous degree (BSc from an overseas University). 9. 5 percent of dental students had undertaken some tertiary education previously, in applied science mathematics and chemical engineering. 25. 4 percent of dental students had some previous employment, mostly as vacation jobs, on a casual or part - time basis. Most of the employment was in the hospitality or service industries. A small number of dental students were employed in skilled positions: as a teacher, a technician or child care worker.

In 1996, 84. 3 percent of dental students had come directly from high school. Dental students that indicated they did not commence the course immediately after high school spent on average 3 years, pursuing other interests. 40. 7 percent of those dental students had undertaken some tertiary education or were studying previously in these courses, pharmacy, engineering, radiography, chemist and medical research. 25. 0 percent were working as professionals as a dental or lab technician, computing, aircraft's pilot, salesperson position and some research work.

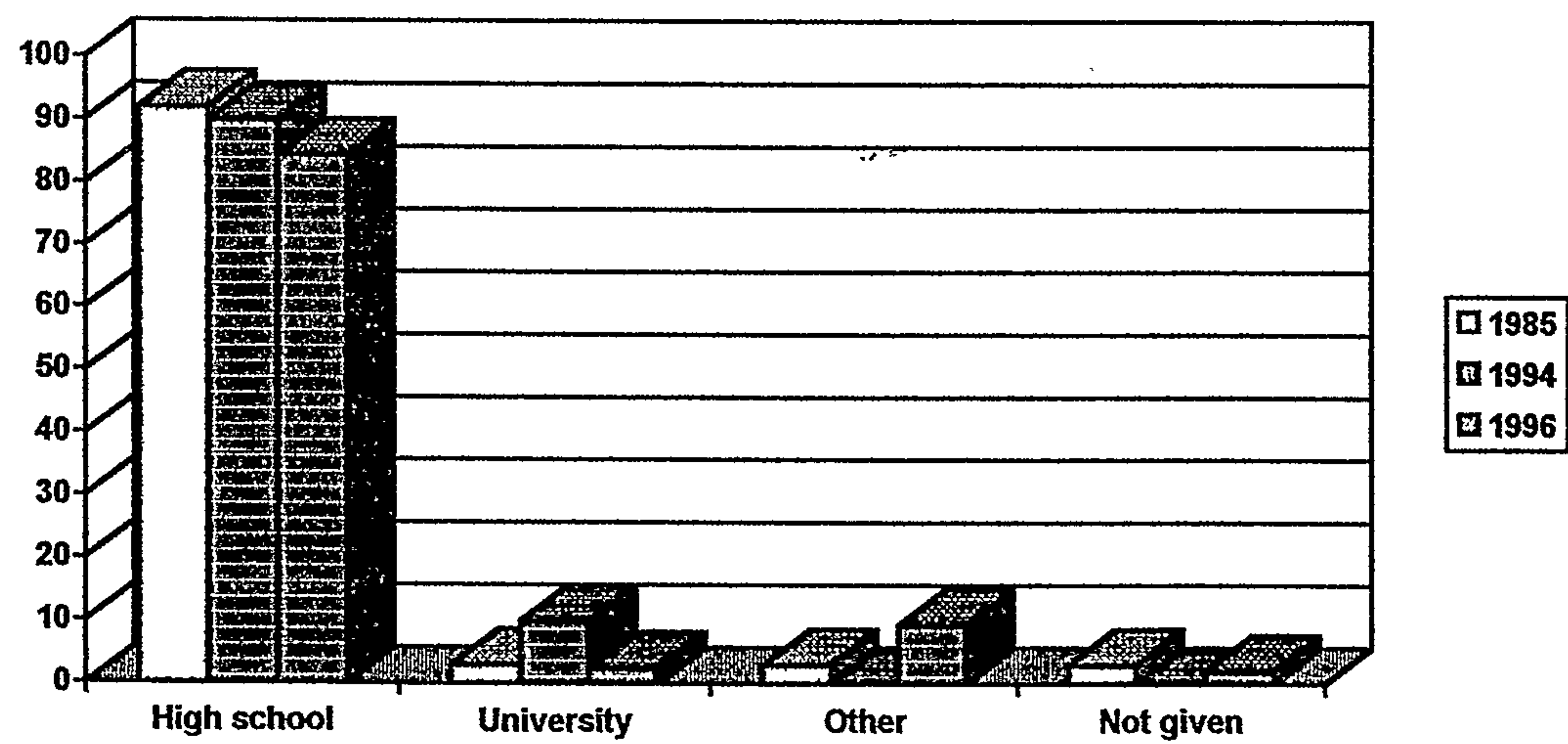
9. 4 percent of dental students had some previous employment in the trade areas, mostly as vacation jobs, being on casual or part - time basis. Most of the employment was in the hospitality or service industries. A few dental students were on holiday or involved with a student exchange program before commencing the dental course.

Table 40 Percent comparison : Occupation prior to entering the Faculty of Dentistry for first year undergraduate dental students ; University of Sydney.

Occupation	1985	1994	1996
High school	92. 0	90. 5	84. 3
*Other	3. 0	0. 0	9. 4
University student	3. 0	9. 5	2. 5
Not Given	3. 0	0. 0	2. 0

(* Other ; Holiday, student exchange, dental technician, computing professionals, radiographer and more : appendix 17, 18)

Figure 36 Percent comparison : Occupation prior to entering the Faculty of dentistry for first year undergraduate dental students ; University of Sydney.



4.2.9.1. Reasons for choosing dentistry as a career (Table 41, Appendix 20)

Research on student motivation for choosing dentistry as a career in Australia goes back many years. In 1994, finding based on comparisons do demonstrate a remarkable consistency. Dental students predominant motives to become dentist were to serve others, to be independent, work with their hands, acquire status, prestige and financial security, be upwardly socially mobile and work a 9am to 5pm day. The least important motives were manual and communication skills, science and knowledge and status and prestige.

For students entering the Dental Faculty in 1996, qualitative research methods were used for a selection process to explore the reasons students had for choosing dentistry. This information was collected by means of an interview and written submission as well as the entry grade that was required to enter the dental course.

These documents and interviews containing as they did a detailed narrative of the processes, events and people that influenced their decision.

Data collected reflected their reasons for the choice and their thoughts, beliefs, opinions and perceptions of a variety of issues that were very much part of the decision making process.

Australian dental students motives for becoming dentist did not differ from those dental students in other countries.

In 1996, dental students predominant motives to become dentist were the desire to work independently, desire to work for and with people, monetary advantages of the profession, lifestyle perceived within the profession and the interest in the work of the profession.

The least important motives given by dental students were a better chance of entering and completing a dental course than other courses, do not know and personal character.

Table 41 Comparison : Reasons for choosing dentistry as a career for first year undergraduate dental students ; University of Sydney.

	1994	1996
Greatest Influence	Dentistry provides a secure career	Desire to work independently
	Dentistry will give me an opportunity to help people	Desire to work for and with people
	Dentistry is more interesting and challenging than most other careers	Monetary advantages of the profession
	Dentists have a high income	Lifestyle perceived within the profession
	I like the scientific knowledge aspect of dentistry	Interest in work of the profession
	Dentist have high prestige in the community	
	I achieved the marks required for entry into dentistry	
	My family wanted me to do dentistry	Better chance of entering and completing a dental course than other courses
	There are different kinds of careers within the general field of dentistry	Do not know
Least Influence	I see dentistry as the best career because top students are accepted	Personal character

4.2.9.2. Intentions after graduation (Table 42, Figure 37, Appendix 22)

In 1994, 67. 0 percent of dental students intended to enter the private practice sector. 20. 0 percent of dental students intended to specialise of which 65. 0 percent choose to specialise in Orthodontics, followed by Paediatrics and Oral Surgery. 4. 0 percent of dental students intended to teach or enter the research sector. 4. 0 percent of the dental students were undecided.

In 1996, within the first year after graduation, 40. 7 percent of dental students stated they would prefer to work in the State public health services. 36. 5 percent of dental students preferred to be an assistant in the private practice sector.

7. 9 percent of dental students preferred to own their own private practice and 5. 3 percent of dental students preferred to be employed in the other category, which included the armed forces, post - graduate studies, private company, research work and teaching positions. 9. 5 percent of dental students were undecided.

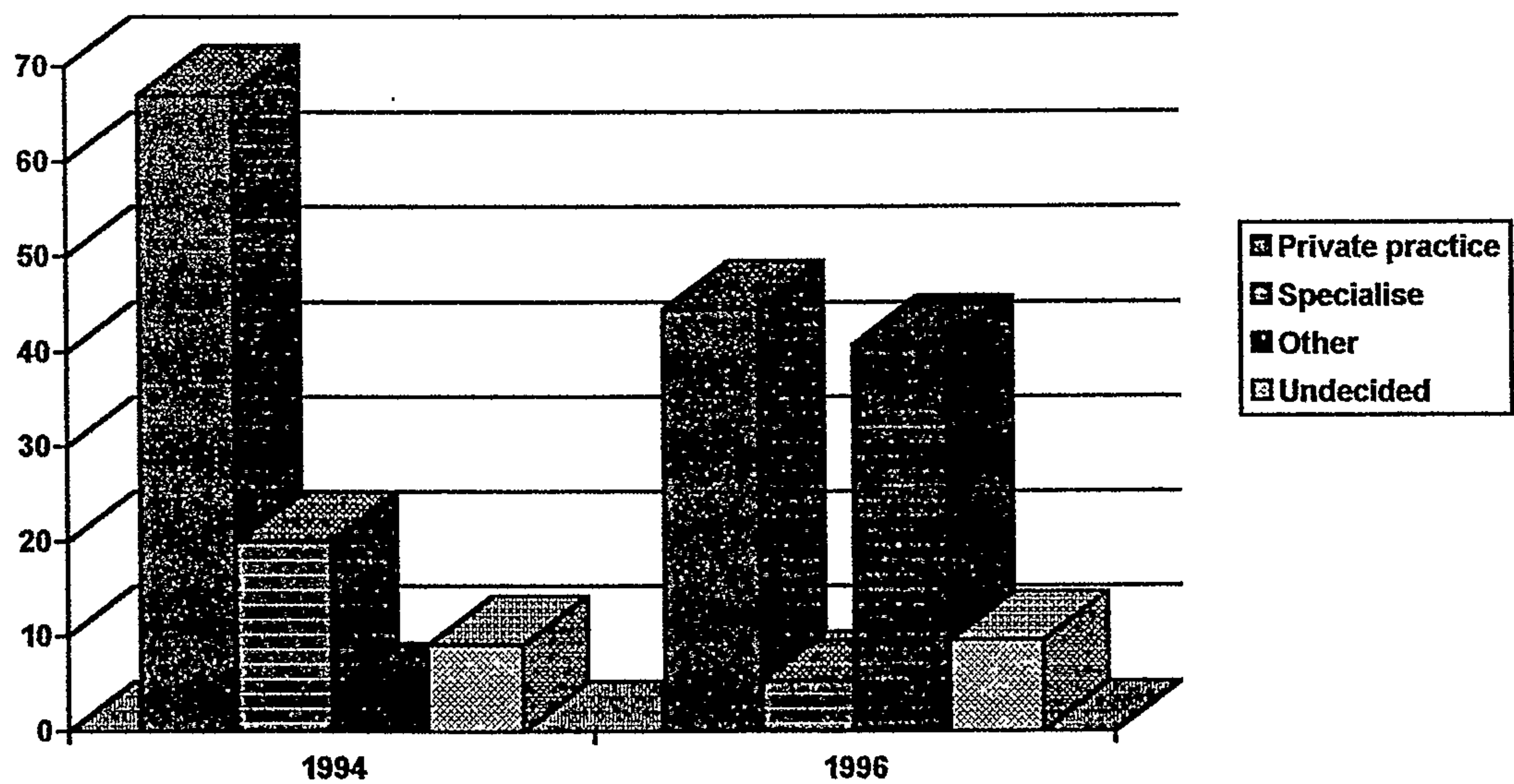
There were no statistical significant differences ($P < 0.05$) with male and female dental students intentions after graduation.

Table 42 **Percent comparison : Aspirations after graduation for first year undergraduate dental students ; University of Sydney.**

Intentions after graduation	1994	1996
Private practice	67. 0	44. 4
*Other	4. 0	40. 7
Undecided	9. 0	9. 5
Specialise	20. 0	5. 3

(* Other ; Armed forces, state public health services, postgraduate studies, research work, teaching position, private company)

Figure 37 **Percent comparison : Aspirations after graduation for first year undergraduate dental students ; University of Sydney.**



CHAPTER 5.0.

DISCUSSION

Research on students choosing dentistry in Australia as a career, extends back to the early 1960s. Most comparisons were made over time with different Universities, same Universities and different years and comparisons have shown results to be consistent. The selection of student applicants for dental school quota positions has received considerable attention in the dental literature on dental education throughout the world.

The issue of selecting students for dental schools is of absolute importance and should be viewed with some concern as this has implications on the size and composition of the dental workforce in the future.

This *thesis* presents some information derived by a *survey questionnaire* on the changing profile, social characteristics and background information of 251 incoming undergraduate dental students to the Faculty of Dentistry, University of Sydney from 1992 to 1996. The author achieved an 81.0 percent response rate which was considered to be representative of the total group.

During 1996 (59) there were fewer dental students enrolled than in 1976 (120), 1985 (112) and 1994 (63) at the Faculty of Dentistry in Sydney. At the Faculty of Dentistry in New Zealand in 1994 there were 49 dental students enrolled.

In 1996, the *mean age* of first year dental students was 19.1 years. The mean age for all dental students from 1992 to 1996 was 21.4 years and there were no statistically significant differences ($P < 0.05$) in age between different entry years or between male and female dental students.

The mean age of students was found to be similar for first year dental students in Sydney in 1976 and 1985 (19.7 years and 19.3 years respectively)(Barnard and Sivanewaran, 1992). The mean age of first year dental students from 1992 to 1994 in New Zealand was 20.1 years.

In the United States, first year students are generally more mature and around 24. 0 years in age (Fusillo A and Mertz S, 1971). The different education system allows Australian and New Zealand students to enter the dental faculty immediately after high school and college respectively but in the United States dentistry is a Post College course.

In 1996, *gender* distribution for all dental students were evenly represented with males (55. 8 percent) and females (44. 2 percent). The proportion of female dental students increased slightly with time from 8. 0 percent in 1964 (Over R, Spencer J, McDougall W, 1984) to 1976 (18. 0 percent) to 1985 (37. 0 percent) (Barnard and Sivanewaran, 1992) to 1994(45. 0 percent) (Gietzelt D, 1994) to 1996 (52. 5 percent).

In 1996, there was a very diverse *ethnic mix* of dental students at the University of Sydney, with the majority of dental students being born overseas or being first generation citizens or residents of Australia (70. 4 percent). 91. 0 percent of the dental students were Australian citizens with 1. 6 percent being International students. 13. 2 percent of the students had dual citizenship. In 1967, there were only 15 percent overseas students, which included 10. 0 percent from Hong Kong and Malaysia.

In 1996, *Australian - born* dental students only comprised 29. 6 percent of the sample. A high preference for dentistry is shown by those dental students from the SouthEast Asian (59. 8 percent), European (5. 2 percent) and the MiddleEastern (3. 2 percent) countries. There has been an increase in the proportion of Asian - born students from 43 .0 percent in 1985 to 59. 8 percent in 1996. There has been no significant change in the proportion of Australian - born students 1985 to 1996 (29. 0 percent to 29. 6 percent respectively). However, there was a dramatic decline in dental students born in other countries from 28. 0 percent in 1985 to 1. 6 percent in 1996.

A positive aspect is that there will continue to be an increasing number of overseas - born (predominantly Asian) dental practitioners who will practise and provide some consumer choice to an increasing Asian population in Australia.

In 1996, English is regarded as the *first language* for 41. 4 percent of the dental students which has slightly increased since 1994 (30. 6 percent). Vietnamese (16. 7 percent) and Cantonese (15. 1 percent) are highly representative as first languages. It is not unusual to have more than 60. 0 percent of dental students collectively to speak 25 to 30 languages other than English.

In 1996, the proportion of dental students who attended *high school* in Australian Government metropolitan schools has decreased (1972 ; 82. 0 percent, 1985 ; 81. 0 percent and 1996 ; 57. 6 percent). A large proportion of dental students had attended Australian non - Government metropolitan schools (34. 8 percent). In the 1964 national survey 80. 0 percent of dental students had attended metropolitan schools and the proportion of entrants from Government and non - Government schools was approximately 50 : 50 for Sydney.

In 1996, 46. 4 percent of dental students indicated their *decision to enter* dentistry was made late in high school. 84. 3 percent of the dental students had come directly from high school. 15. 7 percent of the dental students indicated they did not commence the course immediately after high school and spent an average of 3 years pursuing other careers with 40. 7 percent of the dental students attending another tertiary institution or University.

The proportion of *Australian - born parents* has not changed significantly from 1994 to 1996 (8. 3 percent to 10. 5 percent respectively) but the proportion of Asian - born parents has decreased (73. 6 percent to 69. 3 percent respectively).

In 1996, professional *occupations* were highly represented for parents (32. 1 percent) and this was significantly higher than all the other occupations.

Other occupations given of parents were managers and administrators (15. 9 percent), tradespersons (12. 4 percent) and other (39. 4 percent). Of the professionals the most commonly represented occupations of parents are medical practitioners (5. 6 percent) and 0. 8 percent of dental students parents are dentists.

In 1996, many dental students had well *educated parents* with 52. 4 percent of parents having University degrees compared to 37. 0 percent in 1985 and 36. 0 percent in 1976. This greater representation of professional parents may indicate direct family influences on the student's choice of occupation. These findings are consistent with the USA studies of Kress and a Canadian study by Reid which indicated that dental students came from a higher than average socio - economic background.

In 1996, 96. 4 percent of dental students resided in the New South Wales State and 3. 6 percent from outer State of which 3. 2 percent came from Queensland and 0. 4 percent of dental students came from Victoria. 41. 0 percent resided in the NorthWestern suburbs, 27. 9 percent resided in the SouthWestern suburbs, 14. 9 percent in the Northern suburbs, 11. 5 percent from the Eastern suburbs and 4. 8 percent in the Metropolitan Inner Sydney suburb.

In 1996, 75. 2 percent of the dental students are *living* in their parents home. This trend has not changed much with time (1985 ; 74. 0 percent, 1976 ; 75. 0 percent). University college residence appears not to be favourable any more (1976 ; 12. 0 percent, 1985 ; 8. 0 percent, 1996 ; 3. 2 percent). 12. 0 percent of dental students live in a house or rented flat shared with other students.

In 1996, 51. 0 percent of dental students indicated that their *first preference* for field of study was dentistry. 46. 6 percent of dental students indicated medicine as their next preference. 3. 3 percent of dental students indicated other.

The preference for dentistry has decreased over time from 1985 to 1994 but increased from 1994 to 1996. Within the first year group there was a higher proportion of dental students with dentistry as a first preference due to a new selection criteria introduced which involved an interview process at the University of Sydney. The preference for medicine as first choice has increased from 29. 0 percent in 1985 to 43. 0 percent in 1994 to 45. 6 percent in 1996.

Dental students in 1996 were *mostly influenced* in their choice of a dental career by their parents (83. 3 percent) followed by their own self motivation (74. 7 percent). The least influence to enter dentistry was from their school teacher (3. 0 percent). In the 1964 survey, dental students were most influenced in their choice of a dental career by a dentist or their fathers and had the desire to work as their own boss for good financial return and work for and with people. Employment, financial and status prospects are still favourable for dental students but they were more favourable in the 1960's.

In 1996, dental students' most predominant *motives* for choosing dentistry as a career was the desire to work independently (70 .0 percent), the desire to work for and with people (68. 0 percent) and monetary advantages (61. 4 percent). Their least important motive were personal character (4. 0 percent). In 1994, dental students predominant motives to become dentist were to serve others, to be independent, work with their hands, acquire status, prestige and financial security, be upwardly socially mobile and work a 9am to 5pm day. The least important motives were manual and communication skills, science and knowledge, status and prestige.

The introduction of an *Intern Year* has been discussed and recommended by various bodies in the dental profession and in dental literature. However, only 43. 5 percent of dental students were in favour of an Intern Year. 27. 5 percent of dental students were still undecided which may indicate that many students may not be informed of the Intern Year concept.

It appears that most dental students (54. 6 percent) *intend* to enter the public sector in the early part of their practising career but this is not so appealing in the latter years (4. 5 percent). 59. 6 percent *intend* to enter the private sector either working as an assistant in a practice or in their own private dental practice in the latter part of their practising career.

In 1996, dental students indicated that in the early years of their practising career, 76.9 percent *preferred to practice* within the New South Wales State. The next preferred location was their home country (9.8 percent) followed by overseas (7.3 percent). In the latter part of their practising career, 17.9 percent of dental students were undecided however, 62.0 percent of students indicated to practice in New South Wales. The next preferred location were overseas (14.4 percent) and their home country (1.3 percent).

18.8 percent of dental students indicated they *intended to practice overseas* after graduation with their home country being the most popular destination, followed by Europe for overseas experience due to the acceptance of their dental degree to practice. Comparing Australian and Asian dental students, a significantly greater number of Asian dental students wished to practice overseas and significantly more Australian dental students wished to practice in Australia. There has been an increasing number of Asian-born dental students who plan to return to their country of birth to practice.

Within the first five years of the dental students practising career, 48.8 percent of dental students declared they could *anticipate an earning* within the range of \$ 0 - 55,000, followed by 23.7 percent declaring they could earn \$ 56,000 to \$ 99,000, 8.4 percent of dental students' anticipated they would earn over \$ 100,000. 19.1 percent of the dental students simply did not know what they would anticipate to earn.

Dental students declared that 10 years after graduating they could anticipate an earning between \$ 0 - 55,000 and 20.1 percent declaring they could earn between \$ 56,000 to \$ 99,000 and 50.9 percent anticipated they would earn over \$ 100,000. 23.7 percent of the dental students simply did not know what they could anticipate to earn.

The training of *specialist* will provide a valuable service not only for the dental profession but also to the population at large. 35.1 percent of the dental students intended to specialist after graduation. 50.5 percent of dental students were undecided.

The most popular *specialist field* chosen by dental students was Orthodontics (33.6 percent) followed by Oral Surgery (22.1 percent).

CHAPTER 6.0.

CONCLUSION

In 1996, the mean age of first year dental students was 19. 1 years. Gender distribution for all dental students were evenly represented with males (55. 8 percent) and females (44. 2 percent). The proportion of female dental students has increased with time from 8. 0 percent in 1964 to 52. 5 percent in 1996. 57. 6 percent of dental students had attended high school in Australian Government metropolitan schools and 34. 8 percent attended Australian non - Government metropolitan schools. 46. 4 percent of dental students indicated their decision to enter dentistry was made late in high school.

84. 3 percent of the dental students had come directly from high school. 15. 7 percent of the dental students indicated they did not commence the course immediately after high school and spent an average of 3 years pursuing other careers. 96. 4 percent of dental students resided in the New South Wales State, of which 41. 0 percent resided in the NorthWestern suburbs. 75. 2 percent of the dental students are living in their parents home. 12. 0 percent of dental students lived in a house or flat shared with other students.

51. 0 percent of dental students indicated that their first preference for field of study was dentistry. Within the first year group there was a higher proportion of dental students with dentistry as a first preference due to a new selection criteria introduced which involved an interview process at the University of Sydney.

There was a very diverse ethnic mix of dental students at the University of Sydney, with the majority of dental students being born overseas or being first generation citizens or residents of Australia (70. 4 percent). 91. 0 percent of the dental students were Australian citizens with 1. 6 percent being International students. 13. 2 percent of the students had dual citizenship.

↓

There has been an increase in the proportion of Asian - born students from 43. 0 percent in 1985 to 59. 8 percent in 1996. There has been no significant change in the proportion of Australian - born students 1985 to 1996 (29. 0 percent to 29. 6 percent respectively). However, there was a dramatic decline in dental students born in other countries from 28. 0 percent in 1985 to 1. 6 percent in 1996.

English is regarded as the first language for 41. 4 percent of the dental students. Vietnamese (16. 7 percent) and Cantonese (15. 1 percent) are highly representative as first languages. It is not unusual to have more than 60. 0 percent of dental students collectively speaking 25 to 30 languages other than English.

10. 5 percent of dental students had Australian - born parents. 69. 3 percent of dental students had Asian - born parents. Dental students had well educated parents with 52. 4 percent of parents having University degrees. Professional occupations were highly represented for parents (32. 1 percent).

43. 5 percent of dental students were in favour of an Intern Year. 27. 5 percent of dental students were still undecided which may indicate that many students may not be informed of the Intern Year concept. 35. 1 percent of the dental students intended to specialist after graduation. Orthodontics (33. 6 percent) and Oral Surgery (22. 1 percent) were popular specialist field chosen by dental students.

Dental students were mostly influenced in their choice of a dental career by their parents (83. 3 percent) followed by their own self motivation (74. 7 percent). The least influencing factor to enter dentistry was their school teacher (3. 0 percent).

Dental students' most predominant motives for choosing dentistry as a career was the desire to work independently (70. 0 percent), the desire to work for and with people (68. 0 percent) and monetary advantages (61. 4 percent). Their least important motive was personal character (4. 0 percent).

It appears that most dental students (54. 6 percent) intend to enter the public sector in the early part of their practising career but this is not so appealing in the latter years (4. 5 percent). 59. 6 percent intend to enter the private sector either working as an assistant in a practice or in their own private dental practice in the latter part of their practising career.

Dental students indicated that in the early years of their practising career, 76.9 percent preferred to practice within the New South Wales State. The next preferred location was their home country (9.8 percent) followed by overseas (7.3 percent). In the latter part of their practising career 62.0 percent of students indicated to practice in New South Wales. The next preferred location with 14.4 percent was overseas and their home country (1.3 percent).

Comparing Australian and Asian dental students, a significantly greater number of Asian dental students wished to practice overseas and significantly more Australian dental students wished to practice in Australia. There has been an increasing number of Asian-born dental students who plan to return to their country of birth to practice.

The trends during the period 1992 to 1996 can be summarised as follows :

Increase in the number of overseas born students

Increase in students from Government schools

Increase in female dental students

Increase in first preference for dentistry

The major changes shown since earlier surveys of dental students in 1964, 1976 to 1985, 1994 and 1994 in New Zealand can be summarised as :

Decrease in the number of students

Increase in the number of overseas born students

Increase in students from Government schools

Increase in female dental students

Increase in first preference for dentistry

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The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 26 : Specialist Intention (Cont)							
				Male		Female	
							1992-1996
Field			N=	%	N=	%	N=
Orthodontics			32	22.9	15	13.5	38
Periodontics			1	0.7	6	5.4	7
Oral surgery			15	10.7	10	9	25
Prosthetics			1	0.7	1	0.9	8
Paediatrics			5	3.7	3	2.7	17
Endodontics			3	2.1	14	12.6	3
Implantology			1	0.7	2	1.8	1
Public Health Dentistry			1	0.7			2
Undecided			2	1.4	1	0.9	13
		Total	61	43.6	52	46.8	114
							100.1

APPENDICES

**The Changing Profile and Characteristics of Undergraduate
Dental Students at the University of Sydney, 1992 - 1996.**

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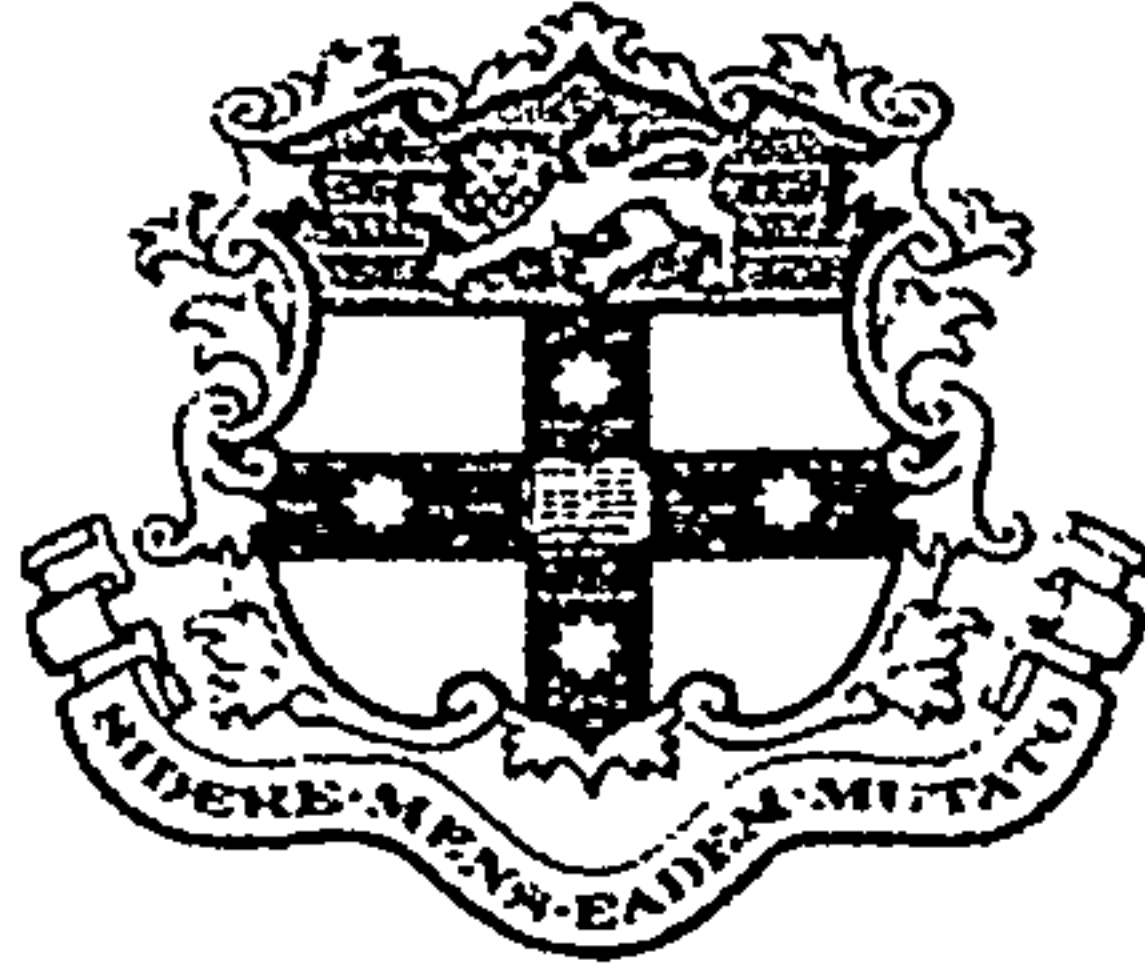
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APPENDIX : 1

Survey of Undergraduate Dental Students, University of Sydney, 1992 - 1996.

Survey of Undergraduate Dental Students, University of Sydney, 1996



Dear Students,

This survey is being carried out in the Faculty to obtain some *detailed background information and some insight* into the profile of the undergraduate dental students who entered the Faculty of Dentistry at the University of Sydney from 1992 to 1996.

I am a post-graduate student completing a Masters degree with Associate Professor PD Barnard in Public Health Dentistry and am responsible for the implementation of the survey. The results will provide comparative information with previous surveys in Sydney, Australia and other countries and be of interest to many groups. It will be published in 1996 and the results will also be of interest and value to you and create an emerging picture of the careers of entering and graduating dental students in Sydney.

Privacy and confidentiality of all individual responses will be maintained.

The survey should take less than 10 minutes.

Your cooperation and assistance in completing the survey is greatly appreciated.

Yours sincerely

Dr Suresh Patel

August 1996

A. Background Information

(Please complete, circle or tick responses)

1. Academic Year 1 2 3 4 5
2. Age at last birthday _____ years
3. Gender ☐ Male ☐ Female
4. Country of Birth ☐ Australia ☐ Other (Please state) _____

5. (a) Country of citizenship ☐ Australia ☐ Other (*Please state*) _____

If other, *please state* ☐ Australian Permanent Resident ☐ International Student

(b) How long have you lived in Australia ?..... _____ years

6. (a) Is English your first language ?..... yes / no

If no, what is your first language ?..... _____

(b) What languages other than English do you speak ? _____

(c) What language do you use most at your present semester address ? _____

7. Last secondary school attended

		Metropolitan	Country
Australian	Government school	☐	☐
	Non-Government school	☐	☐
Overseas	Government school	☐	☐
	Non-Government school	☐	☐

8. Parental Background

Country of Birth

Father _____

Mother _____

Parents present or last paid occupation

Father _____

Mother _____

Parents Highest Education Level

	Father	Mother
University degree	☐	☐
Other tertiary	☐	☐
HSC or equivalent	☐	☐
Other	☐	☐

9. Your main residence while attending University this year. Postcode

- ☐ Parents home _____
- ☐ Home of other relative or family friend _____
- ☐ Boarding house or lodging _____
- ☐ Hostel _____
- ☐ University college _____
- ☐ House or Flat rented or shared by student _____
- ☐ Other (*Please state*) _____

Permanent residence if different from above (Country or Postcode) _____

B. Choice of Dentistry as a Career

10. Please state your first three preferences for University studies.

1st _____ 2nd _____ 3rd _____

11. When did you decide to choose dentistry as a career ?

☐ Early in high school ☐ Late in high school ☐ After Leaving school

12. Did you commence your dental course immediately after leaving school ? yes / no

If no, what was the length of time _____ years, and your occupation before commencing the dental course (*If studying, please state faculty*) _____

13. Persons influencing your selection of dentistry as a career.

	Least influence		Greatest influence		
Self motivation	1	2	3	4	5
Father	1	2	3	4	5
Mother	1	2	3	4	5
Relative or family friend	1	2	3	4	5
Family dentist	1	2	3	4	5
Other persons within the dental profession	1	2	3	4	5
Vocational Counsellor	1	2	3	4	5
School teacher	1	2	3	4	5
Other (<i>Please state</i>) _____	1	2	3	4	5

14. Reasons for choosing dentistry as a career.

	Least influence		Greatest influence		
Desire to work for and with people	1	2	3	4	5
Life style perceived within the profession	1	2	3	4	5
Interest in work of the profession	1	2	3	4	5
Desire to work independently	1	2	3	4	5
Monetary advantages of the profession	1	2	3	4	5
Better chance of entering and completing a dental course than other courses.	1	2	3	4	5
Other reason (<i>Please state</i>) _____	1	2	3	4	5

15. What occupation would you choose if you could select any career other than dentistry ?

C. Aspirations after Graduation

16. Would you support an intern dental year in an hospital / clinic after graduation ?

yes / no / undecided

17. Which dental sector do you intend to enter after graduation ?

	1st year	2nd - 5th year	Remainder of your professional career
Assistant in private practice	☐	☐	☐
Private practice	☐	☐	☐
State public health services	☐	☐	☐
Armed forces	☐	☐	☐
Post-Graduate studies	☐	☐	☐
Research work	☐	☐	☐
Teaching position	☐	☐	☐
Private company	☐	☐	☐
Undecided	☐	☐	☐

18. Where do you intend to practice dentistry after graduation ?

	1st year	2nd - 5th year	Remainder of your professional career
Australia (NSW)	☐	☐	☐
Another State / Territory	☐	☐	☐
Overseas	☐	☐	☐
Home country(<i>If overseas student</i>)	☐	☐	☐
Undecided	☐	☐	☐

19. If you intend to work in an overseas country, which country will you choose and why ?

20. What nett annual income before tax do you anticipate to earn at today's income level ?

After graduation

5 years after graduation

10 years after graduation

21. Do you intend to specialise? yes / no / undecided
If yes, in which field ?

Thank you for your assistance and time. This source of information will be valuable for obtaining data for the future of dentistry.

APPENDIX : 2

Covering letter ;

**The Changing Profile and Characteristics of Undergraduate Dental Students
at the University of Sydney, 1992 - 1996.**



The University of Sydney

Faculty of Dentistry

University Mail Code C24

PD Barnard
Associate Professor, Public Health Dentistry

Westmead Hospital
Dental Clinical School
Westmead NSW 2145
Australia

Telephone (61-2) 9845 7812
Facsimile (61-2) 9633 2893
Email: peterb@dcs.wh.su.edu.au

**The Changing Profile and Characteristics of Undergraduate Dental Students
at the University of Sydney 1992-1996.**

My name is Dr Suresh K Patel and I am a post-graduate student completing a Masters degree in Public Health Dentistry with Associate Professor PD Barnard and would like your assistance with a survey that we are conducting over the next few weeks. The sample will consist of 1st, 2nd, 3rd, 4th and 5th year dental students at the Faculty of Dentistry, University of Sydney.

The purpose of this survey is to obtain some detailed background information and some insight into the profile of the undergraduates dental students entering Faculty of Dentistry, University of Sydney, from 1992 to 1996.

The results will provide comparative information with earlier surveys in Australia and other countries and be of interest to many groups including the Universities that have Dental schools attached to themselves, Government agencies, Large and small organisations, professional societies and to graduating students.

The results of the survey will be published in 1996 in my thesis and in an appropriate journal at a later date.

We seek your help in making the survey effective and useful and appreciate the time you will be giving to the project by completing it to the best of your ability. The survey should take less than 10 minutes of the lecture or practical time.

The information collected will only be used for the purpose of analysis of this questionnaire and no published results will identify individuals in any way.

Privacy and confidentiality of all individual responses will be maintained.

Any enquires about or comments on the survey should be sent to me. All comments will be individually acknowledged.

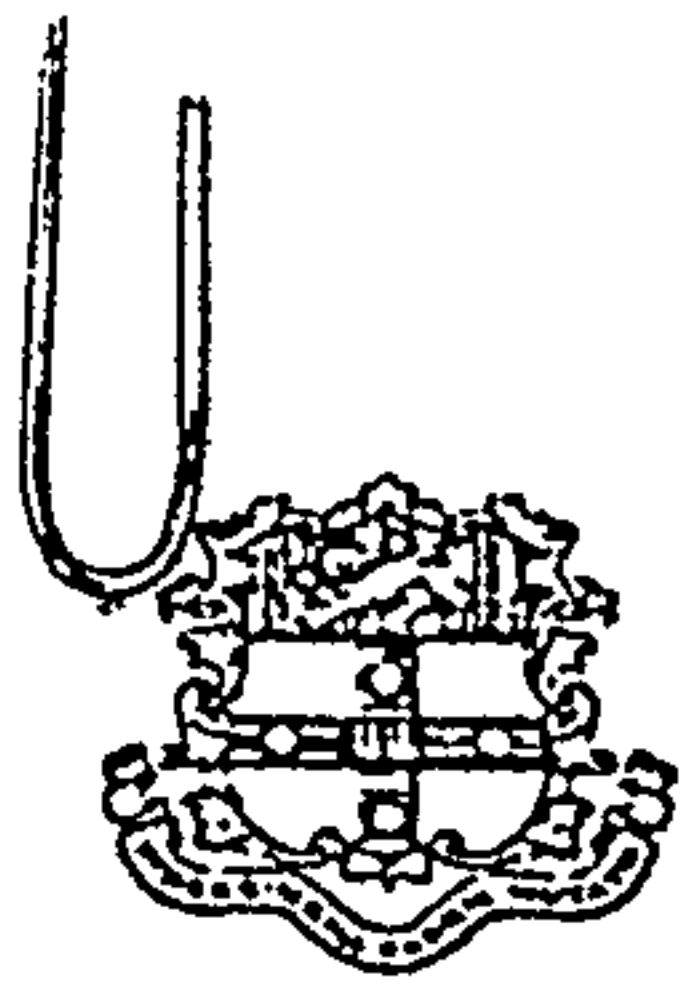
Dr S.K. Patel B.D.S. (Otago)
Public Health Dentistry
University of Sydney C24
Ph : (02) 9845 7812
Fax : (02) 9633 2893

5 / 8 / 96

APPENDIX : 3

Covering letter ;

**To the coordinators of Year 1, Year 2, Year 3, Year 4 and Year 5,
Undergraduate BDS course.**



The University of Sydney

Faculty of Dentistry
School of Dental Studies

PD Barnard
Associate Professor, Public Health Dentistry

OK. Please del
2.5.96. *Peni*
Westmead Hospital
Dental Clinical School
Westmead, NSW 2145
Australia
Telephone (61-2) 845 6546
Facsimile (61-2) 633 2893

Memo To: Co-ordinators of Year 1, Year 2,
Year 3, Year 4, and Year 5.
Undergraduate BDS Course

From: ~~To:~~ PD Barnard

c.c. Head of School, Professor C Thomas

Subject: Investigation of some Characteristics of Dental Students

Date: 29 April 1996

In previous years I have carried out research on characteristics of first year students and dental students in other years of the dental course. These were summarised and available to staff members.

One of the postgraduate Masters students in Public Health Dentistry is very interested in carrying out a follow up survey of characteristics of first year students 1996 and comparing these with the characteristics of the students in other years.

The student would be using questions for comparison from previous surveys including those specially carried out for the Dental Faculty over the last two years.

I would appreciate your advice as to whether you would be agreeable for us to proceed with this important research project.

PD Barnard
Associate Professor
Public Health Dentistry
University of Sydney

memos/coords

CO-ORDINATORS
YEAR 1 CAROL PRICE
U.D.H. C12
YEAR 2 DR MAW THOMAS
BIOCHEM G08.
YEAR 3 DR IRONSIDE
C12
YEAR 4. AP DALY
YEAR 5. DR. GA. THOMAS
W/Mead. Clinical
Dentistry

APPENDIX : 4

**Survey of Undergraduate Dental Students, University of Sydney, 1992 - 1996.
Coding for Data Entry Protocol.**

Survey of Undergraduate Dental Students, University of Sydney, 1996

Coding for Data Entry :

Q	Variable Name	Type of Variable	Width	Description and Code -9=Blank/Not filled out
1	ayear	N	1	Academic Range 1-5
2	age	N	3	0 - 99
3	gender	N	1	1 = Males 2 = Females
4	sbirth	N	4	Oceania
8	pbirth	N	4	1100=Australia
19	intenov	N	4	1301=New Zealand 1402=Papua New Guinea 1402=Vanuatu
				Europe and the USSR 2100=United Kingdom and Ireland 2205=Greece 2207=Italy 2208=Malta 2211=Spain 2301=Austria 2305=Germany 2501=Bulgaria 2502=Czechoslovakia 2504=Poland 2505=Romania 2600=USSR 2616=Croatia 2617=Bosnia 2618=Yugoslavia
				The Middle East and North Africa 3103=Iran 3105=Israel 3108=Lebanon 3111=Saudi Arabia 3200=Africa 3203=Egypt

				SouthEast Asia 4102=Cambodia 4103=Indonesia 4104=Laos 4105=Malaysia 4107=Philippines 4108=Singapore 4109=Thailand 4110=Vietnam 4111=Burma NorthEast Asia 5101=China 5102=Hong Kong 5103=Japan 5105=Korea 5106=Macau 5108=Taiwan Southern Asia 6104=India 6106=Nepal 6108=Sri Lanka Northern America 7104=United States of America 7102=Canada South and Central America 8101=Argentina Southern and East Africa 9200=South Africa 9207=Kenya
5	acitizen	N	2	1 = Australia 2=Other 3=Australian Permanent Resident 4=International student
	ocitizen	N	4	Q4
	ayears	N	2	Range 0 -99 years

6	firseng	N	1	1=Yes 2=No
	ofirstlg	N	2	86=English
	spoken	N	2	4=Arabic
	mcomon	N	2	5=Croatian 6=Pidgin/Motu 7=Bulgarian 2=Burmese 9=Cantonese 16=Filipino 18=French 20=German 19=Greek 10=Gujarati 25=Hebrew 22=Hindi 27=Hockien 12=Indonesian 11=Italian 26=Japanese 58=Kanakini 28=Korean 29=Laotian 8=Lebanese 32=Macedonian 23=Malayasian 67=Mandarin 21=Marathi (Indian) 24=Perisan 36=Polish 38=Romanian 46=Spanish 48=Tamil 50=Taiwanese 52=Turkish 55=Vietnamese
7	sschool			
	country	N	1	1=Australian 2=Overseas
	type	N	1	1=Government 2=Non-government
	location	N	1	1=Metropolitan 2=Country

8	pbirth	N	4	Q4
	pocuptn	N	4	Miscellaneous 1000=housewives 1001=unemployed 1003=retired 1004=holiday 1005=don't know 1006=student exchange Manager and Administrators 1200=Administration 1201= general managers 1305=production manager 1401=farmers 1501=shopkeepers 1503=restaurant managers 1505=Accommodation supervisor 1601=business manager/man Professional 2100=chemists 2105=physicists 2109=medical researcher 2201=arhitects 2213-engineers 2301=medical practitioner 2305=dental practitioner 2307=pharmacist 2311=optometrist 2313=physiotherapist 2321=Radiographer 2323=veterinarins 2400=teacher 2601=social worker 2605=solicitors 2701=accountant 2707=computing professionals Artists and related professionals 2803=photographer 2813=dancer/actor 2805=designer and illustrator Miscellaneous professionals 2911=librarian 3101=lab technician/dental technician 3301=aircrafts pilot 3401=nurse

				Tradesperson 4000=tradesperson 4200=metal tradesperson 4303=electrician 4401=builder 4409=plumber 4703=baker/cook 4923=jeweller 5000=clerk 5106=intrepertor 5101=secretary 5403=mail sorter 5909=postal clerk and officer Salesperson and personal service worker 6000=salesperson 6100=investor 6105=real estate officer Plant and machine operators 7000=operator and driver 7103=automobile drivers 7400=machine operator 7409=plastic production machine operator Labourers and related workers 8000=labourer 8301=cleaner 8907=storeman 9000=Self employed 9001=sports professional 9002=civil servant 9103=RAAF
	pedution	N	1	1=University degree 2=Other tertiary 3=HSC 4=Other
9	sresiden	N	1	1=parents home 2=home of other 3=boarding/lodging 4=hostel 5=University college 6=House/Flat 7=other

	presiden	N	4	Q4
	postcode	N	1	1=Northern Suburbs 2=Hills District (NSW Suburbs) 3=Eastern Suburbs 4=Inner West 5=Western Suburbs 6=Canterbury Bankstown 7=Southwestern Suburbs 8=Southern Suburbs
10	prefnce	N	2	1=Dentistry 2=Medicine 3=Pharmacy 4=Law/Law economics/Law commerce 5=Science 6=Veterinary Science 7=Optometry 8=Engineering 9=Physiotherapy 10=Arts 11=Commerce/Economics 12=Architecture 13=Music/Arts/Dancer 14=Education/Teacher 15=Computer 16=Radiology 17=Psychiatrist 18=Nurse 19Accountant
11	decision	N	1	1=Early 2=Late 3=After
12	comence	N	1	1=yes 2=no
	years	N	2	0-99
	ocupation	N	2	Q8

13	inflcing self father mother relative fdentist odental vconslor steacher instinct bfriend family pcharacter	0	1	range 1-5 Self motivation Father Mother Relative or family friend Family dentist Other persons within the dental profession Vocational counsellor School taecher Instinct Best friend Family Personal character
14	reason wpeople lifesyle interest indepeny monetary chance dknow pcharacter	0	1	range 1-5 Work for and with people Perceived lifestyle Interest in work of profession Work independently Monetary advantage Chance of completing course than other Do not know Personal character
15	ocupation	N	4	Q8
16	interny	N	1	1=yes 2=no 3=undecided
17	dsector	N	2	1=Assistant 2=Private practice 3=State 4=Armed services 5=Post-graduate studies 6=Research work 7=Teaching position 8=Private company 9=Undecided

18	intentau	N	2	1=Australia(NSW) 2=Another State/Territory 3=Overseas 4=Home country 5=Undecided
19	intentov Country Reason acceptdg home expernce	N N	4 4	Q4 Q4 Acceptance of dental degree in that country + travel Home country /want to help the needy, language + Experience in dentistry and life
20	nincome	N	2	range 1=0-55, 000 2=56-99,000 3=100,000 + 4=don't know
21	speciat field	N N	1 1	1=yes 2=no 3=undecided 1=Orthodontics 2=Periodontics 3=Oral surgery 4=Public health dentistry 5=Prosthodontics 6=Paediatrics 7=Endodontics 8=Implantology 9=Undecided

APPENDIX : 5 - 26

Result Tables

**The Changing Profile and Characteristics of Undergraduate Dental Students
at the University of Sydney, 1992 - 1996.**

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.						
Appendix 8 : Country of Birth, Students						
			1992 - 1996		Total	
			N=	%	N=	%
Australia			74	29.6	74	29.6
Oceania					2	0.8
New Zealand			1	0.4		
Papua New Guinea			1	0.4		
Europe and the USSR					14	5.6
UC and Ireland			4	1.6		
Greece			1	0.4		
Germany			3	1.2		
Poland			1	0.4		
Romania			1	0.4		
USER			2	0.8		
Bonsai			1	0.4		
France			1	0.4		
Middle East and North Africa					7	2.8
Iran			3	1.2		
Lebanon			3	1.2		
Egypt			1	0.4		
SouthEast Asia					63	25.4
Burma			1	0.4		
Indonesia			1	0.4		
Laos			2	0.8		
Malaysia			10	4		
Philippines			2	0.8		
Vietnam			47	19		
NorthEast Asia					71	28.4
China			8	3		
Hong Kong			32	13		
Japan			1	0.4		
Korea			19	8		
Taiwan			11	4		
Southern Asia					14	6
India			10	4		
Sri Lanka			4	2		
					Asia	148
Northern America					2	0.8
USA			2	0.8		
South and Central America					1	0.4
Argentina			1	0.4		
Southern and Eastern Africa					2	0.8
South Africa			1	0.4		
Kenya			1	0.4		

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.								
Appendix 9 : Country of Birth ; Parents								
				Fathers		Mothers		Total
			N=	%	N=	%	N=	%
Australia			32	12.8	22	8.8	<u>54</u>	<u>21.6</u>
Oceania							<u>3</u>	<u>1.2</u>
New Zealand			1	0.4	1	0.4		
Papua New Guinea			1	0.4	2	0.8		
Vanuatu			1	0.4				
Europe and the USSR							<u>41</u>	<u>16.4</u>
UK and Ireland			2	0.8	4	1.6		
Greece			8	3.2	7	2.8		
Croatia			1	0.4				
Spain			1	0.4	1	0.4		
Yugoslavia			1	0.4	1	0.4		
Germany					3	1.2		
Malta			1	0.4	1	0.4		
Czechoslovakia					1	0.4		
Poland			2	0.8	2	0.8		
Romania			1	0.4	2	0.8		
USSR			1	0.4	1	0.4		
Middle East and North Africa							<u>36</u>	<u>14.4</u>
Iran			4	1.6	4	1.6		
Lebanon			12	4.8	10	4		
Saudi Arabia					1	0.4		
Egypt			3	1.2	2	0.8		
SouthEast Asia							<u>142</u>	<u>56.9</u>
Cambodia			2	0.8	2	0.8		
Indonesia			5	2	3	1.2		
Laos					1	0.4		
Malaysia			12	4.8	11	4.4		
Philippines			2	0.8	3	1.2		
Singapore			1	0.4	3	1.2		
Thailand					1	0.4		
Vietnam			45	18	47	18.9		
Burma			2	0.8	2	0.8		
NorthEast Asia							<u>169</u>	<u>67.6</u>
China			40	16	29	11.6		
Hong Kong			14	5.6	20	8		
Japan			1	0.4	2	0.8		
Korea			20	8	22	8.8		
Taiwan			9	3.6	10	4		
Macau			1	0.4	1	0.4		
Southern Asia							<u>35</u>	<u>14</u>
India			6	2.4	16	6.4		
Sri Lanka			6	2.4	7	2.8		
Southern and Eastern Africa								
South Africa			1	0.4	1	0.4	<u>4</u>	<u>1.6</u>
Kenya			1	0.4	1	0.4		

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 10 : Country of Citizenship							
					1992-1996		
				N=	%		
Australia				229	91		
Other				33	9		
Australian Permanent Residence				229	91		
International Student				4	1.6		

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 11 : Language Proficiency							
		First language		Other languages		Most common language	
		N=	%	N=	%	N=	%
Languages							
English		103	41.4			146	59.6
Arabic		2	1.3	5	2	2	0.8
Croatian		2	1.3	2	0.8	1	0.4
Cantonese		38	25.3	47	18.7	33	13.5
Filipino		2	1.3	2	0.8		
German		2	1.3	4	2		
Greek		1	0.7	8	4.1	1	0.4
Gujarati		1	0.7	2	0.8	1	0.4
Hebrew				1	0.4		
Hindi		4	2.7	2	0.8	2	0.8
Hockien		1	0.7	2	0.8	1	0.4
Japanese				1	0.4		
Indonesian		1	0.7	1	0.4		
Italian		1	0.7				
Korean		20	13.3	19	7.6	17	6.9
French		2	1.3	2	0.8		
Lebanese		2	1.3	3	1.2	1	0.4
Malay				4	2		
Mandarin		19	12.7	19	7.6	7	2.9
Marathi		1	0.7	3	1.2		
Persian		2	1.3	3	1.2	2	0.8
Romanian		1	0.7	1	0.4	1	0.4
Spanish				1	0.4		
Tamil		4		6	2.4	1	0.4
Vietnamese		42	28	33	13.1	27	11
Burmese		1	0.7	12	6.1		
Pidgin		1					
Polish				1	0.4		
Turkish		1	0.7	2	0.8	2	0.8
Taiwanese				1	0.4		

[illegible]

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 13 : Occupation of Parents							
Occupation		Father		Mother			
		N=	%	N=	%		
Miscellaneous							
Housewives				64	26.7		
Unemployed		5	2.1	6	2.5		
Retired		2	0.8	2	0.8		
Total	79	32.9	7	2.9	72	30	
Manager and Administration							
Administrator		6	2.5	3	1.3.		
General managers		7	2.9	1	0.4		
Production managers				1	0.4		
Shopkeepers		6	2.5	5	2.1		
Accommodation supervisor		1	0.4	3	1.3.		
Restaurant manager		2	0.8	1	0.4		
business manager		24	10	14	5.8		
Total	74	28.2	46	19.1	28	9.1	
Professional							
Physicist		1	0.4				
Medical researcher		5	2.1				
Architecture		3	1.3.				
Engineer		22	9.2	3	1.3.		
Medical practitioner		24	10	7	2.9		
Dental practitioner		3	1.3.	1	0.4		
Pharmacist		2	0.8	4	1.7		
Optometrist		1	0.4				
Physiotherapist		1	0.4				
Veterinarians		1	0.4				
Teacher		18	7.5	27	11.3		
Social Workers				8	3.3		
Solicitors		3	1.3.				
Accountant		5	2.1	5	2.1		
Computing professional		7	2.9	3	1.3.		
Total	94	57.9	36	36.2	58	21.7	
Artist and related professionals							
Designer and illustrator		3	1.3.	1	0.4		
		3	1.3.	1	0.4		
Miscellaneous professionals							
Librarian				1	0.4		
Lab technician/dental technician		3	1.3.	1	0.4		
Aircraft pilot		1	0.4				
Nurse		4	1.7	15	6.3		
Total	33	10	14	2.1	19	7.9	

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.

Appendix 13 : Occupation of Parents (continued)

				Father		Mother	
				N=	%	N=	%
Tradesperson							
Tradesperson				2	0.8		
Metal tradesperson				1	0.4		
Builder				4	1.7		
Baker				4	1.7	1	0.4
Jeweller						1	0.4
Clerk				6	2.5	11	4.6
Interpreter						1	0.4
Secretary						18	7.5
Mail sorter				3	1.3	2	0.8
Postal clerk and officer				4	1.7	2	0.8
Electrician				1	0.4		
Salesperson and personal service worker							
Salesperson				2	0.8	4	1.7
Investor							
Real estate officer				2	0.8	1	0.4
Total				70	19.1	29	12.1
Plant and machine operator							
Operator and driver				1	0.4		
Automobile driver				5	2.1		
Machine operator				4	1.7	2	0.8
Plastic production machine operator				2	0.8	2	0.8
Total				79	32.9	7	2.9
Labourer and related workers							
Labourer				7	2.9	3	1.3
Cleaner				1	0.4	5	
Self employed				16	6.7	8	3.3
Sports professional				1	0.4		
Civil servant				8	3.3		
Royal Australian Airforce				2	0.8		
Storeman				3	1.3	1	0.4
Total				79	32.9	7	2.9

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 14 : Educational Levels of Parents							
				Father		Mother	
				N=	%	N=	%
Education Level							
University Degree				157	64.9	98	40.2
Other Tertiary				24	9.9	42	17.2
Higher School Certificate or equivalent				27	11.2	59	24.2
Other				34	14	45	18.4
Total				242	100	244	100

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 15 : Main Residence while Attending University by Gender and Location							
			Male		Female		1992-1996
			N=	%	N=	%	N= %
Parents home			101	54	87	46	188 75.2
Home of other relative/ family friend			5	50	5	50	10 4
Boarding house or lodging			7	83	1	17	6 2.4
Hostel			0	0	2	100	2 0.8
University college			3	38	5	62	8 3.2
House or Flat rented / shared by student			22	73	8	27	30 12
Other (Please state)			2	33	4	67	6 2.4
		Total	140		112		250 100
Location							
					1992-1996		
				N=	%		
Suburb							
Northern				34	14.9		
NorthWestern				93	41		
Eastern				26	11.5		
SouthWestern				63	27.8		
Metropolitan Inner Sydney				11	4.8		
			Total	227	100		
Other Suburb							
Northern				0	0		
NorthWestern				4	18		
Eastern				2	9		
SouthWestern				7	31.8		
Metropolitan Inner Sydney				0	0		
Victorian State				1	4.5		
Queensland State				8	36.7		
			Total	22	100		

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.							
Appendix 16 : Preference for Choice of Career							
				Preference			
				1st	2nd	3rd	
Course of Study		N=	%	N=	%	N=	%
Dentistry		122	51	96	38.2	17	6.8
Medicine		109	46.1	46	20.5	10	4.9
Pharmacy				4	1.8	20	9.8
Law		2	0.8	12	5.4	19	9.3
Science		1	0.4	5	2.2	13	6.4
Veterinary Science				6	2.7	5	2.5
Optometry				16	7.1	26	12.7
Engineering		2	0.8	17	7.6	27	13.2
Physiotherapy				4	1.8	16	7.8
Arts				3	1.3	13	6.4
Commerce/Economics		1	0.4	7	3.1	13	6.4
Architecture		1	0.4	1	0.4	7	3.4
Teacher						2	1
Computer		1	0.4	2	0.9	4	2
Radiology				3	1.3	6	2.9
Psychiatrist				2	0.9	1	0.5
Nurse						2	1
Accountant						1	0.5
Other						2	1
Total		239	100.3	224	95.2	204	98.5

[illegible]

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.						
Appendix 21 : Occupation other than Dentistry						
					1992-1996	
				N=	%	
Occupation						
Don't know				14	7.1	
Business manager				7	3.5	
Architecture				4	2	
Engineer				14	7.1	
Medical practitioner				69	34.8	
Pharmacist				6	3	
Optometrist				7	3.5	
Physiotherapist				5	2.5	
Veterinarians				5	2.5	
Teacher				11	5.6	
Social Workers				3	1.5	
Solicitors				5	2.5	
Accountant				1	0.5	
Computing				1	0.5	
Photographer				1	0.5	
Designer/ illustrator				8	4	
Dancer				3	1.5	
Aircraft pilot				8	4	
Tradesperson				1	0.5	
Builder				2	1	
Baker				2	1	
Labourer				1	0.5	
Sports professional				3	1.5	
Housewife				4	2	
Scientist/Physicist				6	3	
Medical researcher				6	3	
Nurse				1	0.5	
			Total	198	99.6	

The Changing Profile and Characteristics of Undergraduate Dental Students at the University of Sydney, 1992 - 1996.				
Appendix 22 : Intern Year				
	Intern Year		1992-1996	
			N=	%
	Yes		90	43.5
	No		56	27.1
	Undecided		57	27.5
		Total	203	98.1

