

Summary of the Psychology Workforce in NSW, 2004

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2004 psychologist labourforce survey

Introduction

As part of the annual registration process for psychologists in NSW, an Annual Labourforce Survey is sent to each psychologist currently registered with the Psychologists Registration Board of New South Wales. This report provides an overview of information from the 2002 workforce survey.

The survey response rate in 2001 was 72.4%, and increased to 73.4% in 2004. (see Sections below on Survey Coverage and Response Rate to Labourforce Survey). The continued support of the Psychologists Registration Board of New South Wales, professional organisations and psychologists participating in the survey is appreciated.

Availability of survey information

This profile has been produced in the same format as for other health professional groups registered in New South Wales, including medical practitioners, nurses, dentists, pharmacists, physiotherapists and podiatrists. The definition of response rate in this profile is consistent with the definition used in other profiles based on the method developed for 2003 surveys.

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

Category of Psychologist Registration

In 2004, there were 7,494 psychologists financially registered with the Psychologists Registration Board of NSW. Of these, 5,411 (72.2%) were female and 2,079 (27.8%) were male, with four registrants with unknown sex. Table 1.1 provides an overview of the number of psychologists in each category of registration.

Table 1.1: Persons Registered as Psychologists in NSW, 2004

Category of registration ¹	No. Row %		No. Row %		No. Row %	
	Female		Male		Total	
New registrants (only status)	428	81.7%	96	18.3%	524	100.0%
Restorations	0	0.0%	2	0.0%	2	0.0%
"True" restorations	0	0.0%	2	0.0%	2	0.0%
"Technical" restorations	0	0.0%	0	0.0%	0	0.0%
Renewals ^{2&3}	4,456	71.4%	1,787	28.6%	6,243	100.0%
Technical renewals	520	73.2%	190	26.8%	710	100.0%
Deletions	25	75.8%	8	24.2%	33	100.0%
new registrations (total)	749		182		931	

- Notes:**
- 1 The table includes information on psychologists who were financial with the Board during 2004
 - 2 There are 349 records with multiple status in the new, renewal & restoration categories indicating more than one transaction status during the time period covered by the Board data
 - 3 The records with multiple status have been counted as renewals in the above table
 - 4 Four records with no sex recorded are excluded above (3 renewals and 1 technical renewal) and from any further analyses apart from response rate and calculation of workforce size

Response rate to Labourforce Annual Survey

The response rate to the 2004 Psychology Labour force Annual Survey was 73.4 per cent, a decrease from the 2003 response rate of 79.3 per cent.

Table 1.2: Response Rate to Psychologist Annual Labourforce Survey, 2001 - 2004

	No.	Rate	No.	Rate	No.	Rate	No.	Rate
	2001		2002		2003		2004	
Formal response rate								
<i>Survey respondents¹ who were renewals²</i>	3,845		4,813		5,148		5,107	
<i>Total renewals²</i>	5,311	72.4%	6,120	78.6%	6,490	79.3%	6,956	73.4%

- Notes:**
1. A "survey respondent" is defined for 2001 as a renewal or technical registration who provided information to the question on work status, or whose work status could be derived from other data. For 2002 to 2004 this definition was extended to include technical renewals. With these adjustments, there were 2,245 psychologists in 2004 who did not return a survey form, and 142 survey forms with work status question unanswered and no capacity to derive the work status from a NSW postcode for place of work.
 2. A renewal is defined to include a person who paid their registration fee on time, who was a renewal but was late in paying the renewal fee, and was therefore de-registered and then restored (ie technical restoration), or who was sent a survey form and returned a form or was still financial at the end of the relevant year while having no financial status (technical renewal).

Determining the response rate to the survey is complicated by the relationship between the survey and the renewal process. While new registrants and restorations do not receive the survey if they gain this status between April and June, other new registrants and restorations do receive a renewal notice within the twelve month survey period. There are therefore registered psychologists with multiple transaction statuses within the year, who are all treated as renewals. Additionally, some persons sent renewal notices do not renew their registration and therefore do not return surveys. All survey responses from registered psychologists who returned a survey form are presented in Tables 1.3 and 1.4.

Work Status

There were 4,287 working renewal survey respondents in 2004. Working renewals are those respondents who:

- Were defined as renewals (see definition in Table 1.2)
- Returned a labourforce survey indicating their work status or provided sufficient data for a status of working in NSW to be derived; and
- Indicated that their work status was one of the following three categories:
 - Working in psychology only in NSW
 - Working in psychology mainly in NSW, but also in other states
 - Working in psychology in NSW, but on extended leave (see Table 1.3)

Table 1.3: Work status of Psychologist Survey Respondents¹, NSW, in 2004

Work Status	No.	%	No.	%	No.	%	%
	Female		Male		Total		Female
Working in psychology							
Only in NSW	2883	78.3%	1035	72.7%	3,918	76.7%	73.6%
Mainly in NSW, but also in other states	163	4.4%	138	9.7%	301	5.9%	54.2%
Mainly in other states, but also in NSW	56	1.5%	51	3.6%	107	2.1%	52.3%
Only in states other than NSW	73	2.0%	36	2.5%	109	2.1%	67.0%
Working overseas	93	2.5%	40	2.8%	133	2.6%	69.9%
Working in NSW but currently on leave	63	1.7%	5	0.4%	68	1.3%	92.6%
Not Working in/ practicing in psychology					-		-
Currently not working	220	6.0%	60	4.2%	280	5.5%	78.6%
Currently working, not in psychology	130	3.5%	59	4.1%	189	3.7%	68.8%
Total	3681	100.0%	1424	100.0%	5,105	100.0%	72.1%

Working in NSW	3109		1,178		4,287		72.5%
<i>Returned form, no working status data</i>	95	2.5%	47	3.2%	142	1.9%	
<i>No survey form</i>					2,245	30.0%	

Notes: 1. There were 5,249 forms received from psychologists renewing their registration, of whom 142 did not reply to the question on working status, and did not provide a NSW postcode for place of work, and two with unknown sex. (see Note 1 to Table 1.2)

The workforce participation rate was 84.0%, based on the work status of respondents, indicating that only 16.0 % of survey respondents are either working mainly or totally outside NSW, working overseas, not working or not working in psychology. However this participation rate excludes registered psychologists who did not return the survey for, as well as new registrations and restorations who were outside the scope of the survey.

Psychologists seeking work

Table 1. Seeking work in psychology in NSW, 2004

Nature of work sought	No.		%		No.		%	
	Female	Male	Total	Female				
Not looking for work in psychology	234	68.4%	86	75.0%	320	70.2%	73.1%	
Looking for work in psychology:								
- full time	23	8.9%	7	7.6%	30	8.6%	76.7%	
- part time	44	12.1%	5	7.6%	49	10.9%	89.8%	
- casual	18	7.7%	15	9.8%	33	8.3%	54.5%	
- any type of work	11	2.8%	2	0.0%	13	2.1%	84.6%	
Total	330	100.0%	115	100.0%	445	100.0%	74.2%	
<i>Non response</i>	20	6.8%	4	7.1%	24	6.9%		

Note: Table includes only those survey respondents in Table 1.3 who indicated that they were not currently working or currently working but not in psychology (n=469)

Estimating Workforce Size

Table 1.5: Estimating the Size of the Psychologist Workforce, 2001-2004

	2001	2002	2003	2004
Size of Workforce (excludes any new registration	3,047	3,789	4,160	4,150
Adjustment for varying non response	374	53	0	356
Estimated working renewals	3,421	3,842	4,160	4,506
Adjusted respondents	3,969	4,591	4,937	5,209
(excludes any new registrations) ²				
Estimated % respondents working	86.2%	83.7%	84.3%	86.5%
Estimated new registrations working ³	405	422	499	771
Estimated restorations working ⁴	8	19	16	1
Total Estimated Workforce	3,834	4,283	4,675	5,278
Total number of new registrations	503	510	585	931
Estimated % new registrations working	80.5%	82.7%	85.3%	82.8%
No. of renewals(excluding new registrations)	5,078	5,788	6,201	6,619
Estimated working renewals as % of all renewals	67.4%	66.4%	67.1%	68.1%

Notes: 1 The unadjusted size of the workforce is based on renewals, technical restorations and technical renewals who answered the work status question as working in NSW. This is the workforce size excluding any new registrations unadjusted for non response.

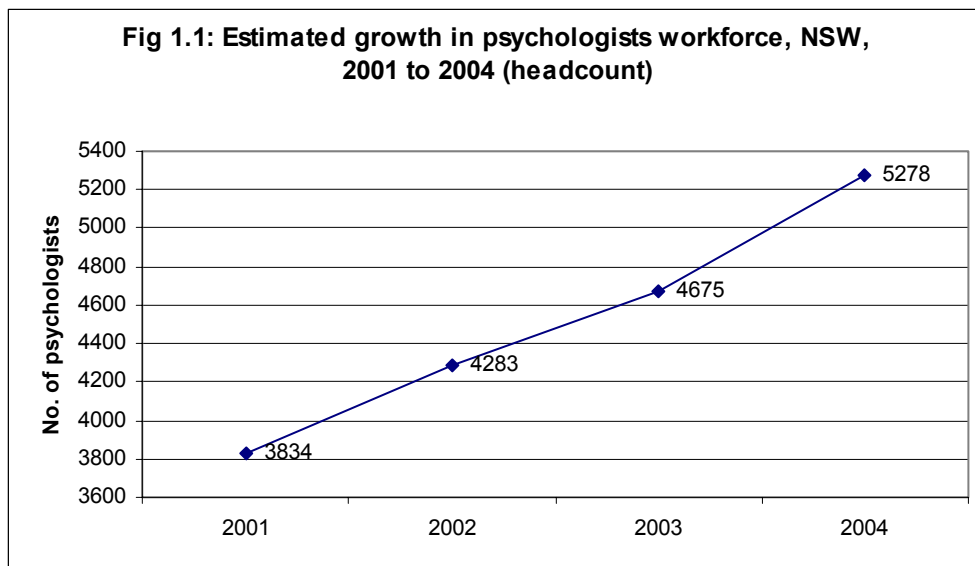
2 The respondent numbers have been adjusted to allow for changing non response rates (set to rate in 2003) and exclude any new registrations who were also renewals within the year.

3 Based on flow matrix analyses showing work status in two consecutive years

4 Based on flow matrix analyses showing work status in two consecutive years

NOTE: These figures vary from estimates of workforce size documented in previous psychologist workforce profiles due to a new method of calculating workforce size. The method is described in detail in the Appendix, Section on Estimating Workforce Size. The estimate for 2004 may be modified in the 2005 profile after analysis of flow matrix data.

Table 1.5 and Fig 1.1 show that the estimated psychologist workforce was 3,834 in 2001, increasing to 5,278 in 2004. This is an overall growth rate of 37.7%, with growth of 11.7% between 2001 and 2002, and growth of 9.2% between 2002 and 2003, and 12.9% between 2003 and 2004.



Estimating Full-Time Equivalent Workforce (FTE)

The numbers of hours worked by psychologists on average per week for all jobs together can be converted to full-time equivalents (FTEs) which becomes a measure of the productive workforce. The total hours worked by psychologists in each age and hours worked group are divided by 35 to calculate the FTE workforce. Thirty five hours is used as the measure of full time work based on labourforce definitions developed by the Australian Bureau of Statistics.

A ratio of FTEs to the total headcount workforce can then be calculated, to determine the relative productivity of the workforce. The FTE ratio of 1.0466 applied to the estimated workforce size of 5,278 headcount results in an estimated FTE workforce of 5,524.0 FTE psychologists, after adjusting for non response (based on full time being defined as 35 hours worked per week or more). This FTE calculation is based on reported hours worked, and therefore may include overtime and unpaid hours.

Average Age by Gender

The average age of the psychologist workforce was 45.7 years, with males at 49.6 years on average older than females, at 44.2 years.

Average Hours Worked by Age

Table 1.6: Average hours by age and sex, psychologists working in NSW, 2004

Age	Female	Male	Total
19-24	38.3	39.0	38.4
25-29	39.5	42.3	39.8
30-34	36.2	41.7	36.9
35-39	32.4	41.9	34.7
40-44	34.1	42.1	36.3
45-49	36.1	42.7	38.1
50-54	37.0	42.7	38.9
55-59	34.7	41.4	37.0
60-64	30.3	34.9	32.2
65-69	21.6	27.2	23.8
70-74	20.0	25.4	22.6
75+	18.9	22.6	21.3
Total	35.1	40.6	36.6
Age/sex unknown	40.5	52.0	42.9

The average hours worked by age indicates that the average hours worked for the total workforce was 36.6 hours, with males working on average more hours per week in every age group than females. Females aged 25 to 29 years worked on average the longest hours, while males between 45 and 54 years worked the longest number of hours per week on average.

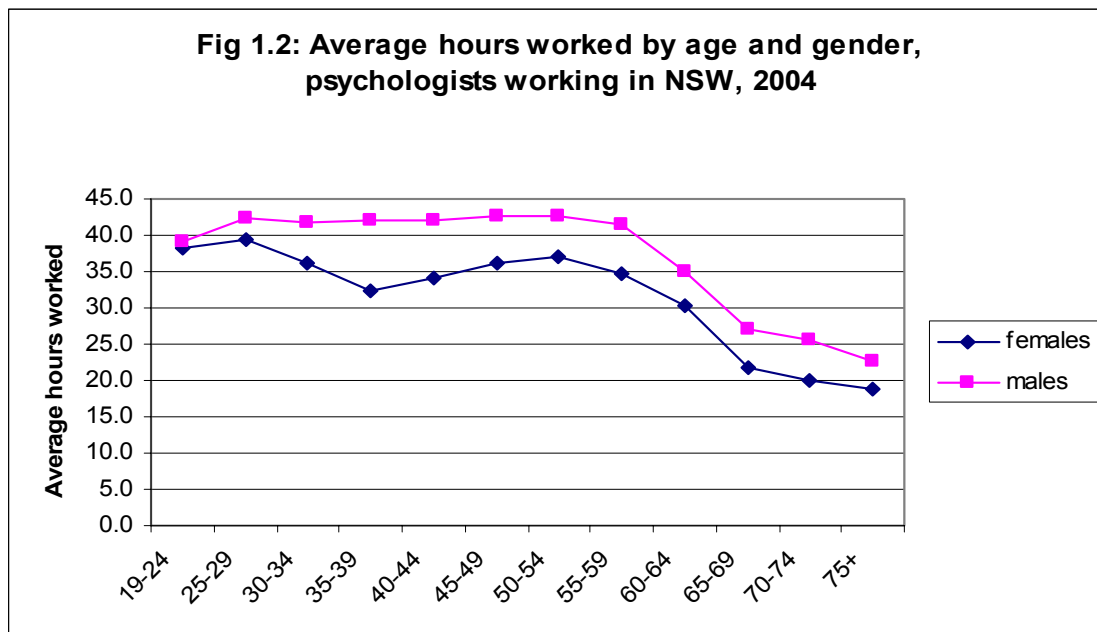


Table 1.6: Workforce dynamics for psychologists, 2004

Professional Psychologists	Estimated workforce size, 2004	New registrations entering the workforce	Re-entry	Wastage	FTE ratio (based on 35 hours)
Workforce headcount	5,278	771	99	219	1.0466
Percentage of workforce		14.6%	2.0%	4.1%	

SOURCE: flow matrix change rates from psychologist labourforce profile data, 2001/02, 2002/03 and 2003/04

NOTE: The actual participation rate of 2004 new registrations can only be calculated by category when the 2004 work status is known.

APPENDIX

Methodology

Timing of the 2004 Survey

Information from the 2004 Annual Labourforce Survey relates to the 2004 registration renewal period. Renewal notices and surveys were forwarded in March 2004 to psychologists registered with the Psychologists Registration Board of New South Wales at that time. The renewal fee was due by the end of June in order for the psychologist to be retained on the register, as non-financial psychologists had their status altered by Board consent in early July. Survey respondents completed the survey with information about their usual working situation at that time. Information regarding the registration status of psychologists was provided by the Board in order to match the registration status with the survey data.

Labourforce Survey coverage

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

- **New registrants who registered for the first time between April and June:** New registrants include new local graduates, interstate graduates and overseas trained psychologists registering for the first time with the NSW Board who have had their qualifications recognised in NSW. New registrants registering for the first time between April and June do not receive the labourforce survey, but other new registrants who registered for the first time between July the preceding year and March of the registration year receive the survey form as they also renew in the same financial year.
- **"True" Restorations who restored their registration between April and June:** "True" restorations have been restored to the register after a period in which they were not financial. Psychologists who restore to the Register are separated into the two groups in the same way as new registrants so that only those restoring between April and June are not sent a survey form.
- Some psychologists are restorations simply due to late payment, as they are removed from the register and then reinstated on receipt of the payment of the renewal fee. This group have been defined as **"technical" restorations**. These psychologists have usually completed a survey form, and therefore if they have provided survey data they have been included in the data analysis for this profile.
- **Technical renewals:** There are a group of psychologists who either pay their registration fee early or who pay in advance and earn a credit as they will not be able to make their payment at the usual time. If these psychologists were sent a survey form in the year of renewal and are still financial in that year they have now been included in the survey population, and their returned survey forms included as respondents. This group has now been defined as **technical renewals, even though no transaction may have been recorded for the year of the survey**.
- The definition of response was originally restricted to those respondents who completed the question on workforce status. From the 2000 profile onwards, it was identified that a number of psychologists have not completed the question on workforce status, but have completed the majority of the remainder of the survey form including the provision of a New South Wales postcode for work location, as well as other data such as hours worked. It was therefore decided for data completeness, to include both of those categories in the definition of respondents, as a workforce status could be derived. The adoption of this definition of respondents, means that the data are compatible with the definition of the workforce used by the Australian Institute of Health & Welfare in preparing national profiles.

Figures have not been adjusted for non-response

Data in this publication have not been adjusted for unknown information (both survey non-response and registration data such as year of birth). When interpreting the tables, the impact of unknown data may include:

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

Calculating total unknown data for the survey

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

- **Unknown data for the question or questions comprising the table**, as indicated at the foot of each table. This may also include information that is unknown due to registration data (eg, year of birth, gender) being unavailable from the Board.
- **Non-response to any filtering questions**. Data on second job will be affected by the lack of the explicit question “Do you have a 2nd job?” The number of persons with second jobs has been estimated from the highest response to any one question.
- **Non-response to the survey**. Survey response rates are presented in Table 1.1.

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

Conventions used in this publication

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

Italics are used to report unknown data.

— denotes not applicable.

Bold is used to indicate a total or subtotal.

n/a denotes data is not available.

The location of home and work for psychologists has been analysed by Area Health Service for psychologists working in both the public and private sectors. The NSW Health Department sets the boundaries of each Area Health Service by postcode, and this approach has been used in the analysis. There is no intent to imply that psychologists working in the private sector are employed by Area Health Services, and the approach is used for comparative purposes only.

Estimating Workforce Size

Previous profiles have used a standard approach to estimating workforce size which was first documented in the 1999 Profile of the Medical Workforce in NSW (NSW Health Department, 2004) estimated the size of the medical workforce in New South Wales, This approach involved:

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

However recent analysis of data reported in the 2001 ABS Census has indicated for nursing and physiotherapy that the workforce estimates calculated in the previous profiles are too high and should be adjusted. This is difficult to benchmark for psychologists as the 2001 Census reported that there were 2,638 working clinical psychologists in 2001¹. This is much lower than the workforce size derived from the new method of estimating workforce size (4,654). The new estimates minimise the adjustment for non response and improve the estimate of new registrations and restorations working.

The variation between the Census data and the profile data could be due to psychologists working using other titles which would not necessarily be coded to the psychologist category in the Census data.

The method is based on the following approach:

- Use the 2004 numbers of working psychologists as a baseline due to the higher response rate
- Develop flow matrices of workforce dynamics for 2001/02, 2002/03, and 2003/04, and use the input/output calculation to determine workforce size between 2001 and 2004. This involves calculations of entry (inter-state and overseas migration and local new graduate entry patterns), re-entry (based on restorations and renewals re-entering the workforce), and wastage (including overseas entrants leaving the following year).
- Adjust the 2001, 2002 and 2004 working respondent numbers to account for lower response rates in those years.

¹ NSW Health Department, unpublished ABS data