

Summary of the Psychology Workforce in NSW, 2005

Prepared by:

Workforce Development and Leadership Branch, NSW Health

NSW DEPARTMENT OF HEALTH

73 Miller Street
NORTH SYDNEY NSW 2060
Tel. (02) 9391 9000
Fax. (02) 9391 9101
TTY. (02) 9391 9900
www.health.nsw.gov.au

This work is copyright. It may be reproduced in whole or in part for study training purposes subject to the inclusion of an acknowledgement of the source. It may not be reproduced for commercial usage or sale. Reproduction for purposes other than those indicated above requires written permission from the NSW Department of Health.

© NSW Department of Health 2008

Summary of the Psychology Workforce in NSW, 2005

SHPN (WDL) 080090
ISBN 978 1 74187 313 9

Further copies of this document can be downloaded from the NSW Health website www.health.nsw.gov.au

April 2008

2005 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 2005 workforce survey.

The survey response rate in 2002 was 78.6%, and decreased to 72.6% in 2005. (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 2005, there were 8,088 psychologists financially registered with the Psychologists Registration Board of NSW, an increase of 594 from the 7,494 psychologists registered in 2004. Of these, 5,974 (73.9%) were female and 2,110 (26.1%) 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, 2005

Category of registration ¹	No. Row %		No. Row %		No. Row %	
	Female		Male		Total	
New registrants (only status)	575	84.9%	102	15.1%	677	100.0%
Restorations	1	0.0%	0	0.0%	1	0.0%
"True" restorations	1	0.0%	0	0.0%	1	0.0%
"Technical" restorations	0	0.0%	0	0.0%	0	0.0%
Renewals ^{2&3}	4,862	72.0%	1,888	28.0%	6,750	100.0%
Technical renewals	536	81.7%	120	18.3%	656	100.0%
Deletions	209	67.9%	99	32.1%	308	100.0%
new registrations (total)	919		177		1096	

Notes:

- 1 The table includes information on psychologists who were financial with the Board during 2005
- 2 There are 348 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 Five records with no sex recorded are excluded above (2 renewals, 1 new registration, 1 technical renewal, 1 deletion) 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 2005 Psychology Labour force Annual Survey was 72.6 per cent, a decrease from the 2004 response rate of 73.3 per cent.

Table 1.2: Response Rate to Psychologist Annual Labourforce Survey, 2002 - 2005

	No.	Rate	No.	Rate	No.	Rate	No.	Rate
	2002		2003		2004		2005	
Formal response rate								
<i>Survey respondents¹ who were renewals²</i>	4,813		5,148		5,099		5,376	
<i>Total renewals²</i>	6,120	78.6%	6,490	79.3%	6,956	73.3%	7,408	72.6%

- Notes:**
1. A "survey respondent" is defined as a renewal, technical renewal or technical restoration who provided information to the question on work status, or whose work status could be derived from other data. There were 1,842 psychologists in 2005 who did not return a survey form, and 190 survey forms with work status 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. Survey responses from registered psychologists who returned a survey form are presented in Tables 1.3 and 1.4.

Work Status

There were 4,477 working renewal survey respondents in 2005, including one unknown sex excluded from subsequent tables. 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 2005

Work Status	No.	%	No.	%	No.	%	%
	Female		Male		Total		Female
Working in psychology							
Only in NSW	3043	77.5%	1042	71.9%	4,085	76.0%	74.5%
Mainly in NSW, but also in other states	158	4.0%	150	10.3%	308	5.7%	51.3%
Mainly in other states, but also in NSW	74	1.9%	46	3.2%	120	2.2%	61.7%
Only in states other than NSW	80	2.0%	49	3.4%	129	2.4%	62.0%
Working overseas	114	2.9%	39	2.7%	153	2.8%	74.5%
Working in NSW but currently on leave	79	2.0%	4	0.3%	83	1.5%	95.2%
Not Working in/ practicing in psychology					-		-
Currently not working	194	4.9%	60	4.1%	254	4.7%	76.4%
Currently working, not in psychology	182	4.6%	60	4.1%	242	4.5%	75.2%
Total	3924	100.0%	1450	100.0%	5,374	100.0%	73.0%
Working in NSW	3280		1,196		4,476		
<i>Returned form, no working status data</i>	135	3.3%	55	3.7%	190	2.6%	
<i>No survey form</i>					1,842	24.9%	

Notes: 1. There were 5,566 forms received from psychologists renewing their registration, of whom 190 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 83.3%, based on the work status of respondents, indicating that only 16.7 % 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 form, as well as new registrations and restorations who were outside the scope of the survey.

Psychologists seeking work

Table 1.4 Seeking work in psychology in NSW, 2005

Nature of work sought	No.		%		No.		%	
	Female	Male	Total	Female	Total	Female	Total	
Not looking for work in psychology	253	85	338	68.4%	75.0%	70.2%	74.9%	
Looking for work in psychology:								
- full time	23	9	32	8.9%	7.6%	8.6%	71.9%	
- part time	45	9	54	12.1%	7.6%	10.9%	83.3%	
- casual	24	9	33	7.7%	9.8%	8.3%	72.7%	
- any type of work	7	4	11	2.8%	0.0%	2.1%	63.6%	
Total	352	116	468	100.0%	100.0%	100.0%	75.2%	
<i>Non response</i>	24	4	28	6.8%	7.1%	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=496)

Estimating Workforce Size

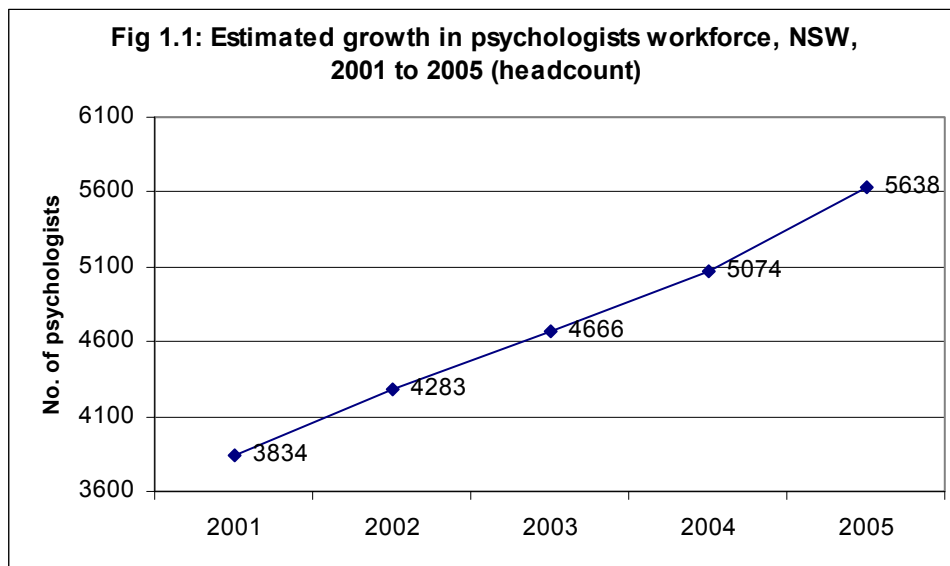
Table 1.5: Estimating the Size of the Psychologist Workforce, 2001-2005

	2001	2002	2003	2004	2005
Size of Workforce (excludes any new registrations) ¹	3,047	3,789	4,160	4,129	4,254
Adjustment for varying non response	374	53	0	212	509
Estimated working renewals	3,421	3,842	4,160	4,341	4,763
Adjusted respondents (excludes any new registrations) ²	3,969	4,591	4,937	5,350	5,602
Estimated % respondents working	86.2%	83.7%	84.3%	81.1%	85.0%
Estimated new registrations working ³	405	422	494	733	875
Estimated restorations working ⁴	8	19	12	0	0
Total Estimated Workforce	3,834	4,283	4,666	5,074	5,638
Total number of new registrations	503	510	585	931	1,097
Estimated % new registrations working	80.5%	82.7%	84.4%	78.7%	79.8%
No. of renewals(excluding new registrations)	5,078	5,788	6,201	6,619	7,062
Estimated working renewals as % of all renewals	67.4%	66.4%	67.1%	65.6%	67.4%

- 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 5,638 in 2005. This is an overall growth rate of 47.1%, with growth of 11.7% between 2001 and 2002, 8.9% between 2002 and 2003, 8.7% between 2003 and 2004 and 11.1% between 2004 and 2005.



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 1.0373 applied to the estimated workforce size of 5,638 headcount results in an estimated FTE workforce of 5,848.3 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 45.8 years, with males at 49.5 years on average older than females, at 44.5 years.

Average Hours Worked by Age

Table 1.6: Average hours by age and sex, psychologists working in NSW, 2005

	Female	Male	Total
19-24	27.8	0.0	27.8
25-29	39.0	40.1	39.2
30-34	36.3	40.5	36.9
35-39	32.3	41.4	34.4
40-44	32.2	42.1	34.8
45-49	35.3	41.1	37.0
50-54	37.4	42.4	39.1
55-59	36.0	41.1	37.6
60-64	29.0	37.0	32.2
65-69	25.1	29.0	26.3
70-74	18.0	22.6	20.1
75+	25.7	22.8	23.9
Total	34.9	40.1	36.3
Age/sex u/k	37.5	34.0	36.1

The average hours worked by age indicates that the average hours worked for the total workforce was 36.3 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 of all female age groups, while males between 50 and 54 years worked the longest number of hours per week on average of all male age groups and of all age and sex groups.

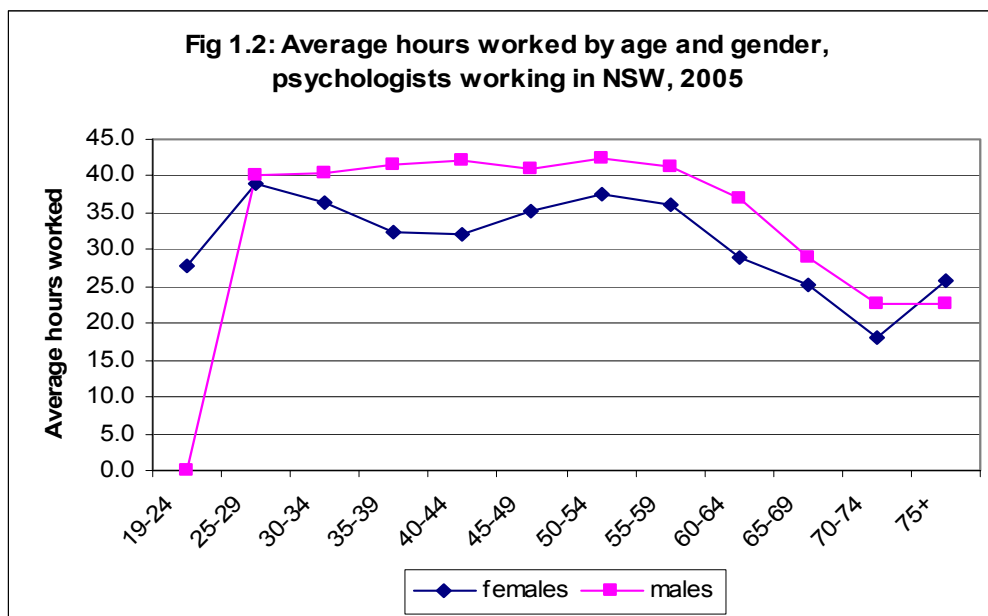


Table 1.7: Workforce dynamics for psychologists, 2005

Professional Psychologists	Estimated workforce size, 2005	New registrations entering the workforce	Re-entry	Wastage	FTE ratio (based on 35 hours)
Workforce headcount	5,638	875	76	288	1.0373
Percentage of workforce		15.5%	1.5%	5.1%	

SOURCE: flow matrix change rates from psychologist labourforce profile data, 2001/02, 2002/03 2003/04, and 2004/05.

NOTE: The actual participation rate of 2005 new registrations can only be calculated by category when the 2005 work status is known.

Table 1.8 - Total employment settings, psychologists working in NSW, 2005 – Main job

Area Health Service	Private	Public Health	Public Other	Total	Unknown	Grand Total
Greater Southern AHS	44	34	88	166	1	167
Greater Western AHS	28	43	51	122	0	122
Hunter & New England AHS	152	124	192	468	3	471
North Coast AHS	71	48	82	201	1	202
Northern Sydney & Central Coast	405	165	206	776	11	787
South Eastern Sydney & Illawarra	531	228	331	1,090	13	1,103
Sydney South West AHS	277	211	315	803	10	813
Sydney West AHS	187	171	238	596	4	600
Unknown	45	20	90	155	57	212
Grand Total	1,740	1,044	1,593	4,377	100	4,477
% by sector	39.8%	23.8%	36.4%	100.0%		

Table 1.9: 2002-2005 Type of organisation employed in - Main job

Organisation in main job	2002	2003	2004	2005	% Change 2002-05
Private sector					
Tertiary education institution	15	18	16	14	-6.6% increase
School	84	97	95	89	
Practice / consultancy	923	1,002	1,060	1,130	
Mining, industrial, corporate or commercial	137	174	169	163	
Justice / courts	2	3	1	5	
Hospital	53	42	57	60	
Developmental disability service	17	9	13	28	
Corrective services	2	2	1	1	
Community mental health service	12	23	19	19	
Community health service	22	31	28	23	
Community centre / service	71	68	70	87	
Other	70	83	89	121	
Total private sector	1,408	1,552	1,618	1,740	23.5% increase
Public sector					
Hospital	299	309	313	322	7.7% increase
Community mental health service	274	312	328	339	
Community health service	302	297	268	300	
Community centre / service	97	92	89	83	
Tertiary education institution	413	418	387	411	
School	583	615	545	593	
Other Government – Federal	91	105	108	123	
Other Government – State	99	95	93	98	
Other Government – Local	9	9	12	10	
Justice / courts	39	37	37	39	
Developmental disability service	81	98	99	91	
Department of Community Services	52	35	38	47	
Corrective Services	95	98	103	112	
Other	74	65	73	69	
Total public sector	2,508	2,585	2,493	2,637	5.1% increase

APPENDIX

Methodology

Timing of the 2005 Survey

Information from the 2005 Annual Labourforce Survey relates to the 2005 registration renewal period. Renewal notices and surveys were forwarded in March 2005 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 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.

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, 2005) 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 (3,834 in 2001). The new estimates therefore 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.

¹ NSW Health Department, unpublished ABS data

The method is based on the following approach:

- Use the 2003 numbers of working psychologists as a baseline due to the higher response rate in that year.
- Develop flow matrices of workforce dynamics for 2001/02, 2002/03, 2003/04 and 2004/05 and use the input/output calculation to determine workforce size between 2001 and 2005. 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, 2004 and 2005 working respondent numbers to account for lower response rates in those years.