



# The relationship between study and work: evidence from the Australian Graduate Survey




# Overview

- Why?
  - Source of the data
  - Questions of importance?
  - Relatedness by occupational categories
  - Where the differences lie
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# Why

- Student directions and aspirations
  - Measuring the uptake from HE fields which are targeted towards specific occupations
  - Adding depth to broader measures of employment outcomes
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# Source of the data: AGS

- Annual 'quasi-census' survey of higher education graduates
  - Qualification, employment and further study details, job-seeking behaviour and demographics
  - 4-6 months following completion (early employment outcomes)
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# Source of the data: questions

- Comparing course details and occupational outcomes
  - New questions regarding the importance of a course of study to work obtained
  - Permanent residents in full-time and part-time employment
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# Source of the data: questions

“How important are the following to your employment in your main paid job?”

	Formal requirement	Important	Somewhat important	Not important	Don't know
Qualification you have just completed					
Major fields of education you studied					

# Source of the data: fields

<b>Health:</b>	<b>Business:</b>
General Nursing	Business Management
General Medicine	Marketing
Pharmacy	Accounting
<b>Education:</b>	<b>Humanities and related:</b>
Secondary Teacher Education	Psychology
<b>Building and Engineering:</b>	History
Architecture	Social Work
Civil Engineering	Theatre Studies
<b>Sciences:</b>	
Geology	Marine Science

# Questions of importance?

- Matching specific fields of education to specific occupations to contrast responses against an 'objective' benchmark
- ▶ Pairs include:
  - Accounting graduates working as accountants
  - General medicine graduates working as resident medical officers
  - Geology graduates employed as geologists
  - History graduates employed as historians
  - Social work graduates working as social workers

# Questions of importance?

## Importance of major fieldss

- ▶ Overall, 91 % said important or requirement

## Importance of qualification

- ▶ Overall, 89 % said important or requirement
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# Questions of importance?

## Importance of major fields

## Qualification

- |                                     |        |
|-------------------------------------|--------|
| ▶ Geologists: 98 %                  | ▶ 95 % |
| ▶ Secondary teachers: 92 %          | ▶ 97 % |
| ▶ Marketing specialists: 74 %       | ▶ 74 % |
| ▶ General managers<br>or CEOs: 56 % | ▶ 46 % |

# Questions of importance?


- ▶ When those with double degrees, postgraduate degrees, or those in the same job as while studying are removed:
  - ▶ Overall 5 % increase in import of qualification, 2 % increase in import of majors
  - ▶ With the exception of marketing, 94 % + of each of the fields (with sufficient cases) said their qualification was important in their job
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# Questions of importance?


Those that said their qualification was not important (to their job) generally said their major fields of education were important, and visa versa.

- ▶ Overall, just 3 % of single-qualification graduates in 'new work' (from the selected fields) said both their qualification and major fields of education were not important.

# Questions of importance

- ▶ In summary, while broadly effective the function of the questions is highly specific to graduates qualification type, major fields of education and the relationship between these.
  - Overlap between qualifications and fields of study and question sequence
  - Plurality of qualifications and majors
  - Role of experience and existing employment
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# Relatedness by occupational categories

- ▶ Comparison of self-evaluation of importance between graduates in match and non-match occupation groups.
  - Broad range of 'relevant' occupations identified, specific to each field
  - Overall, 83 % in those matched occupations said fields important/required
  - 42% in non-matched occupations
  - Overall, 85 % in those matched occupations said qualification important/required
  - 41% in non-matched occupations
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# Relatedness by occupational categories: within major fields

- ▶ Proportion in matched and non-matched occupations reporting their qualification as important to their employment very variable:
- Differences ranged from 26% (civil engineering and marketing) to 66% (teaching) with one outlier:

Business management (essential no difference between the proportions)

# Relatedness by occupational categories: major fields


- ▶ Proportion in matched and non-matched occupations reporting their major fields as important to their employment very variable:
- Differences ranged from 9% (business management) to 56% (secondary teaching)

# Relatedness by occupational categories: qualification


## Comparison of measures

Fields	% matching job	% FR/important
Business Management	47	49
Civil Engineering	79	82
General Nursing	88	93
Social Work	66	81
Marine Science	24	48


# Relatedness by occupational categories

- In almost all cases the proportion of grads in matching categories was lower than self-evaluation for both questions (overall >15% each)
  - The ability to identify occupations matching graduates major field of education varies greatly according to the field
  - In general, the more vocational the field and corresponding occupations, the closer the fit
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# Relatedness by occupational categories

- ▶ In summary, occupational matching:
    - May be useful in identifying pathways or rates of employment in specific areas, and
    - When applied broadly, is applicable to some vocationally-focused qualifications
    - However, problematic for generalist fields particularly for detailed analysis
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# Where the differences lie

- ▶ Level of award
  - Overall, bachelor graduates significantly more likely to report their qualification as important to their work
  - 15 % for all fields, 12 % for selected fields
  - No difference for major fields
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# Where the differences lie

Major field	Level of award	% qual imp. to job	% Difference
CIVIL ENGINEERING	BACHELOR	86.4%	36.4%
	POSTGRAD	50.0%	
GENERAL MEDICINE	BACHELOR	92.6%	31.4%
	POSTGRAD	61.2%	
SOCIAL WORK	BACHELOR	84.7%	26.4%
	POSTGRAD	58.3%	
GENERAL NURSING	BACHELOR	94.7%	25.6%
	POSTGRAD	69.1%	
ACCOUNTING	BACHELOR	77.6%	22.4%
	POSTGRAD	55.2%	
LAW	BACHELOR	76.3%	21.2%
	POSTGRAD	55.2%	
PHARMACY	BACHELOR	92.3%	9.1%
	POSTGRAD	83.2%	

# Where the differences lie

Major field	Level of award	% qual imp. to job	% Difference
HISTORY	BACHELOR	30.9%	-13.7%
	POSTGRAD	44.6%	
PSYCHOLOGY	BACHELOR	40.8%	-19.0%
	POSTGRAD	59.8%	
MARKETING	BACHELOR	53.4%	1.8% (n.s.)
	POSTGRAD	51.6%	
BUSINESS MANAGEMENT	BACHELOR	50.1%	1.6% (n.s.)
	POSTGRAD	48.5%	
ARCHITECTURE	BACHELOR	78.5%	1.2% (n.s.)
	POSTGRAD	77.3%	
SECONDARY TEACHING	BACHELOR	83.5%	.5% (n.s.)
	POSTGRAD	83.0%	
MARINE SCIENCE	BACHELOR	44.0%	NA
	POSTGRAD	*	
THEATRE STUDIES	BACHELOR	33.1%	NA
	POSTGRAD	*	
GEOLOGY	BACHELOR	82.2%	NA
	POSTGRAD	*	

# Where the differences lie

- ▶ **Level of award. In Summary:**
  - For some professional fields, a postgraduate degree may be less often required
  - In contrast, for generalist degrees, a higher qualification may improve employability in areas that are related to the field of study
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# Where the differences lie

## Age and importance of qualification.

- ▶ Older bachelor graduates:
  - 5 % more likely to report as important
- ▶ Younger postgraduates:
  - 9 % more likely to report as important

## Age and importance of majors.

- ▶ Older bachelor graduates:
  - 7 % more likely to report as important
- ▶ Postgraduates:
  - Essentially no difference

# Where the differences lie

## Age and importance of qualification, by major.

### ▶ Older bachelor graduates:

- General Medicine 13 % more likely
- Psychology 14 % more likely

### ▶ Younger bachelor graduates:

- Accounting 10 % more likely
- Law 8 % more likely


### ▶ Essentially no difference within other fields

\* Two few postgraduates <25 years for comparisons within fields of education


# Where the differences lie

- ▶ **Age. In summary:**
  - Within the bachelor cohort, older graduates more likely to report importance of qualification or major fields in relation to job.
  - Within the postgraduate cohort, younger graduates more likely to report importance of qualification in relation to job.
  - Age can be a significant divider, but this is only notable to some fields of education

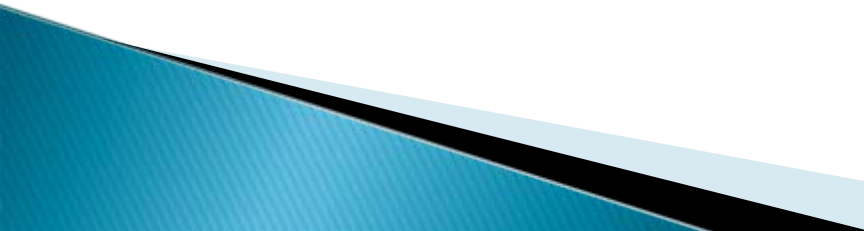
# Where the differences lie

- ▶ **Sex.**
  - Overall, small though statistically significantly higher proportion of females said their study (qualification or majors) was at least important.
  - However, this was likely the result of female predominance in fields such as General Nursing and Secondary Teaching
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# Where the differences lie

- ▶ **Sex.**
  - Only within one field was the difference notable:
  - Female pharmacy graduates were more likely to say their study was at least important
  - Qualification +6%, major fields + 8%
  - Unrelated to % in pharmacist roles
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# Where the differences lie

- ▶ **Non-English speaking background.**
  - In general, essentially no difference in the proportion reporting their qualification or majors were important in their employment
  - However, several fields had too few responses (marine science, drama, geology and history)
  - Accounting grads from an English-speaking background were more likely to report their qualification or majors were important in their employment (15% and 12%)
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# Conclusions

- Comparing qualification details and occupation details problematic for all but the most vocational fields
  - Self-completion questions are an effective tool but must consider specific circumstances of various cohorts
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# Conclusions

- ▶ **For self-completion questions:**
    - Level of award strongly associated, but relationship not constant across fields
    - Age also associated, but relationship not constant across fields
    - Sex not generally important in these fields
    - Minority groups – more investigation needed
    - Relevance of work to study is not necessarily a measure of success or misalignment
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