

Assessing education and training requirements against uncertain trends in the labour force

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Some objectives

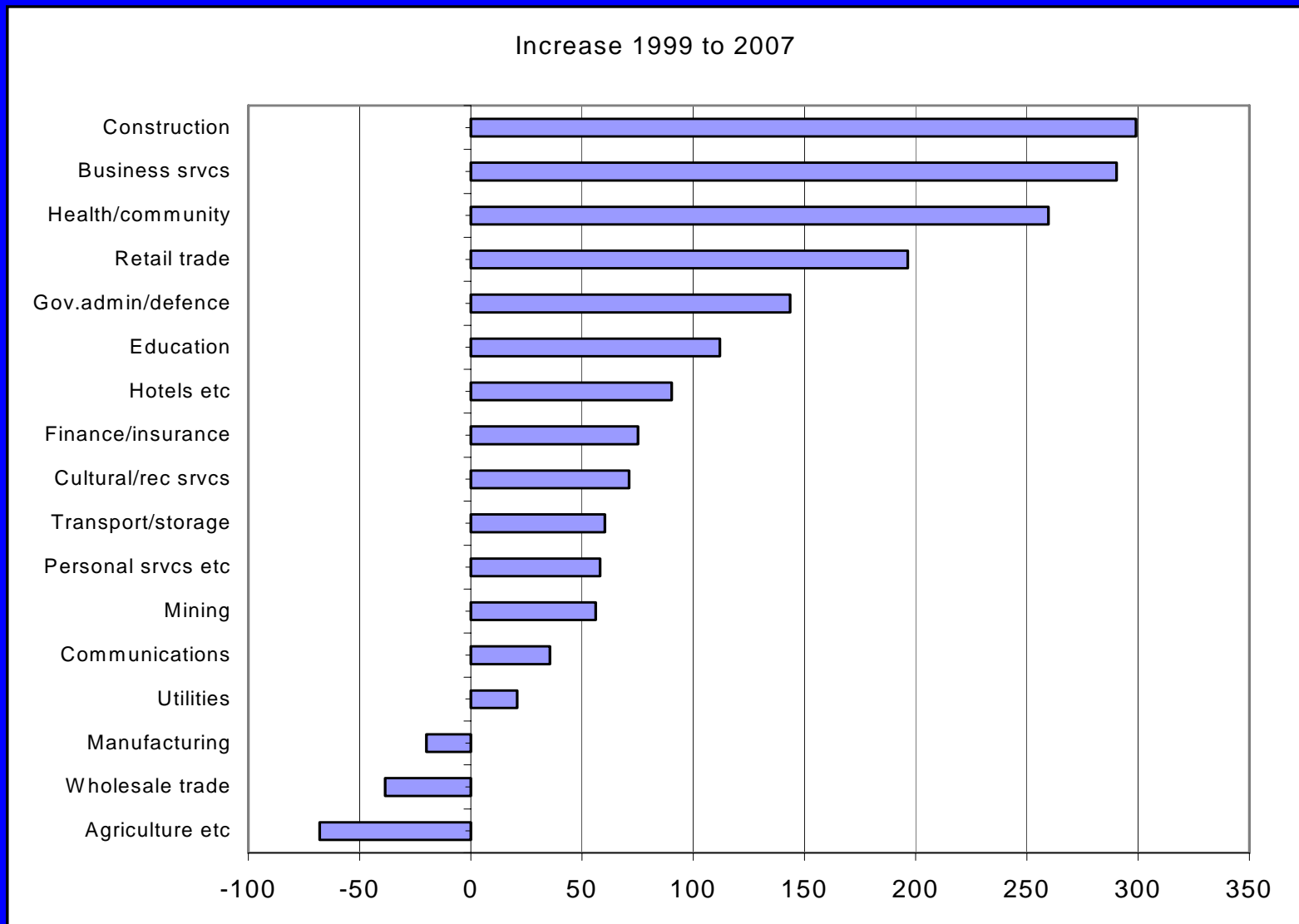
Better educated and trained workforce

- higher productivity
- reduce shortages and skills gaps
- help labour force participation for less advantaged

How assess requirements?

- One way is to use a top-down approach
- Forecast employment by industry and occupation
- Estimate qualification levels needed within occupations
- Examine change in occupational mix and skills

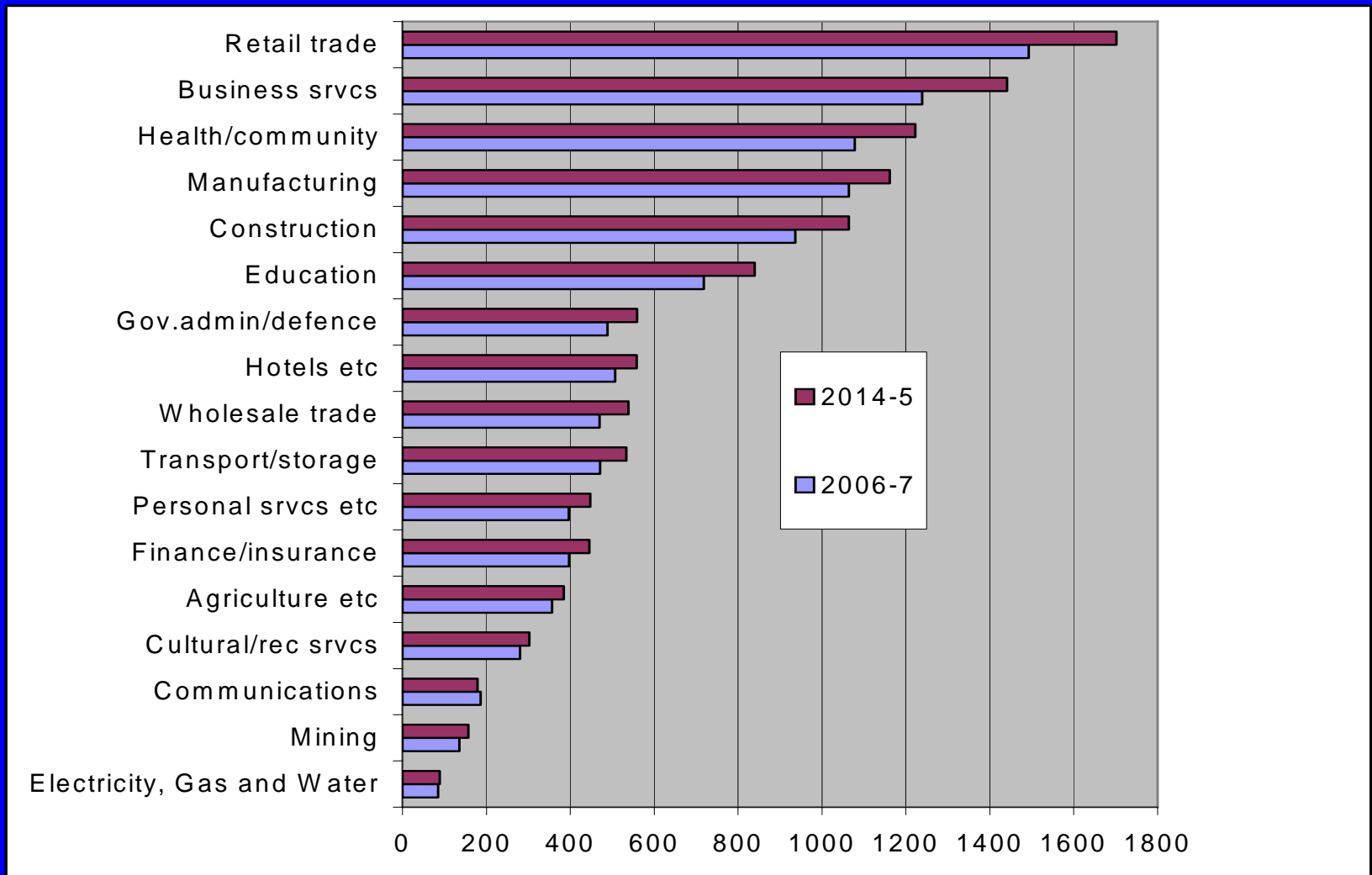
Increase in employment by industry Australia 1997 to 2007, '000



Forecasts --uncertainty in the economy

- Resource rich states booming
- Relatively high interest rates to fight inflation
- Relatively open economy
- Exchange rate difficulties for some industries
- Oil and food prices
- Climate change, emission and water policies
- Possible US recession
- Implications for skill needs...

Employment forecast by industry Australia to 2014-15



Forecast employment by occupation, Australia

Note increases for Managers, Professional and Assoc Professionals

	2006	2016	
	('000)	('000)	% change 2006-16
Managers	847	1,020	20
Professionals	1,951	2,258	16
Assoc professionals	1,240	1,505	21
Trades	1,273	1,268	-0
Advanced cler & serv	402	375	-7
Inter cler, sales & serv	1,658	1,884	14
Inter prod & transp	823	914	11
Elem cler sales & serv	984	1075	9
Labourers	863	933	8
Total	10,040	11,230	12

Employment forecasts by qualification, Australia

Approx 60% with qualifications rising to 70%

	2006	2016	% change 2006-16
	('000)	('000)	
VET	3,580	4,670	30
<i>Adv dip</i>	500	620	25
<i>Dip</i>	420	860	104
<i>Cert IV</i>	360	560	55
<i>Cert III</i>	1,590	1,930	22
<i>Cert II</i>	420	490	18
<i>Cert I</i>	300	210	-30
Higher ed	2,390	3,330	39
With quals	<u>5,970</u>	<u>7,990</u>	34
Without quals	4,070	3,240	-20
All	10,040	11,230	12

Persons to get qualifications in period 2006-16

	rounded numbers		Total '000	Total %
	New entrants '000	Existing workers '000		
VET	1,220	1,260	2,470	61
<i>Adv diploma</i>	80	270	350	9
<i>Diploma</i>	340	200	540	13
<i>Certificate IV</i>	150	160	310	8
<i>Certificate III</i>	440	470	910	23
<i>Certificate II</i>	150	110	260	6
<i>Certificate I</i>	50	60	110	3
Higher educ	1,030	530	1,560	39
All	2,250	1,790	<u>4,030</u>	100

Shortfall VET qualifications, 2006-2016

5% per year increase in student contact hours to meet shortfall

Qualification level	Requirements to meet 2016 target ('000)	Expected net completions ('000)	Expected surplus (+) / shortfall (-) ('000)	Annual % increase in net completions from VET sector
Adv Diploma	346	84	-262	27
Diploma	536	253	-283	14
Certificate IV	310	344	34	-2
Certificate III	911	799	-112	2
Certificate II	259	566	307	-15
Certificate I	111	186	75	-10
All	2,470	2,230	-240	1.9

Summary of 2006 findings

- **the VET system to expand to meet requirements**
- **considerable training for existing workers**
- **much training at Diploma and Advanced Diploma level**
- **addresses productivity, workforce development, skills gaps**
- **doesn't give information on occupational needs or shortages**

Addressing the occupational mix

- More detailed occupational forecasts?
- Yes --- but likely larger errors in detailed forecasts
- Difficult to match supply to demand

Addressing current shortages

What do we mean by shortage?

- Skills Shortage --when employers are unable to fill or have considerable difficulty filling vacancies for an occupation (or specialised skill needs) at current levels of pay and conditions of employment, and reasonable location
- Recruitment difficulties -- employers have difficulty filling vacancies for an occupation -there may be adequate supply but employers are still unable to attract and recruit sufficient suitable employees
- Skills gap --Skill gaps where existing employees lack the required qualifications, experience and/or specialised skills

What data is there on shortages?

- DEEWR - based on survey of employers who have recently advertised (SERA) backed by other data
- Lists of occupations eg M.O.D.L. not absolute numbers
- Large number of professional occupations eg health areas
- Large number of trades
- Variation across states/regions

Summing up on top down analysis

- Can estimate numbers of persons to be trained
- Capacity limited on detailed categories of skills
- Uncertainty
- Coherent

Involving employers and industry

Even if there were excellent forecasts need to consider:

- Views/wishes of industry/employers
- May be too short-term, specific
- But they know own skill requirements
- Reforms to training to make it industry led/responsive

Involving employers more

- ‘Existing workers’ in Productivity Places Program
- The Skill Ecosystem model www.skillecosystem.net/
- Such changes are about quality and relevance of training
- Also can stimulate demand for training and private finance

Student choice

- Much of higher education responds to student demand
- VET constrained by judgement of industry needs
- Victorian proposals for entitlements

Summing up

- Broad data analysis made of skill requirements and supply
- Occupation/qualification, on participation and shortages
- Top down gives coherent view of current trends/policy
- Considerable data limitations and uncertainty
- Context to consider industry, employer, employee, needs
- Student and employer wishes may be short-term

END

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