
E Labour market impacts of mutual recognition

Chapter 4 presented an assessment of the impacts of the mutual recognition schemes on labour markets using several analytical tools, including a shift-share model of interstate labour mobility, an analysis of interjurisdictional wage convergence and a series of computable general equilibrium (CGE) simulations. This appendix provides further detail on the data and methodology used to perform those analyses.

E.1 Labour mobility changes

One of the purposes of the mutual recognition schemes is to remove impediments to the movement of labour between jurisdictions. Despite the fact that interjurisdictional labour mobility has increased over the period during which mutual recognition has existed (tables E.1 and E.2), that increase cannot be attributed solely to mutual recognition. As noted in chapter 4, a number of factors are likely to affect labour mobility, and isolating the effect of mutual recognition is difficult.

In an attempt to disentangle the effects of mutual recognition from other factors that may also have affected labour mobility since the inception of mutual recognition, shift-share analysis was used to examine how increases in mobility over time within an industry differ from national and occupational averages. This provided an indication of whether observed increases in mobility within an industry can be attributed to:

- a general increase in mobility, across all occupations and industries
- a specific increase in relative mobility of workers in registered or unregistered occupations, which may provide an indication of the effect of mutual recognition
- a specific increase in mobility of different groups of workers in particular industries, which may reflect changes in the demand for labour in those industries.

Data

The Australian Bureau of Statistics (ABS) supplied unpublished data on interstate labour movements from the 1996, 2001 and 2006 Australian censuses. Workers were defined as ‘mobile’ if they:

- were employed on the day of the census
- moved between Australian jurisdictions in the year prior to the census
- arrived in Australia within the year prior to the census, and were born in New Zealand.

The data excluded those who did not state their:

- usual residence one year before the census
- birthplace
- occupation.

Those born overseas (excluding New Zealand) and who arrived in the 12 months prior to the census were also excluded.

Using the list of occupations presented in appendix F, mobile workers were classified as employed in either fully registered, partially registered or unregistered occupations in their destination jurisdictions. Fully registered occupations refer to occupations that require mutually recognisable registration in all Australian jurisdictions, whether this is registration in each jurisdiction, or at a national level. Partially registered occupations are those that require registration in some but not all jurisdictions. Unregistered occupations are those for which there is no requirement for mutually recognisable registration in any Australian jurisdiction.¹

Table E.1 presents the levels of labour mobility — gross number of movements between jurisdictions in the year preceding each census — for different occupation and industry groupings. Table E.2 displays changes in the level of mobility that was observed between 1996 and 2006.

The changes in labour mobility between 1996 and 2006 for different combinations of occupation and industry can be decomposed using shift-share analysis.

¹ Appendix F outlines several qualifications on such classification of some occupations, including that the scope of activities covered by registration may differ across jurisdictions. Those limitations apply to this analysis.

Table E.1 Labour mobility levels by industry^a

Number of movements into a jurisdiction in the 12 months to census day, by registration status and industry 1996, 2001, and 2006

Industry of destination	1996			2001			2006					
	Registered	Partially registered	Un-registered	Total	Registered	Partially registered	Un-registered	Total	Registered	Partially registered	Un-registered	Total
Agriculture, Forestry and Fishing	130	162	4 498	4 790	160	188	4 668	5 016	117	147	3 948	4 212
Mining	426	527	2 315	3 268	294	380	1 737	2 411	589	543	2 938	4 070
Manufacturing	592	927	10 095	11 614	695	1 134	11 295	13 124	812	1 133	11 610	13 555
Electricity, Gas and Water Supply	47	50	308	405	61	96	629	786	98	123	731	952
Construction	1 865	2 180	3 318	7 363	1 934	2 495	3 357	7 786	3 207	3 814	5 183	12 204
Wholesale Trade	375	183	6 647	7 205	341	146	6 679	7 166	291	173	5 947	6 411
Retail Trade	298	262	14 888	15 448	351	333	17 245	17 929	362	319	18 166	18 847
Accommodation, Cafes and Restaurants	198	58	12 917	13 173	219	53	13 678	13 950	204	57	13 516	13 777
Transport and Storage	2 190	176	3 312	5 678	2 699	220	3 666	6 585	3 134	267	3 753	7 154
Communication Services	43	44	1 961	2 048	32	47	2 475	2 554	51	54	1 747	1 852
Finance and Insurance	745	74	5 455	6 274	1 090	74	6 197	7 361	1 059	100	5 811	6 970
Property and Business Services	1 993	780	13 173	15 946	2 717	820	17 481	21 018	2 907	1 103	16 336	20 346
Government Administration and Defence	1 500	526	16 590	18 616	1 727	539	14 521	16 787	1 965	623	17 152	19 740
Education	125	3 466	4 253	7 844	98	3 807	4 773	8 678	118	4 581	5 262	9 961
Health and Community Services	5 988	763	5 978	12 729	6 176	779	7 332	14 287	6 290	1 006	8 396	15 692
Cultural and Recreational Services	452	245	4 707	5 404	203	245	4 931	5 379	157	218	4 948	5 323
Personal and Other Services	124	768	3 778	4 670	180	774	3 969	4 923	218	756	3 942	4 916
Non-classifiable economic units	80	120	1 490	1 690	58	42	812	912	148	145	1 875	2 168
Total	17 171	11 311	115 683	144 165	19 035	12 172	125 445	156 652	21 727	15 162	131 261	168 150

^a Industry is aggregated at the 1-digit Australian and New Zealand Standard Industrial Classification (ANZSIC) level.

Source: ABS (*Census of Population and Housing*, 1996, 2001 and 2006, unpublished data).

Table E.2 Total change in labour mobility by registration status and industry^a

Change in mobility levels between 1996 and 2006

<i>Industry^b</i>	<i>Fully registered</i>		<i>Partially registered</i>		<i>Un-registered</i>		<i>Total</i>	
	No	%	No	%	No	%	No	%
Agriculture, Forestry and Fishing	- 13	-10.0	- 15	-9.3	- 550	-12.2	- 578	-12.1
Mining	163	38.3	16	3.0	623	26.9	802	24.5
Manufacturing	220	37.2	206	22.2	1 515	15.0	1 941	16.7
Electricity, Gas and Water Supply	51	108.5	73	146.0	423	137.3	547	135.1
Construction	1 342	72.0	1 634	75.0	1 865	56.2	4 841	65.7
Wholesale Trade	- 84	-22.4	- 10	-5.5	- 700	-10.5	- 794	-11.0
Retail Trade	64	21.5	57	21.8	3 278	22.0	3 399	22.0
Accommodation, Cafes and Restaurants	6	3.0	- 1	-1.7	599	4.6	604	4.6
Transport and Storage	944	43.1	91	51.7	441	13.3	1 476	26.0
Communication Services	8	18.6	10	22.7	- 214	-10.9	- 196	-9.6
Finance and Insurance	314	42.1	26	35.1	356	6.5	696	11.1
Property and Business Services	914	45.9	323	41.4	3 163	24.0	4 400	27.6
Government Administration and Defence	465	31.0	97	18.4	562	3.4	1 124	6.0
Education	- 7	-5.6	1 115	32.2	1 009	23.7	2 117	27.0
Health and Community Services	302	5.0	243	31.8	2 418	40.4	2 963	23.3
Cultural and Recreational Services	- 295	-65.3	- 27	-11.0	241	5.1	- 81	-1.5
Personal and Other Services	94	75.8	- 12	-1.6	164	4.3	246	5.3
Non-classifiable economic units	68	85.0	25	20.8	385	25.8	478	28.3
Total	4 556	26.5	3 851	34.0	15 578	13.5	23 985	16.6

^a Total change in mobility 1996–2006 refers to the number of people moving between jurisdictions in the year to the 2006 census less the number of people moving between jurisdictions in the year to the 1996 census. Percentage refers to the total change in mobility as a percentage of mobility levels in 1996. ^b Industry is aggregated at the 1-digit ANZSIC level.

Source: ABS (*Census of Population and Housing*, 1996, 2001 and 2006, unpublished data).

Shift-share analysis of interstate labour mobility

Method

Traditional shift-share analysis of labour mobility distinguishes between three components making up the overall change in labour mobility of occupation j within industry i (box E.1):

- A general or national change in labour mobility — this refers to a change in the mobility of workers in a given occupation and industry that is consistent with the national changes in labour mobility. As a percentage change in mobility, this component is the same across all combinations of occupation and industry.
- A change in the occupational mix refers to the difference between the change in mobility for an occupation group and the national change in mobility. In percentage terms this change is the same for a given occupation across all industries.
- An industry component — this refers to a residual component that remains after accounting for the national and occupational mix changes in labour mobility. This component identifies whether the change in the mobility of occupation j in industry i has been greater or smaller than the total change in the mobility of occupation j across all industries, thereby reflecting changes in labour mobility for a given occupation that is attributable to differences between industries.

Results of the shift-share analysis

Table E.3 illustrates the change in occupational mix for the three classes of occupations identified. This may be conceived of as the difference in the change in labour mobility for each occupation type and the change in mobility for *all* occupations.

Table E.3 Change in occupational mix
Percentage point change in mobility levels between 1996 and 2006

	1996–2001	2001–06	1996–2006
	%	%	%
Fully registered	2.19	6.80	9.90
Partially registered	-1.05	17.22	17.41
Unregistered	-0.22	-2.70	-3.17

Source: Productivity Commission estimates based on ABS (*Census of Population and Housing*, 1996, 2001 and 2006, unpublished data).

Box E.1 Components of the shift-share model of labour mobility

National change component

The proportional change in the level of national labour mobility (M) between time periods 1 and 2 is given by:

$$R = (M_2 - M_1) / M_1$$

This proportional change can explain part of the change in labour mobility for occupation j in industry i , namely the 'national change' component:

$$N_j^i = m_{j1}^i R$$

where m_{j1}^i is the level of mobility for those working in occupation j and industry i in period 1, and N_j^i is the change in level of mobility attributed to the national change.

Occupational mix component

The change in the occupational mix (P) for occupation group j is the difference between the national proportional change for that occupational group ($R_j = (M_{j2} - M_{j1}) / M_{j1}$) and the national proportional change in mobility for all groups (R), multiplied by the level of mobility for occupation j in time period 1. That is, the change in the occupational mix component for occupation j is:

$$P_j^i = m_{j1}^i R$$

Industry component

The 'industry' component D_j^i measures the part of the change in labour mobility for an occupation j in industry i , that is specific to that industry, rather than national or occupational changes. That is:

$$D_j^i = m_{j1}^i (r_j^i - R_j)$$

where r_j^i is the total percentage change in mobility for occupation j in industry i .

Adding the components

The national, occupational mix and industry components combine to equal the total change in labour mobility for occupation j in industry i .

The percentage change in mobility for occupation j in industry i is equal to sum of the national change, the difference between the national change and occupational mix, and the difference between the occupational mix and the industry components (in percentages). That is:

$$r_j^i = (m_{j2}^i - m_{j1}^i) / m_{j1}^i = R + (R_j - R) + (r_j^i - R_j)$$

The total change in mobility for occupation j and industry i , in persons, is given by:

$$m_{j1}^i r_j^i = m_{j2}^i - m_{j1}^i = m_{j1}^i R + m_{j1}^i (R_j - R) + m_{j1}^i (r_j^i - R)$$

Source: Mulligan and Molin (2002).

The estimates of the occupational mix components for occupations that require registration support the idea that mutual recognition encourages labour mobility. Between 1996 and 2006, labour mobility for fully and partially registered occupations increased at a rate notably above the total change in labour mobility for this period. This is indicated by the positive changes in the occupational mix in table E.3. The majority of this increase appears to have occurred between 2001 and 2006. Commensurate with above-average increases in the mobility of registered occupations, the observed change in levels of mobility of unregistered workers is consistently below that for the whole of the workforce.

Table E.4 presents the industry component of labour mobility for the three different occupational groups. This reveals differences in the change in mobility associated with a specific occupational group in a particular industry, relative to the change in mobility observed for that occupation as a whole. The shift-share analysis shows that:

- across all occupation types, there was a general increase in the mobility of those working in industries such as property and business services; electricity, gas and water supply; and construction
- for industry classifications such as finance and insurance, and personal and other services, there was an increase in the mobility of workers in fully registered occupations, while the mobility of partially and un-registered workers remained relatively stable or decreased
- while the level of mobility of workers in health and community services increased by around 6 percentage points, the mobility of fully registered workers within that industry declined by around 21 percentage points. The overall increase in mobility for this sector came from a large increase in the mobility of unregistered workers.

Table E.4 Industry component of change in occupational mobility^a

Percentage point change in mobility levels between 1996 and 2006

<i>Industry</i>	<i>Fully registered</i>	<i>Partially registered</i>	<i>Un-registered</i>	<i>Total</i>
	%	%	%	%
Agriculture, Forestry and Fishing	-36.5	-43.3	-25.7	-28.7
Mining	11.7	-31.0	13.4	7.9
Manufacturing	10.6	-11.8	1.5	0.1
Electricity, Gas and Water Supply	82.0	112.0	123.9	118.4
Construction	45.4	40.9	42.7	49.1
Wholesale Trade	-48.9	-39.5	-24.0	-27.7
Retail Trade	-5.1	-12.3	8.6	5.4
Accommodation, Cafes and Restaurants	-23.5	-35.8	-8.8	-12.1
Transport and Storage	16.6	17.7	-0.2	9.4
Communication Services	-7.9	-11.3	-24.4	-26.2
Finance and Insurance	15.6	1.1	-6.9	-5.5
Property and Business Services	19.3	7.4	10.5	11.0
Government Administration and Defence	4.5	-15.6	-10.1	-10.6
Education	-32.1	-1.9	10.3	10.4
Health and Community Services	-21.5	-2.2	27.0	6.6
Cultural and Recreational Services	-91.8	-45.1	-8.3	-18.1
Personal and Other Services	49.3	-35.6	-9.1	-11.4

^a Industry is aggregated at the 1-digit ANZSIC level.

Source: Productivity Commission estimates based on ABS (*Census of Population and Housing*, 1996 and 2006, unpublished data).

E.2 Wage convergence analysis

This section details the data, methodology and results of the wage convergence analysis.

Data sources

The Commission contracted the ABS to supply jurisdiction-level data on the wages of different occupation groups.

The data supplied were derived from the 1996, 2001 and 2006 Australian censuses. Data are based on the jurisdictional average weekly income for every occupation group. From these figures, average hourly wages were calculated on the basis of an assumed 35-hour working week.

Raw income data by occupation were provided at the six-digit Australian Standard Classification of Occupations (ASCO) level, and were reclassified to unregistered,

partially or fully registered occupations using the framework in appendix F. Weighted average hourly wages were derived for each occupation class, with the weights based on the number of people employed in each occupation. Real average wages for each occupation group are presented in table E.5.

Table E.5 Average real hourly wages, by occupation registration status^a

	<i>NSW</i>	<i>Vic</i>	<i>QLD</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Aust</i>
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1996 census									
Fully Registered	17.65	16.96	16.23	17.58	17.23	14.92	16.75	17.77	17.08
Partially Registered	15.35	14.54	14.38	14.20	15.80	14.83	15.67	15.86	15.00
Unregistered	13.65	13.00	12.23	12.42	13.27	11.65	13.68	16.96	13.12
Total	14.08	13.35	12.73	12.88	13.81	12.19	13.77	16.88	13.54
2001 census									
Fully Registered	17.24	16.87	15.62	16.67	16.23	15.57	16.73	17.77	16.56
Partially Registered	16.22	15.32	15.90	15.04	15.78	15.39	15.94	17.14	15.67
Unregistered	14.51	13.88	12.62	13.24	13.49	12.52	13.79	18.19	13.73
Total	14.89	14.22	13.13	13.65	13.94	13.01	14.24	18.02	14.10
2006 census									
Fully Registered	18.95	18.26	17.05	17.94	18.45	17.68	18.27	20.89	18.24
Partially Registered	17.50	16.07	16.61	15.55	17.74	16.15	18.27	18.29	16.85
Unregistered	15.84	15.17	14.08	14.16	15.19	13.54	15.31	20.14	15.16
Total	16.26	15.53	14.61	14.66	15.71	14.17	15.93	19.96	15.58

^a Data adjusted to 1996 dollars using CPI deflators.

Sources: ABS (2008); Productivity Commission estimates based on ABS (*Census of Population and Housing*, 1996, 2001 and 2006, unpublished data).

Method

The coefficient of variation of average hourly wages across jurisdictions was chosen as the instrument for estimating wage convergence. Simply put, the coefficient of variation is the standard deviation of jurisdictional wages for a particular occupation class divided by the national average wage for that occupation class (box E.2). This instrument was chosen in preference to simple variance or standard deviation measures, because it is independent of units of measurement and provides a measure of dispersion that takes account of the wage growth that occurred in all jurisdictions between 1996 and 2006.

Box E.2 Coefficient of variation

The coefficient of variation is given by:

$$CV = \frac{\sigma}{\bar{w}}$$

where \bar{w} represents the average national wage for a particular occupation class and σ is the standard deviation of jurisdictional wages for that occupation class, and is given by:

$$\sigma = \sqrt{\frac{1}{N} \sum_{i=1}^N (w_i - \bar{w})^2}$$

where w_i is the wage for a particular occupation class in jurisdiction i , and N is the number of jurisdictions.

Source: Villaverde (2004).

Coefficients of variation were calculated as a measure of dispersion across all jurisdictions, with the exception of the ACT.

Why was the ACT excluded from the analysis?

The ACT is excluded from the wage convergence analysis because of the substantial differences in the composition of its workforce. The composition of the workforces in the other jurisdictions is similar (table E.6). In the ACT, 54.7 per cent of those employed work either as professionals, associate professionals, or managers and administrators. This is in contrast to the other jurisdictions, where between 36.9 and 41.6 per cent of the workforce is employed in these categories. There are also noticeably fewer people working as either intermediate production and transport workers, tradespersons and related workers, or labourers and related workers in the ACT.

The differences in workforce composition mean that a comparison of wages across the broad categories of occupation-registration status is not a legitimate comparison when the ACT is included.

Table E.6 Workforce composition, 2006 census
By 1-digit ASCO classification

	<i>NSW</i>	<i>Vic</i>	<i>QLD</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>	<i>Aust</i>
	%	%	%	%	%	%	%	%	%
Managers and Administrators	9.4	9.3	8.0	9.2	8.4	8.3	7.7	11.9	9.0
Professionals	20.3	20.2	16.6	18.0	18.0	17.3	18.2	28.4	19.2
Associate Professionals	11.9	11.5	12.2	12.1	12.4	11.8	13.5	14.3	12.0
Tradespersons and Related Workers	11.4	11.8	13.1	12.0	13.6	12.6	13.3	7.6	12.1
Advanced Clerical and Service Workers	3.4	3.2	3.1	2.8	3.2	2.4	2.6	2.8	3.2
Intermediate Clerical, Sales and Service Workers	16.9	16.7	17.2	16.8	16.3	17.6	16.8	17.6	16.9
Intermediate Production and Transport Workers	7.8	7.9	8.8	8.2	8.9	8.9	7.1	3.4	8.1
Elementary Clerical, Sales and Service Workers	9.3	9.6	9.7	9.4	9.1	10.0	8.3	8.6	9.4
Labourers and Related Workers	9.5	9.9	11.2	11.6	10.1	11.0	12.4	5.2	10.1

Source: ABS (*Census of Population and Housing, 2006*, unpublished data).

Results of the wage convergence analysis

Table E.7 illustrates the change in the size of the variation coefficients between 1996 and 2006, excluding and including the ACT. When the ACT is excluded, the wages of fully registered workers show clear signs of having converged over the period. Wages of partially registered workers diverged in that time, while those of unregistered workers remained relatively constant across jurisdictions.

Table E.7 **Coefficient of variation of average real wages across jurisdictions, by occupation-registration status^a**

Year	Fully registered	Partially registered	Unregistered	All occupations
ACT excluded				
1996	5.47	3.97	5.81	5.12
2001	3.66	2.46	5.24	4.65
2006	3.19	5.53	5.73	5.08
ACT included				
1996	5.31	4.23	11.69	9.95
2001	4.29	4.04	12.49	10.75
2006	5.94	5.99	12.79	11.02

^a Coefficient of variation is the standard deviation of the mean wage in each jurisdiction expressed as a proportion of the national mean (Villaverde 2004). The proportion is shown as a percentage. The average wage for each jurisdiction is the average of the individual income divided by hours worked (for employed persons who worked 35 or more hours) for each age/sex category (age is 5-year groups from 15-19 to 75+) within that jurisdiction.

Source: Productivity Commission estimates based on ABS (*Census of Population and Housing*, 2006, unpublished data).

E.3 Computable general equilibrium analysis of the economic effects of improved labour mobility

This section details the data, methodology and results of the computable general equilibrium (CGE) simulations undertaken in chapter 4.

Data sources

The Commission used the database of the Monash Multi-Regional Forecasting (MMRF) model (version 4) as the data source for the analysis. The database was augmented with 2006 Australian census data on interstate mobility at the ASCO one-digit level, by source and destination jurisdiction. Those data were provided on contract by the ABS.

Method

The Commission used a modified version of the MMRF model to perform this CGE analysis. The modified model contains equations representing the interjurisdictional movement of labour by source and destination jurisdiction (identical to the version of the model used in Commission reports on *Potential Benefits of the National Reform Agenda* (PC 2006a) and on *Modelling Economy-wide Effects of Future Automotive Assistance* (PC 2008c)).

Disaggregating the occupation groups

The MMRF database contains labour data by occupation at the ASCO 1-digit level of aggregation. This level of aggregation creates difficulties in modelling the impacts of mutual recognition arrangements because occupational registration is conducted at a highly-disaggregated level. In order to simulate those impacts, the labour data in the database was disaggregated into two categories — workers in registered and unregistered occupations. The disaggregation was carried out for every occupation group and every jurisdiction. The proportions correspond to the shares of fully registered and non-fully registered workers in each occupation group and jurisdiction (table E.8).

Table E.8 Proportion of fully registered workers by occupation group and jurisdiction

<i>ASCO classification</i>	<i>NSW</i>	<i>Vic</i>	<i>Qld</i>	<i>SA</i>	<i>WA</i>	<i>Tas</i>	<i>NT</i>	<i>ACT</i>
	%	%	%	%	%	%	%	%
Managers and Administrators	7.65	7.04	9.55	8.12	6.18	10.84	8.47	4.78
Professionals	38.63	41.94	44.03	40.42	42.54	49.36	44.46	14.96
Associate Professionals	8.04	7.99	10.35	8.42	8.29	7.82	7.85	4.99
Tradespersons and Related Workers	26.48	25.68	41.94	20.78	23.20	13.55	13.03	14.29
Advanced Clerical and Service Workers	0.25	0.21	0.36	0.21	0.21	0.60	0.18	0.06
Intermediate Clerical, Sales and Service Workers	2.14	2.56	2.64	3.92	2.54	2.27	2.58	1.38
Intermediate Production and Transport Workers	34.95	33.31	36.87	36.25	32.88	36.96	36.12	33.84
Elementary Clerical, Sales and Service Workers	5.04	4.17	4.14	4.66	4.32	3.48	8.29	8.69
Labourers and Related Workers	0.52	0.00	3.43	0.00	0.00	0.00	0.00	0.00

Source: Productivity Commission estimates based on ABS (*Census of Population and Housing*, 2006, unpublished data).

Simulation details

Two simulations were conducted to analyse the effect of mutual recognition in the context of a natural resources boom:

- In the first (baseline) simulation, workers in mutually recognised occupations were assumed to be perfectly immobile between jurisdictions, while workers in

all other occupations were assumed to be perfectly mobile. This is a ‘pre-mutual recognition’ scenario.

- In the second simulation, interjurisdictional labour mobility was assumed to be infinite (perfect) for all occupations. This is a ‘mutual recognition’ scenario.

The natural resources boom was modelled as a uniform 10 per cent shock to the export prices of coal, oil, gas, iron ore, non-iron ore and other mining products.

Both simulations adopted a standard long-run closure. The main features of this closure are:

- labour supply in each occupation is fixed at the national level with changes in demand for labour in a particular occupation resulting in increases in the real wage for that occupation
- the after-tax rate of return on capital is fixed, with capital stock adjusting in response to changes in the rate of return.

In addition, in the first simulation, labour supply at the jurisdictional level was fixed for a proportion of each ASCO 1 group that corresponded to the share of registered workers in that occupation group in the relevant jurisdiction. This is intended to represent the case where mutual recognition does not operate and jurisdictions cannot draw on interstate workers in those occupations.

Results of the computable general equilibrium analysis

Tables E.9 and E.10 show the simulation results. Both the original results and the results after attribution based on the adjusted coverage of mutual recognition are presented.

Table E.9 Impacts on Gross Domestic Product and real wages

Percentage change relative to the database

<i>Variable</i>	<i>Simulation 1 (baseline)</i>	<i>Simulation 2 (all occupations mobile)</i>
	%	%
GDP	2.09	2.36
Managers and Administrators' real wages	-0.01	-0.36
Professionals' real wages	4.07	3.92
Associate Professionals' real wages	2.79	3.32
Tradespersons and Related Workers' real wages	4.09	4.69
Advanced Clerical and Service Workers' real wages	2.14	2.02
Intermediate Clerical, Sales and Service Workers' real wages	2.09	1.87
Intermediate Production and Transport Workers' real wages	4.79	6.26
Elementary Clerical, Sales and Service Workers' real wages	0.28	0.28
Labourers and Related Workers' real wages	0.00	-0.25

Source: Productivity Commission estimates.

Table E.10 Impacts on Gross State Product and Gross State Product per person

Percentage change relative to the database

<i>Jurisdiction</i>	<i>Simulation 1 (baseline)</i>		<i>Simulation 2 (all occupations mobile)</i>	
	<i>GSP</i>	<i>GSP per capita</i>	<i>GSP</i>	<i>GSP per capita</i>
	%	%	%	%
NSW	0.60	1.27	-1.90	1.29
Victoria	-0.53	0.70	-4.84	0.83
Queensland	4.61	3.30	9.81	3.20
SA	-0.66	0.70	-4.087	1.07
WA	9.08	5.49	19.83	5.06
Tasmania	-0.65	0.08	-1.34	0.16
NT	4.07	1.54	10.38	1.27
ACT	0.73	0.38	0.36	0.39

Source: Productivity Commission estimates.