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EMPLOYMENT AT WSA

A LABOUR MARKET APPRAISAL
OF THE PROPOSED WESTERN SYDNEY AIRPORT
OCTOBER 2016

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Minor revisions: July 2017

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TYPESET WITH L^AT_EX USING THE TUFTE-LATEX CLASS

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Key findings

THIS REPORT LOOKS at the proposed Western Sydney Airport (WSA) *from the perspective of the labour market*. It asks how realistic are the employment projections provided in the Environmental Impact Statement for that project (the *EIS*).

THE KEY FINDINGS in Chapter 1 (overview) are:

- ◁ the projections for future passenger numbers are inflated;
- ◁ the employment ratio—that is, the number of workers required for a set number of passengers—is also inflated;
- ◁ multiplying the inflated passenger numbers by the inflated employment ratio produces inflated estimates of the future airport workforce;
- ◁ the *EIS* methodology of extrapolating a constant employment ratio several decades into the future is misleading because that ratio is not constant, but appears to be declining over time;
- ◁ this decline is apparent in the fact that passenger numbers in Sydney increased nearly 20 per cent between 2006 and 2011, but employment in air transport did not materially increase.

THE KEY FINDINGS in Chapter 2 (the construction phase) are:

- ◁ during the construction phase, the number of direct jobs is small, never rising above 800 workers in any one year;
- ◁ the employment flow-ons from industrial effects (purchases of various inputs) appears to be over stated;
- ◁ the employment flow-ons from consumption effects (household spending due to employment) appear to be realistic, but they reveal a considerable level of ‘escape spending’ from Western Sydney.

THE KEY FINDINGS in Chapter 3 (the operational phase) are:

- ◁ labour market changes in coming years are likely to reduce the direct employment effects of an airport in Western Sydney,

mainly through automation and an increased use of part-time labour;

- ◁ indirect employment effects are also likely to reduce as a result of lower household incomes, also the result of increased part-time employment;

THE KEY FINDINGS in Chapter 4 (alternatives) are:

- ◁ Western Sydney would benefit from major construction projects, particularly if they offer employment for blue-collar, clerical and administrative workers;
- ◁ such construction projects could focus on the current transport needs of the region, particularly an efficient orbital rail corridor;
- ◁ journey to work data for Western Sydney show that travel within Western Sydney is heavily car dependent, and commuters would benefit from rail projects such as these;
- ◁ intercity high-speed rail (HSR) could complement increased these rail projects, providing local employment, as well as wider environmental and economic benefits;
- ◁ the employment advantages of rail over air transport are considerable, with the former providing both higher earnings and higher quality employment.

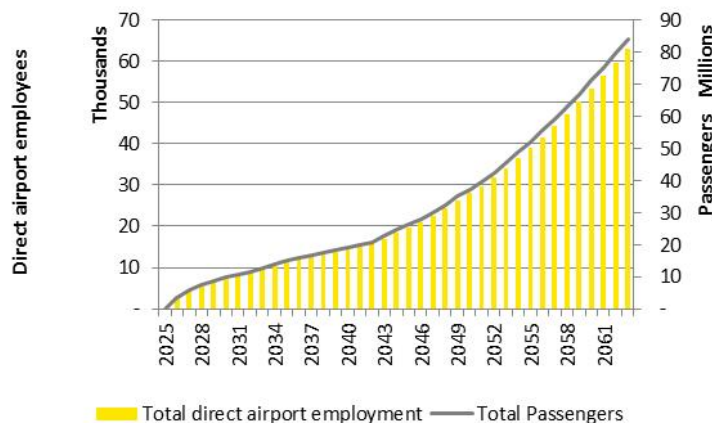
THE KEY FINDINGS in Chapter 5 (conclusion) are:

- ◁ the problems of economic malaise in Australia are serious and major construction projects such as high-speed rail and improved intra-city rail can be an important part of revitalising the economy;
- ◁ the macro-economic settings are currently favourable to both the construction and operational phases of such projects.

1. Overview: passenger numbers and employment

THERE ARE TWO ASPECTS to the future employment projections at Western Sydney Airport. There are the jobs created during construction and there are the jobs created during the airport's operation. I deal in detail with the construction aspect in the Chapter 2 and the operations aspect in Chapter 3. This chapter provides an overview of the passenger numbers and the employment numbers.

AS FAR AS the operating period goes, Figure 1 shows projections from the EIS for 2025 onward, with passenger numbers rising to more than 80 million per year by 2063. During the same period, direct airport employment is expected to rise to over 60,000 employees.



Unless otherwise indicated, the EIS refers to the Economic Analysis appendix of that document.

Ernst and Young. *Western Sydney Airport Environmental Impact Statement, Appendix P3 Economic Analysis*. Sydney, 2016

Figure 1: Passenger numbers and direct employment at proposed WSA, 2025 to 2063. Source: Figure 3 from page 7 of the EIS.

Passenger numbers

LOOKING AT SOME REAL WORLD COMPARISONS, monthly passenger numbers for Sydney airport and Melbourne airport suggest these projections for Western Sydney Airport are unduly high. As Figures 2 and 3 on page 7 show, seasonal volatility is considerable, but the overall trajectory is steadily upward. Recessionary periods, such

These are sourced from BITRE: Bureau of Infrastructure, Transport and Regional Economics. Monthly airport traffic data for top twenty airports: January 1985 to July 2013. https://bitre.gov.au/publications/ongoing/airport_traffic_data.aspx

as the early 1990s, saw major drops in air travel, as did periods of international tension, such as the period after 2001.

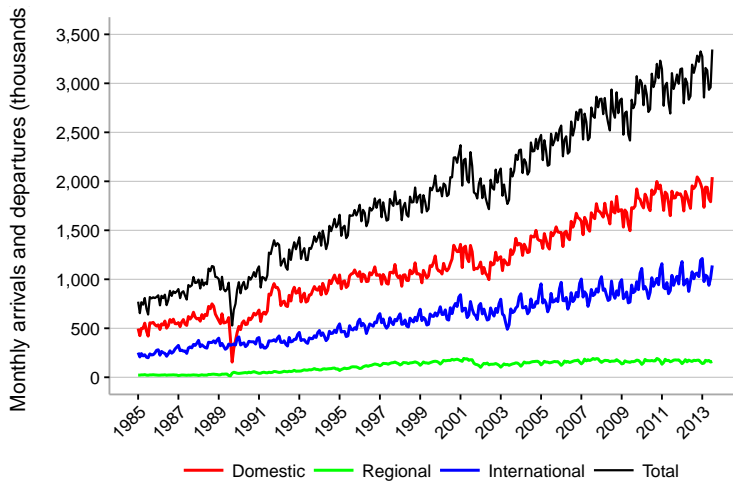


Figure 2: Passenger numbers at Sydney airport, 1985 to 2013. *Source: BITRE data.*

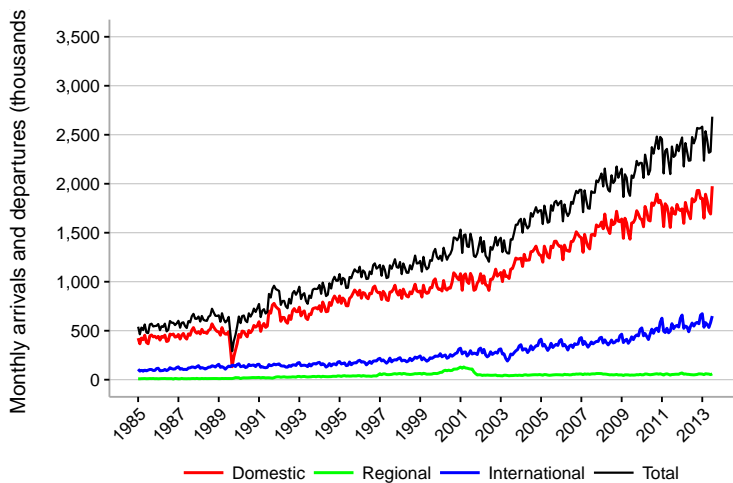


Figure 3: Monthly passenger numbers at Melbourne airport, 1985 to 2013. *Source: BITRE data.*

IN ANNUAL TERMS, these data show that passenger numbers for the period from 1985 to 2012 increased by about 28 million at Sydney Airport and nearly 23 million at Melbourne Airport. By comparison, the projections for Western Sydney Airport see passenger numbers increasing by 41 million over a similar time span, the 28 year period from 2031 to 2059 (see Table 1 on page 8).

	Actual			Projected	
	Period	Sydney	Melbourne	Period	WSA
Passengers (millions)	1985	9.2	6.3	2031	8.7
Passengers (millions)	2012	37.0	28.9	2059	50.0
Change (millions)		27.9	22.6		41.3

Employment

THE JOBS associated with these passenger numbers are shown in Table 2 on page 8 for 2011, the year for which we have relevant small area Census data. Both Sydney and Melbourne have employment ratios—that is, the number of workers required for a set number of passengers—which are under 600 workers per million annual passengers. These figures are much less than the ‘working’ figure of 750 given for Western Sydney Airport in the *EIS*, and lower than the figure of 873 calculated from the data in Figure 1 on page 6.

IT IS IMPORTANT TO KEEP in mind that the majority of this employment is directly related to air travel (around 60 per cent), but there are also considerable jobs related to government services (immigration, security, administration etc) as well as food services and retailing. These are all regarded as part of *direct* airport employment as defined in the *EIS* and the numbers shown in Table 2 should be comparable with the projections for Western Sydney Airport.

ONE MEASUREMENT DIFFERENCE between the Census data and the Western Sydney Airport projections is that the latter are for FTE (full-time equivalent) employees, whereas the Census figures include both full-time and part-time workers. If the Census numbers were converted to FTEs, the real world employment numbers would be even lower because about one quarter of the airport workforce work part-time. In other words, the comparison between the Census figure and the *EIS* figures are conservative ones and suggest that the employment ratio of 873 shown for Western Sydney Airport in Table 2, and reported as 750 in the *EIS*, is considerably inflated.

Location / period	Employment	Passengers (millions)	Ratio
Sydney (2011)	20,000	35.7	561
Melbourne (2011)	14,000	27.7	506
WSA (2031)	8,730	10.0	873

Table 1: Historical data on annual passenger numbers at Sydney Airport and Melbourne Airport. Projected numbers for WSA. Source: BITRE for Sydney and Melbourne, *EIS* for Western Sydney (pages 29–30).

The 873 figure is based on eyeballing the data in the graph, since no numerical data is provided in the *EIS* for the various years.

There is a major discrepancy between the Census data shown here and the figures in the *EIS* for employment at Sydney airport. The *EIS* gives a figure of nearly 37,000, and an employment ratio of 1,140. Even the most generous interpretation of Census data for the airport and surrounding areas like Mascot and Botany cannot find employment related to the airport that is higher than about 20,000. The figure of 37,000 in the *EIS* is an FTE figure so the actual number of workers this represents would be about 45,000.

Table 2: Employment ratios for Sydney Airport, Melbourne Airport and proposed Western Sydney Airport. Source: Small Area Census Data, 2011 for Sydney and Melbourne, *EIS* for Western Sydney (pages 29–30).

Limitations

HOW REALISTIC are the projections for passenger numbers? The *EIS* does not take account of:

- ◁ decisive action to limit Global Warming through carbon emission reductions in Australia, which would invariably lead to less air travel and a greater reliance on other modes of transport (such as intercity high-speed rail);
- ◁ the continued operation of Sydney Airport such that any future growth in air travel would be shared across two major airports.

BOTH OF THESE FACTORS make the *EIS* projections unrealistic. The *EIS* relies for its estimates about the future demand for aviation in Sydney on work carried out by a Steering Committee¹ of the Commonwealth Department of Infrastructure and Regional Development. This study ignored global warming, with the only acknowledgement of its relevance in the discussion of future fuel prices (page 94). Any other decisive actions to limit air transport to reduce carbon emissions were not part of the policy framework in this study. Indeed, they dismissed high-speed rail (HSR) as a serious alternative to aviation expansion, arguing that the two modes should 'not be considered in a mutually exclusive manner' (page 114). This seems to ignore the fact that if HSR were developed, this would have an effect on the forecasts for aviation passengers

HOW REALISTIC are the projections for employment? The next two chapters deal with this issue in detail. For now, it is worth noting that even if passenger numbers increased to the extent envisaged in the *EIS*, this would *not* automatically lead to commensurate growth in employment in air transport. There is no constant relationship between passenger numbers and employment numbers, despite the depiction of one in Figure 1 on page 6. In fact, the data suggest that passenger numbers can increase while employment remains static or even falls.

EXAMINING at a real world situation,² such as air transport in Sydney between 2006 and 2011, the growth in passenger numbers was nearly 20 per cent, but there was no material increase in employment during that period (see Table 3).

PASSENGER NUMBERS have increased in recent times without a commensurate increase in the number of flights. To cut operational costs, airlines have begun to use larger capacity aircraft and to fill

¹ Steering Committee. *Joint Study on aviation capacity in the Sydney region. Part Three: Demand for Aviation in the Sydney Region.* Commonwealth Department of Infrastructure and Regional Development, 2012

Figures 2 and 3 on page 7 above show that domestic passenger numbers are considerably higher than international passenger numbers. This suggests that the diversion of some of this domestic travel into intercity high-speed rail would lessen future growth in airline passenger numbers between Sydney and Melbourne.

² The geographical scope is Sydney, and the employment numbers are for air transport. This is to ensure data comparability between 2006 and 2011.

<i>Year</i>	<i>Passenger numbers (thousands)</i>	<i>Employment</i>
2006	29,985	13,685
2011	35,674	13,967
Change	5,689	282
Percent change	19	0

Table 3: Changes in passengers numbers and employment, air transport industry in Sydney, 2006 to 2011. *Source:* Passenger numbers from BITRE data, employment from small area Census data.

those flights to capacity. As Chapter 3 will show, cost cutting also extends to how labour is employed, particularly the use of contract, casual and part-time employment and the increased deployment of automation. These reflect widespread developments in the labour market over the last two decades which have reduced the prospects for strong employment growth in the future.

Conclusion

THE *EIS* EXPECTS a dramatic growth in passenger numbers for Western Sydney Airport but fails to take account of countervailing factors. A more realistic figure for 2060 is likely to be 30 million passengers, rather than 80 million. The employment ratio of 750 is unduly high, and is assumed to be constant over time. It takes no account of the reality that passenger numbers can increase with less of an increase—or even reductions—in employment. Between 2006 and 2011 passenger numbers in Sydney increased by one fifth, but employment did not substantially change. A more modest ratio, of say 600, would suggest that employment by 2063 is more likely to be well below 20,000 workers, rather than the 61,500 jobs envisaged in the *EIS*.

2. Employment: the construction phase

The EIS employment projections

THE EIS expects the employment effects of Western Sydney Airport to be spread over eight years, with the direct on-site jobs reaching 758 FTE jobs (full-time equivalent jobs) by the peak of construction (in Year 6). It projects that further jobs will be created as ‘flow-ons’, as a result of the industrial effect and the consumption effect. Figure 4 shows these data in graphical form Figure 5 shows the actual numbers (both are reproduced from the EIS). The report refers to these numbers as the ‘employment footprint’ from constructing Western Sydney Airport.

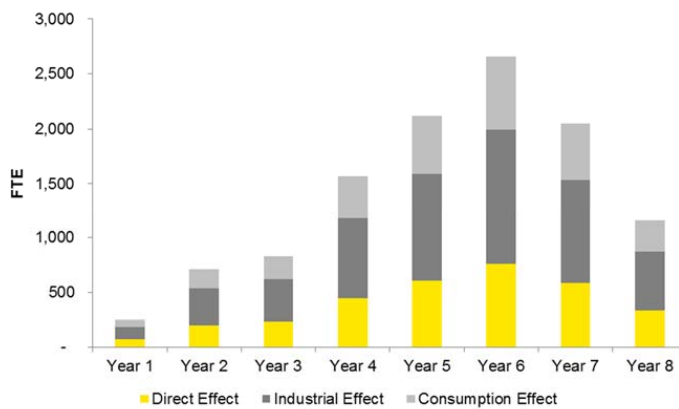


Figure 4: Contribution to employment in Western Sydney from the construction of the Western Sydney Airport. Source: Figure 8 from page 21 of the EIS.

Effects/Year	2017	2018	2019	2020	2021	2022	2023	2024	Total
Direct Effect	72	203	236	446	605	758	583	330	3,231
Industrial Effect	117	331	386	729	988	1,238	953	540	5,281
Consumption Effect	63	178	207	391	530	664	511	290	2,834
Total	251	712	828	1,565	2,123	2,660	2,047	1,160	11,346

Source: REMPLAN, EY analysis

Figure 5: Contribution to employment (‘employment footprint’) in Western Sydney from the construction of the Western Sydney Airport. Source: Table 3 from page 22 of the EIS.

WHAT IS NOTABLE about Figures 4 and 5 on page 11 is that direct employment for the first three years remains low, reaching only 236 FTE jobs in 2019. The peak is reached in 2022 when the 758 FTE jobs are realised, and falls steadily after that. The economic activity associated with the construction phase is not restricted to the direct employment, but percolates throughout the local economy, by way of flow-on or 'multiplier' effects, and includes both industrial effects (such as the purchase of materials and other inputs) and consumption effects (the household expenditure through income earned in employment). In this chapter I focus on these flow-ons.

Employment estimates as flow-ons

HOW REALISTIC are these estimates for employment flow-ons for the construction phase of Western Sydney Airport?

THERE IS NO DOUBT that economic activity in a local region, such as Western Sydney, generates employment effects beyond the direct jobs created. The questions which arise, however, are what is the magnitude of those effects and to what extent do they remain in the region? To calculate these flow-ons economic models make use of input / output tables which quantify all of the inter-industry linkages entailed in economic activity. For example, the dollar value of a particular product group (such as non-residential building construction) has inputs across a range of industries, such as agriculture, mining, other parts of construction and so forth. When applied to regional economies, these inter-industry relationships determine how much of the benefits are captured by that region, and how much spending 'escapes' the region.

SPENDING THAT TAKES PLACE outside the region, or employees who commute into the region from outside, can severely reduce the value of any potential flow-ons from major projects. For example, steel and cement purchases may come from another part of the state, from interstate, or from overseas. These can reduce the industrial effects of that project. Managers and professionals may not live in the Western Sydney area, but commute from more affluent areas of Sydney. These can reduce the consumption effects of that project. In summary, these reductions are forms of 'escape spending' which fail to generate employment flow-ons in the local economy.

THERE IS LITTLE explicit discussion of escape spending in the *EIS*, but there is one table which shows the ‘employment footprint’ for Greater Sydney and this is reproduced in Figure 6 below. By comparing these data with the figures for Western Sydney (Figure 5) we can see what the *EIS* expects to be the magnitude of this problem.

Effects/Year	2017	2018	2019	2020	2021	2022	2023	2024	Total
Direct Effect	72	203	236	446	605	758	583	330	3,231
Industrial Effect	130	369	429	810	1,099	1,377	1,060	600	5,874
Consumption Effect	99	279	325	614	833	1,043	803	455	4,451
Total	300	850	990	1,870	2,537	3,178	2,446	1,386	13,556

Source: REMPLAN, EY analysis

Note that the Greater Sydney results outlined above are equal to Western Sydney plus the rest of Sydney

Figure 6: Employment footprint for Greater Sydney. Source: Table 4 from page 23 of the *EIS*.

IF WE LOOK at the peak year (2022) for Greater Sydney, when the *EIS* expects 758 direct jobs to be created, they envisage an additional 1,377 FTE jobs due to the industrial effect. On the other hand, the industrial effect in Western Sydney is projected to be only slightly less, at 1,238 FTE jobs. The difference here—some 139 jobs—shows that the *EIS* expects only 10 per cent of the industrial employment flow-ons to escape the local economy. In other words, there is an expectation that the effectiveness of local industrial linkages and supply chains will see most of these industrial flow-on effects captured within Western Sydney.

IT IS HARD TO KNOW how realistic these projections for the future industrial effects are. In previous decades governments insisted on local purchasing of materials and other inputs for major projects, but in more recent times government departments making major purchases have not hesitated to go off-shore, as the recent Korean railways contract shows. Another example can be found in the increasing use of steel imports rather than the use of local steel. Consequently, the optimistic figure of 10 per cent leakage in industrial flow-on employment appears to be considerably understated.

THE EMPLOYMENT flow-ons due to consumption are also shown in Figures 5 and 6. Here the report projects that 1,043 FTE jobs will be created in Greater Sydney, but only 664 of these will be located in Western Sydney. When it comes to consumption effects, some 36 per cent of the employment benefits escape the local economy. Why is this?

AN INSIGHT into this can be found in the composition of employment during the construction phase. Figure 7 shows the industry categories for the construction phase with the likely occupational

profile of this construction workforce. While many of these jobs are 'blue-collar', a considerable number are 'professional-managerial'. Over the eight year period, some 1,786 jobs are expected to involve blue-collar work, which is about 55 per cent of the total. Some 926 (or 29 per cent) are supervision and managerial jobs, while another 419 jobs (13 per cent) come from outsourced administrative employment. In other words, just over half the jobs in the construction phase are actually traditional blue-collar jobs.

GHD Category	REMLAN Category	2017	2018	2019	2020	2021	2022	2023	2024	Total
Aviation Infrastr - Labour (Building)	Non-Residential Building Constr	-	-	-	74	124	256	217	82	754
Aviation Infrastr - Labour (Civil)	Heavy & Civil Engineering Constr	-	-	27	159	128	114	74	104	605
Aviation Infrastr - Superv and mangnt	Construction Services	-	-	4	55	135	157	148	84	583
Site Prep - Labour (civil)	Heavy & Civil Engineering Constr	52	141	103	15	26	61	28	-	427
Site Prep - Supervisory and mangnt	Construction Services	16	48	78	80	73	44	7	-	346
Aviation Infrastructure - Contract Admin	Construction Services	-	-	3	40	97	113	107	60	419
Site Prep - Contract	Construction Services	4	14	22	23	21	12	2	-	97
Total		72	203	236	446	605	758	583	330	3,231

Note: Construction is expected to end in FY2024, with development approval processes being required before the airport commences operations in July 2025.
Source: GHD

Figure 7: Contribution to employment from the construction of the Western Sydney Airport. Industry categories. Source: Table 2 from page 22 of the EIS.

HOW MANY of the direct blue-collar jobs and how many non-blue-collar jobs are likely to be taken by workers already resident in Western Sydney? Outsiders often voice the simplistic cliché that Western Sydney is mostly blue-collar. This is a misleading image which the region has endured for decades. However, it is the case that the distribution of occupations across the Sydney region is not random, but shows patterns of concentration, particularly when it comes to professional and managerial jobs. Sydney is heavily segregated by income, education and occupation, as the real estate market makes clear.

ONE WAY to assess this is to examine the existing construction workforce in Western Sydney and see how many of these workers actually live in Western Sydney. This will give us some indication of what is likely to happen during the construction phase of Western Sydney Airport. Table 4 shows the residential location, and the annual household income, for the various occupations of workers who were employed in the construction sector in Western Sydney in 2011.

Area of residence	Western Sydney %	Outside Western Sydney %	Total %	Household income \$
Managers	59	41	100	164,917
Professionals	54	46	100	151,457
Trades	77	23	100	123,579
Clerical and admin	81	19	100	143,176
Plant and machine ops	81	19	100	117,573
Labourers	82	18	100	98,526

Table 4: Western Sydney construction workforce: area of residence and household income, 2011. Source: Small area Census data for employment and residence. Household income is gross per annum (trimmed means).

WHILE THE WORKERS in blue-collar occupations overwhelmingly lived in Western Sydney (mostly over 80 per cent), the same was true for clerical and administrative workers.³ However, there is a stark difference with the managerial and professional occupations: over 40 per cent of these workers lived outside Western Sydney.

THE ESCAPE spending due to these residential patterns does not just include the wage of the worker, but also their household income. Household expenditure largely takes place in the residential locality, not the workplace. Thus the *household* income is the most relevant way to gauge the extent to which the consumption effect is diminished by where the workers live. Table 4 also shows annual household income for construction workers according to occupation. Not surprisingly, the figures for managerial and professional occupations are considerably higher than those for blue-collar and other white-collar occupations.

IN OTHER WORDS, the extent to which projects in Western Sydney provide a greater proportion of jobs to workers in blue-collar, clerical and administrative occupations determines the extent to which spending escapes the region. Those jobs where the workers have a closer attachment to local communities—particularly sectors like vocational education, primary health care and community services—are the jobs where managerial and professional workers are more likely to live locally. This obviously raises issues about the occupational composition of the workforce once the airport is operational, and I return to this issue in Chapter 3.

Conclusion

IT IS CLEAR that the residential location of the workforce in a region is fundamental in shaping the consumption effects which flow from major projects. Apart from minor purchases, the major consumption activities of workers take place in their locality of residence. Thus all regional economies grapple with the extent to which new employment opportunities are captured by local residents. When University of Newcastle⁴ researchers, Bill Mitchell and colleagues examined economic initiatives in the Hunter Region which were designed to foster local employment, they found that many of the new jobs ‘escaped’ from the local economy, being ‘captured’ by central coast residents who preferred to commute to the Hunter rather than to Sydney.

IN A SIMILAR FASHION temporary booms in regional economies can bypass the local residents. A ‘gold mining boom’ was ushered in by the high Australian dollar in the wake of the Global Financial

³ These numbers depend on how one defines Western Sydney residential locations. The definition use here is based on suburbs west of Parramatta and includes areas of south west Sydney like Liverpool, Fairfield and Campbelltown but excludes inner areas like Canterbury and Bankstown. It includes Parramatta and Richmond, but excludes outlying areas like the Hawkesbury. It includes Penrith, but excludes the Blue Mountains.

⁴ Beth Cook, William Mitchell, Victor Quirk, and Martin Watts. *Creating effective local labour markets: a new framework for regional employment policy*. Centre of Full Employment and Equity, University of Newcastle, Australia, 2008; and William Mitchell. Migration and labour market outcomes by skill in Australia. *2008 Minimum Wage Research Forum Proceedings*, 1: 65–92, 2008

Crisis, and this led to some mothballed mines, like the Cadia East mine at Orange, being re-opened. But two-thirds of the workforce were drawn from outside the region,⁵ by experienced miners who had been laid off in other regions. Local workers, many who had become unemployed as local manufacturing plants closed down and agricultural employment contracted, were unable to benefit from this boom in new employment.

⁵ Ian Watson. *Mature age employment in NSW: A regional analysis*. Report for the office for ageing, NSW Dept of Family and Community Services, 2014

3. Employment: the operation of the airport

Direct employment

EMPLOYMENT NUMBERS do not automatically follow increases in investment or output in any industry. The basis of productivity improvements, such as new technology, is that greater output can be achieved with less input. Since the early 1990s the Australian labour market has been characterised by patterns of labour engagement which can be characterised as 'just-in-time' labour. This often means the creation of part-time jobs, many of them casual or contract. In this way, small 'chunks' of labour are employed as and when needed and employers preserve the traditional permanent full-time jobs for their core workforce. Those on the periphery move in and out of employment as business demand fluctuates. This phenomenon has spread from areas like hospitality, which has always grappled with weekly and daily peaks and troughs in consumer demand, to many other industries, such as education, transport, manufacturing and finance. These industries do not necessarily face peaks in consumer demand, but rather use 'just-in-time' labour as a primary method of reducing operating costs. In the case of air travel, there is a strong seasonal component to passenger numbers—evident in Figures 2 and 3 on pages 7—as well as daily peaks and troughs in inter-state business travel. This makes the air transport workforce particularly vulnerable to increased casualisation, contracting out and the conversion of full-time positions to part-time.

ACCOMPANYING these changes in the engagement of labour have been changes in their deployment, in particular, changes to organisational procedures and work practices which have resulted in work intensification. This refers to not only working harder in a physical sense, but working with fewer resources, such as support staff. Thus when workers leave an area, managers may leave the position unfilled, but with no reduction in the work load for that area.

THE DEPLOYMENT of new technology in the workplace has also focussed on reducing direct employment. Whether it be driverless trucks on Pilbara mining sites or the self-scanning of groceries in supermarkets, the trend towards job destruction through automation has gained momentum over the last decade. In the case of airport employment, the use of automated check-in kiosks and the use of facial-recognition technology have eliminated jobs once done by airline staff and immigration staff.

THE LAST TWO DECADES have witnessed a revolution in goods handling, as RFID (radio-frequency identification) has made possible the almost complete automation of warehousing and inventory management. In the case of air transport, a striking illustration of this has been the baggage handling system at Dubai International Airport.⁶ This has exploited the potential in RFID to automate significant parts of the airport's operations. The speed and scale of the system ensures that the movement of baggage to connecting flights is efficient and reliable. Some 17 kms of conveyor belts are involved, with about 15,000 pieces of baggage handled per hour. The system is also coupled to barcode scanning for self-service check-in. New airports around the world, which may be built in coming years, will undoubtedly incorporate much of this new technology. Both customer and baggage check-in, and behind-the-scenes baggage handling, will be characterised by high levels of automation. This has implications for the employment ratios for new airports compared to existing airports: the new ones will have significantly lower employment ratios.

⁶ Siemens AG. *Dubai International Airport: A baggage handling system for the gate to the Arab world*. Konstanz, Germany, 2009

IT IS NO SURPRISE therefore to see the figures for employment growth associated with increased passenger numbers in Sydney between 2006 and 2011, which were presented in Table 2 on page 8. Despite a substantial increase of nearly 20 per cent in passenger numbers the increase in employment was basically nil. To assume, as the *EIS* does, that future increases in passenger numbers at Western Sydney Airport will see a steadily increasing number of jobs is misleading.

A static picture

IT IS WORTH looking more closely at changes in air transport between 2006 and 2011 (the years in which we have the most detailed data). Table 5 below shows a full-time / part-time breakdown of jobs at Sydney airport between 2006 and 2011. While this table uses different definitions to those used earlier, the overall proportion of part-time jobs (around one quarter) is still the same.

<i>Full-time</i>	2006	2011	Change	Percentage change
Managers	1,251	1,329	78	6
Professionals	2,340	2,211	-129	-6
Technicians and Trades Workers	1,867	1,826	-41	-2
Community and Personal Service Workers	1,171	1,382	211	18
Clerical and Administrative Workers	1,440	1,358	-82	-6
Sales Workers	904	821	-83	-9
Machinery Operators And Drivers	1,053	1,007	-46	-4
Labourers	290	310	20	7
Total	10,432	10,384	-48	-0
<i>Part-time</i>				
Managers	144	150	6	4
Professionals	756	865	109	14
Technicians and Trades Workers	107	111	4	4
Community and Personal Service Workers	1,304	1,364	60	5
Clerical and Administrative Workers	287	310	23	8
Sales Workers	383	449	66	17
Machinery Operators And Drivers	168	231	63	38
Labourers	77	80	3	4
Total	3,253	3,583	330	10

Table 5: Occupation and hours of workers in air transport industry, Sydney, 2006 to 2011. *Source:* small area Census data.

TABLE 5 SHOWS a static workforce⁷ where the only net increase in employment was in part-time work (10 per cent). Only one occupational group (service workers) experienced substantial growth in full-time work (18 per cent) and two other groups (managers and labourers) experienced modest growth (6 to 7 per cent). The latter group (labourers) constituted the smallest occupational group in the workforce and in absolute terms, this increase was just 20 jobs. The largest absolute decline in full-time jobs was among professionals, with 129 jobs lost (or 6 per cent).

WHEN IT CAME to part-time jobs, there was an increase in part-time work among machinery operators and drivers (38 per cent), though in absolute terms this was just 63 jobs. The largest increase in absolute terms was in professionals, with 109 jobs. This almost balanced the loss of full-time jobs. It is important to recall that these data refer to the narrow definition of the air transport industry, and exclude the retail and food service industries, where high levels of part-time work are common.

A part-time nation?

THERE IS NOTHING surprising about these figures for employment in air transport in Sydney. The decline of full-time employment and the growth of part-time jobs has become a notable feature of the last decade in Australia. Particularly since the Global Financial Crisis in

⁷ It is necessary for this temporal comparison to restrict the industry to air transport and to expand the geographical area to Sydney, rather than just the Botany area. Thus these are only jobs in the air transport industry and exclude government, retail and food services.

2008, the exceptional growth in the Australian labour market of part-time employment—both in the number of persons and the number of hours worked—has been remarkable. (See Figures 8 and 9 below).

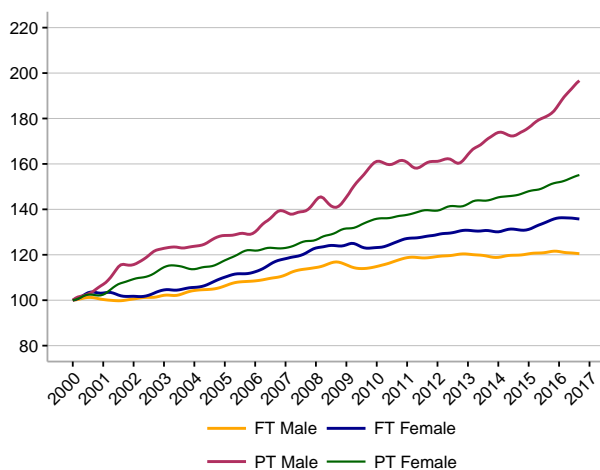


Figure 8: Growth in employment, Australia 2000 to 2016, (Y-axis shows data indexed to 2000.) *Source:* ABS, Labour Force Survey (Cat. No. 6202001)

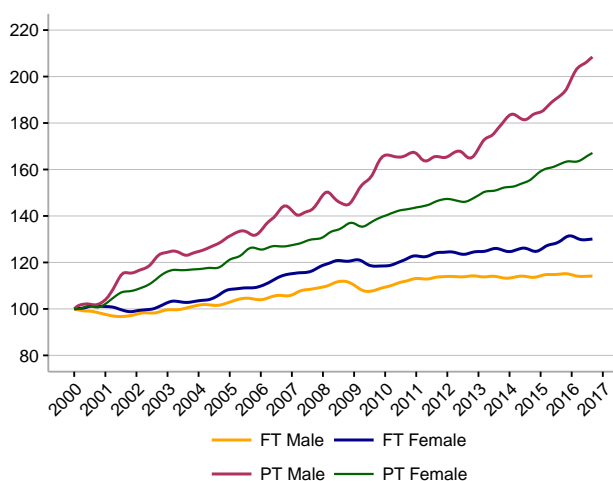


Figure 9: Growth in hours worked, Australia 2000 to 2016, (Y-axis shows data indexed to 2000.) *Source:* ABS, Labour Force Survey (Cat. No. 6202019)

THIS LONGER TERM TREND has intensified in the last year, leading some researchers to warn that Australia is becoming a ‘part-time’ nation. ABS Labour Force Survey data from September 2016 showed that in the previous year full-time employment had fallen by 54,100 workers, while part-time employment had increased by 130,000 workers.⁸

A STRIKING FEATURE of the last two decades years has been the change in the behaviour of employers. The industrial relations system in Australia, has granted employers considerable flexibility around hours of work. This appears to have played an important role in

⁸ Data for 2017 has shown this annual pattern reversed, but the longer term trend towards greater levels of part-time work has not diminished.

avoiding large employment losses. Faced with massive uncertainty in the wake of the collapse of Lehman Brothers in 2008, and a tottering banking system, employers faced a dilemma. They had just weathered several years of a tight labour market, with high vacancy rates and sectoral skills shortages, and many were loathe to begin large-scale retrenchments. Instead, many opted for shortening the working hours of their existing employees or engaging new workers on a part-time basis. This strategy is evident in both the employment and hours data shown above in Figures 8 and 9.

LABOUR ECONOMIST Jeff Borland⁹ has observed that this hours adjustment to downturns also took place during the early 2000s, in the wake of the 'tech wreck', and he suggested that this represented a major departure from the recessions of the 1980s and 1990s, when employers simply laid off their staff in large numbers.

WHAT HAPPENS IN A DOWNTURN has implications for economic upturns. After a downturn, as stronger investment returns to the economy, or after an injection of funds to stimulate a local economy through a particular project, traditional expectations of a 'jobs boom' may not eventuate. Instead, employers may *not* take on additional staff in large numbers. Rather, they may simply increase the hours worked by their existing staff. High levels of underemployment in the labour market mean that existing workers are often enthusiastic to take on additional hours of work. For those employers who have retained staff on reduced hours, an upturn will see them offer additional hours to those existing employees before they take on new staff.

NEW PROJECTS may fare no better. Construction projects are renowned for increasing overtime rather than expanding recruitment because the 'peaks and troughs' in the workflow, and the uncertainties of weather and delivery of materials, can make carrying a large workforce an expensive proposition for employers. This is also the reason why outsourcing the purchase of technical or administrative services, and the use of labour hire, can be common in this sector.

THERE ARE TWO IMPORTANT aspects to this secular rise in part-time employment. Most of these jobs are casual, many are low paid, and a significant proportion suffer from underemployment (insufficient hours of work). Thus the quality of these jobs are much lower than the quality of the full-time jobs they replace.¹⁰ Secondly, with the increase in part-time employment at the expense of full-time employment, the share of household income derived from labour market

⁹ Jeff Borland. 'Industrial relations reform: Chasing a pot of gold at the end of the rainbow?'. *The Australian Economic Review*, 45(3):269–89, 2012; and Jeff Borland. 'The Australian labour market in the 2000s: The quiet decade'. In Hugo Gerard and Jonathan Kearns, editors, *The Australian Economy in the 2000s*. Reserve Bank of Australia, Sydney, proceedings of a conference, 15–16 august 2011 edition, 2011

¹⁰ This is not meant to suggest direct job replacement, but rather a change in net employment across the labour market.

earnings is diminished. The effects on consumption, and therefore on the employment flow-ons from consumption spending can be significant. With real wages growth now falling to levels not seen for decades, household expenditure has become increasingly reliant on debt. During the early 2000s the household savings ratio fell to historically low levels while household debt reached unsustainable levels. The savings ratio improved at the time of the global financial crisis, as households attempted to rein in debt. Unfortunately, the situation for the macro economy worsened because this led to reduced household consumption. This increase in savings was not offset by increased household incomes because stagnant wages growth had become a feature of the labour market. The combination of high levels of household debt and stagnant wages growth has compounded the problem of subdued household consumption, and economic growth more widely.

Implications for the proposed Western Sydney Airport

WHAT DO THESE VARIOUS changes in the labour market mean for employment projections contained in the *EIS*? Clearly, the traditional assumptions made by labour economists that there are predictable relationships between economic activity and employment growth have become questionable. Their models usually work with labour elasticities which are constant.¹¹ It is unlikely that the consultants who produce employment projections for major projects have taken these dynamic and complex changes in the labour market into account. The data in the *EIS* for Western Sydney Airport suggest that the authors have ignored this complexity. For example, the employment ratios used in their models are based on a 'middle of the range' figure of 750 workers per million passengers. They arrived at this number by looking at a number of airports and picking a number in the middle (see pages 28–29 in the *EIS*). Not only is this a fairly ad hoc method of selection, but it ignores the point made earlier that new airports will be far more automated than existing airports. As Chapter 1 showed, the two largest airports in Australia already have employment ratios well below this figure of 750 and they have fallen over time. The assumption that a modern, more automated airport would achieve this level of staffing is not credible.

IGNORING CHANGES in employment ratios, and using inflated ratios, makes the exercise of projecting future employment levels problematic. When an inflated figure for passenger numbers is multiplied by an inflated employment ratio, the result may be substantially inflated. The logic of the exercise in the *EIS* essentially followed these steps:

¹¹ The labour demand elasticities quantify how much labour will be required for a certain amount of output.

In a study looking at future skills demand in NSW, I examined two different economic modelling exercises (Access Economics and CEET) and found that they produced wildly divergent forecasts, even though they were using the same data, the same time periods, and similar scenarios.

Ian Watson. *Modelling of future skills demand: the implications for skills planning in NSW*. Background research for the NSW strategic skills plan 2011–2015, Board of Vocational Education and Training, NSW Department of Education and Training, 2011

- ◁ 750 FTE per million annual passengers is a 'best guess' employment ratio;
- ◁ assume around 6.5 million passengers at Western Sydney Airport in 2031, therefore 8,730 FTE jobs will be created;
- ◁ assume around 80 million passengers at Western Sydney Airport in 2063, therefore 61,500 FTE jobs will be created.

IF WE FACTOR in the trends in the labour market discussed above, then these FTE positions imply an even larger number of jobs being created, somewhere in the order of 80,000 taking into account current full-time / part-time ratios. A figure like this is highly unrealistic given that older and technologically antiquated airports like Sydney and Melbourne currently operate with under 20,000 workers.

Flow-on employment

There are no estimates in the *EIS* for flow-on employment during the operational phase of Western Sydney Airport similar to provided for the construction phase. In what follows I focus on the problem identified earlier concerning managerial and professional occupations, and the tendency of these categories of workers to live outside of Western Sydney.

The managerial-professional dilemma

IN CHAPTER 2 I discussed this problem with regard to the workforce, a workforce which has traditionally employed considerable number of blue-collar workers. When it comes to airport employment, the proportions of other occupations is larger (though the *EIS* does not discuss this). Table 5 on page 19 suggests about one third of the workforce will be drawn from managerial and professional occupations and so their residential location will be an important factor in the extent to which consumption effects flow from the operations of the airport.

TO WHAT EXTENT will the future airport workforce live in Western Sydney? It is difficult to assess this issue by looking at Sydney Airport because its location in Botany means that places like Eastern Sydney and the Inner City are part of the 'local' residential area. One insight into answering this question can be found in the example of Western Sydney University where the occupational pattern found in the residential location of staff is quite striking. Table 6 on page 24 shows where university staff who work at campuses in Western Sydney live. Just over half of the staff live outside Western Sydney. Among professionals (such as lecturers and tutors) some 61 per cent

live outside Western Sydney. Many live in the Blue Mountains, the Inner West or the Inner City and some even live in the Eastern suburbs and Southern Sydney. It is worth noting that professionals make up nearly 70 per cent of the staff. The second largest occupational group—clerical and administrative staff—make up 16 per cent of the staff, and the majority of these (61 per cent) do live in Western Sydney.

<i>Occupation</i>	<i>Row percentages</i>			<i>Column percentages</i>		
	<i>W Syd</i>	<i>Not W Syd</i>	<i>Total</i>	<i>W Syd</i>	<i>Not W Syd</i>	<i>Total</i>
Managers	52	48	100	9	8	9
Professionals	39	61	100	49	69	59
Trades	69	31	100	11	5	8
Service	64	36	100	3	2	3
Clerical and admin	61	39	100	26	16	21
Other	68	32	100	1	0	1
Total	48	52	100	100	100	100

Table 6: Occupational employment in higher education in Western Sydney by residential location, 2011. *Source:* small area Census data.

IT SHOULD BE KEPT IN MIND that where people choose to live is not just about personal preferences, but also reflects household decision making. Children's schooling, and the location of a spouse's job may be major factors in deciding whether a worker lives in the local area or commutes from outside. In the case of managers and professionals, their spouse is often in a similar occupational category and the expectation that both partners will find suitable employment in the same location is much lower than is the case for other occupations. This has been a difficult problem for rural communities in recent decades in attracting medical professionals to move to country locations.

4. *Alternative employment options*

Alternative construction projects

IF THE CONSTRUCTION of WSA did *not* proceed, are there alternative construction projects in Western Sydney which would have employment benefits for the region, as well as other social and economic benefits?

Transport within Western Sydney

WESTERN SYDNEY has faced a 'jobs dilemma' since the late 1950s and early 1960s, when the first major housing projects were rolled out.¹² Housing came quickly, but jobs rarely followed. For several decades, factory employment in the area around St Marys provided local employment to the 'early settlers' but the majority of residents commuted eastwards to various parts of Sydney.

THAT PATTERN remains to this day, with a heavy dependence by the residents of Western Sydney on jobs located in the centre of Sydney. The transport corridor into the centre of Sydney—both rail and road—is heavily utilised by residents in Western Sydney. This is evident in Tables 7 and 8 on page 26, which show several of the workplace destinations for residents of Penrith and Blacktown. Both groups use a variety of transport modes to travel into the City, but train dominates. Over 60 per cent make use of rail transport and about 16 per cent make use of car transport. On the other hand, considerable numbers of residents from these areas travel *across* Sydney, to workplaces in South Western Sydney. These commuters are almost totally dependent on car transport: around 80 per cent drive and another 4 per cent or so are passengers.

¹² See the neglect of Western Sydney catalogued in 'Building Communities', in Ian Watson *A Disappearing World*, Australian Scholarly Publishing, 2015. Download available at: http://ianwatson.com.au/pubs/watson_building_communities_from_disappearing_world_2015.pdf

Residents from these areas travel to a large number of other locations in Sydney and these two tables simply illustrate two sets of destinations: the City and the South West.

<i>Counts</i>	<i>City</i>	<i>Campbelltown</i>	<i>Fairfield</i>	<i>Liverpool</i>	<i>Total</i>
Train	1,370	3	8	9	1,390
Train, bus	135	0	9	5	149
Train, car as driver	591	0	3	3	597
Train, car as passenger	134	3	0	0	137
Car, as driver	480	361	1,364	695	2,900
Car, as passenger	27	14	71	14	126
Other	501	60	166	107	834
Total	3,238	441	1,621	833	6,133
<i>Percentages</i>					
Train	42	1	0	1	23
Train, bus	4	0	1	1	2
Train, car as driver	18	0	0	0	10
Train, car as passenger	4	1	0	0	2
Car, as driver	15	82	84	83	47
Car, as passenger	1	3	4	2	2
Other	15	14	10	13	14
Total	100	100	100	100	100

Table 7: Mode of travel to work by destination, Penrith residents, 2011.
Source: small area Census data.

<i>Counts</i>	<i>City</i>	<i>Campbelltown</i>	<i>Fairfield</i>	<i>Liverpool</i>	<i>Total</i>
Train	4,954	18	24	46	5,042
Train, bus	845	8	40	16	909
Train, car as driver	1,220	0	3	10	1,233
Train, car as passenger	514	5	3	9	531
Car, as driver	1,635	482	2,595	1,167	5,879
Car, as passenger	144	23	161	69	397
Other	2,519	70	333	168	3,090
Total	11,831	606	3,159	1,485	17,081
<i>Percentages</i>					
Train	42	3	1	3	30
Train, bus	7	1	1	1	5
Train, car as driver	10	0	0	1	7
Train, car as passenger	4	1	0	1	3
Car, as driver	14	80	82	79	34
Car, as passenger	1	4	5	5	2
Other	21	12	11	11	18
Total	100	100	100	100	100

Table 8: Mode of travel to work by destination, Blacktown residents, 2011.
Source: small area Census data.

RAIL CONSTRUCTION PROJECTS based on developing orbital transport corridors in Western Sydney would have a number of benefits:

- ◁ the construction of an orbital rail network, as well as improved access to the City, would create substantial employment in Western Sydney, particularly for blue-collar and clerical and administrative occupations;
- ◁ once completed, improved rail transport in Western Sydney would allow residents to move from car to rail transport. This would provide them with personal and family benefits in terms of commuting times, as well as improvements in air quality in Western Sydney.
- ◁ the environmental footprint of intra-city travel in Western Sydney would improve, as rail is less carbon intensive.

Intercity transport

IMPROVEMENTS IN RAIL TRANSPORT within Western Sydney are complementary to proposals to construct an intercity high-speed rail (HSR). Such proposals have been prominent in recent years, with ideas for a Sydney to Melbourne HSR, with a later extension to Brisbane, under serious consideration. The environmental benefits of HSR are well known, particularly when compared with carbon-intensive air travel. In terms of employment, the national implications are considerable, with at least three states likely to benefit from economic development along the rail corridor.

IN THE CASE of Western Sydney, a HSR project would not only create additional construction work for the corridor into Sydney, but locating the HSR terminus near Parramatta could see more direct employment during construction, as well as long-term employment during its operations.

CURRENTLY, a number of European countries use rail as an important mode of transport for major intercity travel. For example,

- ◁ Madrid to Seville has 83 per cent rail travel to 27 per cent air travel;
- ◁ Paris to London has 81 per cent rail travel to 17 per cent air travel;
- ◁ Paris to Brussels has 95 per cent rail travel to 5 per cent air travel.

IN THE CASE OF CHINA high-speed rail began only in 1999, but is already the largest network in the world. More than 11,000 kilometres

of track were in service by 2013, and the total amount expected by 2020 is at least 16,000 kilometres.¹³

Quality as well as quantity

FROM A LABOUR MARKET perspective employment has both *qualitative* and *quantitative* aspects. Most economic forecasting exercises emphasise quantity, and ignore quality. As the last chapter showed, the remarkable growth of part-time employment—much of it casual, outsourced or contract—is one of the most disturbing features of the contemporary Australian labour market. As mentioned earlier, wages growth has become stagnant in the last few years, with adverse consequences for household incomes and the resulting household consumption which in turn sustains the economy.

CONSEQUENTLY, it is important to assess alternative employment options not just according to their quantity, but also according to their quality. Do the jobs offered by alternatives provide more secure employment, with higher rates of pay and with more scope for skills development and career advancement? From this perspective it is worth comparing rail and air transport not as two alternative modes of transport, but as two alternative *employing* industries.

Earnings

DESPITE the presence of some high paying occupational groups in the airline industry (such as pilots), the overall earnings profile of the non-managerial full-time workforce suggests that the airline industry compares poorly with that of rail transport. Table 9 on page 29 shows full-time non-managerial weekly wages for these two industries. Whereas air transport earnings ratios (that is, the ratio to the all-industry average) are only slightly above the all-industry average (around 2 per cent), the ratios for rail transport are above 20 per cent for male employees and between 5 and 12 per cent for female employees. The overall comparison is: 2 per cent for air transport and 31 per cent for rail transport.

Hours

THERE IS limited data available on casual employment at the level of detail needed to compare rail transport with air transport, but the hours data does provide some insights. Most part-time work is casual work, a considerable amount of part-time work is characterised by underemployment (that is, insufficient hours), and part-timers have

¹³ AFP. 'China extends high-speed rail network to Xinjiang'. *Business Insider*, December 26, 2014

For more details, see chapter 6 on non-standard work in Ian Watson et.al., *Fragmented Futures*, which explores these issues at length

Earnings category	Average weekly earnings (dollars)			Ratio to all industries	
	Rail transport	Air transport	All industries	Rail transport	Air transport
Male Ordinary time	1,862	1,574	1,509	1.23	1.04
Male Total	2,029	1,636	1,626	1.25	1.01
Female Ordinary time	1,379	1,337	1,308	1.05	1.02
Female Total	1,486	1,355	1,326	1.12	1.02
Persons Ordinary time	1,813	1,492	1,431	1.27	1.04
Persons Total	1,974	1,538	1,509	1.31	1.02

Table 9: Earnings comparison: air transport and rail transport, Australia, 2014. (Full-time non-managerial employee adult rates). Source: ABS Employee Earnings and Hours (EEH), (Cat. No. 63060d0015_201405).

limited access to training opportunities or career pathways. Consequently, the extent of part-time work in an industry is a reasonable measure of job quality in that industry. In Table 10 on page 30 the thirty largest occupational groups in rail and air transport are compared. As well as the numbers employed, the percentage who are part-time is shown.

THE MOST NOTABLE feature of Table 10 is the much larger percentage of the workforce who are part-time in air transport, compared with rail. Overall, some 27 per cent of the air transport workforce is part-time while only 9 per cent of rail workers are part-time. The largest occupational group in rail transport are the drivers, of whom only 6 per cent are part-time. By contrast, the largest occupational group in air transport are travel attendants, nearly half of whom are part-time. This group does not feature in the rail transport industry. The next largest group is ticket salespersons, who make up a considerable part of the workforce in both industries. In the case of rail, about 18 per cent are part-time; in the case of air transport, the figure is 42 per cent.

THERE ARE CONSIDERABLE numbers of blue-collar workers in rail transport, particularly track workers, labourers and machine operators. All of these groups have low levels of part-time work, ranging from 6 per cent to 13 per cent. By contrast, in air transport the percentage of plant operators who are part-time is 25 per cent. Groups with more industrial strength, such as aircraft maintenance engineers, have prevented the expansion of part-time work in their occupation, with the percentage remaining low at under 5 per cent.

THE SAME PATTERN is evident among the trades, with low percentages in the rail workforce (5 to 6 per cent), and in clerical areas. In the case of the latter, several occupations see similar numbers of people employed, but with notable differences in the percentage employed part-time between rail and air transport:

- ◁ transport and despatch clerks: rail 5% to air 14%;
- ◁ general clerks: rail 16% to air 28%;
- ◁ accounting clerks: rail 13% to air 26%;

<i>Occupation</i>	<i>Total employed</i>		<i>%Part-time</i>	
	<i>Rail</i>	<i>Air</i>	<i>Rail</i>	<i>Air</i>
Train and Tram Drivers	7,229	0	6.0	
Travel Attendants	213	6,487	14.1	49.3
Ticket Salespersons	2,301	3,763	17.8	42.2
Air Transport Professionals	9	5,973	0.0	34.9
Aircraft Maintenance Engineers	0	4,276		4.8
Other Mobile Plant Operators	131	2,975	4.6	26.4
Railway Track Workers	1,914	0	7.8	
Other Stationary Plant Operators	1,854	4	5.9	0.0
Other Miscellaneous Labourers	1,755	75	12.5	28.0
Electricians	1,542	24	5.3	12.5
Metal Fitters and Machinists	1,463	54	5.7	7.4
Transport and Despatch Clerks	588	864	5.3	13.7
Contract, Program and Project Administrators	952	310	7.8	9.4
Supply and Distribution Managers	537	631	2.8	5.5
General Clerks	663	479	15.8	28.0
Accountants	409	450	5.6	11.8
Tourism and Travel Advisers	131	713	24.4	31.6
Security Officers and Guards	675	112	8.9	28.6
Transport Services Managers	673	91	5.9	17.6
Other Specialist Managers	190	462	4.2	8.4
Inquiry Clerks	378	264	33.6	28.8
Accounting Clerks	262	370	13.4	26.2
Management and Organisation Analysts	289	304	8.7	14.1
Civil Engineering Professionals	562	28	8.2	0.0
Truck Drivers	335	251	7.8	12.0
Human Resource Managers	299	278	5.0	6.8
Purchasing and Supply Logistics Clerks	295	273	9.5	12.8
Inspectors and Regulatory Officers	513	50	6.4	18.0
Storepersons	161	378	9.3	10.6
Commercial Cleaners	107	428	29.9	27.8

Table 10: Selected occupations showing percentage who work part-time, rail transport and air transport, Australia, 2011. *Source: Census 2011.*

IN ONLY A FEW areas do the two industries appear similar (such as commercial cleaners and inquiry clerks). Overwhelmingly, most occupational categories—managerial, professional, clerical, service or blue-collar—see a large difference between the two industries with regard to the prevalence of part-time work. The major qualification to this analysis is the gender breakdown. Air transport has a larger proportion of women (38 per cent) compared to rail transport (17 per cent). But even within the female workforce the proportion of part-time work in rail is just 17 per cent compared with 39 per cent in air transport. Amongst the male workforce—which has traditionally been a full-time workforce—the proportion in rail transport who are part-time is just 7 per cent, compared with 20 per cent in air transport. There can be little doubt that the dominance of part-time

employment, with all its shortcomings, is a characteristic feature of the air transport industry.

FINALLY, IT NEEDS to be kept in mind that an airport is more than just air transport, but also includes a large number of government jobs, as well as sales and service jobs. While the former are generally full-time, most of the latter are part-time, so expanding the analysis to include the airport workforce more broadly would not change the conclusion that the quality of employment in rail transport is superior to that found in air transport.

Conclusion

THIS CHAPTER suggests that rail projects in Western Sydney are likely to be more beneficial from a labour market perspective than is further expanding air transport in the Sydney basin. In the final chapter I look at the macro-economic context for these kinds of proposals, and summarise the larger economic benefits which flow from increased spending in these areas.

5. Conclusion

ECONOMIC ANALYSIS often falls prey to the fallacy of the composition, the logical flaw by which actions which may be rational for an individual actor are irrational for society in general. For example, it may make sense for each individual business to engage in cost-cutting to reduce their costs of production in an attempt to become more competitive. But if every business attempts this, then overall economic production may suffer. In particular, household incomes are largely based on wages income, and if wages are driven down by such cost-cutting—such as conversion of full-time to part-time work or increased outsourcing—then household consumption declines. The revenue for an individual business may improve, but the cumulative effect of these reduced wages will see consumption across the economy decline, and business revenue, in aggregate, begin to fall. Once the consumption which drives economic growth falters, an economic malaise usually results. As both the IMF and the OECD now concede, this characterises the post-GFC world economy. Closer to home, since the end of the mining construction boom, malaise now characterises the Australian economy.

IT WAS NOTED EARLIER that Australian households have responded to stagnant wages growth by increasing their levels of debt. Mortgage debt has been amplified by the severe inflation in housing costs while consumer debt has grown exponentially over the last two decades. In the United States, the situation has been made worse by a proliferation of low wage employment, as traditional manufacturing jobs have gone overseas. Households have responded to stagnant or declining wages by taking on record levels of household debt in order to sustain their standard of living.¹⁴ In Europe, the failure of the 'single currency project' (the Euro crisis) has seen levels of youth unemployment reach 40 to 50 per cent in some countries. Large proportions of the most educated youth in countries like Ireland, Spain and Portugal have migrated to other countries, compounding the dire prospects of those economies recovering.

¹⁴ Thomas I. Palley. *From Financial Crisis to Stagnation: The Destruction of Shared Prosperity and the Role of Economics*. Cambridge University Press, New York, 2012

WITH INTERESTS RATES at near-zero levels in most Western countries, the naive expectation that monetary policy can transform this situation has been steadily abandoned, even by erstwhile staunch supporters like the IMF and the OECD. The false hope that renewed private sector investment might flow from these low interest rates has proved the old adage that one cannot push on a piece of string. The Bank for International Settlements, in its latest annual report,¹⁵ has finally conceded that monetary policy has reached its use-by date:

There is an urgent need to rebalance policy in order to shift to a more robust and sustainable expansion. A key factor in the current predicament has been the inability to get to grips with hugely damaging financial booms and busts and the debt-fuelled growth model that this has spawned. It is essential to relieve monetary policy, which has been overburdened for far too long (page 3).

Increasingly, the only prospects for escaping the contemporary malaise lie in decisive fiscal expenditure by governments. Only governments can escape the fallacy of composition and coordinate the spending which drives economic growth.

MODERN MONETARY THEORY explains in detail how fiscal and monetary policy interact in a world with floating exchange rates and currency sovereignty.¹⁶ Much contemporary economic commentary is ignorant of the way the real economy works, and discusses government fiscal policy in the pre-Keynesian language of household budgets. Consequently, the most common objection to major construction projects like high-speed rail or improved intra-city rail transport is: ‘Where will the money come from?’

SUCH AN OBJECTION might make sense in an economy operating at full capacity, where large increases in spending—whether from private or public sources—would be inflationary. But in an economy with chronic excess capacity, governments with currency sovereignty (that is, the Commonwealth government) are not constrained in undertaking major public expenditure projects. Proposals for borrowing while interest rates are low, for raising taxes (which will further suppress household consumption) or for ‘value capture’ along transport corridors, are all unnecessary. Fiscal expansion does not require any of these.

ALL THAT INTERCITY high-speed rail and improved intra-city rail projects require is political commitment to undertaking projects such as these. The excess capacity in the Australian steel industry, and the excess capacity in the labour market—with labour under-utilisation rates stuck at 14 to 15 per cent—show that both material resources

¹⁵ BIS. *86th Annual Report*. Bank for International Settlements, Basel, 2016

¹⁶ L. Randall Wray. *Understanding Modern Money: The Key to Full Employment and Price Stability*. Edward Elgar, Northampton, 1998; and William Mitchell, L.Randall Wray, and Martin Watts. *Modern Monetary Theory and Practice: An Introductory Text*. Centre of Full Employment and Equity, University of Newcastle, Callaghan, 2016

and labour are available for purchase by the government without unleashing any inflationary pressures. Indeed, a notable feature of the mining construction phase between 2001 and 2007 was the rapid growth in wages in that sector with only minimal wage pressures exerted on other sectors of the economy. This has been one of the (limited) positive aspects to the decentralisation of wage setting in Australia which took place during the 1990s. Rather than fears of inflation, the world economy—and increasingly Australia—faces prospects of *deflation*, and a stagnant economy for the foreseeable future.

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