

The Melbourne story:
an analysis of the city's economy over the 2000s

By

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Abstract

This thesis examines economic growth and change across the city of Melbourne over the 2000s. In the late 1970s to early 1980s, and again in the early 1990s, Melbourne was seen as having a bleak future, as a consequence of the deindustrialisation occurring in the city throughout the late twentieth century. However, Melbourne grew rapidly at the start of the twenty-first century, renewing its profile globally and attracting population.

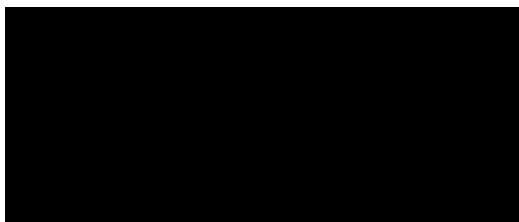
This thesis examines the factors behind the rise of Greater Melbourne over the 2000s, and specifically the rapid revival of the central city area of Melbourne. The study assesses the relevance of economic geography theories (the Global Cities hypothesis, the World City Network (WCN) and agglomeration economies) in relation to Melbourne's economic growth. Globalisation related theories concerning knowledge cities and workers are also considered.

A diverse range of variables are examined in the study, including comparisons of population growth rates, changing employment, business location and occupation patterns, with an analysis of policy decisions made at local and state levels of government regarding the activities, infrastructure and marketing of the central city area. The study also examines national level policy decisions made regarding skilled migration and higher education, reflecting broader trends towards the need for knowledge workers in the economy.

The results of this analysis confirm the pivotal role of the central city area in the rise of Greater Melbourne, and concludes that the growth of activity can be only partly explained by economic geography related theories connecting cities to globalisation. More important for Melbourne were the policy decisions made from the 1980s onwards on the role of infrastructure and promotion regarding the central city. More important still was Melbourne's transformation to a knowledge city, featuring an economy increasingly comprised of knowledge workers.

Student declaration

I, Kathleen Hurley, declare that the PhD thesis entitled ‘The Melbourne story: an analysis of the city’s economy over the 2000s’ is no more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

A large black rectangular box redacting the signature of Kathleen Hurley.

Signature

1 July 2015

Date

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Table of Contents

Part One.....	1
Chapter One: Introduction.....	2
1.1 Argument of this thesis	2
1.2 Key theoretical context.....	2
The city and the economy	2
Globalisation and cities	3
Key theories on cities and globalisation – Global Cities and the World City Network (WCN).....	3
1.3 Composition of the thesis.....	6
1.4 Findings from the key research questions	7
Data and methodology used in this study.....	8
1.5 History of this research	9
1.6 Interdisciplinary design.....	10
1.7 Aim of this research	10
Chapter Two: Literature Review.....	11
2.1 The city and the economy	11
2.2 Globalisation – a contested abstract concept.....	12
2.3 The current era of globalisation	13
2.4 The role of the multinational enterprise (MNE) in the current era of globalisation.....	14
2.5 MNEs and the New International Division of Labour (NIDL)	15
2.6 Key theories on cities and globalisation – Global Cities and the World City Network (WCN)	15
2.6.1 The interlocking world city network (IWCN) – an example	18
2.6.2 Impact of the Global Financial Crisis (GFC) on the WCN	21
2.7 Creativity – Richard Florida and creative cities	22
2.8 Agglomeration theory and cities	22
2.9 Growth of services industries across the world’s developed economies	23
2.10 Services industries and agglomeration.....	24
2.11 Knowledge workers and knowledge economies	25
2.12 Theories related to professional workers.....	25
2.13 Knowledge cities.....	27
2.14 Globalisation and the movement of knowledge workers	27
2.15 The literature review in the context of this research and the main subsidiary questions	28

2.15 Conclusions	30
Chapter Three: The Methodology of this Thesis.....	31
3.1 Mixed methods design	31
3.1.1 The current prevalent research methodology used in WCN and Global City-based research	31
3.1.2 Alternative research methodologies in which to examine WCN and Global Cities	32
3.2 The quantitative analysis component of this study	34
3.2.1 Changing ABS ANZSIC and ANZSCO definitions	34
3.2.2 Data provided by WorkSafe on business establishments	36
3.2.3 Other official data sources.....	36
3.2.4 Spatial analysis.....	36
3.3 The qualitative analysis component of this study - semi structured interviews	37
3.4 Conclusions	38
Chapter Four: The Economic History of Melbourne	40
4.1 Introduction	40
4.2 Melbourne foundation to Federation.....	40
4.3 Melbourne's pre-1900 urban form	42
4.4 Melbourne in the early twentieth century.....	43
4.5 The 'long boom', 1945-1970	45
4.5.1 Tariffs.....	46
4.6 Historical location of industrial activity in Melbourne	48
4.7 1970-1980 – economic reform and change as Sydney emerges as Australia's main corporate centre.....	51
4.8 Melbourne during the 1980s	52
4.8.1 The policy environment of Melbourne: The Cain-Kirner Labor government.....	52
4.8.2 Development of the public works program aimed at arresting the central city's decline	53
4.8.3 The emergence of the place marketing of Melbourne.....	53
4.9 Melbourne during the 1990s – the Kennett era	54
4.9.1 The continuation of Melbourne-centred place marketing and investment attraction policies throughout the 1990s	55
4.9.2 The continuing promotion and development of the city centre during the Kennett era...	55
4.9.3 Australian cities as gateways.....	56
4.10 The Australian political and economic environment throughout the 2000s.....	58
4.11 The Victorian Bracks/Brumby Labor government, 1999-2010	58

4.11.1 Policy environment of Bracks/Brumby era	59
4.11.2 Economic development policies of Victoria and Melbourne over the 2000s.....	60
4.11.3 Victorian state government industry policy in the 2000s	60
4.11.4 The Melbourne place marketing campaign of the 2000s – Melbourne as a creative city and the influence of Richard Florida.....	61
4.11.5 The Victorian economy throughout the 2000s	62
4.11.6 Melbourne and Victoria’s economic performance 2001-2011	62
4.11.7 The decline of Sydney over the 2000s	64
4.12 Conclusions	65
Chapter Five: The Development of Melbourne’s Industrial Urban Form.....	67
5.1 Introduction	67
5.2. Policy settings and previous research for business location in Melbourne	68
5.3 The land use and planning policy environment in Melbourne, Victoria and Australia.....	68
5.4 Planning policy responses to economic and population growth in Victoria over the 2000s...	70
5.4.1 State government planning policy – Melbourne 2030	70
5.4.2 Political impact of Melbourne’s record population growth	71
5.4.3 Melbourne @ 5 Million, 2008.....	71
5.4.4 Melbourne – the polycentric city.....	72
5.5 The impact of deindustrialisation on the industrial zone usage in Melbourne, 1970-2010.....	73
5.6 The changing employment and industrial zones of Melbourne from the 1970s to the 2000s.	75
5.7 Combating the impact of deindustrialisation: ‘revalorising’ the city	76
5.8 The economic benefits of the city centre and agglomeration impacts and effects	77
5.9 Workplace and industrial location change in Melbourne over the 2000s	79
5.9.1 Workplace locations in Greater Melbourne, 2001-2011	79
5.9.2 Industry composition of Greater Melbourne, 2001-2011	81
5.9.3 Industrial locations in Greater Melbourne, 2001-2011	82
5.10 Economic growth and activity in Melbourne’s city centre over 2000s.....	84
5.10.1 Employment within the City of Melbourne	84
5.10.2 The city centre and Advanced Producer Services (APS) employment	87
5.11 Drivers of the city centre’s economy over the 2000s	89
5.11.1 Increased residential housing in Melbourne’s city centre	89
5.11.2 Growth of higher education participation and the international education industry in Melbourne	91

5.11.3 Growth of Accommodation and food services employment, businesses and expenditure in the city	93
5.11.4 Impact of increasing discretionary spending on retail and food services	95
5.11.5 Retail trade employment and businesses in the city centre, 2001-2011	96
5.12 Conclusions	98
Part Two	100
Chapter Six: An Examination of Advanced Producer Services (APS) in Australia, Victoria and Greater Melbourne	101
6.1 Introduction	101
6.2 Previous research and literature review of APS-related studies in Australia	102
6.3 Defining APS, professional services and financial services in the Australian economy	103
6.4 APS in Australia	103
6.5 Growth of services industries within the Australian economy, 2001-2011	104
6.6 Economic importance of Australia's capital cities	106
6.7 APS in Australia	107
6.8 Location of APS in Australia	108
6.9 Professional services in Australia	110
6.10 Financial and insurance services in Victoria 2001-2011	112
6.11 Employment and business establishment change in APS in Greater Melbourne 2001-2011	115
6.11.1 Professional, scientific and technical services	115
6.12 Location and spatial change of APS in Greater Melbourne, 2001-2011	117
6.13 Conclusions	119
Chapter Seven: The Financial and Insurance Services Industry	121
7.1 Introduction	121
7.2 History of the Australian finance sector	121
7.3 Impact of the GFC on the Australian finance sector	123
7.4 Banking in Australia	124
7.4.1 Domination of the 'Big 4'	124
7.4.2 The Australian banking system	125
7.4.3 Impact of deregulation	125
7.4.4 Banking between 2001-2011	127
7.4.5 Spatial change in Banking employment and business establishments, Greater Melbourne 2001-2011	129

7.5 The financial advice sector in Australia.....	130
7.5.1 Financial advice sector employment, 2001-2011	131
7.5.2 Spatial Change in Financial advice services employment and business establishments, Greater Melbourne, 2001-2011	132
7.6 Insurance in Australia.....	133
7.6.1 Life insurance.....	133
7.6.2 General insurance.....	135
7.6.3 Health insurance.....	137
7.6.4 Spatial change in General and Health insurance sub industries employment and business establishments, Greater Melbourne, 2001-2011.....	139
7.7 Superannuation.....	141
7.7.1 Superannuation sub industry employment, 2001-2011	141
7.8 State government policy regarding financial services during the 2000s.....	142
7.9 Conclusions	144
Chapter Eight: Professional, scientific and technical services	146
8.1 The growth of the services sector and knowledge workers in the Australian economy	146
8.2 Computer systems design and related services in Australia.....	146
8.2.1 Computer systems design and related services employment, 2006-2011	147
8.2.2 Spatial change in computer systems design sub industry employment and business establishments, Greater Melbourne, 2001-2011.....	148
8.3 Engineering services in Australia.....	149
8.3.1 Engineering services design and related services employment 2001-2011	150
8.3.2 Spatial change Engineering design and engineering consulting services employment and business establishments, Greater Melbourne, 2001-2011	152
8.4 Accounting Services in Australia.....	153
8.4.1 Accounting services employment 2001-2011	154
8.4.2 Spatial change in Accounting services employment and business establishments, Greater Melbourne, 2001-2011	155
8.5 Legal services in Australia.....	156
8.5.1 Legal Services employment 2001-2011	157
8.5.2 Spatial change in Legal services employment and business establishments, Greater Melbourne, 2001-2011	159
8.6 Management advice and related consulting services in Australia.....	160
8.6.1 Management advice and related consulting services employment, 2001-2011	161

8.6.2 Spatial change in Management advice and related consulting services employment and business establishments, Greater Melbourne, 2001-2011	163
8.7 Conclusions	164
Chapter Nine: APS Activity in Melbourne over the 2000s: A Case Study of the ‘Big 4’ Accounting Firms	166
9.1 Introduction	166
9.2 Definitional issues arising from studying accountancy services in Australia	167
9.3 Major accountancy firms in Australian and Melbourne – some background.....	168
9.4 Management consultancies in Australia.....	168
9.5 The state of management consultancies and accountancy practices in Melbourne and Victoria throughout the 2000s.....	170
9.6 Evolution of services offered by ‘Big 4’ in Melbourne	173
9.7 Consultant and client relationship – driving the expansion of consultancy services	175
9.8 Economics units within the ‘Big 4’ and management consultancies – a case study	176
9.9 Industry specialisations of Melbourne based consultancy offices – evidence of path dependency?.....	179
9.10 Teams formed beyond geographic boundaries.....	180
9.11 Professional services work as ‘networks of spaces’ across time and space	180
9.12 Notions of the Head Office. Where is it?	181
9.13 Impact of the global headquarters, NY- Lon, on the Australian operation	181
9.14 A brief explanation of the partnership system in professional services firms.....	183
9.15 Getting the right people: the ‘social actors’	184
9.16 Return to the impact of location of offices - within Melbourne and the city area.....	185
9.17 Conclusions	185
Part Three	187
Chapter Ten: Occupational Change and Knowledge Workers in Melbourne over the 2000s	188
10.1 Introduction	188
10.2 Theories related to knowledge and professional workers	189
10.3 Knowledge workers and knowledge economies	191
10.4 Knowledge cities.....	191
10.4.1 Melbourne as a knowledge city and Victoria as a knowledge economy.....	192
10.5 Professional workers in the Australian labour market	193
10.6 The labour market and Melbourne’s knowledge workers.....	194
10.7 Labour market supply – issues for professional workers	195

10.8 Higher education in Victoria, 2000-2011	196
10.8.1 Higher education policy during the Howard government, 1996-2007	197
10.8.2 Higher education during the Rudd era (2007-2010) and the Bradley Review	198
10.9 Australian skilled migration	201
10.9.1 Global demand for knowledge workers – the race for talent	202
10.9.2 Skilled migration and international education in Victoria over the 2000s	203
10.10 Labour market outcomes in Greater Melbourne for professional occupations, 2001-2011	206
10.11 Accountants	209
10.11.1 The accountancy profession in Australia	209
10.11.2 Labour supply of Accountants	210
10.11.3 Accountant skilled migration levels	212
10.11.4 Location of accountants in Greater Melbourne, 2001-2011	212
10.12 Legal Professionals	213
10.12.1 Legal professionals in Australia	213
10.12.2 Labour market outcomes and locations of lawyers in Greater Melbourne, 2001-2011	214
10.12.3 Labour supply of Lawyers	215
10.13 Engineers	217
10.13.1 Engineers in Melbourne	217
10.13.2 Labour market outcomes for engineers in Greater Melbourne, 2001-2011	217
10.13.3 Labour supply of Engineers	219
10.13.2 Location of Engineers in Greater Melbourne	221
10.14 Information and communications technology (ICT) workers	222
10.14.1 Information and communications technology (ICT) workers in Australia	222
10.14.2 Labour market outcomes for ICT workers	223
10.14.3 Labour supply of ICT workers	224
10.14.3 Location of ICT workers in Greater Melbourne, 2001-2011	226
10.15 Conclusions	227
Chapter Eleven: Conclusions	229
11.1 A return to the key research questions of this thesis	229
11.2 Summary of key findings: the impact of globalisation on Melbourne throughout the 2000s	234
11.3 Wider implications of this study	236

11.4 A return to the purpose of this thesis.....	237
Bibliography.....	239
Appendices.....	258
Appendix One: Information and consent form for interview participants	258
Appendix Two: Interview questions	259
Appendix Three: List of interviewees/participating companies and organisations.....	260

List of Tables

Table 2.6.1 An example of WCN connectivity lists from Taylor et al. 2011	20
Table 3.2.1 Industry and occupation classification used by ABS Census 2001, 2006 and 2011	35
Table 3.3.1 Numbers of interviewees by firm and organisation type	38
Table 4.7.1 Location of the Top 100 Companies in Australia (by capital city) 1953-1983	51
Table 5.11.1 Residential population of the central city area of Melbourne	90
Table 5.11.2 Expenditure growth by detailed expenditure classes, 1984-FY 2010	96
Table 6.4.1 Employment growth in APS services in Australia, 2001-2011	104
Table 7.4.1 Employment in Banking by state, 2001-2006	127
Table 7.4.2 Employment in Banking by state, 2006-2011	128
Table 7.5.1 Employment in Services to finance and investment, nec by state, 2001-2006	131
Table 7.5.2 Employment in Other auxiliary finance and investment services by state, 2006-2011	132
Table 7.6.1 Employment in Life insurance by state, 2001-2006	135
Table 7.6.2 Employment in Life insurance by state, 2006-2011	135
Table 7.6.3 Employment in General insurance by state, 2001-2006	137
Table 7.6.4 Employment in General insurance by state, 2006-2011	137
Table 7.6.5 Employment in Health insurance by state, 2001-2006	138
Table 7.6.6 Employment in Health insurance by state, 2006-2011	139
Table 7.7.1 Employment in Superannuation by state, 2001-2006	142
Table 7.7.2 Employment in Superannuation by state, 2006-2011	142
Table 8.2.1 Employment in Computer systems design and related services by state, 2006-2011 ..	147
Table 8.3.1 Employment in Consulting engineering services by state, 2001-2006	150
Table 8.3.2 Employment in Engineering design and engineering consulting services by state, 2006-2011	150
Table 8.4.2 Employment in Accounting services by state, 2006-2011	154
Table 8.4.1 Employment in Accounting services by state, 2001-2006	154
Table 8.5.1 Employment in Legal services by state, 2001-2006	158
Table 8.5.2 Employment in Legal services by state, 2006-2011	158
Table 8.6.1 Employment in Business management services by state, 2001-2006	161
Table 8.6.2 Employment in Management advice and related consulting services by state, 2006-2011	162
Table 9.5.1 Top ten 4-digit occupations within Accounting services, 2006 and 2011, Greater Melbourne	172

Table 9.5.2 Top ten 4-digit industries comprised of Management and organisation analysts, 2006 and 2011, Greater Melbourne.....	173
Table 9.6.1 Changing services functions of ‘Big 4’ firms in Australia.....	174
Table 9.8.1 Economic and policy services offered by Australian ‘Big 4’ firms	178
Table 10.10.1 Top ten 4 digit Professional occupations in Greater Melbourne, 2011	207
Table 10.10.2 Selected 4 digit Professional occupations employment change in Greater Melbourne, 2001-2011	208
Table 10.13.1 Employment of engineers in Greater Melbourne by sub-occupation, 2001-2011 ...	218
Table 10.13.2 Year of arrival for Engineers employed in Greater Melbourne, 2011	221
Table 10.14.2 Year of arrival for ICT professionals employed in Greater Melbourne, 2011	225

List of Charts and Figures

Chart 4.2.1 Population of Sydney and Melbourne, 1788 to 2011	41
Chart 4.4.1 Capital city and regional proportion of Victorian population, 1841-1981	45
Chart 4.11.1 Year on year population growth rates, Greater Sydney and Greater Melbourne, 1992-2013.....	63
Chart 4.11.2 Year on year employment growth rates, Greater Sydney and Greater Melbourne, 2000-2013.....	64
Figure 5.4.1 Polycentric city model as explained in Melbourne @ 5 million.....	72
Chart 5.6.1 Proportion of Greater Melbourne employment based in inner Melbourne/Central city area, 1961-2011	76
Chart 5.9.1 Employment by industry change in Greater Melbourne, 2001-2011	82
Chart 5.10.1 Proportion of employment by industry across the central city SLAs and Greater Melbourne, 2011	86
Chart 5.10.2 Employment by SLA in the City of Melbourne, 1996-2011	87
Chart 5.10.3 APS and other industry employment in City of Melbourne SLAs, 2001-2011.....	88
Chart 5.11.1 Value and year on year growth rate of Victorian Education-related travel exports, 2001-2012	91
Chart 5.11.2 Victorian international student enrolments by sector	92
Chart 5.11.3 Education related travel by educational sector and type of expenditure	92
Chart 5.11.4 Proportion of retail sales by metropolitan Melbourne area, 1948-1980.....	97
Chart 5.11.5 Numbers of Retail trade businesses in Victoria, FY 2001 to FY 2011	97
Chart 6.5.1 Employment by industry, 2001, 2006 and 2011, Australia.....	104
Chart 6.6.1 Capital city and rest of state employment in Australia, 2011.....	107
Chart 6.7.1 Selected industries' contributions to Australian gross domestic product (GDP), 1990-2012.....	108
Chart 6.8.2 Professional services employment, 2011	110
Chart 6.8.1 Financial and insurance services employment, 2011	110
Chart 6.10.1 Selected industries contribution to Victorian GSP, 2000-01 to 2011-12	112
Chart 6.10.2 Employment in Financial and insurance services by subdivision, Greater Melbourne, 2001-2011	113
Chart 6.10.3 Number of business establishments in Financial and insurance services by subdivision, Greater Melbourne, 2001-2011	114

Chart 6.11.2 Number of business establishments in Professional, scientific and technical services by subdivision, Greater Melbourne, 2001-2011	116
Chart 6.11.1 Employment in Professional, scientific and technical services by subdivision, Greater Melbourne, 2001-2011	116
Chart 7.4.1 Ranking of Australian 'Big 4' banks in Forbes 2000 Global company list, 2006-2012	125
Chart 8.3.1 Number of engineering professionals (by 4 digit occupation) employed in Engineering design and engineering consulting services by state, 2006-2011 (Place of work).....	151
Chart 8.5.1 Sources of real fee income for the Legal services industry 1992-1993 to 2007-2008 (2001 dollars)	157
Chart 9.5.1 Victorian Management advice and related consulting services business establishments by selected turnover range, 2000-2001 to 2010-2011	170
Chart 9.6.1 Revenue for Big 4 firm KPMG in Australia for the financial years ending 30 June ...	174
Chart 9.6.2 Revenue for Big 4 firm PwC Australia for 2012 and 2013 financial years by industry	175
Chart 9.8.1 Number of ongoing Australian Public Service (APS) employees and corresponding population growth, 1994-2010	177
Chart 10.6.1 Employment in Greater Melbourne by 1 digit occupation, 2001-2011	194
Chart 10.6.2 Employment change in Greater Melbourne by 1 digit occupation, 2001-2011	195
Chart 10.8.1 Number of completions from Victorian universities/higher education providers for domestic students, 2001-2012	199
Chart 10.8.2 Number of completions from Victorian universities/higher education providers for domestic and international students, 2001-2012	200
Chart 10.8.3 Number of domestic completions for undergraduate by broad field of study from Victorian universities, 2001-2012	201
Chart 10.9.1 Migration programme outcome Skill Stream Primary Applicants (Principal) by category, Victoria, 1996-97 to 2012-13	204
Chart 10.9.2 Number of Victorian skilled stream applicants by major occupation group category, 1999-00 to 2012-13	205
Chart 10.9.3 Share of Victorian skilled migrant applications against Victoria's share of Australia's population, 1996-1997 to 2012-2013	206
Chart 10.11.1 Number of accounting field of study undergraduate completions from Victorian universities, 2001-2012	210
Chart 10.11.2 Number of commerce, business and management field of study undergraduate completions from Victorian universities, 2001-2012*	211

Chart 10.11.3 Number of Accountants in the Victorian skilled stream, 1999-00 to 2012-13.....	212
Chart 10.12.1 Number of law field of study undergraduate completions from Victorian universities, 2001-2012	215
Chart 10.12.2 Number of law field of study postgraduate completions from Victorian universities, 2001-2012	216
Chart 10.13.1 Number of completions for engineering and related technologies courses, 2001-2011, in Victorian universities/higher education providers	219
Chart 10.13.2 Number of Engineering professionals in the Victorian skilled stream, 1999-00 to 2012-13	220
Chart 10.14.1 Number of completions for Information Technology courses, 2001-2011, in Victorian universities/higher education providers	224
Chart 10.14.2 Number of ICT professionals in the Victorian skilled stream, 1999-00 to 2012-13	225

List of Maps

Map 4.3.1 Urban growth of Melbourne, 1851-2004	42
Map 4.3.2 Melbourne train network, circa 1891	43
Map 4.6.1 1947 Manufacturing employment, Greater Melbourne	49
Map 4.6.2 1954 Manufacturing employment, Greater Melbourne	49
Map 4.6.3 1947-1954 Manufacturing employment change, Greater Melbourne	49
Map 4.6.4 1961 Manufacturing employment, Greater Melbourne	49
Map 4.6.5 1954-1961 Manufacturing employment change, Greater Melbourne	49
Map 4.6.6 1966 Manufacturing employment, Greater Melbourne	50
Map 4.6.7 1961-1966 Manufacturing employment change, Greater Melbourne	50
Map 4.6.8 1971 Manufacturing employment, Greater Melbourne	50
Map 4.6.9 1966-1971 Manufacturing employment change, Greater Melbourne	50
Map 5.5.1 Inner Melbourne gentrification areas of Melbourne, 1970s-2000s	74
Map 5.9.1 Greater Melbourne SLAs by workplace destination population, 2011	79
Map 5.9.2 Workplace destination population change by SLA, Greater Melbourne, 2001-2011	81
Map 5.9.3 SLA with Manufacturing as highest employing industry, Greater Melbourne, 2001	83
Map 5.9.4 SLA with Manufacturing as highest employing industry, Greater Melbourne, 2011	83
Map 5.9.5 SLA with Retail trade, Health care and social assistance and Education as highest employing industry, Greater Melbourne, 2001	83
Map 5.9.6 SLA with Retail trade, Health care and social assistance and Education as highest employing industry, Greater Melbourne, 2011	83
Map 5.9.7 SLA with APS as highest employing industry, Greater Melbourne, 2001	84
Map 5.9.8 SLA with APS as highest employing industry, Greater Melbourne, 2011	84
Map 5.10.1 The three SLAs within the City of Melbourne	86
Map 5.11.1 Education and training employment change, Greater Melbourne 2001-2011	93
Map 5.11.2 Education and training business net change, Greater Melbourne, FY 2001-FY 2011	93
Map 5.11.3 Accommodation and food services business net change, Greater Melbourne, FY 2001- FY 2011	95
Map 5.11.4 Accommodation and food Services employment change, Greater Melbourne, 2001- 2011	95
Map 5.11.5 Retail trade business net change, Greater Melbourne, FY 2001-FY 2011	98
Map 5.11.6 Retail trade employment change, Greater Melbourne, FY 2001-FY 2011	98
Map 6.5.1 Australian states by employment by industry, 2011	106

Map 6.8.1 Professional services employment 2011, place of work, capital city and rest of state ..	109
Map 6.8.2 Financial and insurance services employment 2011, place of work, capital city and rest of state	109
Map 6.12.1 Financial services employment, Greater Melbourne, 2011	117
Map 6.12.2 Professional, scientific and technical services employment, Greater Melbourne, 2011	117
Map 6.12.3 Professional, scientific and technical services employment change, Greater Melbourne, 2001-2011	118
Map 6.12.4 Financial services employment change, Greater Melbourne, 2001-2011	118
Map 6.12.5 Professional services establishments, Greater Melbourne, 2011	118
Map 6.12.6 Financial and insurance services establishments, Greater Melbourne, 2011	118
Map 6.12.7 Professional services establishments net change, Greater Melbourne, FY 2001-FY 2011	119
Map 6.12.8 Financial and insurance establishments net change, Greater Melbourne, FY 2001-FY 2011	119
Map 7.4.1 Banking employment, Greater Melbourne, 2011	129
Map 7.4.2 Banking employment change, Greater Melbourne, 2001-2011 (log scale)	129
Map 7.4.3 Banking business establishments, Greater Melbourne, 2011	129
Map 7.4.4 Banking business establishments change, Greater Melbourne, FY 2001-FY 2011	129
Map 7.5.1. Other auxiliary finance and investment services employment, Greater Melbourne, 2011	132
Map 7.5.2 Other Auxiliary finance and investment services employment change, Greater Melbourne, 2001-2011	132
Map 7.5.3 Other auxiliary finance and investment services business establishments, Greater Melbourne 2011	133
Map 7.5.4 Other auxiliary finance and investment services business establishments net change, Greater Melbourne FY 2001-FY 2011	133
Map 7.6.1 General insurance employment, Greater Melbourne, 2011	140
Map 7.6.2 General insurance employment change, Greater Melbourne, FY 2001-FY 2011	140
Map 7.6.3 Health insurance employment, Greater Melbourne, 2011	140
Map 7.6.4 Health insurance employment change, Greater Melbourne, FY 2001-FY 2011	140
Map 8.2.1 Computer systems design employment, Greater Melbourne, 2011	148
Map 8.2.2 Computer systems design employment change, Greater Melbourne 2001-2011	148
Map 8.2.3 Computer systems design businesses, Greater Melbourne, 2011	148

Map 8.2.4 Computer systems design businesses net change, Greater Melbourne 2001-2011	148
Map 8.3.1 Engineering design and engineering consulting services employment, Greater Melbourne, 2011	152
Map 8.3.2 Engineering design and engineering consulting services employment change, Greater Melbourne, 2001-2011	152
Map 8.3.3 Engineering design and engineering consulting services businesses, Greater Melbourne, 2011	152
Map 8.3.4 Engineering design and engineering consulting services businesses net change, Greater Melbourne, FY 2001-FY 2011	152
Map 8.4.1 Accounting services employment, Greater Melbourne, 2011	155
Map 8.4.2 Accounting services employment change, Greater Melbourne, 2001-2011	155
Map 8.4.3 Accounting services businesses, Greater Melbourne, 2011	155
Map 8.4.4 Accounting services businesses net change, Greater Melbourne, FY 2001-FY 2011 ...	155
Map 8.6.1 Management advice and related consulting services employment, Greater Melbourne, 2011	163
Map 8.6.2 Management advice and related consulting services employment change, Greater Melbourne, 2001-2011	163
Map 8.6.3 Management advice and related consulting services businesses, Greater Melbourne, 2011	163
Map 8.6.4 Management advice and related consulting services businesses net change, Greater Melbourne, FY 2001-FY 2011	163
Map 9.5.1 Management advice and related consulting services businesses under \$600,000 turnover net change, Greater Melbourne, FY 2001 – FY 2011	171
Map 9.5.2 Management advice and related consulting services businesses over \$600,000 turnover net change, Greater Melbourne, FY 2001 – FY 2011	171
Map 10.11.1 Accountants employment, Greater Melbourne, 2011	213
Map 10.11.2 Accountants employment change, Greater Melbourne, 2001-2011	213
Map. 10.12.1 Solicitors employment, Greater Melbourne, 2011	214
Map 10.12.2 Solicitors employment change, Greater Melbourne, 2001-2011	214
Map 10.13.1 Engineers employment, Greater Melbourne, 2011	222
Map 10.13.2 Engineers employment change, Greater Melbourne, 2001-2011	222
Map 10.14.1 ICT workers employment, Greater Melbourne, 2011	226
Map 10.14.2 ICT workers employment change, Greater Melbourne, 2001-2011	226

List of abbreviations

ABA	Australian Bankers Association
ABS	Australian Bureau of Statistics
ACS	Australian Computer Society
ACT	Australian Capital Territory
AAMI	Australian Associated Motor Insurers Limited
AMP	Australian Mutual Provident
ANZ	Australian and New Zealand Bank
ANZSCO	Australian and New Zealand Standard Classification of Occupations
ANZSIC	Australian and New Zealand Standard Industrial Classification
APRA	Australian Prudential Regulation Authority
APS	Advanced Producer Services
ASCO	Australian Standard Classification of Occupations
ASGC	Australian Standard Geographical Classification
ASGS	Australian Statistical Geography Standard
ASIC	Australian Securities and Investment Commission
ATAR	Australian Tertiary Admission Rank
ATM	Automated Teller Machine
AWB	Australian Wheat Board
AWPA	Australian Workforce Productivity Agency
BHP	Broken Hill Proprietary Company
BMC	British Motor Company
CAD	Computer Aided Design
CAD	Central Activity District
CAGR	Compound Annual Growth Rate
CBD	Central Business District
CEO	Chief Executive Officer
CPA	Certified Practising Accountant
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSL	Commonwealth Serum Laboratories
CSL	Critical Skills List

DPCD	Department of Planning and Community Development
DSDBI	Department of State Development, Business and Innovation
EDS	Electronic Data Systems Corporation
EFTPOS	Electronic Funds Transfer at Point of Sale
EJD	Effective Job Density
ELICOS	English Language Intensive Courses for Overseas Students
ENTER	Equivalent National Tertiary Entrance Rank
EY	Ernst and Young
FPA	Financial Planners Association
FSRA	Financial Services Reform Act
GaWC	Globalisation and World Cities
GC	Global City
GCC	Global Commodity Chain
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GIO	Government Insurance Office Limited
GM-GMH	General Motors - General Motors Holden
GNC	Graincorp Limited
GSM	General Skilled Migration
GSP	Gross State Product
GVT	Growing Victoria Together
HECS	Higher Education Contribution Scheme
HELP	Higher Education Loans
HSC/VCE	Higher School Certificate/Victorian School Certificate
ICAA	Institute of Chartered Accounts Australia
ICT	Information Communications Technology
IWCN	Interlocking World City Network
JTW	Journey to Work
KPMG	Klymveld Main Goerdeler – Peat Marwick
LLB	Bachelor of Law
MMBW	Melbourne Metropolitan Board of Works

MNC	Multi-national Company
MNE	Multi-national Enterprise
MODL	Migrant Occupations in Demand List
MTM	Methods Time Management
NAB	National Australia Bank
NAFTA	North America Free Trade Agreement
NATSEM	National Centre for Social and Economic Modelling
NEC	Not elsewhere classified
NEG	New Economic Geography
NESB	Non-English Speaking background
NFD	Not further defined
NIDL	New International Division of Labour
NSW	New South Wales
NT	Northern Territory
NTE	Night time economy
NTT	New Trade Theory
NY-Lon	New York-London
OECD	Organisation for Economic Development
PIN	Personal Identification Number
PMG	Post-Master General
PPP	Public-Private Partnership
PwC	Price Waterhouse Coopers
QLD	Queensland
RMIT	Royal Melbourne Institute of Technology
SA	South Australia
SLA	Statistical Local Area
SMSF	Self-Managed Superannuation Fund
STEM	Science, Technology, Engineering and Mathematics
TCF	Textile, Clothing and Footwear
UGB	Urban Growth Boundary
VET	Vocational Education and Training

VISES	Victorian Institute of Strategic Economic Studies
WA	Western Australia
WCN	World City Network
YoY	Year on year

Part One

Chapter One: Introduction

1.1 Argument of this thesis

This thesis examines economic growth and change across the city of Melbourne over the 2000s. Melbourne was seen as having a bleak future in the late 1970s to early 1980s, and again in the early 1990s, in part due to the city's position as a key Australian manufacturing centre during the period of late twentieth century deindustrialisation, occurring throughout many of the developed world's cities. However, Melbourne grew rapidly at the start of the twenty-first century, renewing its profile globally and attracting population. The favourable economic conditions that Melbourne experienced throughout the 2000s saw the city surpass Sydney in key indicators such as population growth rates, employment levels and jobs growth.

This thesis seeks to examine the factors behind the rise of Greater Melbourne over the 2000s, and specifically the rapid revival of the central city area of Melbourne over the same period. In addressing this question, the study will assess the relevance of some key theories of economic geography: the Global Cities hypothesis, which places emphasis on Advanced Producer Services (APS); the World City Network (WCN) approach, focusing on the location of Multinational enterprises (MNEs); and the impact of agglomeration economies and economics. Globalisation-related theories concerning knowledge cities and workers and the increasing demand within city economies for these workers via channels such as skilled migration are also considered.

1.2 Key theoretical context

This study of economic growth and change in Melbourne over the 2000s is informed by a consideration of key theories regarding economies within cities, the role of globalisation on cities and their economies, the role of the workforce within city economies and the nature of the globalised workforce.

The city and the economy

The world's population is becoming increasingly urbanised; more than half now live in cities (Glaeser 2011, p.1). Studies into the role that cities have played in the history of human advancement have found they are essential for knowledge transfer and innovation (Mumford 1961). Further to this, some that urbanisation and cities have developed simultaneously with another key human construct: the market economy (Jacobs 1969). The growth and decline of cities over the ages is often explained by their economic performance, as a city's rise and fall can often be tracked along

with its place in the (often globalised) economy of the day, and how it performed or responded to external developments in international trade, manufacturing, production and technological developments. This study of Melbourne will closely examine the economic performance of the city, firstly in terms of its economic history since colonisation beginning in the 1830s through to the 1970s (discussed in Chapter Four) and then in terms of its economic performance in the face of increasing deindustrialisation occurring from the 1970s to the present day. The late twentieth and early twenty-first century time frame can be termed ‘the current era of globalisation’ (McCann & Acs 2011) and is discussed and defined further in Chapter Two.

Globalisation and cities

The late twentieth century concept of globalisation and its impact on the world’s economy and workforce has been outlined in key texts by Krugman (1991) and Reich (1992). A key framework with which to analyse the impact of globalisation, network societies and the impact of technology on cities has been developed by Castells, whereby he contends globalisation and technological-related change has increasingly transformed cities into “spaces of flows” as opposed to “spaces of places” (Castells 2002, p.553). Using the significant example of financial activity to demonstrate this, Castells contends that financial activity and its associated networks increasingly comprise of “bits and pieces of different cities across the globe. The financial districts of New York, London and Tokyo are all part of the same city” (Castells 2002, p.554). The city of Melbourne and its economy also operates within international “spaces of flows”, and this study examines Melbourne’s economic performance over the 2000s in such a context by

- Examining growth at the national, state and city-level of employment in the services sector, and specifically the Advanced Producer Services (APS) sectors (Chapters Six, Seven and Eight).
- Examining the growth of multinational companies in Melbourne and their connections to the other major cities (Chapter Nine).
- Examining the movement of international professional workers into the Melbourne labour market throughout the 2000s, a period of record population growth made possible key changes to the skilled migration policies set at the national level (Chapter Ten).

Key theories on cities and globalisation – Global Cities and the World City Network (WCN)

This thesis discusses the theoretical history of examining and assessing the role of cities in a globalised economy and the development of theoretical frameworks to account for this, beginning

with the antecedents of John Friedmann's 'World City Hypothesis' (1986), which contended the world's economy was driven by financial and economic activity largely undertaken in key world city centres. Friedmann found these key world cities formed 'basing points' for movements of global capital, and for further development, organisation and articulation of world production and markets.

Having isolated the economic variable as the defining element of this new world city order, attempts were then made to define or collect a set of defining variables of what makes a world city. Friedmann's initial thesis listed nine major world cities as 'primary' cities, and a further eight as 'secondary' cities (Sydney was amongst these). Informed by 'core-periphery' theories of global economic interaction, Friedman defined the primary characteristics of world cities as sites for concentration and accumulation of world capital and destination points for large numbers of domestic and international migrants (Friedman 1986).

The world city hypothesis was expanded upon in Saskia Sassen's key work *The Global City* (1991). This in-depth examination of three major world cities, New York, London and Tokyo presents them as global capital flow leaders, whereby global economic activity is channelled through them, thus rendering them major world financial centres. Sassen places special emphasis on the role of services industries, and more specifically 'Advanced Producer Services' (e.g. accounting, legal services, marketing, advertising), but most particularly services connected to the finance industry. Sassen contends that the activity undertaken in these centres not only services local, regional and national economies, but also serves an intra-global city economic network.

The Global City thesis was further developed by Taylor, who contended that these major metropolises formed a World City Network (WCN), trading and operating as 'office networks servicing global capital' (Taylor, PJ et al. 2010, p.4). Thus the WCN can be seen as a result of Castell's 'spaces of flows', rather than the 'hierarchical', 'medal of honour'-nature of the initial World City theory established by Friedmann and its associated World City lists.

In this study, the growth and location of APS in Melbourne throughout the 2000s is examined in detail, in comparison to APS activity across other Australian capital cities. In this examination, any local or national (or even path dependent) factors are also taken into account, such as Australia's singular regulatory environment for the finance sector, in order to determine what may be considered local factors, as opposed to developments in the local context that have been reflected across other global cities.

The research assesses and examines the city's changing economy over the 2000s in the following ways. First, by examining the growth of companies and MNEs located in the city, together with the changing industry structure of employment based in the city, which saw Melbourne transform from a manufacturing centre to a services, and more specifically, a knowledge services, or Advanced Producer Services based economy. In the Australian context, APS are defined as Professional, scientific and technical services and Financial and insurance services. This examination is informed by Global Cities (GC) and World City Network (WCN)-related theories and frameworks with their focus on MNE locations and the growth of APS.

Theories relating to the impact of globalisation on cities have been contested, especially over the last twenty years. Urban theorist Ronald van Kempen, has asserted that globalisation does not '...always and automatically result in the same spatial patterns' for change in cities and has noted:

...other developments are also at play, either independently or mediating its influence. Each of these developments is directly or indirectly linked to global processes, but it is not useful to treat globalisation as a unitary and all explaining process (van Kempen 2007, p.22).

In van Kempen's conceptualisation, there are seven 'contingencies' that he believes are at play to explain spatial change in cities: the physical setting of the city; history; economic development; inequality; race and racism; political power and governance. Van Kempen's idea on the uneven impact, particularly in a spatial sense, of globalisation on cities is an important one for this study of Melbourne. Of the seven contingencies he sets out to explain the spatial change in cities, the analysis and research findings of this study will find five of these: the physical setting, history, economic development, political power and governance, have been just as important to the growth and economic change in Melbourne over the 2000, as much as one 'globalisation' related factor or factors. Thus this research contains chapters on the economic history of Melbourne, an overview of state government policies regarding planning, economic development and urban renewal and the political environment at the state and national level to fully establish the impact of the more local 'contingencies'.

Sassen's initial key work into global cities also examined another outcome of globalisation: the increasing professionalisation of the workforce, coupled with deindustrialisation. This feature of globalisation and cities has seen professional occupation workers increasingly comprising city-based employment, while the proportion of workers in manual occupations has simultaneously decreased (Sassen 2001). While some of Sassen's initial assertions regarding professionalisation and the increase in service workers came to be readjusted (Sassen 2001, p.362), it has formed the

basis for studies into the impact of gentrification, deindustrialisation and professionalism in other cities (Borel-Saladin & Crankshaw 2009; O'Hanlon & Hamnett 2009).

This element of the impact of globalisation on the city's workforce is examined in the Melbourne context via an in-depth analysis of professional workers and jobs growth in the city over the 2000s, the demand for the workers, the drivers of this and the impact of the skilled migration program on the growth of professional workers. This section of the study examines labour supply issues specific to Australia and by association, Melbourne, such as the graduate supply and the higher education system, policy settings of this in the 2000s and the 'two-step' nature of Australia's higher education and skilled migration program.

Following this, the analysis turns to Melbourne's workforce and changes wrought in the city's labour market over the same time, informed by theories relating to knowledge cities and workers and the increasing demand within city economies for these workers via channels such as skilled migration, reflecting the impact of increasing global demand for highly skilled, mobile labour.

1.3 Composition of the thesis

This thesis is comprised of three parts. They are as follows.

Part One contains an introductory chapter establishing the research's key questions, theoretical context and overview of key research findings. This is followed by a literature review as the second chapter and a third chapter discussing the methodology and design of the study, an explanation of key data sources, the methodology used for the research and a critical evaluation of the research design discussing its strengths and weaknesses.

Part Two begins with a chapter reviewing the history of Melbourne's economic development and the changing ways in which it has been constructed and marketed over time. This is followed by a chapter analysing employment in APS, (the key focus of the GC approach) in Victoria and Melbourne by comparison with other states in Australia, followed by two chapters on employment and location change at the national level down to the Greater Melbourne level in a spatial analysis sense, for sub industries comprising Professional, scientific and technical services and Financial and insurance services respectively. The final chapter in Part Two is an analysis of the role of the local headquarters of MNEs in Melbourne, substantially based on interviews with the heads of the 'Big 4' accounting firms.

Part Three is a detailed analysis of trends in knowledge workers, both in employment numbers and the location of those jobs, over the period 2001-2011, followed by a chapter containing conclusions of the research.

1.4 Findings from the key research questions

The research will provide evidence to support the hypothesis that Melbourne's rapid economic growth, most geographically apparent in the central city area, was due employment increases in APS sectors, and growing numbers of professional workers. While this finding is consistent with globalisation theories on APS and cities such as those espoused by Sassen and Taylor (and the wider Global and World City Network school, discussed further in Chapter Two and Chapter Three) the research will indicate that the pattern of change could not be accounted for by the wider impact of globalisation on city economies alone, due to a series of Melbourne-specific factors together with national policy settings that were also instrumental in the changes taking place in the city's economy.

In this respect, 'the Melbourne story' can be seen more as a result of a combination of certain 'contingencies' outlined by the urban theorist van Kempen. In the Melbourne context, the 'contingencies' of the physical setting of the city, its history, economic development activity, political power and governance were all important factors of the city's development. Throughout this study, the importance of a particular 'contingency' relevant to the various aspects of the city's changing economy and morphology is attributed and discussed in detail.

From the historical review and the four pieces of analysis, the following conclusions are drawn about the factors behind Melbourne's urban transformation.

The main impact of change in terms of Greater Melbourne's morphology over the 2000s can be seen in the central city area. The development of this feature of Melbourne by the 2000s is in contrast with predictions regarding the city centre's future made in the 1970s and 1980s, when Melbourne's economy was first restructuring due to increasing deindustrialisation. However, the analysis leads to the conclusion that this transformation did not happen in isolation, solely as a naturally occurring agglomeration effect, for example, but rather as a result of a series of public policy decisions regarding the city centre reaching back to the 1980s, in conjunction with the economic changes wrought in the city regarding APS and knowledge workers, as outlined previously in the thesis' discussion.

While APS employment grew strongly in Victoria, and more particularly Melbourne as it did across many Australian capital cities and states over the 2000s, there is little evidence that this in itself was of such a scale to be a significant explanation of Melbourne's growth transformation or of the changes in locational structure. The analysis will demonstrate that while APS employment in Victoria largely outpaced other Australian states over the period 2001-2011, this is a reflection of path dependent industry and sub industry structure that was already based in Melbourne and Victoria.

This growth has contributed to something of a false impression regarding Melbourne's improving 'Global City' (GC) status throughout the 2000s, as the city moved up various GC related lists. Melbourne's performance in GC/WCN lists and the like is by virtue of the performance of a few, recently very profitable, headquartered MNEs with an historical association to the city. Global MNEs located in Melbourne, such as the 'Big 4' accounting firms, have found the city a lucrative location due to local conditions that have created demand for their services. Once again, path dependent factors can be determined in explaining the outcome. Therefore I will conclude that while elements of Melbourne's story align with WCN theory, Melbourne's recent economic growth and change can also be attributed to other factors that lie outside of the WCN and APS employment and activity prism. This research finding adds to the small but growing body of research that calls for further clarification, adjustment and refinement of the WCN theory.

However, the analysis of the rapid growth in the numbers of the city's knowledge workers, reflecting the increased labour market demand supplied by skilled migration and international education and population policies set at both the state and federal government level, shows that these factors are more influential, and this development can be seen to be linked to broader globalisation related factors.

Data and methodology used in this study

This piece of research into the economic performance of Melbourne and its services sector expansion, uses a diverse range of variables, together with a mixed-methods study design. These variables include comparisons of population growth rates; changing employment, business location and occupation patterns; together with an analysis of policy decisions made regarding the activities, infrastructure and marketing of the central city area going back to the 1980s. It also includes an examination of broader national level policy decisions made regarding skilled migration and higher education that reflect broader trends towards the need for knowledge workers in the economy.

Much of the data analysis is presented spatially. Spatial mapping is widely used across the academic disciplines of economic geography and urban planning to present tempo-spatial change in a readily accessible format.

The results of this spatial analysis confirm the pivotal role of the central city area in the rise of greater Melbourne over the 2000s. The analysis also concludes that the growth of activity in the central city area of Melbourne, and in turn Greater Melbourne, can be only partly explained by economic geography related theories connecting cities to globalisation, such as the World City Network and Global Cities hypotheses. In keeping with van Kempen's asserting regarding the importance of 'contingencies' in the evolution of any city, for Melbourne a policy decisions made from the 1980s onwards impacting on the role of infrastructure and promotion regarding the central city were highly influential. More important still was the transformation of the city's workforce, particularly the increase of professional occupation workers or 'knowledge' workers – and the need for the city and city's economy to become increasingly comprised of such workers in order for the city and its economy to be a success. The analysis of this change is presented spatially throughout this thesis.

1.5 History of this research

The genesis of this research was a study into economic, demographic and housing change in the western metropolitan region of Melbourne, undertaken by Victoria University's Victorian Institute of Strategic Economic Studies (VISES) in conjunction with the then Departments of Planning and Community Development (DPCD) and Business and Innovation (DBI). This report, *Updating Melbourne's West* (2009), analysed the changing demographic and industry structure in the western metropolitan region of Melbourne, a topical issue at the time for Victorian policy makers who were grappling with the impact of record population increases and associated transport and infrastructure pressures (Austin P, Moncrief M & Rood 2008). In 2011, the Department of State Development, Business and Innovation (DSDBI) had commissioned further work from the Centre into the changing industry structure and business entries and exits across metropolitan Melbourne and Victoria, using data provided by the Victorian WorkSafe Authority (WorkSafe). This wide ranging project resulted in a series of reports on business locations in Victoria over the period 2001-2011 across all 19 Australian and New Zealand Standard Industrial Classification ANZSIC industry classifications. One of the key findings of these reports was the growth of Victoria's services industries, together with the growth of businesses based in Melbourne's city centre. The work once again informed wider public discussion regarding the city's economy (Austin et al. 2008) and

policy and research informing projects such as the new planning and transport statements for Melbourne (Victorian Government 2014).

1.6 Interdisciplinary design

This research is interdisciplinary in nature, reflecting the many aspects of the societies, economies and lives that comprise a city. While much of the analysis takes place through the prism of key theories related to economic geography and economic history, it has also been necessary to examine theories, developments and concepts emanating from economic development, urban planning, political science, sociology and marketing disciplines in order to fully understand the factors at play in the city's recent economic development and history.

1.7 Aim of this research

Hopefully this study will be seen as a useful addition to Global Cities and the WCN research and as furthering current research and thinking that refines these important contemporary geographic concepts. This research is also an attempt to develop new and different ways to demonstrate and illustrate the economic development of a city. This has been attempted not only by using a spatial mapping methodology, but also using alternative data sources on business entries and exits, such as those provided by WorkSafe , together with Census occupational data. It is hoped this study of Melbourne will add to the international collection of previous work undertaken on modern cities that have experienced deindustrialisation and subsequent rejuvenation, and the various factors and reasons behind this. Finally, I hope this study serves as a stimulating contemporary economic history of Melbourne, as Melbourne's recent economic growth and change has proven to be of intense interest to not only its inhabitants, but those of other Australian cities and major metropolises around the world.

Chapter Two: Literature Review

2.1 The city and the economy

The study of cities encompasses many disciplines: anthropology; history; urban studies and planning; sociology and economics. While this study will focus primarily on the economic performance and development of the Australian city, Melbourne, it is informed by analyses across many academic disciplines.

The growth and decline of cities over the ages is often explained in terms of their economic performance, as a city's rise and fall can often be tracked along with its place in the (often globalised) economy of the day, and how it performed or responded to external developments in international trade, manufacturing, production and technological developments.

Contemporary studies and analyses of the economies of cities and how they function are taking place as the world's population is becoming increasingly urbanised – more than half of the world's population now live in cities (Glaeser 2011, p.1). Studies into the role that cities have played in the history of human advancement have found they are essential for knowledge transfer and innovation (Mumford 1961). In her seminal study published in 1969, urban theorist Jane Jacobs further argued that urbanisation and cities have developed simultaneously with another key human construct, the market economy (Jacobs 1969).

The late twentieth century concept of globalisation and its impact on the world's economy and workforce has been outlined in key texts by Krugman (1991), Reich (1992) and Appadurai (1996). Globalisation itself has been examined and expanded upon considerably since these initial texts. It is widely accepted that the era of globalisation has been marked by increased global capital flows and 'freeing up' of the world's financial markets; technological advances (especially within the information technology realm); greater movements of people; increased migration and an emphasis on knowledge workers and the knowledge economy (Casanova 2004, p.14). Thus this expansion of global markets has resulted in the:

...competition in all major markets between competitors from all major countries, the increasing multination origin of the inputs to production of both goods and services, the growing intra-industry and indeed intra-product nature of world trade...all contributing to a transformation of the global economy (Houghton & Sheehan 2000, p.8).

2.2 Globalisation – a contested abstract concept

The refining and redefinition of the theories concerning globalisation's impact on the world's cities and city economies that will be examined in depth in this study have taken place in a context where the concept of globalisation itself and its impact on society at large has also undergone considerable readjustment and redefinition. As Australian economists Fagan and Webber (1999) note, in the conceptual early days of globalisation theory economic events appeared to occur so quickly, that theories put forward attempting to explain them were often formulated before adequate data analysis had been performed.

While there was general agreement about greater global integration since the early 1990s, there has been little consensus about what global integration actually means. By 1998, the idea of globalisation was employed widely by governments and the press, yet had become more controversial among academics and was more contested among local community groups. One reason for the controversy is a lack of information about global change and the lack of a detailed understanding of its links with things happening in particular Australian industries and places. Another is the poor development of theories for linking global change to national, regional and local scales. Indeed, the idea of a 'global economy' is very abstract and is used increasingly as a metaphor. Global metaphors have proliferated since the mid-1980s, with ideas such as 'global markets', 'the global factory' and 'the global village' (Fagan, RH & Webber 1999, pp.27-28).

The causality of globalisation has been contested more broadly, such as Brune and Garrett's (2005) analysis of whether globalisation causes inequality between countries and Yeung's assessment of the causes of the Asian Financial Crisis, (which concluded that globalisation was '...more a phenomenon in need of explanations than a universal cause of empirically observable outcomes in the so-called globalisation theory' (Yeung 2002, p.285)).

Following this, the influence and importance of globalisation on cities has also been questioned by urban theorist Ronald van Kempen, who asserts that globalisation does not '...always and automatically result in the same spatial patterns' for change in cities and states that:

...other developments are also at play, either independently or mediating its influence. Each of these developments is directly or indirectly linked to global processes, but it is not useful to treat globalisation as a unitary and all explaining process (van Kempen 2007, p.22).

In van Kempen's conceptualisation, there are seven 'contingencies' that he believes are at play to explain spatial change in cities: the physical setting of the city; history; economic development; inequality; race and racism; political power and governance.

2.3 The current era of globalisation

Aspects of globalisation, such as increased trade activity and foreign investment between countries and greater market integration around the world, are not necessarily a late twentieth and early twenty-first century phenomenon. As McCann and Acs (2011) have noted, three centuries of economic globalisation occurred from the turn of the seventeenth century to the start of the twentieth century, marked by increasing industrialisation, urbanisation, trade and economic growth across Europe and America. For their part, they characterise the current period or phase of globalisation as beginning over the years 1989-1994, starting with the fall of the Berlin Wall and the opening up of China following the Tiananmen Square protests which both occurred in 1989; the 'opening up' of South Africa following the release of Nelson Mandela in 1990; the 1991 economic reforms in India and Indonesia; the creation of the European Union single market in 1992 and the North American Free Trade Agreement (NAFTA) of 1994.

A key development in the current era of globalisation was the 'invention' of the internet in 1991 by Tim Berners-Lee, which was instrumental in further integrating capital and labour markets across the world, creating a single user protocol (for example http user protocol and World Wide Web) that over the next decades saw rapid increases in the use of such communications technology. This, together with increasing harmonisation of many nation-specific institutional structures (such as regulatory structures in the banking and financial services industries), saw greater global interconnectivity emerge, breaking down previous barriers/inhibitors such as physical distance and time zones (McCann & Acs 2011; Wojcik 2011).

The globalised economy of the nineteenth and early twentieth centuries was marked by increasing industrialisation and trade activity between growing nation states and their (often) colonial ventures (McCann & Acs 2011, p.19). Large cities within these nation states were integral to their economy – as they note, by 1925, all the world's largest cities were located in the world's richest countries. These cities were the 'internal engines driving the economies of the empire-nation systems of trade, resource acquisition and development. In these development processes, urban scale was the key feature of economic growth...' (p.20).

The development throughout the nineteenth and early twentieth century of the nation state, and the links between this, industrialisation and economic growth, saw an emphasis in macro-economic theory on developing measures of economic growth based on and around the nation state, such as gross domestic product (GDP). City theorists such as Jane Jacobs challenged the emphasis on countries and nation

states as drivers of economic growth. Her highly influential body of work (1969, 1984) examined the role that cities have played throughout history in the development of the market economy:

Nations are political and military entities, and so are blocs of nations. But it doesn't necessarily follow from this that they are the basic, salient entities of economic life or that they are particularly useful for probing mysteries of economic structure, the reasons for rise and decline of wealth (Jacobs 1984, p.31).

Jacobs's critiques touch on the problems involved in measuring the economic impact of cities. McCann and Acs (2011) delve into this further – they note that, unlike in the nineteenth and early twentieth centuries, in this post 1990 phase of globalisation the world's most populous cities are no longer the wealthiest. They see the world's most *productive* cities based within the world's most high income economies.

2.4 The role of the multinational enterprise (MNE) in the current era of globalisation

Previous discussion has established that entwined in the definitions, aspects and features of the current era of globalisation is the increase of foreign direct investment at the national level, and the driving force behind this investment expansion, the multinational company (MNC) or multinational enterprise (MNE). The MNE is considered a key driver in the current era of globalisation as:

...multinational firms now play a critical role which is largely outside of the national or colonial spheres of influence of their parent countries. The reason for this is that the technological and institutional changes associated with the recent phases of globalisation nowadays make it easier than ever to invest in different countries and to engage in cross-border trade within their own corporate structures, irrespective of national interests in their home countries (McCann & Acs 2011, p.24).

Thus the presence and role of MNEs has become central to assessing, examining and measuring globalisation and the influence of cities. A key theory informing the conceptual basis for this study, the World City Network (WCN), utilises the physical presence of an MNE in a city as a form of measurement or influence to illustrate the impact of globalisation. In detailing an essential but brief economic history of Melbourne in the following chapter of this study, the industry sector and number of various MNEs based in Melbourne and Sydney throughout the late nineteenth and twentieth centuries will also be outlined to illustrate the two cities' respective economic history.

Early work on the impact of MNEs, their location and the globalised economy includes Michael Porter's seminal work, *The Competitive Advantage of Nations* (1990), which sought to explain how certain firms, industry sectors and countries thrive in the globalised economy. He theorised that through increasing competition and international trade, countries, and MNEs located within them, were able to

specialise in terms of industries, products and/or services, allowing them to focus on areas of competitive advantage which would ultimately drive increases in productivity (Porter 1998, p.7).

2.5 MNEs and the New International Division of Labour (NIDL)

The growing internationalisation of MNEs was initially interpreted and analysed through the prism of the New International Division of Labour (NIDL). In basic terms, this was the movement of the production activity of MNEs to jurisdictions, regions and/or countries with cheaper labour costs, 'exploiting the spatial division of labour' (Buckley & Ghauri 2004, p.92) and creating cost advantages for their respective products. One very obvious example of this has been the increase of manufacturing activity across parts of the developing world, for instance in China and India, over the last twenty to thirty years. This has also seen a corresponding deindustrialisation process across many western economies over the same time.

The impact of globalisation and deindustrialisation in developed economies, such as those in Australia's major cities, has seen theorists such as Porter assert that their competitive advantage lies in the capacity for companies to innovate, utilising the superior knowledge and skills of their better and more highly educated populations.

Another mark of the current (post 1990) era of globalisation has been the emergence, almost worldwide, of a neoliberal economic environment, whereby free trade, deregulation and increased competition have been promoted at the national and following this, a state regional and/or local policy level, often in spite of the actual political party in power (Stilwell 1998).

An outcome of these factors has been that increasingly cities are in competition with each other for 'footloose' capital – often company, factory or some other form of employment location – from MNEs. This has created something of a race amongst cities to be the desired place of location, and MNEs have considerable power to wield in determining where they will locate their activity. In later chapters the development of investment attraction policies and place marketing campaigns for Melbourne over the last thirty years will be discussed and analysed, to see how the city fared in this increasingly competitive market.

2.6 Key theories on cities and globalisation – Global Cities and the World City Network (WCN)

In a recent study reviewing the history of World and Global City conceptualisation and terminology, Parnreiter (2013) traces the term 'World City' back to 1915 (by Geddes), and reintroduced in 1966 by renowned geographer Peter Hall. The term 'Global City' was coined by Heenan in 1977, but as

Parnreiter notes, it was Hymer's 1972 study that signified the 'economic turn' and established the connection between cities and a hierarchy within these, together with the presence and role of MNEs within them. Further development of the theorisation of world cities was established by Cohen in a 1981 study that examined the connection between city based services firms and their corporate strategy that determined the location of profits and operations throughout the rest of the world. Essentially, this study connected the burgeoning thinking on global cities with the NIDL (Parnreiter 2013).

These early attempts at theorisation on the role of cities within the globalised economy led to the development of John Friedmann's theoretical framework – the 'World City Hypothesis' (1986). Friedman contended that the world's economy was driven by financial and economic activity largely undertaken in key World City centres. These cities have formed 'basing points' for movements of global capital, for further world production and markets to be developed, organised and articulated.

Having isolated the economic variable as the defining element of this new World City order, attempts were then made to collect a set of variables that define what makes a World City. Friedman's initial thesis listed nine major world cities as 'primary' cities, and a further eight as 'secondary' cities (Sydney was amongst these). Informed by 'core-periphery' theories of global economic interaction, Friedman (1986) defined the primary characteristics of world cities as sites for concentration and accumulation of world capital and destination points for large numbers of domestic and international migrants (Friedmann 1986).

The World City hypothesis was expanded upon in Saskia Sassen's key work *The Global City* (1991). In this in-depth examination, the three major world cities of New York, London and Tokyo are seen as global capital flow leaders, whereby global economic activity is channelled through these major world financial centres. Sassen places special emphasis on the role of services industries, and more specifically Advanced Producer Services (APS), (for example accounting, legal services, marketing and advertising), but most particularly services connected to the finance industry. Sassen contends that the activity undertaken in these centres not only services local, regional and national economies, but also serves an intra-global city economic network.

Another key framework with which to analyse the impact of globalisation, network societies and the impact of technology on cities has been developed by Castells, whereby he contends that globalisation and technological related change has increasingly transformed cities into 'spaces of flows' as opposed to 'spaces of places' (Castells 2002, p.553). Once again using the significant example of financial activity to demonstrate this, Castells contends that financial activity and its associated networks increasingly comprise of '...bits and pieces of different cities across the globe. The financial districts of New York,

London and Tokyo are all part of the same city' (Castells 2002, p.554). This framework has been a key element in the development of the WCN.

The Global City thesis was further developed by Taylor who contended that these major metropolises formed a WCN trading and operating as 'office networks servicing global capital' (Taylor, PJ et al. 2010, p.4). Thus, the WCN can be seen as a result of Castell's 'spaces of flows', rather than the 'hierarchical', 'medal of honour' nature of the initial World City theory established by Friedmann, and its associated World City lists. Up-to-date studies and relevant databases on the change and the impact of the WCN are readily available at the Globalisation and World Cities Research Network website.

WCN research is now over twenty years old, and the terms and associated body of research of 'global city' and 'World City' are, if not used interchangeably, '...conceptual (non-identical) twin[s]' (Acuto & Steele 2013, p.223). It is contested in academic circles whether it is an economic, social or urban theory (Jones 2012), and whether it lends itself to interdisciplinary-style analysis. It is perhaps worth noting that Sassen herself began her academic career as a sociologist, not an economist. The conceptual framework of the WCN has been applied to all manner of economic and societal networks, from the sex industry in Sydney (Maginn & Steinmetz 2014) to the International Youth Volunteers network (Jones 2012).

Furthermore, the concept of World Cities has become so widespread and popular that it has moved beyond a term used solely amongst academic theorists and increasingly into the realm of city and local government level planning, place marketing and economic development policy (Brisbane City Council 2014). The use of city lists has escalated (some might argue hampered) World City theorisation, as city government's increasingly look to such lists as key marketing tools, and focus on what can be done to move higher up the various rankings (Mould 2013).

Following this, the last fifteen years in particular has seen further development towards defining what exactly constitutes a World City, together with an attempt to devise World City ranking systems. One of the initial criticisms of the WCN was that it lacked an empirical evidence base (Taylor, PJ et al. 2010, p.3). Efforts to define the WCN and what constitutes a World City have been hampered somewhat by issues regarding measurement of economic activity. Domestic product or output, for example, is calculated at the country level, together with trade data and foreign direct investment. Sassen made particular use of employment statistics in her analysis of global cities, demonstrating that large increases in producer services employment, and the number of transnational company headquarters, was also calculated across cities in order to achieve rankings. Other indications of globalised activity, such as

international passenger airline services (Keeling 1995) or freight movements (O'Connor 2010), have been used to define the WCN.

While explanations of what constituted the WCN continued to be formulated and defined, and lists of the cities within the WCN were assembled, the WCN theory was criticised for its Euro-American, or north over south bias (Roy 2009) and self-fulfilling nature (Simon 1995). Furthermore, some detractors claim such attempts to categorise what constitutes a World City homogenise cities unnecessarily and fail to take into account each city's individual history, growth pattern and regional characteristics (Robinson 2006; Ward 1995, p.299).

Despite this, the most recent scholarship on WCN demonstrates more of an evidence based approach as researchers grapple with the interconnections of world cities. Throughout the 2000s, academic geographer Peter Taylor of Loughborough University spearheaded the Globalisation and World Cities Research Network (GaWC) project, which produced a series of datasets based on the number of offices that the top 250 global companies, as listed by Forbes magazine, had across the world's cities. Data has been collected in 2000, 2004, 2008 and 2010, with the criteria tweaked at each iteration (for example, the cities eligibility for inclusion became based on population, rather than the author's judgement). The resulting matrix (often labelled the *interlocking world city network* or IWCN) has allowed for a variety of statistical analyses such as principal components analysis, multidimensional scaling, discriminant analysis or fuzzy set analysis (Taylor, P et al. 2011).

2.6.1 The interlocking world city network (IWCN) – an example

The table below is taken from Taylor et al.'s 2011 study *Global urban analysis: a survey of cities in globalization*. Scores for cities are allocated by whether there is a global company (MNE) located within it – as per the latest Forbes 2000 index – then assigning a ranking from 1 to 5, where 1 is a local office and 5 is a global headquarters. This 2011 study also created connectivity indexes for various APS: financial services; legal services; advertising, accountancy and management consultancies. In all, 525 cities and 175 firms form a matrix from which scholars are able to calculate connectivity indexes (by running regression style analyses through the dataset). It is worth noting the data collected for this analysis was taken over the period 2006-2008, prior to the Global Financial Crisis (GFC).

The Global Network Connectivity (GNC) score indicates the headquarter score, as a proportion of the London or New York score, which is derived from the 1-5 scale outlined earlier for a city. For example, Sydney's Gross Connectivity figure of 68,263 is 71% of the London and New York figures. On this scale, Melbourne ranks 43rd with a GNC of 44, similar to that of Auckland, Santiago, Washington and Johannesburg.

Amongst other findings, this 2011 analysis demonstrated:

- the growth of Asian cities such as Hong Kong, and the emergence of Shanghai and Beijing reflecting the growth of China and Hong Kong as an economic gateway
- a strong showing for Pacific cities such as Hong Kong, Singapore, Tokyo, Sydney, Seoul and Shanghai – five cities in the top ten for overall network connectivity
- a strong showing for New York followed by a relatively poor showing for other US cities.

Furthermore, while New York and London (NY-Lon) consistently came first and second across all areas that grouped what Sassen called ‘producer services’ into their component parts, (advertising, accountancy and management consulting), different services are responding to different markets producing distinctive ranges of cities. The top ten cities are found scattered throughout other tables but beyond these ‘global cities’, as Sassen might see them, there is variety across city lists (Taylor, PJ et al. 2010, p.33). One of the key findings from the research based on the latest (2010) database developed for WCN research was to assert that ‘globalisation is not a ‘blanket’ process creating a homogenous world’ (Taylor, P et al. 2011). Thus as research into global cities and the WCN turns towards positivistic-empirical methodologies, the impact of ‘globalisation’ on ‘global cities’ and the WCN becomes further qualified.

The IWCN analysis has its critics. An early critic (Jones 2002) found the emphasis on the physical presence within a city of multinational companies was misplaced. Neal (2012) claims the statistical approach taken in Taylor’s 2011 study of the IWCN has a bias towards cliques and displays structural determinism not resulting from ‘empirical discovery but from a methodological necessity’ (Neal 2012, p.167). Wojcik (2011) argues that the methodology undertaken to gain connectivity scores (namely the 1-5 ranking system for local to global headquarters) ultimately serves to ‘collapse’ differences between cities, so they appear smaller than they actually are and downplay the considerable (he would argue unbeatable and/or unattainable) dominance of London and New York. Overall, a key criticism of the IWCN is that it assumes a flow of information and influence between two cities hosting offices of the same firm, simply because they are physically at the two places, but it does not prove this (Neal 2011; Parnreiter 2010).

Table 2.6.1 An example of WCN connectivity lists from Taylor et al. 2011

Rank	City	Gross Connect-ivity	GNC (Global network connect-ivity)	Rank	City	Gross Connect-ivity	GNC (Global network connect-ivity)
1	London	96,267	1	26	Dublin	52,062	0.54
2	New York	95,838	1	27	Bangkok	51,974	0.54
3	Hong Kong	80,330	0.83	28	Taipei	51,793	0.54
4	Paris	75,322	0.78	29	Istanbul	50,673	0.53
5	Singapore	72,594	0.75	30	Rome	50,604	0.53
6	Tokyo	70,773	0.74	31	Lisbon	49,831	0.52
7	Sydney	68,263	0.71	32	Frankfurt	48,165	0.5
8	Milan	65,988	0.69	33	Stockholm	47,414	0.49
9	Shanghai	65,950	0.69	34	Prague	46,808	0.49
10	Beijing	65,939	0.68	35	Vienna	46,574	0.48
11	Madrid	62,599	0.65	36	Budapest	46,420	0.48
12	Moscow	61,387	0.64	37	Athens	46,068	0.48
13	Seoul	60,597	0.63	38	Caracas	45,063	0.47
14	Toronto	60,454	0.63	39	Los Angeles	44,637	0.46
15	Brussels	60,253	0.63	40	Auckland	44,582	0.46
16	Buenos Aires	58,091	0.6	41	Santiago	44,177	0.46
17	Mumbai	57,902	0.6	42	Washington	42,831	0.44
18	Kuala Lumpur	57,523	0.6	43	Melbourne	41,957	0.44
19	Chicago	55,324	0.57	44	Johannesburg	41,541	0.43
20	Warsaw	53,880	0.56	45	Atlanta	41,144	0.43
21	São Paulo	53,319	0.55	46	Barcelona	40,866	0.42
22	Zurich	53,197	0.55	47	San Francisco	40,735	0.42
23	Amsterdam	53,105	0.55	48	Manila	40,282	0.42
24	Mexico City	52,903	0.55	49	Bogotá	40,113	0.42
25	Jakarta	52,645	0.55	50	Tel Aviv	39,639	0.41

Source: Taylor, PJ, Ni, P, Derudder, B, Hoyler, M, Huang, J & Witlox, F 2010, *Global Urban Analysis : A Survey of Cities in Globalization*, Earthscan, London pp. 24-25

2.6.2 Impact of the Global Financial Crisis (GFC) on the WCN

The importance of the world's major financial centres, the heavily deregulated financial systems operating in much of the late twentieth century western economies and increased capital and knowledge flows have all been outlined as features of the current era of globalisation in the earlier discussion. The collapse of Bear Sterns in 2008 and the subsequent Global Financial Crisis (GFC) of 2007-2009 has led to some (initial) review on the part of economic geographers and urban theorists regarding the role World Cities, particularly New York-London (NY-LON), played in the crisis, together with the impact of the GFC on various cities.

In 2009, French et al. labelled the GFC a 'crisis of financial space' (French, Leyshon & Thrift 2009, p.289). From the outset, city and globalisation theorists pointed to the importance of finance and financial services in the 'new world order'. Sassen in particular noted the importance of the growth of employment in the finance services sector as integral to global city development. The reaction to recent proposals to impose a levy on financial services transactions by the European Union as a 'tax on London' (BBC.com 2011), demonstrates the connection between the global city, the financial services industry and their place in the globalised economy. Wojcik (2011) labels the relationship between New York and London an 'axis' forged by linkages within the finance industry based in both cities, and finds them central players in the GFC. Most recently, Derudder et al. attempted to assess the impact of the GFC on the WCN, suggesting certain world cities were bound to be downgraded with the amalgamation (or even closure) of certain (mainly European) banks (Derudder, Ben, Hoyler & Taylor 2011). Further commentary pointed to a 'west-east' movement, as European cities slip behind the emerging cities of the Asia-Pacific (Taylor, P et al. 2009).

Table 2.6.1 illustrating connectivity indexes was published in 2011 and based on 2008 data, prior to the GFC that took place that year. Early attempts to measure the impact of the GFC on the world's cities include De Rudder et al.'s examination, undertaken in 2011, of the impact of the GFC using *The Banker's* annual list of the world's leading banks. This study found a general decline in terms of the profits and World City 'standing' of European cities. Iceland's Reykjavik was completely bounced out of the Tier 1 list, (the list of cities ranked by the number of major multi-national banks headquartered within them), after all three Icelandic national banks collapsed in the GFC, while both Sydney and Melbourne performed well in terms of both profits and headquarters (Derudder, Ben, Hoyler & Taylor 2011).

2.7 Creativity – Richard Florida and creative cities

Another key development in the theorisation of cities and globalisation has been the impact of creativity, in terms of both creative cities and their creative workers. Richard Florida's *The Rise of the Creative Class* (Florida 2002), sought to cast the impact of globalisation in terms of the growth of knowledge cities underpinned by a highly mobile and selective professional and tertiary educated 'creative class' of workers, who could choose where to work. Thus it was up to cities (and their town planners, policy makers and politicians) to make their city environments' conducive to creative class members. Florida's creative class theory made quite an impact on policy makers in the early 2000s, including Melbourne-based ones (Berry, M. 2005; Berry, M. & Fleming 2003). Although this thesis has attracted critics, (Barnes et al. 2006; Macgillis 2010; Peck 2005), it maintains the popularity of rankings (*Creative Class Group* 2011) and policy makers continue to turn to Florida's ideas in an effort to turn poor performing cities around (The Economist 2010).

2.8 Agglomeration theory and cities

The economic phenomenon of agglomeration and its effects also form part of this study on business location in Melbourne. The economic advantages of agglomeration was first analysed by English economist Alfred Marshall in the nineteenth and early twentieth economy, particularly in his seminal work *Principles of Economics* (1895). In an examination of the industrial centres of England at the time, Marshall found that small firms that were integrated into a larger production chain had a propensity to co-locate, and thus decrease their production and labour costs. Co-location also allowed for access to pools of readily trained and/or skilled labour, and knowledge exchange through informal channels. German economist Alfred Weber then developed the 'least cost theory' of firm location, asserting that firms locate where there are the most minimal transportation and labour costs. (*Theory of the Location of Industries*, 1909 published in English 1929). The wider economy in which these firms operate must have appropriate economies of scale, in order to create an environment where a firm can specialise in the production of one item in the supply chain. Jane Jacobs merits cities and their economies in this process in her 1969 classic, *The Economy of Cities*. Jacobs asserts cities and city networks are particularly suited to establishing such an economy of scale.

After a period of relative hiatus, agglomeration economics returned to public discussion after Nobel Prize winner Paul Krugman began developing the New Trade Theory (NTT), which in turn formed what is now widely known as the New Economic Geography (NEG), or New Economic Geography 1 (NEG1). The NEG1 embarked on by Krugman (1991) (along with Fujita and Thisse (1996)) looked at the effects of globalisation on agglomeration economies. This branch of NEG uses sophisticated spatial

models to examine the impact of agglomeration in industry clusters, and seeks to explain uneven development patterns throughout various regions as a result of the globalised economy. This was followed by NEG2, whereby proponents such as Amin and Thrift (1992), Storper (1999) and Malmberg and Maskell (1997), emphasise:

...relational, social, and contextual aspects of economic behaviour, particularly the importance of knowledge (especially tacit knowledge) and learning—which takes place most effectively through personal contacts at the local-regional level (Perrons 2004, p.46).

Such factors or behaviours are considered intangible and unmeasurable according to the models in NEG1, and are thus not accounted for.

The impact of globalisation and the growth in the importance of Multinational corporations saw Amin and Thrift revisit Marshallian theories of industry clusters and find a newer structure – that of global centres or nodes acting as the ‘brain’, ‘...offering for collective consumption local content networks, knowledge structures and a plethora of institutions underwriting individual entrepreneurship’ (Amin & Thrift 1992, p.577).

2.9 Growth of services industries across the world’s developed economies

The growth of service industries, and the professional services industry specifically, throughout the twentieth century has been a long standing and well established facet of the Australian economy, in keeping with similar structural change occurring within other major developed economies around the world, such as the United States, the United Kingdom and Germany. Two economists with strong Australian connections, Fisher (1939) and Clark (1940), were amongst the first to argue that economic development caused a shift in employment share from primary to secondary, then to tertiary sectors. The basis for this argument was inferred from two assumptions regarding production and consumption, so as to link economic growth to the development of the tertiary sector. In more recent research, Marshall and Woods (1995) suggest that the following factors were important in explaining the growth of business services:

- the emergence of new goods and service ‘products’ requiring specialist service support
- transformations in the way goods and services are produced, arising from process innovations which increase demand for specialist services
- increasingly complex and internationally integrated financial, production and distribution environments which require additional service support

- changes in government regulation and intervention that increase the need for businesses to monitor and analyse changes
- the proliferation of tasks related to the internal management and administration of firms, especially complex multinational businesses (Marshall & Wood 1995, p.25).

The workforce that operates within this growing knowledge or business services environment was identified by Reich (1992) as increasingly comprising ‘symbolic analysts’ who

...solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, juggled, experimented with, communicated to other specialists, and then, eventually transformed back to reality. The manipulations are done with analytical tools, sharpened by experience...(Reich 1992, p.178).

The Australian economy and labour market has increasingly been comprised of such workers. Australia has met this demand through greater access to tertiary education, which was progressively increased since the Menzies government of the 1960s, as well as the migration program – mirroring the approach taken in the post war years regarding Australia's post war manufacturing workforce.

2.10 Services industries and agglomeration

The limitations of agglomeration economies in relation to the services industries, and more specifically knowledge services industries, have been noted by Glückler (2007), who cites key limitations of theorising the effects of agglomeration on knowledge intensive services, as opposed to manufacturing. Firstly, knowledge service firms retain only limited vertical relations with other companies on the supply chain, as they are in the main sustained by horizontal linkages, due to the nature of ‘functional synergies’ joining knowledge services, as opposed to geographic co-location in the case of manufacturing – that is, there is little need for economies of scale or transport costs as the product is an intangible service, not a good. Additionally, the importance of forward linkages, whereby it is necessary for a firm to be located nearby a client, is not necessarily true for knowledge services, as business firms do not necessarily follow their clients. Glückler emphasises the importance of ‘know who’, instead of ‘know how’ for the knowledge services sector, and concludes that, while ‘the metropolitan region does not convey homogenous advantages as a whole, the city clearly dominates as the primary locus of opportunity and trans-national spill over’ (p.958).

2.11 Knowledge workers and knowledge economies

The growth of the services economy, and specifically the knowledge services economy, has seen increased demand for professional workers. This study is not only an examination of business and industry location and change, but also its labour force.

Theorisation and attempts to understand knowledge; its various elements such as the scientific, technical and practical, and the vital role knowledge plays in humanity, date back to antiquity and Aristotelian philosophy. The early modern period heralded an emphasis on scientific knowledge and the increasing connection between knowledge and its association with academic disciplines. More recently the term knowledge economy has gained currency through the increasing importance of the economic application of knowledge itself.

Knowledge economy is an economy that uses knowledge in the production, exchange and use of goods and services; which produces knowledge goods and knowledge services; and which creates and accumulates knowledge as an asset (Madanipour 2011, p.84).

Knowledge workers and their role in the wider knowledge economy have been the subject of discussion and analysis since Daniel Bell's 1973 work *The Coming of Post-industrial Society*, whereby the shift from manufacturing to services-based economies and the rise of the science-based production and industries indicated '...a changeover from a goods-producing society to an information or knowledge society' (Bell 1973, quoted in Madanipour, 2011, p.52). The role of the knowledge worker came to be recognised through the process of deindustrialisation occurring in developed economies in the later twentieth century, when physical items were produced less and less, and knowledge itself (be it tacit, technical or applied), became the good/service being produced and exchanged.

2.12 Theories related to professional workers

Professionals differentiate themselves from other occupational groups in that their work deals with the application of knowledge, often specific, technical and/or applied. Their cachet in the labour market comes from applying this knowledge to problems or situations presented by their clients. The nature of the professions was of considerable interest to sociologists throughout the latter twentieth century, who examined their history and development through both Marxist and Weberian frameworks.

Marxists interpreters saw the activity, and attempts at continuing domination of jurisdictions through the prism of a class struggle whereby the dominant class owning the means of production will overpower others. Whereas when professionalism is examined through the Weberian framework, class is conceptualized as having:

...a number of components derived from the market and from status honour, both of which involve the notion of social actors, in the first instance as competitors and in the second as participants in mutual evaluation (Macdonald 1995, p.44).

Malhotra and Morris (2009) use Halliday's Weberian framework (1987) to group professionals according to their epistemological knowledge foundations: technical knowledge (for example engineering with its foundations in scientific and mathematical knowledge), normative (law, drawing on knowledge based on jurisprudence, concepts of justice, property and social contracts) and syncretic (accounting, which spans both the technical and normative knowledge bases).

Established research into the history of the professions, (sometimes referred to as the 'professional project'), has established that professionalism requires the application of a 'discretionary intangible skill' (Friedson (2001) – quoted from Malhotra and Morris (2009)) that is, a form of knowledge that is so difficult it requires training and upon competing this, becomes reliable enough to produce results. Historically professions have also been able to assert a monopoly or control over their work and have to mitigate against their codified knowledge becoming widely understood and critiqued – '...in order to sustain professional power some degree of mystique or impenetrability has to be sustained.' (Larson – quoted in Malhotra and Morris (2009, p.899)). In Abbott's 1988 study of the professions, he provides some historical examples from the nineteenth century to the present day of various professionals such as apothecaries and members of the clergy (mostly based in the US context), their codified knowledge and how they failed to maintain this aura of mystique.

Abbott (1988) also outlined some of the methods by which professionals carve out and maintain a given jurisdiction, including: education attainment and relevant qualifications; public perception (management consulting for example); the role of the particular profession in the workplace; licensing arrangements and membership of professional associations.

In addition to establishing a jurisdiction, professions have an ongoing task of maintaining it. This process has been labelled 'social closure' by sociologists, which is '...the exclusion of rivals, protection of their privileges, defence against incursions to their territory and, in some cases, attempts to usurp the territory of other groups' (Malhotra & Morris 2009, p.900).

Malhotra and Morris (2009) assert that jurisdictional control, and following this social closure, comes as a result of both the knowledge base of the particular professional and the measures the profession takes to ensure jurisdictional control, such as licensing or membership (p.900).

Clients form an important part of the 'production' of professions, with a varying degree of participation in the production process, (for example there is not much client participation in the case of medical professionals and their patients, but almost complete control and participation in the case of architects and their clients). Leicht and Fennell (2001) define the situation whereby clients control the process of production of the professional service, and therefore judge what the service is worth, as professions with a high degree of 'client capture'. This will again depend on the nature of the knowledge base of the profession, the level of jurisdictional control and on the power of the clients themselves (Malhotra & Morris 2009, p.901).

2.13 Knowledge cities

Cities are at the heart of the knowledge economy, acting as nodes where knowledge is produced, managed and exchanged (Sellars 1992 in Madanipour 2011, p.63). The growth of scholarship and interest in knowledge cities indicates an intersection between economic, geographic and economic development theorisation. The research into what constitutes and comprises a knowledge city parallels the increasing interest in economic development driven place marketing campaigns, established from the 1980s to garner investment into cities (Ergazakis et al. 2006).

Richard Florida's 2002 work *Rise of the Creative Class* and its reception can be seen in this light. Florida's work sought to cast the impact of globalisation in terms of the growth of knowledge cities, underpinned by a highly mobile and selective professional and tertiary educated 'creative class' of workers who could choose where to work. Thus it was up to cities (and their town planners, policy makers and politicians) to make their city environments' conducive to creative class members (Berry, M. 2005; Berry, M. & Fleming 2003).

2.14 Globalisation and the movement of knowledge workers

The increasing movement of professional workers around the globe has been interpreted as one consequence of globalisation (Appadurai 1996). In a 2001 study of typologies and theories related to skilled migration, Iredale begins with the application of human capital theory, which asserts simply that people will relocate to find the employment and wages most appropriate to their formal education and training. Following this, Iredale outlines the structuralist neo-Marxist interpretation on skilled migration, allowing for the impact of rich core and peripheral geographical networks. By the late twentieth century,

research undertaken by Salt and Findlay argued for a framework that would include such elements as the NIDL that encompassed ‘...the nature of careers, the role of intra-company labour markets and the lubrication provided by recruitment and relocations agencies’ (Iredale 2001, p.9).

2.15 The literature review in the context of this research and the main subsidiary questions

The ensuing analysis contained in this study will examine Melbourne in the light of these theoretical constructs. As mentioned at the outset, this piece of research on Melbourne, its economy and the impact of globalisation covers a broad range of study disciplines including geography, economics, globalization, economic development and sociology. Thus the theoretical constructs relevant to the research are wide ranging.

The thesis will firstly examine the series of historical, political and governance factors that have taken place in Melbourne since it was settled as a colony in order to determine path dependent factors that impact on its industry structure. This in turn impacts on the levels of MNEs headquartered in the city and explains the presence, densities and prevalence of various APS sub industries compared to national averages also based in the city. This line of analysis and examination is derived from van Kempen’s theorization on ‘contingencies’ that explain spatial change in a city in addition to the impact of globalisation, fully investigating five of these that are particularly relevant in the Melbourne context: physical setting, history, economic development, political power and governance. The role and presence of MNEs in cities has become an increasingly important component of the WCN-related body of research, as the presence and number of MNEs across the world’s cities are used to calculate world city rankings, as undertaken by the GaWC group, spearheaded by Peter Taylor based in Loughborough University.

The development of Melbourne’s urban form from 1850 to present is undertaken in Chapter Four, in order to establish what major employment centres within the city existed prior to the period of deindustrialization beginning in the 1970s. While this chapter also examines the path dependent characteristics of Melbourne’s spatial structure by the early twenty first century, and examines the role of political power and governance in terms of the role of planning policies and strategies set out at the state government level from the mid twentieth century on Melbourne’s spatial form, the prominence of the city centre as an employment hub warrants a discussion of the role agglomeration theory and its place in Melbourne’s economic geographical pattern.

Theories regarding globalisation and the impact of this on cities, specifically the Global City and WCN, inform Part Two of this thesis. In this section, the following questions are posited in relation to Sassen and Taylor's key pieces of theorisation:

- What has been the role of APS in Melbourne, its employment growth and economic development over the 2000s?
- Can external factors such as linkages with global markets (as posited by the theory) explain their development? Where there other factors at play?
- What has been the spatial impact of APS growth on the city and how has APS impacted on Melbourne's urban form over the 2000s?

Chapter Nine examines the role of the 'Big 4' Accounting firms in Melbourne through the prism of the WCN. The analysis examines the levels in which these Melbourne-based MNEs connect to other Australian capital cities, other major centres around the world and their NY-Lon based global headquarters. This research provides essential information on the actual levels of connectivity between these WCN centres. This research, undertaken as a qualitative analysis exercise, offers a necessary yet underutilized counterweight to the quantative research undertaken in this piece of research, as well as seeking to redress the lack of wider current quantative research regarding the impact of globalisation on cities, which is biased towards positivistic WCN scholarship based on connectivity scores, values and associated lists. Issues regarding the positivistic nature of cities and globalisation research is discussed further in the following chapter on methodology.

The theories on professional and knowledge worker, knowledge cities and the globalisation of the professional workforce inform the questions examined in Part Three of this thesis. The research in this section once again asks to what level has been the change in professional workers in the Melbourne labour force a result of global factors (such as the increasing globalised migrant workforce) and to what extent has the growth of professionals been a result of local factors such as policy settings (in this case established at the national level). Do these national policy settings still follow an international pattern? To what level did Melbourne's growing knowledge or professional workforce reflect the creative class literature first espoused at the start of the decade and what were the commonalities between creative classes and cities as outlined by Richard Florida and what actually occurred in Melbourne? Did what occurred in Melbourne over the 2000s regarding what could be classified as creative class workers reflect the same motivations as set out by Florida in the initial creative class texts? What was the impact of Florida's theories on city economic development policies over the 2000s?

2.15 Conclusions

This chapter has charted the development of theories that link globalisation and cities, and the impact of globalisation on city economies. It has canvassed the role of the multinational enterprise (MNE) in globalised World City economies, and the manner in which the MNE serves to 'link' world cities together, creating nodes of 'spaces' rather than places. The development of the WCN towards the IWCN is perhaps the latest, most sophisticated manifestation of attempts to demonstrate and measure this.

Theorisation on the impact of globalisation on cities has placed particular emphasis on the services sector, and specifically the APS industries (for example business and finance sector related services). This resulted in a renewed examination and refinement of the key economic geographical concept of agglomeration, as economists such as Marshall and Weber based their foundation observations of the phenomena on production or manufacturing-based economies, as opposed to the knowledge and services ones that are more prevalent today.

The importance of knowledge and creativity, and the impact of these on contemporary cities, has also been examined. This emphasis is not so much on enterprises, but the city's people, its workforce and the nature and value of the knowledge they contain. Increasingly porous geographic national boundaries, competitive skilled migration schemes and the increasing movement of people across the world to global cities, creates a global 'race for talent'. This can also be seen as an effect of the globalised economy with particular consequences for cities, as it is in cities and inner cities in particular, where these workers will almost certainly find themselves, as successive chapters of this thesis will demonstrate.

This chapter has also established how these theories will inform the main and subsidiary research questions on the development of the Melbourne economy contained in the upcoming chapters.

The following chapter examines the methodology and design of the study, provides an explanation of key data sources, the methodology used for the research and a critical evaluation of the research design discussing its strengths and weaknesses.

Chapter Three: The Methodology of this Thesis

This chapter discusses the methodology and design of the research contained in this thesis. An explanation of the key data sources is provided, together with a discussion of any manipulation or adjustment to these data sources due to perceived limitations. It contains a critical evaluation of not only the research design used in this study, but also the prevalent methodology used in international scholarship on the subject of the impact of globalisation on cities.

3.1 Mixed methods design

This study uses a mixed methods design, combining both quantitative and qualitative analyses of key sources to examine the impact of globalisation on change across Melbourne over the period 2001 to 2011. As a research methodology it is particularly well suited to a study on the economic development of a city such as this, and has been used in recent studies concerning key theories tested in this analysis, such as Parnreiter's study on Global Commodity Chains (GCC) in Mexico (2010), Wright's study on the nature of networks and clients in international management consultancies (Kitay & Wright 2003) and Falconbridge's research into global legal services on lawyers (Faulconbridge & Jones 2012).

3.1.1 The current prevalent research methodology used in WCN and Global City-based research

Chapter Two contained a discussion of the development of WCN network research, the development of the IWCN and an example of a WCN connectivity list (Table 2.6.1). Much of the research regarding globalisation and cities now emanates from the Global and World Cities (GaWC) network, publicised on their website as “the leading academic thinktank on cities in globalisation” (GaWC, 2016) The GaWC is based at Loughborough University.

The GaWC's founders (Manuel Castells, John Friedmann, Sir Peter Hall, Saskia Sassen and Sir Nigel Thrift), Director (Peter Taylor) and Associate Directors (David Bassens, Jon Beaverstock, Martijn Burger, Ben Derudder, James Faulconbridge, John Harrison, Michael Hoyler, Xingjian Liu, Zachary Neal, Kathy Pain, Christof Parnreiter, Allan Watson and Frank Witlox) are all esteemed geography academics and theorists whose research and publications regarding cities and globalisation are referenced extensively throughout this piece of research.

An examination of the nature of the recent publications of the GaWC's Associate Directors indicates that they are mostly concerned with the WCN and associated connectivity lists, calculated by creating tallies of MNC headquarters and regional offices across the world's cities, deriving a numeric value based on this and distributing one of these to all the cities contained in the network, and then running forms of

regression analysis against these values to create scores and, following this, lists. Critiques of this analysis have also been discussed in the previous chapter, including charges that the WCN has displayed a Euro American bias (Roy 2009), was self fulfilling in nature (Simon 1995), homogenises cities unnecessarily and fails to take into account each city's individual history, growth pattern and regional characteristics (Robinson 2006; Ward 1995, p.299). Further to these critiques, Jones (2002) found the emphasis on the physical presence within a city of multinational companies was misplaced, while Neal (2012) claims the statistical approach taken in Taylor's 2011 study of the IWCN has a bias towards cliques and displays structural determinism not resulting from 'empirical discovery but from a methodological necessity' (Neal 2012, p.167). One of the key criticisms of the IWCN is that it assumes a flow of information and influence between two cities hosting offices of the same firm, simply because they are physically at the two places, but it does not prove this (Neal 2011; Parnreiter 2010).

Why has research into the impact of globalisation on cities become so centered on scores and lists? I suggest it is to counter an early criticism of the WCN and Global City research; it lacked a sufficient evidence base. Peter Taylor himself noted in 2011:

It seemed to some observers of theoretical ideas concerning world cities were running ahead of any adequate empirical back-up. This evidential deficit was signalled very early in the development of a world city literature (Korff, 1987) but a decade later it was still "the dirty little secret of world cities research" (Short et al, 1996), leading to sceptics ... referring to "so-called 'World Cities'" (Taylor, P. et. al. 2011, p.2).

One might argue however, that the international academic research is now being taken to the other extreme; it is now becoming too data driven, based on the WCN and connectivity lists derived from scores awarded from the presence MNCs. Any survey of the recently published academic literature on World Cities and globalisation will produce a list of research papers written by at least one and very often a combination of the GaWC network's Associate Directors on the latest iteration of the WCN and connectivity list but using a different form of regression analysis.

3.1.2 Alternative research methodologies in which to examine WCN and Global Cities

A small number of researchers, however, have noted the value in using qualitative research methods to examine the impact of globalisation on cities, the growth of APS and examine the connectivity between cities. This is not as a riposte to WCN research, but rather to complement the growing body of positivistic studies.

In a recent critique of Global City studies, Christof Parmentier (2013) sets out a methodology in which to establish the impact of globalisation within a city:

A starting point to empirically corroborate the global city concept is to verify the clustering of producer services in a specific city. To do so requires, on the one hand, the compilation of attribute data on the size, growth dynamics and compositions of the producer services sector, and on the other hand, to locate headquarters and affiliates of globalized producer services firms, because it is these firms that are supposed to have the highest capability for servicing, managing and controlling the global operations of firms (p.26).

Parnreiter then argues that to fully address the central questions concerning global connectivity and networks posed in global and world city theorisations undertaken by Sassen and Friedmann, it is necessary to ‘... confirm the trading of these services...to corroborate demand and to identify the producer services firms’ clients’(p.27). In order to do so requires:

...the creation of relational data informing about connections between suppliers of producer services and client firms... [examining] whether and how these service flows contribute to the articulation and governance of the client firms’ cross-border activities...it is also important to measure and map the intra-producer services firms and inter-city networks and to specify the divisions of labour between offices and services (p.27).

The mixed methods research design of this study is intended to reflect such a system as outlined by Parnreiter. The analysis and research undertaken in Chapters Six, Seven and Eight of this study of Melbourne examine ‘the compilation of attribute data on the size, growth dynamics and compositions of the producer services sectors’, with the ABS Census and WorkSafe Victoria material providing the attribute data on the growth of Advanced Producer Services (APS) employment and businesses establishments in Melbourne.

Complementing the quantitative analysis of Chapters Six to Eight is the qualitative analysis undertaken in Chapter Nine in the form of findings and analysis from a series of semi-structured face to face interviews (an appropriate set of ‘relational data’, as Parnreiter would describe it) to test some of the implicit assumptions underlying Global City analyses such as the IWCN on headquarters and key decision making processes on the part of global companies. In order to do this I have undertaken a closer examination of the structure of Australian APS firms, in this case the ‘Big 4’ accountancy firms, to understand the notions of networks and how local, regional offices interact with global headquarters.

The qualitative analysis is based on a series of interviews undertaken with Melbourne based partners of the ‘Big 4’ accounting firms. The qualitative research methodology used here follows in the path of relatively small but nevertheless important pieces of geography related research into World Cities and the growth and development of APS across the world, using the findings from a series of semi structured interviews with industry participants as representative of the broader industry. Such previous studies (Beaverstock 2004; Faulconbridge & Jones 2012; Parnreiter 2010) have found this approach to

be the most effective way of researching companies as quantitative surveys of company representatives would be unlikely to yield sufficient responses, together with the need to address a company's concerns regarding privacy and commercial-in-confidence information. For example, Melbourne headquartered banks were approached for interviews for this study, but requests were refused due to company policies forbidding the participation of employees in private research.

3.2 The quantitative analysis component of this study

Two key data sources are used for the quantitative analysis component of this research. The first source is the Australian Bureau of Statistics (ABS) Census of Population and Housing for the period 2001-2011 ('the Census'), specifically the workplace destination counts, commonly known as Journey to Work (JTW) data. This is a key data source for much geography related research and has been used in local studies (O'Connor, K. 2006) and internationally (Krugman 1991) to demonstrate economic features of regions such as industry specialisation and change, competitiveness, and trade and export patterns. This data has also been used extensively in regional economic analyses of Melbourne's western region (Rasmussen et al. 2010; Sheehan & Wiseman 2004) and Melbourne's northern region (National Institute of Economic and Industry Research 2009). The second data source used in this research demonstrates the changing industry composition and location of Victorian business establishments. Data on Victorian business establishment entries and exits from 2001 to 2011 has been made available by the WorkSafe. In line with the Census data, it is also available at the 4 digit ANZSIC level. By using the two data sets, two elements of Melbourne's industrial landscape can be examined: the Census data demonstrates where movements of workers between industries and locations are occurring; while the WorkSafe data demonstrate the movements, densities and locations of businesses.

In terms of the analysis of occupations and workers, ABS JTW is used again to illustrate spatial and occupational change within Melbourne's economy over the period 2001-2011. To assess the impact of the skilled migration policy, data made available by the Commonwealth Department of Immigration and Border Protection on skilled migration outcomes for Victoria and Australia from 1996-2013 was used. Data has also been obtained from the Commonwealth Department of Education and Training regarding domestic and international student higher education completions in Victorian universities over the 2000s.

3.2.1 Changing ABS ANZSIC and ANZSCO definitions

Changing industry and occupational definitions and differing geographic boundaries presented hurdles to be overcome in analysing and presenting these research findings. The greatest difficulty was encountered in analysing ABS industry and occupation data over the period 2001 to 2011, due to the

official industry and occupation definition change from the 1993 ANZIC and ANZO classification systems used in the 2001 and 2006 data collections to the updated ANSZIC and ANZSCO 2006 classification systems used in the 2006 and 2011 collections.

Table 3.2.1 Industry and occupation classification used by ABS Census 2001, 2006 and 2011

	2001 Census	2006 Census	2011 Census
Industry Classification system used	ANZSIC 1993	ANZSIC 1993 ANZSIC 2006	ANZSIC 2006
Occupation classification system used	ASCO 1993	ASCO 1993 ANZSCO 2006	ASCO 2001

The classification changeover has left researchers encountering difficulty in terms of the concordance of industry data across the 2001 to 2011 period. While the ABS has supplied state level industry counts across 2001-2011 that are concordant at the 1 digit level of ANZSIC 2006, this concordance has not been undertaken at the deeper industry level (for example, 2, 3 and 4 digit industry level), or at a finer, sub-state level geography. ANZSIC 2006 industry sub divisional level (for example 2, 3 and 4 digit) data based on JTW counts, the most relevant data count for this research over the three Census periods is also not available.

For the purposes of this analysis, the most appropriate approach was to examine the 2001-2006 period under the previous ANZSIC 1993 classification system, and the 2006-2011 period using the current ANZSIC 2006 system. This was due to irregularities and inconsistencies in comparing 2006 data that used both classification systems (for example, although supposedly concordant, the number of workers employed in 2006 under the 1993 ANZSIC ‘Banks’ sub industry was not the same as the concordanced 2006 ANZSIC classification for Banking).

There was less difficulty regarding changes made to the two occupation-related classification systems, as any changes made between the 1993 and 2006 classifications were mostly related to the nomenclature of the occupation, rather than the activity it was describing.

The changes occurring within APS and specifically the finance sector and accountancy/managerial consultancies means that the distinctions between these industries are increasingly blurred. There is further discussion of this contained in Chapters Seven and Nine. The official data collection system has not kept pace with this and does not reflect it so much. One way to counteract this is to use occupation data (which has been used in Chapter Ten) to fully examine the movements and changes of both occupations and industries related to the sectors.

3.2.2 Data provided by WorkSafe on business establishments

For the data provided by WorkSafe, business counts are based on the authority's records, by postcode, of entries and exits of businesses that held WorkSafe insurance policies over the period 2000-2011. Data excludes sole traders, employers insured through Comcare (a federal government agency) and exempt employers (that is employers with less than \$7,500 in remuneration). Although sole traders are exempt from holding WorkSafe insurance policies, in undertaking this research and analysis on the dataset it became clear that many contractors and small (for example non employing) consultancies registered their businesses with WorkSafe and thus have been included in business counts.

The data presents *net flows* of business establishments according to postcode. Thus an 'exiting' business does not necessarily mean this business has gone out of business altogether (although it could mean this), rather that it has ceased operating at that postcode location. Similarly an 'entry' may not mean the business is a start-up, but has relocated from elsewhere.

It is worth noting that the WorkSafe data is derived from an operational database, and postcodes are an administrative tool used by Australia Post for mail distribution and not primarily for spatial and geographic analysis purposes. Postcodes do not concord with Statistical Local Areas (SLAs) that are used in the Census analysis.

A key strength of the quantitative research element of this thesis was the access to the WorkSafe data that gives business location by industry. This is not a commonly available data source, and complimented the other more well-known data source of ABS Census which measures people rather than businesses.

3.2.3 Other official data sources

Smaller difficulties were encountered using the data supplied by Commonwealth agencies – the Department of Education and Training (DET) and the Department of Immigration and Border Protection. The education data needed further clarification in terms of the classification standard used and was not always consistent. For example, certain commerce related courses may be counted against other field of study categories, and courses can also change categories over time. Where this has occurred in the dataset provided by DET used in this study, it has been explained in the relevant passages of analysis.

3.2.4 Spatial analysis

Much of the analysis of these two data sets is presented spatially. Spatial mapping is widely used across the academic disciplines of economic geography and urban planning to present tempo-spatial change in a readily accessible format. For the purposes of this study, the mapping product MapInfo has been used

to undertake thematic mapping analysis. For the spatial analysis the ABS data is presented using the Australian Standard Geographical Classification (ASGC). This classification was replaced in 2011 by the Australian Statistical Geography Standard (ASGS), which allows for smaller area level analysis. However, for the purposes of the time series analysis dating back to 2001 undertaken in this study, the older classification has had to be used. Similarly, the boundary for Greater Melbourne used in this study is derived from the ASGC, not the latest one introduced in 2011 under the ASGS.

Problems or limitations of spatial analysis include the difficulty of comparison between geographic boundaries over time, which are similar to the difficulties encountered due to changing industry and occupation codes. The ASGC was a geography standard based initially on local government boundaries, which were simple administrative regions established historically. They are not boundaries that are based on roughly equal populations, for example. When a new 'area' is developed (in the case of this study, the Southbank-Docklands Statistical Local Area was established between 2001 and 2006) comparisons cannot be made over time.

For the Worksafe data, postcodes are also primarily used as administrative regions for the Australian postal system and were not designed for geographical analysis purposes. Once again, they do not cover equal populations or even similar geographic spaces. Their boundaries are also a product of administrative history and the operational requirements of Australia's postal service, and as such the data provided by WorkSafe was in a raw form that required a considerable amount of data cleaning.

3.3 The qualitative analysis component of this study - semi structured interviews

The qualitative component of this research comprises a series of interviews undertaken with key partners of members of professional services firms based in Melbourne. The methodology used was the snowball sampling method, whereby potential interviewees were approached for their availability and willingness to undertake a 20-40 minute semi-structured interview. The initial study design anticipated a broader participation of APS, but firms within the banking sector were not available for interview due to company policies prohibiting participation in private research. Nevertheless, despite this restriction encountered early on in the compilation of data for this thesis, the overall interview results proved illuminating and beneficial to the overall thesis question and research.

The research interviewed 6 partners across all of the 'Big 4' firms based in Melbourne, one interviewee from a mining/engineering firm, one interviewee from a consultancy based in an education institution and one interviewee from an accountancy industry association.

Table 3.3.1 Numbers of interviewees by firm and organisation type

APS Firm	Organisation Type	No of interviewees
CPA Australia	Accounting industry body	1
Deloitte	‘Big 4’ firm	1
Ernst and Young	‘Big 4’ firm	1
KPMG	‘Big 4’ firm	2
The Mitchell Institute, Victoria University	Research/Consultancy Centre	1
Price Waterhouse Coopers	‘Big 4’ firm	2
Worley Parsons	Engineering/Mining company	1

The research design passed Victoria University’s ethics approval process satisfactorily. It was noted in the ethics application that a minor risk existed in the form of commercial sensitivities on the part of the ‘Big 4’ firms to provide information about their business activity, their clients and/or where they are located. These services firms operate in a commercial-in-confidence environment and all of the ‘Big 4’ firms interviewed are also in competition with each other. However, the information provided to interviewees on the consent form (Appendix One) established the confidential nature of the research findings, and all the participants were happy to undergo an interview.

There were the usual difficulties encountered in organising interviews with the partners of ‘Big 4’ firms, some of which had to be rescheduled and this proved to be somewhat time consuming. These difficulties were more than offset, however, by the very helpful assistance in the interviewees and their illuminating responses which served to provide very interesting material for Chapter Nine of this thesis.

3.4 Conclusions

This chapter has established the prevailing methodological approach to research undertaken by leading researchers into the WCN and Global City related studies. It contained a critical examination of this methodology, which is largely based on positivistic regression analysis methods. The strengths and weaknesses of the research methodology chosen for this particular study – a mixed methods design – was then discussed, linking the chosen methodology to the subject matter of WCN and Global Cities related research, and describing the benefits of using such a study approach to the material. In terms of the quantitative analysis component of this study, an explanation of the key data sources used for this study has been provided, together with an explanation of any limitations of the data sources. For the

qualitative component of the study, the nature and number of interviews conducted has been detailed, together with an account of any ethical issues and constraints encountered during the interviewing process.

The quantitative data analysis component of this research is contained in the Chapters Five to Eight, predominantly using the ABS JTW and WorkSafe data, followed by the analysis of the findings from the quantitative component of this study in Chapter Nine. The next chapter, Chapter Four, introduces the city of Melbourne, providing an economic history of the city that is informed by the key theoretical concepts outlined in the introduction and literature review chapters.

Chapter Four: The Economic History of Melbourne

4.1 Introduction

The previous chapters served to establish the key theoretical context together with the main and subsidiary questions of this study in terms of WCN and Global City-related research, how such economic geography based theories may apply to the economic development of Melbourne over the 2000s, an examination and review of the relevant literature and an explanation of the methodology used in this piece of research. This chapter contains a brief economic history of Melbourne, with a greater focus on political, economic and planning developments over the last thirty years, in order to compare the developments in globalisation and economic geography related theory with the policies, political events and economic environment of Melbourne.

The previous discussion outlined the importance of MNEs in the current era of globalisation, and their role in the compilation of World city-related indicators such as the GaWC's WCN and associated connectivity lists. The following chapter contains a discussion of the key MNEs headquartered in Melbourne, which account for Melbourne's place in the WCN connectivity hierarchy. The previous discussion on the WCN also demonstrated Sydney's place as Australia's premier 'global city'. This chapter also outlines the economic development of Sydney alongside Melbourne throughout the twentieth century, to illustrate the series of economic events that led to Sydney being considered Australia's 'premier city' by the early twenty-first century. The chapter will also canvass the prevailing economic conditions that Sydney and Melbourne encountered throughout the 2000s which, demonstrated by a series of economic indicators, show Melbourne experienced a more favourable economic climate over that time.

The chapter also briefly examines the population and industrial settlement pattern of the city over the nineteenth and twentieth centuries, illustrating the radial nature of the city's public train transport network established in the 1890s (and largely intact to this day), the outward movement of residential population from the central city to the suburban areas, and a similar outward movement of industrial activity, establishing the historic, path dependent importance of the central city area to the city's economy.

4.2 Melbourne foundation to Federation

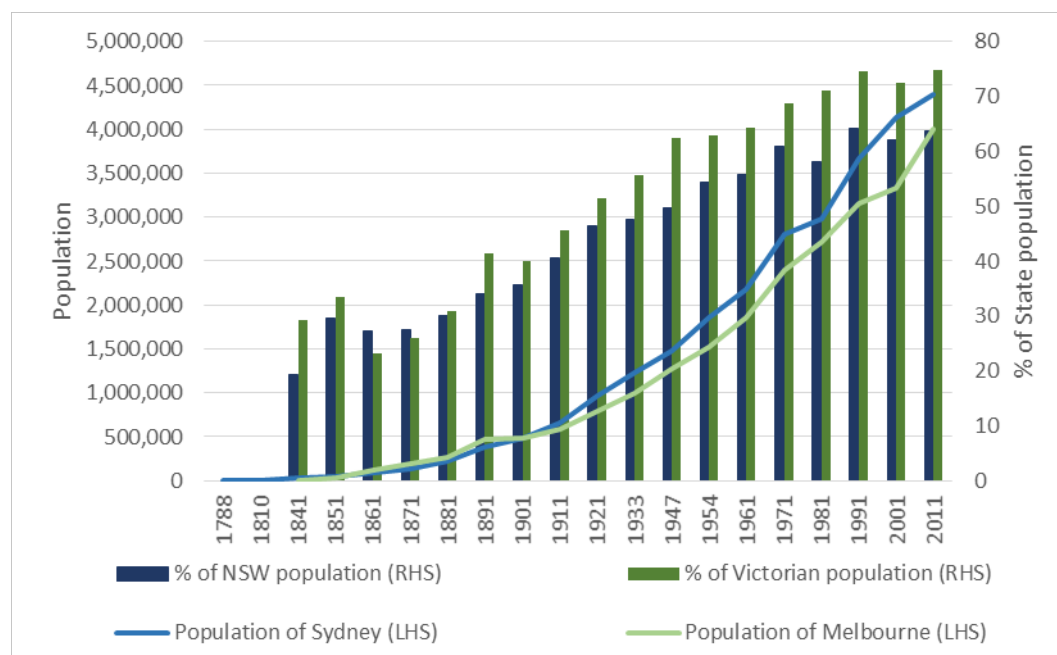
Since Melbourne was 'founded' in 1834 after two prominent Taswegian squatters, John Fawkner and John Batman, set up small, separate settlements within what was then known as the 'Port Phillip districts' the city's pre-1900 history is said to be characterised by three considerable economic, and

consequently population-related, booms. In the 1830s the small colony's economy was '... closely dependent on the fortunes of the squatters' (Lewis 1995, p.22) and the first boom occurred in 1839-40, a result of excessive land and share speculation that was '...characterised by easy credit and grand schemes' (Davison 1986, p.54). The population had increased to just under 5,000 persons by the time of the 1841 Census. The gold rush era that commenced in 1851 led to another economic boom, which saw a huge net increase in the Victorian and Melbourne population. Finally the 1880s 'Marvellous Melbourne' period saw another large increase in the city's population, again fuelled by speculation, this time in '...mining and general shares, and in property' (Davison, G. 2004, p.55).

Melbourne was incorporated as a city in the same year as Sydney, 1842, indicating the rapid population growth the city experienced in its formative years. The migration and population increases associated with the Victorian Gold Rush of 1851-1861 saw Melbourne's population surpass that of Sydney's. This continued into the Marvellous Melbourne era of the 1880s, but after the economic depression in the 1890s, the city's population growth stalled as many residents left Melbourne for work and other opportunities elsewhere.

Chart 4.2.1 demonstrates the historical population growth of the two major Australian cities.

Chart 4.2.1 Population of Sydney and Melbourne, 1788 to 2011



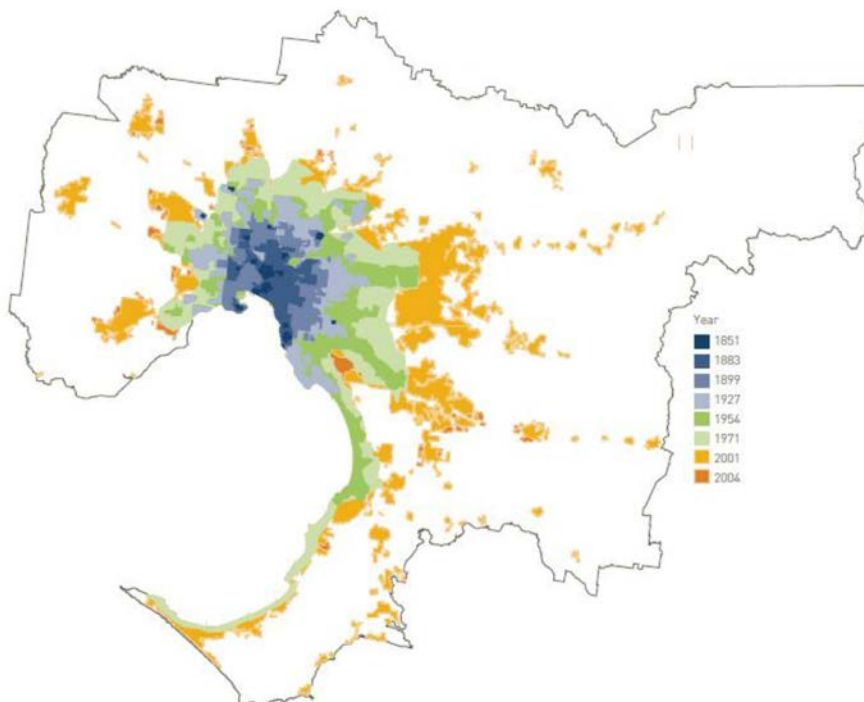
Source: Davidson, J 1986, *The Sydney-Melbourne Book*, Allen & Unwin, Sydney, p. 294 and ABS Census 1991, 2001, 2011

While Melbourne briefly led Sydney in terms of population from 1860 to 1891, from the turn of the century, Sydney remained Australia's most populous city. The data on capital city population as a proportion of state population indicates that Victoria is more 'Melbourne-centred' than New South Wales is 'Sydney-centred', with Melbourne's population comprising over half of the state total by 1921, whereas it was 1954 before Sydney reached the same proportion of the New South Wales total. The disparity remains, as the last population Census in 2011 indicated, Greater Melbourne comprised 75% of the Victorian total, and Sydney comprised 64% of the New South Wales state population.

4.3 Melbourne's pre-1900 urban form

By as early as the 1890s, much of what we would now recognise as key features of Melbourne's urban form had materialised and the spatial patterns of residential, suburban and industrial expansion and consolidation that we come to see throughout the twentieth century had taken hold. In terms of manufacturing locations, the inner city was preferred to sites alongside waterways such as the Yarra River. The adjoining low lying suburbs and western suburbs such as Footscray were often used for associated production, often 'dirty' industries such as tanneries. The preferred residential suburbs were the bayside or leafy locations of St Kilda, Hawthorn and Kew, which were on higher ground and not subject to flooding.

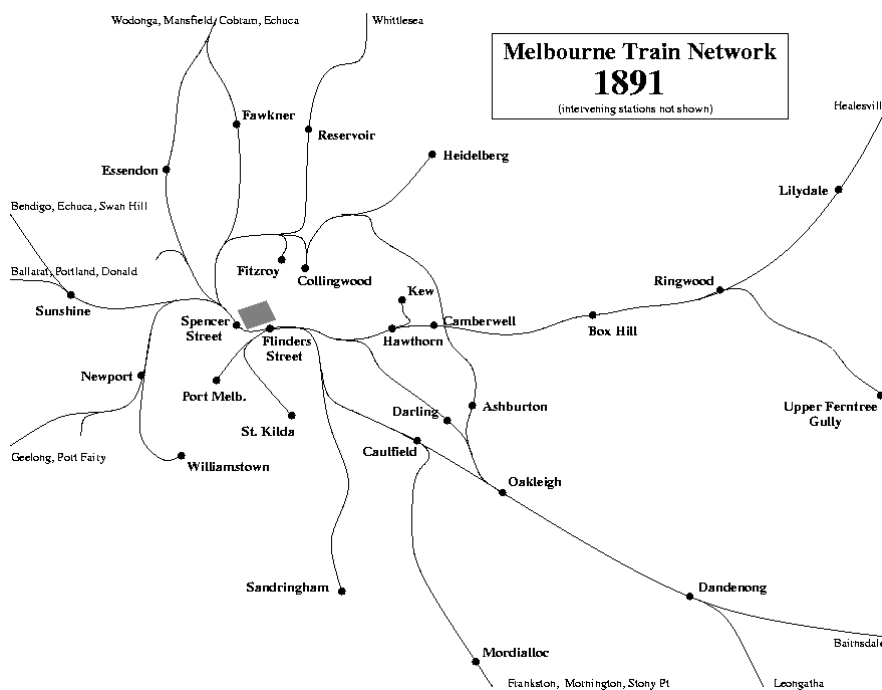
Map 4.3.1 Urban growth of Melbourne, 1851-2004



Source: Department of Planning and Community Development 2006, *Melbourne Atlas*

The construction of the metropolitan railway throughout the 1880s saw residential development expand to the east and south of the city centre, following the paths laid by the new railway system. This railway system was labelled at the time as ‘the Octopus’, and set the radial pattern for public transport infrastructure and associated industry location that exists in the city to this day. It is also worth noting that Melbourne’s rail and tramway construction, which began in the 1880s, was the result of a number of private ventures driven solely for profit. The two systems, tramcar and rail, were in competition with each other for customers and thus operated in the same areas. The rail system became state-owned when the private rail provider went bankrupt in the 1890s (Davison, G. 2004).

Map 4.3.2 Melbourne train network, circa 1891



Source: Public Transport Users Association, *Common urban myths about transport*, <<http://www.ptua.org.au/myths/suburbs.shtml>> sighted 19 December 2014

4.4 Melbourne in the early twentieth century

The Gold Rush of the 1850s and the subsequent ‘Marvellous Melbourne’ era of economic boom saw the Victorian economy specialising in mining and finance, and the establishment of the ‘Collins House’ Group of mining industry related companies. After the exhaustion of mineral finds in the initial years of the gold rush, which required only basic equipment, greater capital financing was required for heavier, more sophisticated mineral exploration (Blainey 1993). Melbourne was well placed to provide this

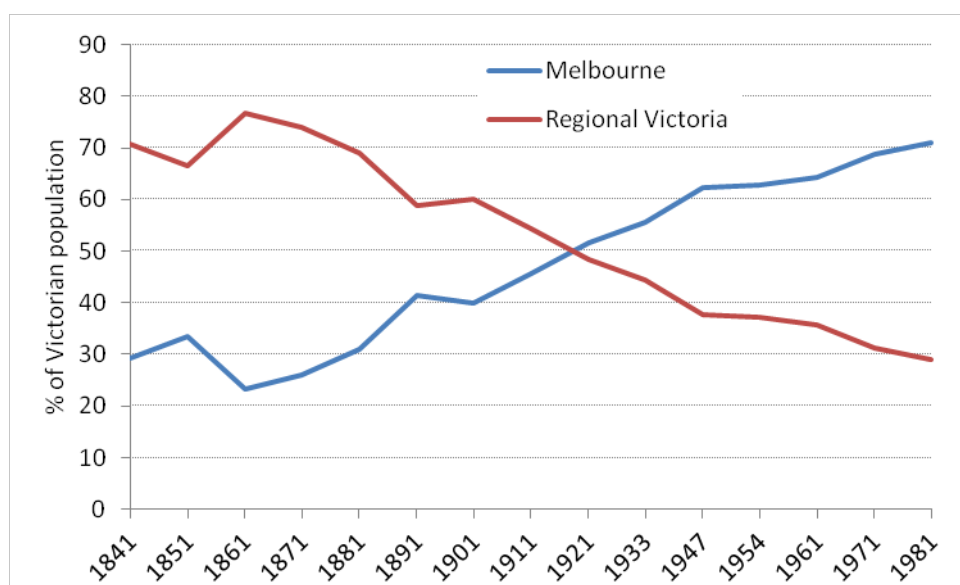
capital through the nascent banking and finance industries based in the city, together with money from ever increasing land speculation that occurred throughout the 1880s. The links between these 'Collins House' group of companies, as they became known, and the city remain today – of the five Australian multinational companies listed in the top 100 of Forbes Magazine Global 2000 companies list for 2012, three were headquartered in Melbourne. These were BHP (established 1885), National Australia Bank (established 1893), and ANZ bank (established 1835). International mining company, Rio Tinto, was listed in the Forbes 2000 as a British company, but its Australian arm is headquartered in Melbourne and was established in 1905 (Taylor, P et al. 2011).

Melbourne's late nineteenth century prominence in terms of population saw it become the de facto capital of Australia by the turn of the century. The city operated as the nation's capital from Federation in 1901, hosting the Australian Parliament before it relocated to the Australian Capital Territory in 1927. As a result of this, many major government owned enterprises were headquartered in Melbourne and remain so today, including: the Postmaster-General's Department (PMG) (now known as Australia Post), established by the Commonwealth government in 1901 to manage all domestic telephone, telegraph and postal services, (A later offshoot would become the national telecommunications corporation Telstra, founded in 1887 as the privately operated Melbourne Telephone Company, which after suffering a bankruptcy post the 'Marvellous Melbourne' era, was nationalised in 1900) (Davison, G. 2004); the Federal Serum Institute, founded in 1915, which later became Commonwealth Serum Laboratories or CSL); and the Commonwealth Bank, founded under the Commonwealth Bank Act 1911 and headquartered in Melbourne until 1916 (Taylor, P et al. 2011, p.2656).

The Victorian economy in the early twentieth century steadily transformed from one centred on mining towards one increasingly comprised of agricultural and manufacturing activity (Vamplew 1987). This economic change drove a population shift from the rural and regional areas of the state towards the capital city.

Chart 4.4.1 demonstrates this growing urbanisation of Victoria's population throughout the twentieth century, whereby Melbourne overtook regional Victoria in terms of population by 1921.

Chart 4.4.1 Capital city and regional proportion of Victorian population, 1841-1981



Source: Davidson, J 1986, *The Sydney-Melbourne Book*, Allen & Unwin, Sydney, p. 294

4.5 The 'long boom', 1945-1970

The economic conditions experienced in Australia from the end of World War Two in 1945 to the time of the international economic shocks in the early 1970s are often referred to as the 'long boom'. The Australian economy throughout this period was marked by high immigration intakes, full employment, low inflation levels and high levels of tariff protection for local industries. It was over this period that Melbourne cemented its position as Australia's manufacturing capital.

Most Australian manufacturing in the long boom years had a natural locational bent towards Australian capital cities—they provided a ready, large-scale market for the product, they were physically close to ports for quick export and most of the infrastructure required for industrial production was based in Australian capital cities (Logan, M 1966). Other reasons fuelling this prominence in the manufacturing industry include the greater consumption of items such as household appliances and motor vehicles over the post war years (Rich 1987). By the 1960s each of Australia's capital cities had developed certain sub industry specialisations. Sydney had a specialisation in metals, founding and coal working due to its proximity to Port Kembla and Newcastle, while Melbourne had a specialisation in textiles, clothing and footwear. As noted in Logan (1966) Melbourne post-war industrial growth appeared to be in labour

intensive manufacturing sub industries, while Sydney's industrial growth was centred on capital-intensive manufacturing sub industries.

Two key elements of Australian post war economic policy, tariff protection and migration, will now be examined in further detail, as both these policies had a marked effect on Melbourne's post war economy. Migration policies in particular, have been central to the economic change experienced in Melbourne over the 2000s, as later chapters of this thesis will show. Over the course of the twentieth century, both policies served the post war 'nation building' purpose, considerably increasing the country's population and industrial production capacity.

4.5.1 Tariffs

Historical studies have noted Melbourne's specialisation in manufacturing was borne out of protectionist industry policies dating back to colonial times, in an effort to bolster Victoria's economic and labour market stocks against that of the other colonies (Wilkinson 2010). Tariff protection was thus first introduced at the state level pre-Federation and established as part of a fully blown national economic policy by the 1930s (Conlon 1994). In keeping with other similar protection policies in place throughout other western economies, the tariff system in Australia evolved over the latter half of the twentieth century from initially seeking to over-rule the market in the immediate post-war years, to a form of market failure correction throughout the 1960s and 1970s and finally, informed by the rise of neo-liberal economic policies from the 1980s onwards, towards the creation of an environment in which the free market could fully flourish: a sequence branded by Freedman and Stonecash (1997) as 'overruling the market', 'externality justification' and finally 'laissez-faire' (p.172).

4.5.1.1 Impact of tariffs on Australian industries: A case study of twentieth century motor vehicle manufacturing

The announcement in early 2014 on the part of all multinational motor manufacturers based in Australia (Ford, Toyota and General Motors) of their intention to considerably scale down and/or totally cease production of Australian manufactured motor vehicles by 2017 has been a watershed for the Australian, Victorian and Melbourne economy (Wallace & Ferguson 2013). Motor vehicle manufacturing remains a prominent sub industry in the Melbourne economy, and the industry has had a long association with the state of Victoria. In 1901 the Ford motor company opened the first Australian motor vehicle manufacturing plant in Geelong, and by the mid 1920s both General Motors and Ford had established assembly plants—Ford in Geelong in 1925 assembling bodies and chassis from imported (Canadian) parts, while General Motors Holden (GMH) in Melbourne assembled vehicles using Holden bodies. From the outset, there was heavy political involvement in the Australian motor vehicle manufacturing

industry; post-war Prime Minister Ben Chifley convinced General Motors to build the first all Australian car (financed by the Commonwealth Bank), encouraging the development of components industries and employment growth in order to maintain the metals and engineering skills base that had developed over World War Two. Freedman and Stonecash (1997) note that the purpose of the burgeoning motor vehicle production industry was:

...not to build up the local content in assembled vehicles, but to exhibit national pride that had developed during the war and to publicize the fact that Australia possessed the capital and technology to produce a car (p.176).

High tariff barriers on imported vehicles allowed for the local production industry to flourish; further plants were established after the first 'Australian' Holden rolled off the GMH assembly line in 1948 in the other capital cities of Sydney, Brisbane, Adelaide and Perth. The proliferation of motor vehicle manufacturing companies located in Australia's capital cities throughout the 1950s and 1960s reflects the impact of import protection on the industry, without which the local industry would not have been sustainable or cost effective in the (comparatively) small Australian consumer market.

Overseas car manufacturers that set up plants in Australia in the 1950s included British car manufacturers such as Standard Motors and Nuffield (Morris), later to merge with Austin in 1952 to form the British Motor Corporation (BMC). Chrysler entered the Australian market in 1951, and Rootes and Volkswagen began local production in the mid-1950s. Australian interests bought out the British Standard Motor vehicles in 1952, becoming Australian Motor Industries (AMI) in 1958 and in turn began assembling Toyota vehicles in 1963 (Japan taking 50% equity). European manufacturer Renault purchased a Melbourne plant in 1966. Despite the interest and involvement of British and European car manufacturers in the 1950s and 1960s, General Motors Holden dominated the local car market (accounting for 48.8% of the market through locally made Holdens and imported GM vehicles by 1958) (Rich 1987, pp107-109).

Evidently, policies on import protection at the time (up to 1960s) were such that many international companies felt safe in entering the Australian market, in spite of a small market that could not afford the economies of scale. By the 1960s, however, the international motor vehicle production industry was beginning to alter in ways that are more familiar to us now: the Japanese manufacturers were beginning their domination of the market; international car manufacturers increasingly looked to cost savings through changes to production techniques requiring large capital investment; fewer models were produced; 'badge engineering' began between car firms (whereby branding arrangements between competing car manufacturers would be entered into, effectively selling local variants of the opposition company's car) and increasing global sourcing of components and parts. The 1960s saw further mergers

and closures of overseas manufacturers in Australia as they struggled to remain competitive – Volkswagen Australia, for example, ceased high volume manufacturing in 1968.

While tariff protection could be seen as successful in terms of creating jobs and a thriving manufacturing sector, by the 1960s the possibility of reducing tariff protection was first mooted (Webber & Weller 2001), as a protectionist economy began to be seen as unsustainable. Early efforts to reduce tariff protection began under the Whitlam Labor government (1972-1975), stalled somewhat under the Liberal Fraser government (1975-1983), and then began in earnest in the Labor Hawke-Keating years (1983-1996), with the advent of the industry plan formulated under the then Minister for Industry and Commerce, John Button.

4.5.1.2 Migration

The high levels of migration experienced in post war Australia assisted in both ‘nation building’ and satisfying demand for labour (Birrell, B 2003; Collins 2006). Much of this new migrant labour found employment in Victoria’s manufacturing sector; some historians have noted if it wasn’t for Australia’s ‘long boom’ import-protected economy and emphasis on manufacturing, the high rates of migration seen in Australia over the period would not have been possible (Snooks 1987, p286).

The high rates of migration experienced in Australian society in the post war years ensured a ready supply of labour to the tariff protected industries—particularly motor vehicle production and Textile, Clothing and Footwear (TCF) manufacturing. The motor vehicle assembly industry was largely dominated by male non-English speaking background (NESB) workers (Collins 2006), while the TCF sector was a feminised labour force (Webber & Weller 2001). Migrant labour was also largely urbanised and in the Melbourne context settled (for the most part) in inner city industrial areas in the city (Chambers & Mayne 2004; Hugo 2008).

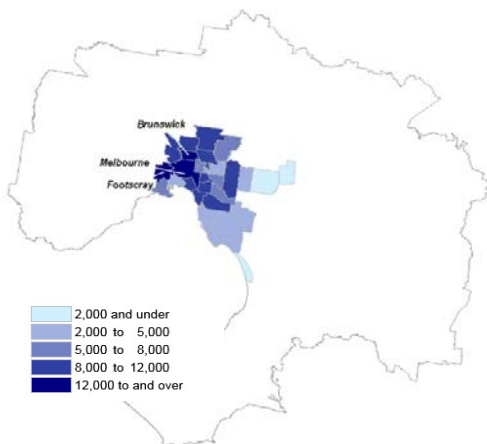
The effect of the import replacement tariff protection on the Victorian economy over the post war long boom period was profound; Victoria had a greater share of national manufacturing employees than of population since Federation (Logan 1966). In 1971, manufacturing accounted for 32.7% of the metropolitan Melbourne workforce (Watkins 2009, p.1555). By way of comparison, in 2011 it stood at 11.3%.

4.6 Historical location of industrial activity in Melbourne

In a spatial sense, since the 1950s industrial activity has steadily moved out of inner city areas and towards what serves as the urban boundary. The sequence of maps on the next pages demonstrates the movement of manufacturing employment over the twentieth century in Melbourne. By 1971 the greatest

densities of manufacturing employment included Broadmeadows to the North West and Dandenong in the city's south east. These two areas remain industrial strongholds of the city.

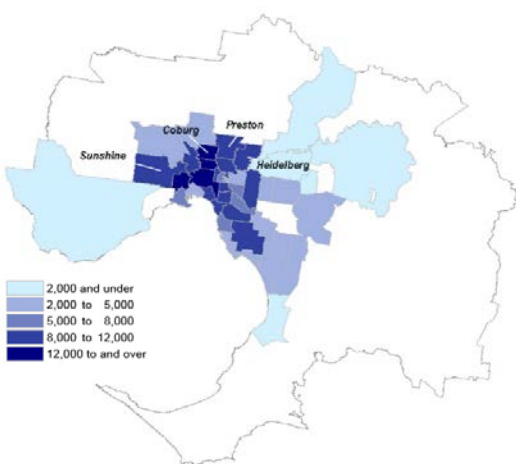
Map 4.6.1 1947 Manufacturing employment, Greater Melbourne



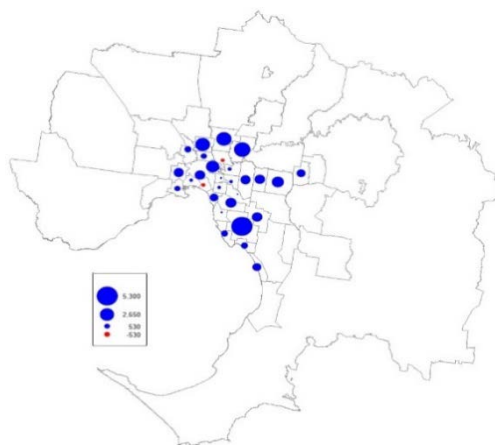
Maps 4.6.1 to 4.6.8.

Source: ABS Census 1947, 1954, 1961, 1966, 1971

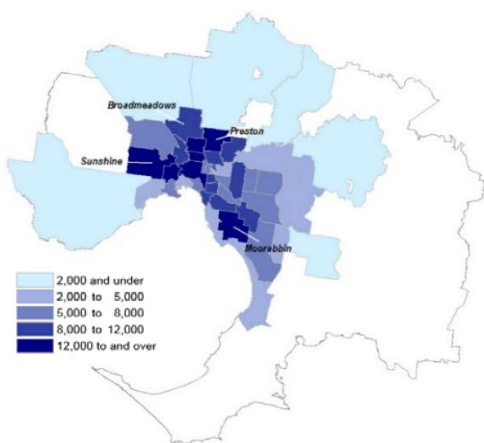
Map 4.6.2 1954 Manufacturing employment, Greater Melbourne



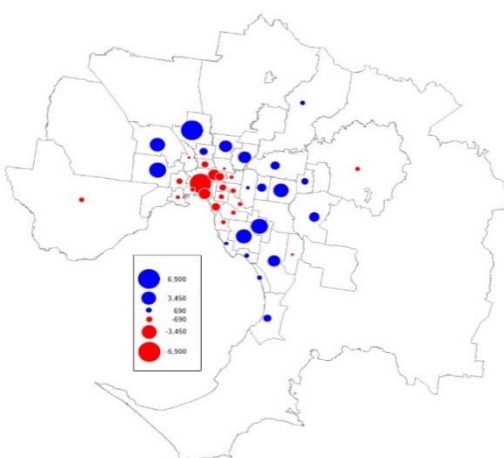
Map 4.6.3 1947-1954 Manufacturing employment change, Greater Melbourne



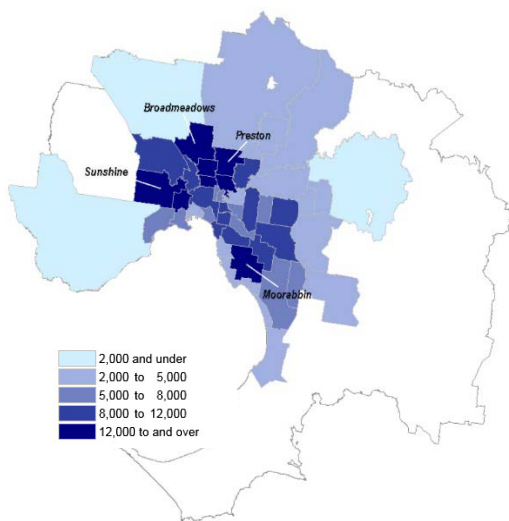
Map 4.6.4 1961 Manufacturing employment, Greater Melbourne



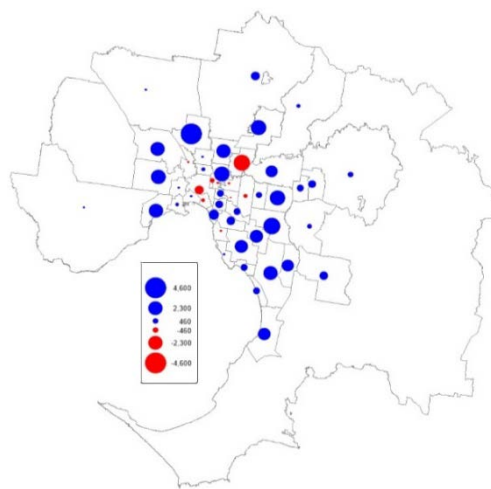
Map 4.6.5 1954-1961 Manufacturing employment change, Greater Melbourne



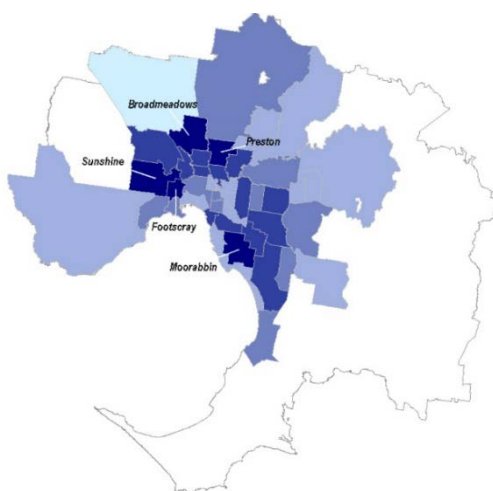
Map 4.6.6 1966 Manufacturing employment, Greater Melbourne



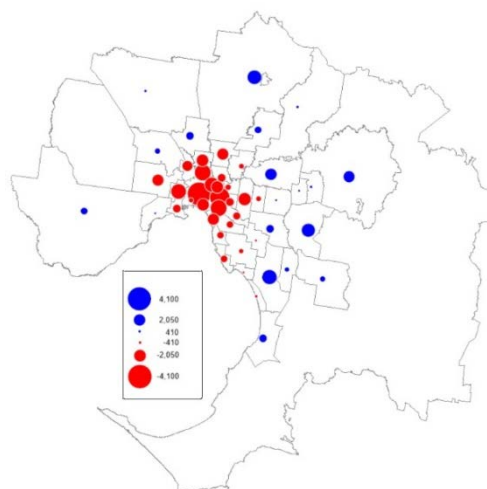
Map 4.6.7 1961-1966 Manufacturing employment change, Greater Melbourne



Map 4.6.8 1971 Manufacturing employment, Greater Melbourne



Map 4.6.9 1966-1971 Manufacturing employment change, Greater Melbourne



4.7 1970-1980 – economic reform and change as Sydney emerges as Australia’s main corporate centre

Table 4.7.1 Location of the Top 100 Companies in Australia (by capital city) 1953-1983

Capital city	1953	1963	1973	1978	1983
Sydney	37	44	50	52	50
% of Australia	37.76	44.90	52.08	52.00	50.51
Melbourne	50	47	39	38	36
% of Australia	51.02	47.96	40.63	38.00	36.36
Adelaide	6	3	3	5	7
% of Australia	6.12	3.06	3.13	5.00	7.07
Brisbane	4	2	3	4	4
% of Australia	4.08	2.04	3.13	4.00	4.04
Perth	1	2	1	1	2
% of Australia	1.02	2.04	1.04	1.00	2.02

Source: Wilkinson J, *Sydney and Melbourne: An economic Overview* Briefing paper No 7/2010 p.6 taken from Taylor and Thrift *The Spatial concentration of Large Company Ownership and Control in Australia* Australian Geographer Vol 15, No 2, Nov 1980 p.100 and O’Connor and Edgington *Producer services and metropolitan development in Australia* in Daniels (ed.) *Services and metropolitan development: international perspectives* 1991

Until the 1960s Melbourne was regarded as Australia’s corporate capital; Melbourne had the greatest proportion of Australia’s top 100 companies in 1963, as demonstrated in the table above.

The increase in the numbers of Australia’s leading companies headquartering in Sydney, begun in the 1960s, accelerated rapidly in the 1980s under the broader macroeconomic reforms undertaken by the Hawke Labor government, which was elected in 1983. These neo-liberal economic reforms included the deregulation of the Australian financial system, the floating of the Australian dollar and the abolition of tariffs. The effect of these broader economic policy changes was to see a ‘reordering’ in terms of Australia’s major manufacturing and financial services industries based in Sydney and Melbourne. In terms of the removal of tariff barriers, as outlined in the Hawke government’s industry plan (known also as the Button plan after the Minister for Industry and Commerce, John Button), the initial impact of this reform was felt in Sydney’s manufacturing sector rather than Melbourne’s. Indeed, Melbourne’s manufacturing employment levels increased during this time, due to consolidation of the major companies together with the exit of many automotive manufacturing plants based in other Australian capital cities. Sydney, by contrast, was already home to the Reserve Bank headquarters and Australia’s main Stock Exchange prior to the Hawke government’s economic reforms. The advent of 1980s banking deregulation, allowing foreign banks to operate in Australia, saw Sydney’s growing banking

and finance sectors expand considerably (Daly, M & Pritchard 2000). According to Fagan, by the late 1980s 'At the national level, Melbourne had fallen well behind Sydney as the leading location for Australian corporate headquarters but the largest manufacturing corporations were still predominately controlled in Melbourne' (Fagan, R 2000, p.150).

O'Neil and Fagan's examination of the impact of capital flows on Australian corporations over the last three decades of the twentieth century (2006), demonstrates the broader impact of economic changes over this time. In the 1970s, Australia's top companies were comprised of manufacturing firms (ICI, Tooheys, Howard Smith, Tubemakers, Ampol, Rickett and Coleman and Arnotts); miners (North Broken Hill, Coal and Allied); retailers (Myer Emporium, GJ Coles, Grace Brothers); an airline (Ansett); publishing companies (Herald and Weekly Times and John Fairfax) and a bank (Bank of NSW). Large unlisted or private companies that controlled capital flows at the time included: the Fairfax and Packer publishing groups; overseas controlled motor vehicle manufacturers (e.g. Ford, General Motors and British Leyland) and petroleum refineries (Shell Mobile and Esso); in addition to the Collins House group of mining companies (BHP and Rio Tinto), both of which were owned at the time by British interests.

By the mid-1980s the top 100 company list had changed markedly and reflected the changing 'mergers and acquisitions' style corporate takeover environment, as many of the previously mentioned specialised industrial companies had been consumed by conglomerates: Pacific Dunlop had diversified into clothing manufacturing; Goodman Fielder and Petersville Sleigh into food manufacturing and Boral into building products. Investment companies such as Industrial Equity, Bell Resources, Elders IXL, Quintex, Adelaide steamship and Equiticorp also entered Australian Top 100 company list at this time.

4.8 Melbourne during the 1980s

What now follows is a more thorough explanation of the factors determining policies and plans affecting the Melbourne economy over the 1980s. This is central to one of the main questions of this thesis, as it is contended that these policies, relating to the development and promotion of the city centre over this time, were instrumental in many of the economic and spatial outcomes of the city during the 2000s. This section begins with an outline of Victorian state governments from 1982 to 2010, examining the economic development and planning policies that relate to the Melbourne economy.

4.8.1 The policy environment of Melbourne: The Cain-Kirner Labor government

At the state government level, the 1980s saw the return of the Labor party to power, after spending twenty seven years in opposition, led by John Cain (1983-1990) and Joan Kirner (1990-1992), It was largely seen as a reforming government across many policy areas, as '...in its first term and half Labor

put in place one of the most extensive programmes of political and economic change to be found anywhere in post-war Australia' (Costar, BJ & Considine 1992, p.1).

4.8.2 Development of the public works program aimed at arresting the central city's decline

Many of the policies relating to the central city of Melbourne that were developed by the Cain government were a response to data and information papers on the role of the city centre throughout the 1970s and early 1980s promulgated by the key planning agency, the Melbourne and Metropolitan Board of Works (MMBW). The decline in manufacturing across inner Melbourne that commenced in the 1960s occurred in parallel with increasing population movements towards Melbourne's southern and eastern suburbs (McLoughlin, J Brian 1992). A review of the urban studies and geography related literature of population and employment patterns in Melbourne throughout the 1970s and early 1980s demonstrates that many academic experts concluded that the number of jobs, employment and residents based in Melbourne's inner city was in a state of inexorable decline (Edgington 1982; Logan, T 1986; McLoughlin, J Brian 1992) and hypothesised that the inner city areas would become depopulated while the outer suburban urban sprawl would continue apace. Such a scenario was mentioned explicitly in the state government's metropolitan policy released in August 1987, *Shaping Melbourne's Future*, which noted: '...an increase in suburbanisation of workplaces and a continuing shift of employment opportunities from the centre and west to the east and the south.' (Ministry for Planning and Environment 1987, p8). The preference for housing throughout the eastern region of Melbourne during the 1970s and 1980s and subsequent increasing residential population, led many geographers and city planners to believe places of employment would follow suit.

The policy response to these forecasts – a wide-ranging city-based public works program that included an extensive rebuilding of the Melbourne Cricket Ground (MCG), the establishment of the National Tennis Centre (now Melbourne Park) and rezoning and development plans for residential development in what is now known as the Southbank and Docklands precincts – was prominent in the wider social and economic reforms put in place by the Cain-Kirner state government. The Cain years also saw the responsibility for public works undertaken within the City of Melbourne move from the municipality to the State Planning Department, allowing for a series of public and private projects based in the central city to be approved and commenced without being encumbered by local government planning approval processes (Dunstan & Young 2011).

4.8.3 The emergence of the place marketing of Melbourne

The 1980s also saw the rise of place marketing and 'urban entrepreneurialism'. The Cain government's urban renewal projects, such as the construction of the Tennis Centre and Docklands/waterfront projects

can also be seen through this prism (John, Stewart & McDonald 2013; Shaw 2013). The broader emergence of place marketing strategies for many of the western world's cities on the part of their local and regional governments was a result of the expansion of post-war marketing techniques first developed in the private sector, initially to promote physical products for consumer markets into non-commercial spheres such as the non-profit and government sectors. Its emergence in the 1980s reflects the broader competition-based environment across many Western neo-liberal economies – cities were now in competition with each other for markets such as tourism and footloose capital (Kavaratzis & Ashworth 2008, pp.154-158). The Cain government's initial foray into place marketing and its associated projects, such as the development of the World Trade Centre and Docklands/Waterfront development, were in keeping with similar projects in other 'deindustrialising' western cities such as San Francisco, Boston, London and Tokyo (John, Stewart & McDonald 2013, p.165; Shaw 2013, p.1).

4.9 Melbourne during the 1990s – the Kennett era

Victoria was experiencing a very severe economic recession in the early 1990s when the Kirner government was swept from power and replaced by the Liberal Kennett government (1992-1999). The Kennett government implemented an ideologically-driven neo-liberal agenda, marked by large scale privatisation of various state owned entities and utilities, public sector downsizing, competitive tendering of government services and deregulation. Throughout its time in office the Kennett government maintained a distinctly pro-business agenda, and this informed their approach to various policy portfolios, including economic and regional development and urban planning.

During the Kennett years the Federation Square project was undertaken and the Docklands football stadium was built (Dingle & O'Hanlon 2009, p.31). The Crown Casino complex and upgrades of the Melbourne Exhibition centre were also completed. The Citylink project, a toll road linking south east Melbourne to the city centre and the Tullamarine (airport) freeway were announced, built and in operation all within the Kennett government's term of office. The Kennett years also saw a consolidation of the events calendar, began in the Cain-Kirner years, which served to promote the city-enticing tourist activity and spending and creating arts and recreation-centred jobs.

One of the key reforms of the Kennett era was in the area of local government. Local government boundaries were restructured, reduced from 53 to 31 in metropolitan Melbourne and the abolition of council elections 1993 and 1997, after which time fresh council elections had taken place throughout Victoria replacing the government appointed commissioners that ran municipalities in the interim. The overall economic, social and political agenda for the government, *Agenda 21*, was formulated within the right wing think tank the Tasman Institute. The metropolitan planning strategy for Melbourne, *Living*

Suburbs, was released in 1995. It followed the release of *Creating Prosperity: Victoria's Capital City Policy*, which was produced in 1994, in conjunction with the City of Melbourne.

The importance placed on Victoria's economic performance and business environment during the Kennett years is evident from the planning policy statements of the time. The initial discussion in the key document, *Living Suburbs*, for example, promotes the role of the private sector in optimising the state's economic growth, with the construction of the then new Melbourne Exhibition Centre project considered central to this.

4.9.1 The continuation of Melbourne-centred place marketing and investment attraction policies throughout the 1990s

Outside of the infrastructure projects, a key plank in the place marketing campaign for the city was the then Department of State Development's *Advantage Melbourne* campaign, undertaken by the Investment Recruitment and Promotion Unit and intended to attract footloose manufacturing capital and foreign investment into the city. Engel's study of the campaign and its effectiveness (2000) establishes the campaign's place marketing origins and concludes that while it had little or no effective impact on the increase in investment and jobs in Melbourne, as a marketing campaign it was successful and assisted in establishing the Kennett era slogan: 'Melbourne is a great place to do business'.

Additionally, place marketing or 'urban entrepreneurialism' was promoted heavily in neo-liberal think tanks at the time, which set an approving tone for much of the Kennett government's economic policies (Costar, B. & Economou 1999; John, Stewart & McDonald 2013).

Furthermore, Kennett era policy statements placed great store on the operational potential of the Melbourne Exhibition Centre as a key facility to attract overseas business and investment through trade fairs and the like. Similarly, Melbourne's 'calendar of events' was promoted as a means of attracting tourism to the city, along with promoting Melbourne as the 'culture capital' through the arts policy statement *Arts 21*, which was heavily inclined towards seeing the arts sector as an industry and an important tool for generating tourism to Victoria (Glow & Johanson 2007).

4.9.2 The continuing promotion and development of the city centre during the Kennett era

The central city strategy of the time, *Creating Prosperity: Victoria's Capital City Policy*, launched in conjunction with the City of Melbourne, outlined the vision for Melbourne's city centre as the key economic driver for the Victorian economy. The document discusses the need to increase the residential component of the city and to establish Melbourne as: a major regional headquarters for international companies; a centre for knowledge and innovation (led in part by the inner city location of health and

science research and development centres such as the Walter and Eliza Hall Institute (WEHI)); a services centre covering professional and business services, tourism, international education, entertainment and sport. Much of the actual commitments and actions outlined in the *Creating Prosperity* strategy document centred on a public infrastructure program that was city centre or inner-city based, around: Federation Square; the Melbourne Exhibition Centre; Crown Casino; extension of the tennis centre; the redevelopment of docklands and the Melbourne Sports and Aquatic Centre. The major projects were seen as key in the promotion of Melbourne as a centre for business attraction and investment, and tourism.

The document also mentions that the relationship between Melbourne and Sydney has been ‘...marked by competition and rivalry.’ and calls for a new approach:

A Melbourne/Sydney economic region would utilise the cities’ common features and differences. Sydney’s strengths in commerce and finance, and its role as the national ‘gateway’, would be complemented by Melbourne’s easier access, transportation and port facilities, as well as by its cultural, educational and sporting prowess (p.15).

The relentless promotion, during the Kennett era, of Melbourne as a key place to do business and the centre of Victoria’s economic revival, has led some political scientists to see this as a key idiosyncrasy of the then Premier, and one of the main reasons behind his electoral downfall in 1999. (Economou 2006) However, taking a longer term view, ‘threads’ or lines can be seen between the capital city planning and policies made in the Cain-Kirner years and those made in the Kennett era. For instance, many of central city’s public works were first touted during the Cain-Kirner years, along with the notion of establishing an events calendar for the city (O’Hanlon 2009). More broadly, these policies reflect how state governments focused economic development efforts away from regional development and towards major projects and investment in capital cities to adjust to the changing post-tariff environment of the 1980s and 1990s that increasingly saw economic activity based in the major Australian cities (Searle, Dodson & Steele 2011).

4.9.3 Australian cities as gateways

This concept of Australian capital cities acting as ‘gateways’ reflects the research and discussion taking place in academic/geographic circles at the time. In 1991, O’Connor and Eddington published *Producer services and metropolitan development in Australia*, positing that Melbourne now acted as Australia’s major manufacturing centre, and Sydney, benefitting from macro-economic policy changes that took place in the 1980s, was the nation’s producer services capital. The article included a discussion of the importance of cities as economic gateways. Melbourne was an important gateway in terms of trade and shipping throughout the long boom years, particularly when ships were the main form of international

transportation. Sydney's physical location on the Pacific basin, and the increase throughout the latter half of the twentieth century of US and Japanese based companies trading with Australia, made it ideally placed in this 'shift'.

In this world (post 1960s) a position on the Pacific Ocean was much more fortuitous than an outlet to the Southern Ocean and so Sydney assumed the role as Australia's international gateway. Sydney has become the international finance centre for Australia, while Melbourne is the nation's major manufacturing centre (p. 221).

The prominent narrative during the 1990s regarding Melbourne's manufacturing-centred, or 'rustbelt', economy was in part propagated by Premier Kennett himself, seeking to place distance between his government and that of the previous Labor government, and define a new emphasis on the services over traditional manufacturing-based industry and employment.

The Kennett government has done a great deal of damage by relentlessly pushing the myth that Melbourne was a bankrupt and dead city under Labor, only recently liberated onto the world stage. Melbourne has always been a great city (Dovey 1997, p.37).

The notion that Melbourne had a dying 'rustbelt' economy in the 1990s was exaggerated: Juriedini and Healy's study (1998) on employment by industry patterns for Sydney and Melbourne from 1986 to 1996 found that while Sydney had indeed consolidated its position as Australia's producer services capital with employment increases in the Services to Property and Business sub industry, Melbourne, in spite of predilections and commentary at the time to the contrary, was consolidating as an industrial centre with manufacturing employment falling only slightly and with less Melbourne-based manufacturing jobs lost in comparison to state and federal public sector jobs. Juriedini and Healy conclude that Melbourne's image as a 'dying' 'rust belt' industrial centre was incorrect – Melbourne had weathered industrial decline better than Sydney in employment terms. This was partly a result of consolidation during the 1980s when the major motor vehicle suppliers closed down plants in Sydney, Brisbane and Adelaide and bolstered operations in Melbourne and Geelong. Additionally, Kennett himself proved to be pragmatic regarding the implementation of neo-liberal based economic reforms in 1990s. Despite the political rhetoric, he was instrumental in lobbying the federal Howard government to hold off on further tariff cuts recommended by the Federal Industry Commission (Conlon 1994, p.231). Further tariff cuts to the textile, clothing and footwear industry during the 1990s would have increased the already high unemployment levels that Melbourne and Victorian economies were experiencing.

4.10 The Australian political and economic environment throughout the 2000s

At the national level, the Liberal government led by John Howard was in power from 1996 to 2007, when the Labor Party, led by Kevin Rudd, was returned to office. The economic successes over the Howard years have seen the period referred to as (another) 'long boom', marked by a period of very low unemployment levels, high immigration intakes and increased mining activity. Throughout much of the 2000s, all Australian governments at the state level were controlled by the Labor Party (Stimson 2011, p.30).

A window into the state of the Australian economy at the time can once again be gained through the list of Australian top 100 companies (O'Neill & Fagan 2006). In 2004, the global mining companies BHP Billiton and Rio Tinto topped the list, along with major retailer Coles Myer, bank groups ANZ, NAB and Westpac, breweries Fosters and Lion Nathan and the media giant News Corporation together with a series of recently (1980s and 1990s) privatised formerly State owned enterprises: Telstra; General Insurance Office (GIO); Commonwealth Bank; Tabcorp; Commonwealth Serum Laboratories (CSL); Qantas and the Australian Wheat Board (AWB). Corporatized mutual societies such as AMP and IAG made the top 100 in 2004, together with property investment companies such as Westfield and Stocklands (shopping centres), Macquarie Bank (freeways and airports) General Property Trust (GPT) (office buildings); services companies such as Mayne (health), Aristocrat Leisure and Sky City Entertainment (gambling); a large number of portfolio investment groups and Australia's large scale mining companies such as Woodside, Placer Dome, Gold and Western Mining Company (WMC) (nickel). Only 18 companies in the 1976 list survived to make the list in 2004, including Colonial Sugar Refining Company (CSR), Woolworths Lend Lease, John Fairfax and Optical Prescription Spectacle Makers (OPSM) (O'Neill & Fagan 2006, p.208).

4.11 The Victorian Bracks/Brumby Labor government, 1999-2010

A surprise swing away from the incumbent Liberal Party in the October 1999 Victorian State election, particularly in regional and rural Victoria, led initially to a hung parliament. Labor leader Steve Bracks was able to form a minority government with the assistance of three independents and favourable results for Labor in a series of subsequent by-elections. Bracks and the Labor Party were returned to office convincingly in 2002 (also known as the 'Brackslide' (Costar, B. & Hayward 2007, p.109)) and again in 2006. In 2007, Bracks stepped down as Premier and was replaced by the then Victorian Treasurer, John Brumby. John Brumby led the Labor Party to the 2010 election, which was narrowly lost to the Ted Baillie led Liberal Party. In all, Labor held power in Victoria under Bracks and Brumby for 11 years,

the longest continuous period in office for the Victorian Labor Party since its inception (Costar, Brian 2007, p.691).

In comparison to the previous incumbent's approach to the role of Victorian Premier, Bracks' low-key and milder public presence has seen him variously described as a 'nice guy' (Costar, B. & Hayward 2007, p.89) and a 'quiet achiever' (Hayward 2006, p.382). In terms of policy settings, however, much of the Kennett-era neo-liberal approach remained under the powerful auspices of Treasurer John Brumby. As Costar and Hayward (2008) note:

He (Bracks) is the nice guy who won against the odds, the premier of the people, someone who managed to lead without making many major policy changes, leaving the more difficult decisions to be handled by ministers hemmed in by conservative financial settings and a powerful Treasurer (Brumby) successfully pursuing another agenda heartily approved by business, but not recognisably Labor (p. 111).

4.11.1 Policy environment of Bracks/Brumby era

The key policy statement expressing the Bracks' government's vision was *Growing Victoria Together* (GVT), released in November 2001. GVT established a series of vision statements the government wished to achieve, along with progress measures and priority actions and took a 'triple bottom line' approach, outlining directions across economic, social and environmental policy areas (Adams & Wiseman 2003). This was followed up in April 2005 by *Growing Victoria Together II* (GVT II), a 'refreshed' version of the previous policy statement (Wiseman 2006).

GVT and GVT II covered a range of economic and environmental actions as well as social policy related statements concerning education and health services. However, as alluded to in Costar and Hayward's earlier comment, the Bracks/Brumby term of office was marked by a distinctly pro-business and neo-liberal tinged economic agenda, that differed little (if at all) from that of the previous Kennett government. The Economic Statement released in April 2004, *Victoria: Leading the Way*, listed 18 'priority actions' the government was committed to undertaking in order to 'Build...on the state's competitive strengths' (p.5). These included major infrastructure projects such as the channel-deepening of Port Phillip Bay and the redevelopment of the Melbourne Wholesale Market, in addition to a series of business tax cuts and red tape reduction measures such as lowering WorkCover (now WorkSafe) costs and streamlining the property development approval process.

The keen use of public-private partnerships (PPPs) to fund major infrastructure and public works programs throughout the Bracks/Brumby era is an example of the business-friendly (neo-liberal) economic approach, and '...marked a watershed in PPP implementation and development' (English 2006, p.252). Originally contrived in the 1980s as a means of achieving public works funding without

overreaching the limits set by the Australian Loan Council, the use of PPPs was bolstered over the Kennett years when it was thought that ‘...increased private-sector involvement in infrastructure services could drive growth and efficiency’ (Maguire & Malinovitch 2004, p.28). PPPs essentially served as an outsourcing arrangement between the private and public sectors for major infrastructure projects, with PPP arrangements allowing for risks associated with large construction costs to be transferred to the private sector. By 2006 most infrastructure projects in Victoria were a result of PPP arrangements, including the Mitcham-Frankston Freeway (now Eastlink), the Royal Melbourne Showgrounds redevelopment, the Royal Women’s Hospital redevelopment, the above mentioned Melbourne Wholesale Market redevelopment and channel deepening scheme, and Victoria earned the mantle of the ‘...dominant Australian jurisdiction in relation to both the number of PPP projects and the total net present cost of these projects’ (English 2006, p.258).

4.11.2 Economic development policies of Victoria and Melbourne over the 2000s

The continuation of economic development and place marketing policies established by earlier Victorian State governments can be seen in the 2004 Economic Statement with statements such as: ‘Leading the way in major events and conventions’ and ‘Promoting Victoria as the destination of choice for international investment’, although perhaps with a little less emphasis on Melbourne itself. Wording within government statements of the time tends to mention ‘Victoria’ over ‘Melbourne’, perhaps reflecting the surprise support the Labor party received from regional and rural electorates in the 1999 election victory, and Labor politicians were careful to refer to ‘all Victorians’ in their policy planning to emphasise the differences between themselves and the thoroughly pro-metropolitan Kennett (Adams & Wiseman 2003, p. 13; Economou 2006). The Bracks government established Invest Victoria, a new body replacing the Investment Recruitment and Promotion Unit, to attract international investment, and also developed a new Convention Centre, housed next to the existing Exhibition Centre, in order to attract global trade conferences and exhibitions. Both these policy initiatives demonstrate the continuation of the place marketing of Melbourne that had its inception back in the 1980s.

4.11.3 Victorian state government industry policy in the 2000s

In keeping with developments in industry policy throughout western economies that evolved over the latter half of the twentieth century (Freedman & Stonecash 1997, p.172), the state government industry policy throughout the 2000s focussed on addressing market failure (rather than overt protectionism) (Conlon 1994, p.149). Industry statements were rebranded as ‘innovation’ statements and in October 2002, the state government launched the *Victorians. Bright Ideas. Brilliant Future* statement, the centrepiece of which was a five year \$310 million Science, Technology and Innovation funding initiative (Known as STI) to assist in science and technology based businesses invest in technologies,

build ‘world class facilities’ and to contribute overall to research and development commercialisation opportunities. The Bracks government’s approach to industry policy was indeed in keeping with the changing nature of industry policy more broadly, from direct tariff protection to arrangements such as assistance for exports, assistance for research and development and industry specific arrangements (Conlon 1994, p.146). All these measures were adopted by the Bracks government, while industry specific arrangements included special assistance to the motor vehicle industry and the burgeoning biotechnology sector. Other ‘assistance’ measures included the aforementioned investment attraction unit, often criticised for ‘encouraging rent seeking behaviour’ on the part of the private sector, and leading to ‘beggar thy neighbour, race to the bottom’ activity as jurisdictions compete with each other for ever decreasing returns (Stilwell 1998).

4.11.4 The Melbourne place marketing campaign of the 2000s – Melbourne as a creative city and the influence of Richard Florida

Shortly after the release of Melbourne 2030 in 2002, the ‘geography world’: regional economists; planners and analysts; and state and local government policy advisors experienced the ‘Florida revolution’ (Berry, M. 2005) after the publication of Richard Florida’s work *The Rise of the Creative Class* (2002). As mentioned earlier, Florida’s work sought to cast the impact of globalisation in terms of the growth of knowledge cities, which was underpinned by a highly mobile and selective professional and tertiary educated ‘creative class’ of workers who could choose where to work. Thus it was up to cities (and their town planners, policy makers and politicians) to make their city environments’ conducive to creative class members. Florida’s creative class theory did not go unnoticed in Melbourne in the 2000s, either in university departments (Berry, M. 2005; Berry, M. & Fleming 2003), or the state government of the time.

Florida’s thesis on creative cities, with its emphasis on skilled workers, held great appeal for policy makers based in Victoria as it neatly dovetailed into the state’s broader innovation and technology policy approach (Birrell, B, Healy & Smith 2006, p.21). Indeed, Richard Florida himself was actually flown to Melbourne in 2005 for a series of speaking engagements and in a foreword he wrote in a book promoting Melbourne’s Docklands project, wrote:

‘...an increasing number of creative types will begin to congregate in Melbourne, which will further increase the capital of the region, which will further attract creative types and grow the native creative population, and so on and so on, in an extremely beneficial virtuous cycle. I wouldn’t be at all surprised to see Melbourne emerge as one of the defining global creative centres of the 21st century – and that transformation will be made possible in large part by the creative spirit that the Docklands reconstruction both embodies and enables’ (quoted from Birrell, B, Healy & Smith 2006, p.22).

One of the main criticisms of Florida and his work by his peers, is that he himself has become something of an industry and made himself available as a consultant to advise regional governments and authorities. More locally, the association between Melbourne and Richard Florida's definition of creative cities and workers was criticised in academic circles, on the industry and innovation policy front (Birrell, B, Healy & Smith 2006) and on the urban planning and Docklands development front (Shaw 2013). However, the appeal of marketing Melbourne as a knowledge city remains to this day, with the City of Melbourne promoting an annual 'Melbourne Knowledge Week' from 2009, and a dedicated website outlining the importance of knowledge industries (listed as Advanced manufacturing, Biotechnology, Design and creative industries and Information Communications and Technology) and the potential that lies within the education and research facilities provided by Melbourne's major (and mainly City of Melbourne located) universities (City of Melbourne 2014).

4.11.5 The Victorian economy throughout the 2000s

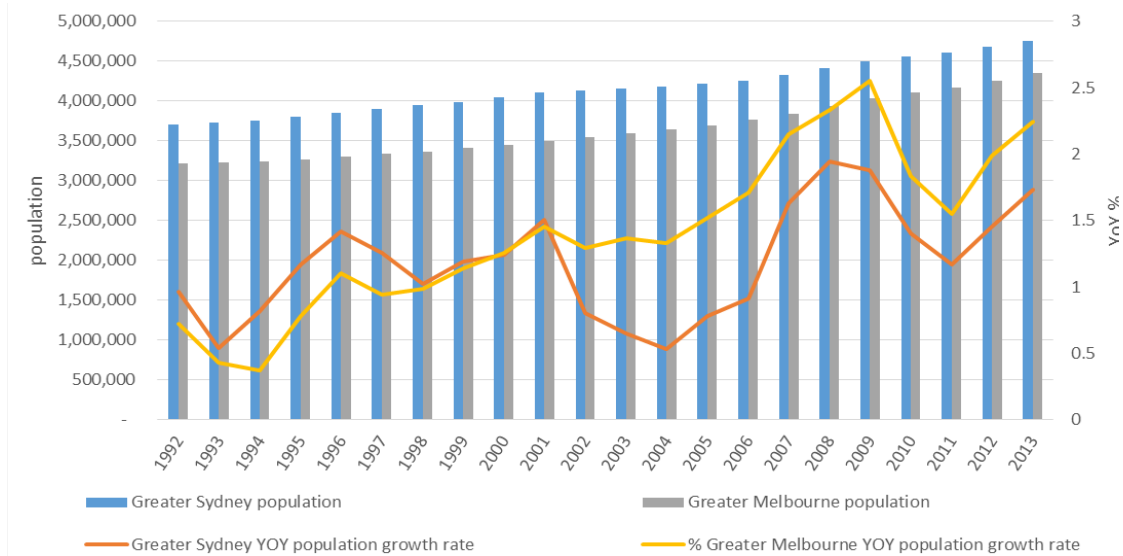
The Victorian economy over this period too was buoyant and state government economic statements, such as the previously mentioned *Leading the Way*, made much of the favourable economic indicators marked by low unemployment, high immigration, record levels of building approvals and construction activity and GSP growth. While Victoria was particularly badly affected by the drought Australia experienced between 2000 and 2009, and this reflected in the state's poor agricultural commodities exports over the period, it experienced a boom in services-related exports, in particular in education services (or international education).

4.11.6 Melbourne and Victoria's economic performance 2001-2011

The Bracks and Brumby years were also marked by very high levels of migration to Victoria, and these new migrants settled mainly in Melbourne. The context for this was a combination of not only a buoyant employment market, but also a skilled migration policy set at the federal level that saw points towards gaining permanent residency tied with locally gained qualifications, setting the numbers of enrolments in vocational education and training (VET) courses in areas such as hairdressing and hospitality soaring, until visa changes were made in 2008. More broadly, the international education sector, growing at

record rates throughout the 2000s, also contributed to Victoria’s record population increases contrasting with the net decreases of migration that occurred in the recession-hit Kennett years in the 1990s).

Chart 4.11.1 Year on year population growth rates, Greater Sydney and Greater Melbourne, 1992-2013

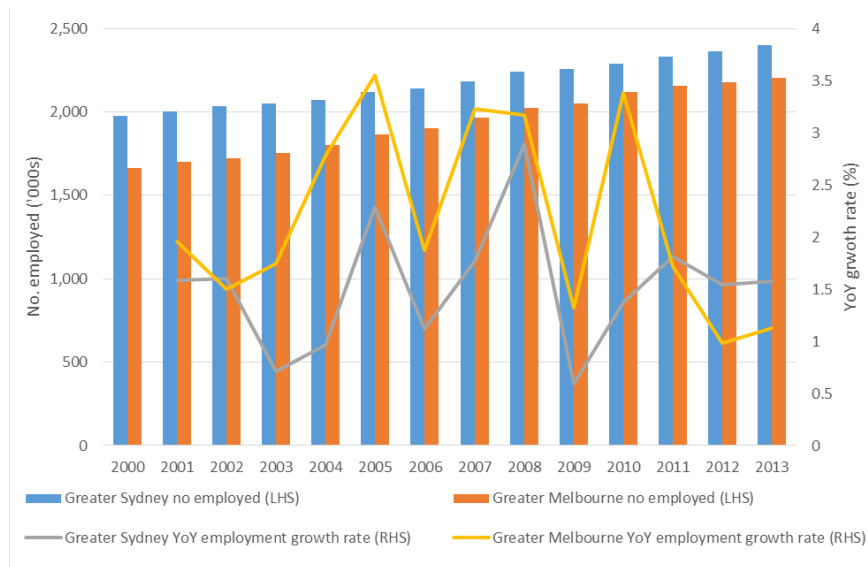


Source: ABS 2013, Regional Population Growth, Australia, 2012-13, cat. no. 3218.0, ABS, Canberra

4.11.7 The decline of Sydney over the 2000s

Conversely, while Melbourne was experiencing boom-like economic conditions, Sydney experienced an economic decline. A comparison of economic indicators such as those listed above— population growth rates, building approvals and construction activity and employment growth—all showed New South Wales growth lagging behind that of Melbourne.

Chart 4.11.2 Year on year employment growth rates, Greater Sydney and Greater Melbourne, 2000-2013



Source: ABS 2014, Labour Force, Australia, Detailed, cat. no. 6291.0.55.001, ABS, Canberra

The confidence that Sydney displayed around the year 2000 after hosting the Olympics appeared to have evaporated. Possible explanations for this include the heightened impact of the dot-com crash of 2001 (reflecting Sydney’s larger ICT workforce that assists the finance sector compared to other states); high cost of housing and poor housing affordability; turmoil in the state level Labor Party government; a ‘mixed’ experience with privatisation initiatives; urban congestion and poor public transport and infrastructure and high levels of business taxation. In addition, the then Premier of New South Wales Bob Carr, said in 2001 that ‘Sydney is full’ in response to the city’s population, housing and transport problems, which was seen as unhelpful in terms of the marketing and promotion of the city (Stimson 2011, p.31).

4.12 Conclusions

This chapter has briefly outlined the economic history of Melbourne and placed its development in the wider national and international political and economic context. The changing industrial specialities throughout the twentieth century of Australia's two largest cities, Sydney and Melbourne, have been discussed, explaining their rankings and presence in WCN lists as outlined in Chapter One. Data has also been analysed that establishes the better economic outcomes Melbourne experienced over Sydney throughout the 2000s. The development of the Melbourne economy throughout the twentieth century has been presented in the context of broader economic policy settings at the national level, which reflected the changing global economy.

This chapter has demonstrated that Melbourne's economic history played a crucial role in its industrial specialisation and these factors remain today; the historical headquartering of Australia's major international mining companies, for example, can be traced back to the Victorian Gold Rush of the 1850s, and the headquartered presence of many recently privatised public organisations (Telstra, CSIRO, CSL) in the city reflect Melbourne's Federation-era ascendancy. The historical links of these companies to Melbourne pre-date what current economic geographers term 'global networks' and 'spaces of flows', and thus their presence in rankings such as the Forbes 2000 top global companies and WCN lists derived from these appears to be somewhat superficial and contrived.

Nevertheless, many aspects of changes to cities across the developed (Western and/or industrialised) world throughout the late twentieth century attributed to the impact of globalisation occurred in Melbourne, such as deindustrialisation and gentrification. Local and state government policy makers and governments keenly adopted place marketing and economic development policies in the late twentieth century, in line with a great many other world cities entering into the competitive global environment for MNE capital and investment.

Overall, this survey of Melbourne's economic history reinforces van Kempen's assertion that globalisation does not '...always and automatically result in the same spatial patterns' for change in cities and states, and that:

...other developments are also at play, either independently or mediating its influence. Each of these developments is directly or indirectly linked to global processes, but it is not useful to treat globalisation as a unitary and all explaining process' (van Kempen 2007, p.22).

Of van Kempen's list of seven 'contingencies' that he believed were at play to explain spatial change in cities, the physical setting of the city, history, economic development, political power and governance appear to have played crucial roles in the economic development and history of Melbourne.

Following the discussion in this chapter on the growing importance of the central city area to Melbourne's economy and the nature of change the city experienced since the 1970s, the following chapter examines the economic and social activity based in Melbourne's city centre over the Bracks/Brumby term of government.

Chapter Five: The Development of Melbourne's Industrial Urban Form

5.1 Introduction

The previous chapter examined Melbourne's economy from the nineteenth century to the present day, reflecting industry structure and broader economic change occurring throughout the Australian and Victorian economies. The previous chapter also examined the roles of city-specific factors, such as the transport network and residential housing areas, in the establishment of the city's major employment and workplace zones as we now know them. The chapter then established the development of Melbourne's radial transport system and Melbourne's suburban residential settlement pattern, which increasingly grew in a surrounding fashion away from the city centre. This has meant that the city centre has always served as the metropolis's key business services and employment centre.

This chapter focuses on business and employment locations throughout the 2000s in order to answer the question of the role of the city centre on the economic successes felt across the wider Greater Melbourne area. The chapter begins with a more detailed examination of the urban planning policy environment in place in Victoria and Melbourne over the 2000s, and the state level policy responses to other factors impacting on the city's urban form over the last thirty years, particularly deindustrialisation. The chapter then provides a closer examination of the economic and social activity based in Melbourne's city centre over the period 2000-2011.

While the city centre has long served as the key business services hub for the wider metropolitan area and Victoria, we shall see in this chapter that over the 2000s the city centre increasingly served as the locus for other aspects of Melbourne's economy, society and culture. The analysis focuses on factors and data that demonstrate the growth of key city-centred service industries, namely retail trade, education and hospitality, that are largely connected to the 'night time economy' (NTE), and that have developed through a combination of marketing, state government planning and regulation reforms, in tandem with broader economic, social and attitudinal change amongst the Melbourne population.

This chapter also considers the place of economic geography related theories outlined in the literature review chapter, such as Global Cities and World City Network (WCN) theories and the even older, established concept of agglomeration and its impact on Melbourne's urban, largely radial, city-centric industrial form. This follows other studies into the impact of globalisation on central business districts (CBDs) undertaken by Grant and Nijman (2002) on the developing world cities of Accra and Mumbai, and the more recent study by Parnreiter, Oßenbrügge and Haferburg (2013) on Johannesburg and Mexico City. For these studies, data used to examine CBD change and measure the impact of globalisation included: the presence

and growth of foreign and domestic corporations in the case of the Grant and Nijman study; and the changing nature of supply and demand for commercial office space in the study by Parnretier et al. Examinations of Melbourne's CBD change using real estate data have also been undertaken in the past (McLoughlin, J Brian 1992, p.237; Tsutsumi & O'Connor 2006).

For this analysis the main source of data is the ABS Census over the period 2001-2011, which gives workplace destination counts at the small area (Statistical Local Area or 'SLA' level), together with business establishment data provided by WorkSafe over the same timeframe, at the smaller, postcode level.

5.2. Policy settings and previous research for business location in Melbourne

In their overview of the post war processes and policies relating to workplace location and land use policy in Melbourne, Batten et al. stated:

...development since the Second World War has been characterized by a political environment largely antagonistic to the concepts of detailed economic and spatial planning. The general feeling has been that the city's morphology should be determined by the unfettered operation of free market forces (Batten, Newton & Roy 1985, p.237).

There was little active public policy dedicated to business location in the Melbourne context for much of the twentieth century. While workplace location was mentioned in the seminal 1954 metropolitan plan for Melbourne, it contained little actual policy detail on how to influence employment locations. This lack of policy direction was perhaps reflected in a lack of wider research on and understanding of the location of employment based in the city. As late as 2003, O'Connor and Rapson stated that 'For Melbourne, work on the location of employment has been a neglected part of the understanding of change in the metropolitan area' (O'Connor & Rapson 2003).

There is not a large volume of previous research on employment and industry location in Melbourne; what exists has tended to focus on the relationship between workplaces and the residential locations of their labour force (Healy & O'Connor 2002) or workplaces and their labour force transport use (Mees, P, O'Connell & Stone 2008), indicating a preoccupation in the public policy and academic research spheres with housing and transport.

5.3 The land use and planning policy environment in Melbourne, Victoria and Australia

Historically, local government in Australia has been less 'powerful' than its counterparts in the United States or United Kingdom, and has been charged with service delivery largely based around the 'Three R's – roads, rates and rubbish' (McLoughlin, John Brian & Huxley 1986, p.3).

Until the 1970s, planning issues in Victoria were dealt with by the Town and Country Planning Board (established in 1944) and the powerful Melbourne and Metropolitan Board of Works (MMBW), empowered by the *Town and Country Planning Act* of 1944 to administer town planning and infrastructure-related projects. The first overarching plan for Melbourne was produced in 1929 (McLaughlin) but it was the 1954 plan that established much of Melbourne's urban form, which remains today. Informed by wide-reaching public consultation at the time, the 1954 plan established the eastern and southern suburbs as the areas for the majority of Melbourne's preferred medium density housing, and set aside areas for industrial activity that largely remain today: the south east corner based around Moorabbin and Dandenong, the north west suburban areas of Campbellfield and Broadmeadows and the suburb of Sunshine in Melbourne's west.

Most of Melbourne's land use is for residential purposes, and following this, metropolitan strategies over the years have largely been concerned with housing and urban sprawl issues. The 1970s marked a shift from one of almost unlimited suburban housing spread across Melbourne's east and south (part of the 1954 metropolitan plan) to one of 'containment'. Initially this was to halt the sprawl and reinvigorate the inner and central city areas of Melbourne, reflecting concerns about gentrification, as well as addressing issues of transport use, reflecting 1970s concerns about rising petrol prices and energy shortages. By the 1990s and 2000s, environmental and sustainability awareness had also infiltrated concerns about sprawl and the need for containment, again reflecting broader social and economic policy considerations of the time.

In terms of industry and employment locations, the industrial areas to the west, north-west and south-east of the city have largely remained and consolidated over the post 1950s decades. Industrial (manufacturing) activity has largely left the inner-city areas. The city has remained the centre for professional and business services while population related services such as retail trade, health and education are spread throughout the suburbs. Urban land zoning for industrial, commercial or retail activity has been the domain of local governments, perhaps with the possible, often well publicised expectations of state government intervention on key sites, for example the Tennis Centre and Melbourne City Council. The 2012 discussion paper, *Managing Melbourne: A Review of Melbourne Metropolitan Strategic Planning* produced by the DPCD, noted:

Employment has been discussed in general terms in various plans but has seldom moved beyond a commentary on existing trends. Previous strategies have not developed a policy framework to tackle employment and economic development in a systematic way (Townsend 2012, p.23).

5.4 Planning policy responses to economic and population growth in Victoria over the 2000s

Chapter Four established that over the 2000s Melbourne experienced greater levels of economic and population growth than that of Australia's most populous, and higher ranked World City, Sydney. This section now explains the urban planning policy context, together with the state government level responses to population and economic growth over the 2000s in greater detail.

5.4.1 State government planning policy – Melbourne 2030

The key metropolitan planning strategy of the Bracks/Brumby government was *Melbourne 2030: Planning for sustainable growth*. Released in October 2002, the much anticipated strategy contained a thirty year vision for Melbourne. At 153 pages, the strategy was comprehensive, and supported by 12 technical papers across the topics of: the environment; green wedges; globalisation and competitiveness; housing; regional areas; population issues; freight; activity centres; culture and heritage; rural living development and urban design.

As its title suggests, *Melbourne 2030* was chiefly concerned with charting a path for sustainable growth – reigning in unimpeded urban sprawl – in order to create a more 'contained' city. One of the key initiatives of *Melbourne 2030* was the establishment of 114 activity centres (listed as 25 principal, 79 major, 10 specialised and 900 neighbourhood scale centres), which were to act as 'centres for business, shopping, working and leisure' (Department of Sustainability and Environment 2002, p. 45). The objective of these centres was to reduce the number of trips by private motor vehicles by concentrating the locations of businesses and leisure activities, such as libraries and shopping centres, which would in turn encourage economic and business activity, broadening the existing centres' mix of use, and thus the population that use them. It was thought that this process would finally lead to better linkages between these centres and public transport, and ultimately reduce car dependence (Department of Sustainability and Environment 2002, p.45).

Two key initiatives in the strategy were undertaken specifically in order to address the issue of residential urban sprawl. Firstly, the development of the Urban Growth Boundary (UGB) was proposed, acting to limit the outward development of the city. Secondly, greater use of medium density housing was encouraged, which would increase the housing stock in existing built-up urban areas, preferably around the previously mentioned activity centres, thus assisting in the city's containment.

While containment strategies to reduce urban sprawl have been supported by planning specialists at the international level, (OECD 2003, pp.61-62) *Melbourne 2030* was not well received by many of the major planning, geography and transport academics and commentators

based across Melbourne's universities. The promotion of the greater use of medium density housing in particular came under vociferous opposition, both by leading academics (Birrell, B et al. 2005; Mees, Paul 2011) and increasingly by vocal residential housing conservation lobbyists, such as Save Our Suburbs. At the heart of Birrell et al.'s criticism of the policy was that the underlying assumptions regarding the need for more medium density housing to meet population growth were incorrect, and the desire of prospective residential home owners to live close by activity centres was overstated and, indeed, unfounded.

5.4.2 Political impact of Melbourne's record population growth

Treasurer John Brumby became the Premier of Victoria after Steve Bracks stepped down in July 2007. He was known for his interest in, or promotion of, population growth. Record population growth, which increased during the 2000s to 2.1% per annum by 2008, against the thirty year average of 1.6%, fuelled a shortage of housing (particularly in the rental sector) and increased patronage on Melbourne's public transport system, particularly of train passengers, to such an extent that Victoria and Melbourne's high population growth rates started to be seen as something of a political liability. The commentary soon turned to whether Melbourne had in fact been growing too quickly (Austin P, Moncrief M & Rood 2008; Lucas & Dowling 2009)

Fuelling the sense of unease was a publication, *Victoria in Future* (Department of Planning and Community Development 2008), predicting enormous population increases in Melbourne's growth areas.¹ Population forecasts for cities have become an essential component of metropolitan strategy-making across Australian cities in recent years. Some urban planning commentators believe this has left 'the metropolitan strategy...as a finely articulated and detailed picture of what the city will be a generation hence' (Bunker 2012, p.448), leaving them a poor, as well as 'strange' (Bunker 2012), basis on which to formulate plans for the short to medium term. To counter growing unease regarding increased public transportation usage, the Brumby government announced it would release an integrated transport plan (derided as being the fourth such transport plan since the State Labor government had been returned to power in 2009), and altered or revised the *Melbourne 2030* strategy in the document *Melbourne @ 5 million*.

5.4.3 Melbourne @ 5 Million, 2008

After a review undertaken by DPCD on the implementation of the *Melbourne 2030* strategy in 2007, *Melbourne @ 5 Million* (meant as an update to be viewed in tandem with *Melbourne 2030*) outlined a polycentric approach to the city, and nominated six Central Activity Districts

¹ Large population increases for the city are forecast to continue (Gough 2014).

(CADs) around Melbourne. Essentially an ad hoc response to increasing transport patronage into the city on Melbourne's radial rail system, CADs were set to provide:

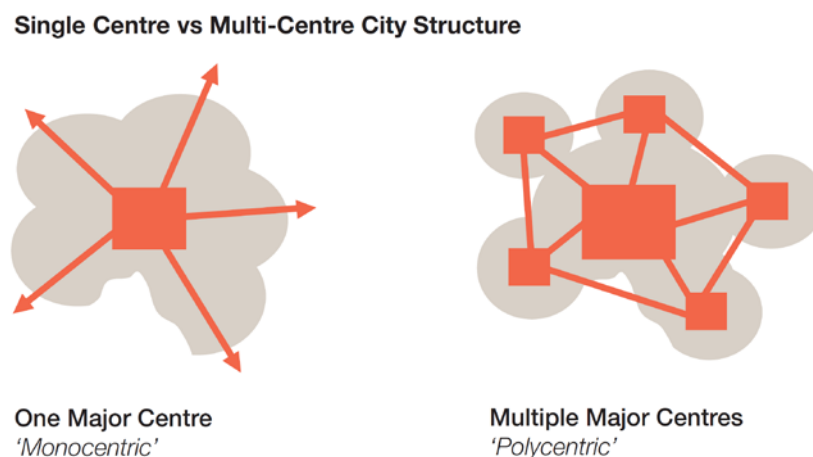
...similar services and functions to central Melbourne, such as commercial, retail, highly specialised personal services, entertainment, education, government and tourism; significant employment concentrations; high quality, well designed, living and working urban environments (DPCD 2008, p.11).

There was not a great deal of technical or background research papers made available to the public regarding the CADs, but a consultancy undertaken by the Victorian Institute of Strategic Economic Studies (VISES) at Victoria University identified problems with CADs in the Melbourne western suburb of Footscray (Rasmussen et al. 2010). The attempt to have greater integration between the metropolitan strategy and the *Victorian Transport Plan*, released in 2008, has been branded by some academics as marking a new planning strategy phase, the 'infrastructure turn'. They warn of a focus away from urban planners solely towards the designs of engineers (Dodson 2009).

5.4.4 Melbourne – the polycentric city

The CADs policy had very little time to be implemented before the 2010 State election, whereby the incumbent Labor Party lost office, and the incoming Baillieu Liberal Party swiftly announced that the *Melbourne 2030/Melbourne @ 5 Million* strategy was to be dropped, and another metropolitan strategy prepared.

Figure 5.4.1 Polycentric city model as explained in Melbourne @ 5 million



Source: Department of Planning and Development, *Melbourne 2030: A planning update: Melbourne @ 5 million*, 2008, Victorian Government, East Melbourne

In the Melbourne context, planning or policy concerns about industrial and employment areas, such as they are, have often centred on 'activity centres' and the central city area. The *Melbourne @ 5 million* 2008 strategy was not new in discussing activity centres – they had been

part of planning department policy discussions since the 1950s. Activity centres outlined by the MMBW and later by the Department of Planning in the late 1970s and early 1980s were seen to have failed as a policy by the mid to late 1980s. Toni Logan's 1986 article summarises the policy as poorly researched and defined and it is likely the 2000s iteration of activity centres would have ended up the same way (Logan, T 1986).

More broadly, the tendency for 'volte face' about-turns in metropolitan Melbourne planning policy has been a highly critiqued element of urban planning policy and discussion since the 1970s, on topics ranging from green wedges and sprawl (McLoughlin, J Brian 1992) or the attempt to divert activity away from the CBD via CADs in the 2000s (Goodman & Moloney 2011). In his seminal 1992 book *'Shaping Melbourne's Future?'*, the late J Brian McLoughlin put this down in part to poor town planning and urban studies courses at local universities producing under-skilled (or at least not relevantly skilled) town planners and to an ineffective legislative and regulatory environment marred by inherent conflict between the state and local levels of government.

At the same time, a survey of academic papers commenting on and analysing these strategies and statements reveals that academics across broad disciplinary fields – geography, urban planning, transport economics – have often berated the policy makers and state governments of the day for misinterpreting or distorting the implications of the wider economic geography and urban planning theory of the time, to establish theoretical bases for what academics consider to be dubious or harmful planning or economic development strategies (Birrell, B & Healy 2010; Logan, T 1986; O'Connor 1998).

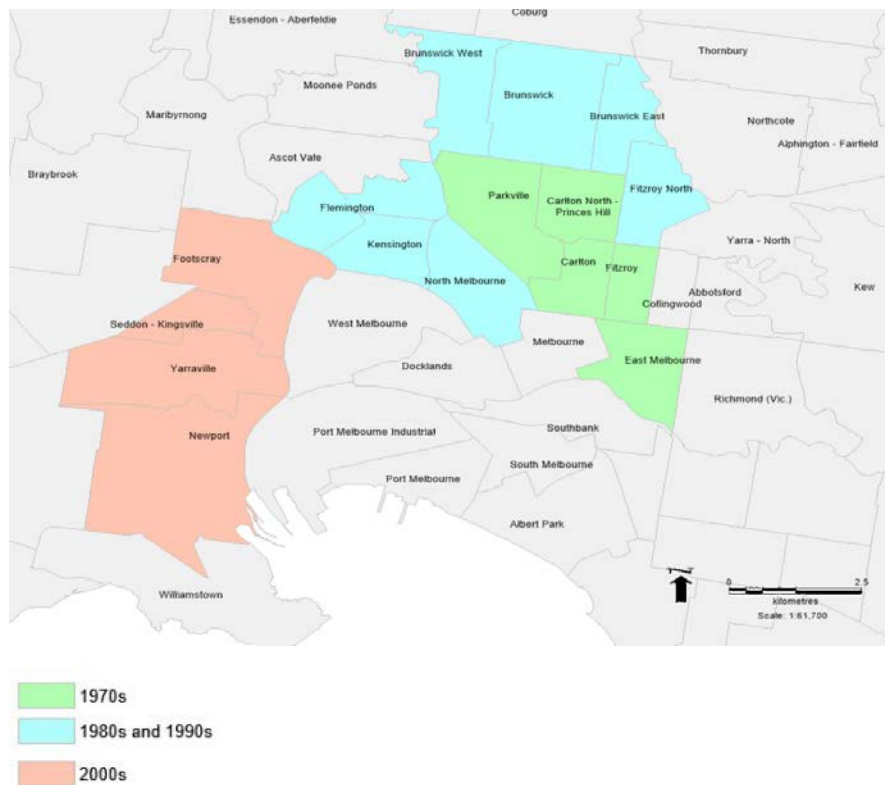
5.5 The impact of deindustrialisation on the industrial zone usage in Melbourne, 1970-2010

Maps 4.6.1 to 4.6.9 in Chapter Four demonstrated the movement of industrial activity away from the city centre as the twentieth century progressed. Thus, the decline in manufacturing activity and subsequent deindustrialisation within the inner areas of Melbourne were at the forefront of urban planning and geographic thinking during the 1970s and 1980s. The Melbourne experience during the early deindustrialisation era (1960-1970s) was similar to many other developed industrial cities around the world (for example, London and cities in America and Canada) and planners and policy analysts were mindful that the associated inner-city urban social decay, (for example, high unemployment) seen in overseas cities would also occur in Melbourne. The demise of Melbourne's manufacturing sector, the associated spatial social dislocation, deindustrialisation and gentrification appears to have been predicted or commented on throughout the 1970s, although various historians and geographers of Melbourne would go on to prove, empirically and quantitatively, that the effects of gentrification and

deindustrialisation were overstated (Dingle & O'Hanlon 2009; Logan, W 1982; O'Connor 1998) and found that the property market was a more important driver.

The impact of gentrification on world and global cities has been examined by theorists such as Saskia Sassen, who studied the impact of increasing numbers of professional occupation workers comprising city-based employment along with the simultaneous decrease in the proportion of workers in manual occupations in her work *The Global City* (Sassen 2001). Her work formed the basis for broader studies into the impact of gentrification, deindustrialisation and professionalism in other cities (Borel-Saladin & Crankshaw 2009; O'Hanlon & Hamnett 2009). The gentrification experience in Melbourne has slowly but inexorably spread from the inner east and northern suburbs of Carlton, East Melbourne, and Fitzroy in the 1970s, through to the inner north-western areas of Kensington, Flemington and Brunswick and so on (Logan, W 1982; Dingle & O'Hanlon 2009). By the 2000s, the gentrification effects had effectively encircled the city centre, as inner western suburbs such as Sunshine, Footscray, Kingsville and Maidstone began to experience the effects of gentrification, such as increasing professional

Map 5.5.1 Inner Melbourne gentrification areas of Melbourne, 1970s-2000s



Sources: Logan, W 1982, 'Gentrification in inner Melbourne: problems of analysis', *Australian Geographical Studies*, vol. 20, no. 1, pp. 65-95, Dingle, T & O'Hanlon, S 2009, 'From manufacturing zone to lifestyle precinct: economic restructuring and social change in inner Melbourne, 1971-2001', *Australian Economic History Review*, vol. 49, no. 1, pp. 52-69 and Weller, S & van Hulten, A 2012, 'Gentrification and Displacement: The Effects of a Housing Crisis on Melbourne's Low-Income Residents', *Urban Policy and Research*, vol. 30, no. 1, pp. 25-42.

occupation residents, higher incomes and higher housing costs, for both the private rental and home owner markets (Weller & van Hulten 2012).

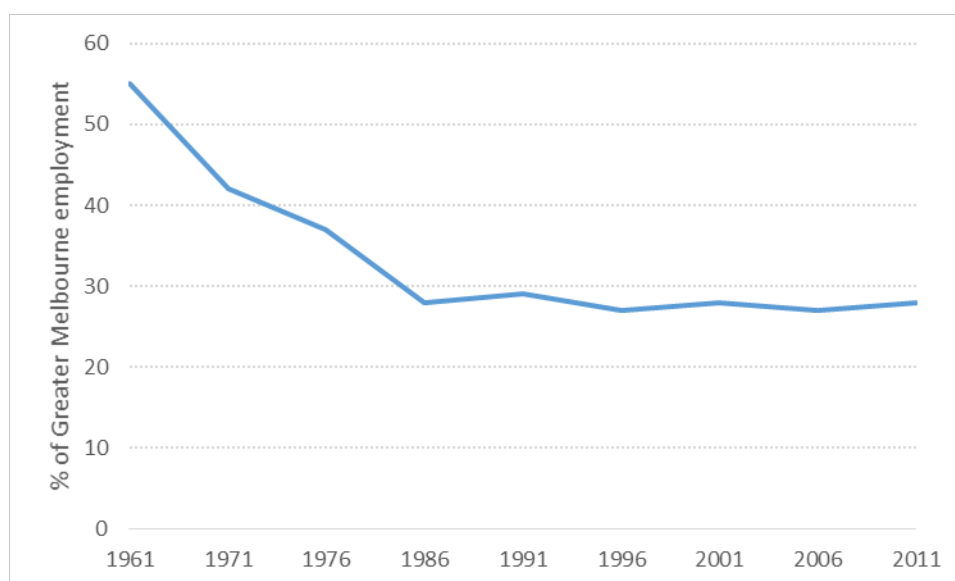
5.6 The changing employment and industrial zones of Melbourne from the 1970s to the 2000s

By the 2000s, research into workplace location change within the Greater Melbourne region over the thirty five year period 1971-2006 found that, while three distinct regions (categorised as inner, middle and outer) of Melbourne had evolved in different ways, the overall effect was that there was less 'specialisation', and that polynucleation was less likely to occur in the Greater Melbourne area (Watkins 2009). In 2003, O'Connor and Rapson found that Melbourne was increasingly divided into two 'zones'; a metropolitan core that experienced 'a rapidly growing labour market in those parts of the national and metropolitan economy which have been expanding quickly as the restructuring of the economy favours advanced services' (O'Connor & Rapson 2003, p.46) and a middle and outer ring that increasingly services a growing population together with a growing and diversifying industry mix. The employment growth experienced in the core of Melbourne throughout the 1990s and early 2000s did not take place in isolation. Chapter Four outlined the various state and local government level policies aiming to enhance the city centre of Melbourne, both in terms of a place of employment and a residential location since the 1980s. Melbourne's city centre, or CBD and immediate surrounds, has maintained its pre-eminence as the metropolis's main workplace location over this time, even as the proportion of workers based in the central area may have decreased over the post-war period. The city centre and its importance to Melbourne's economy have followed the vagaries of the wider economy, for example it was seen as in decline when manufacturing left, faced the prospect of stagnation throughout the 1970s and even into 1980s, and surged back into economic importance during the 1980s and 1990s with periods of commercial building booms and related investment. Since the 1980s the central city received special mention in all the metropolitan planning statements, and by the 1990s and 2000s the CBD and its promotion formed part of broader state economic development policy.

5.7 Combating the impact of deindustrialisation: 'revalorising' the city

Previous discussion in this chapter outlined the analyses and responses of public policy organisations and academia regarding the role of Melbourne's city centre since the 1970s. The widespread predictions made during the 1970s of city-based businesses becoming increasingly suburbanised through a combination of a growing middle and outer suburbs based residential workforce, together with anticipated technological change in which analysts forecast workers and businesses increasingly conducting their operations remotely, did not come to pass. Dingle and O'Hanlon (2009) outline the dire predictions made by authorities such as MMBW in the late 1970s regarding the Melbourne inner city area, with the threat of high unemployment rates principle amongst other ill-effects of deindustrialisation, and intimating that, if these trends were left unchecked, there existed the real possibility of the emergence in inner Melbourne of British or American style urban decay and social disorder (Dingle & O'Hanlon 2009, p.30).

Chart 5.6.1 Proportion of Greater Melbourne employment based in inner Melbourne/Central city area, 1961-2011



Source: Adapted from O'Connor, K & Rapson, V 2003, 'Employment in city and suburban Melbourne: the changing relationship', *People and Place*, vol. 11, no. 4. From 1991 this geography contains the Cities of Melbourne, Port Phillip and Yarra

Instead of the anticipated urban decay that befell other deindustrialising city centres such as those in the United States, Melbourne followed the path of other deindustrialising cities in 'revalorising' the city centre, reflecting the transformation of the city centre's economy from one in which things were produced (under the industrialised economy) to one in which services are consumed. Lovatt and O'Connor (1995) credit the owners of fixed capital within the CBD in

the 1970s with the reinvigoration of CBD areas, as decaying former industrial city centres left them with land and property values that:

...companies were extremely reluctant to write off. ..The rise of footloose capital in the context of the 1970s restructuring meant that investment capital was available to recoup the 'true' value of the CBD. Crucial to this strategy was a reinvention or reemphasis on the prestige of centrality – not just the real estate value but also the 'cultural capital' represented by the 'downtowns' were to be re-occupied by developers – recreating them as sites of a new 'urbanity' centred around leisure, up-market consumption, and prestigious residential living intended to signal the new 'urbanity' through the echoes of the 'new bohemianism' of 1970s pioneer gentrification (Lovatt & O'Connor 1995, pp.127-128).

5.8 The economic benefits of the city centre and agglomeration impacts and effects

Tonts and Taylor (2010) neatly summarised the benefits of large corporations and APS companies locating in city centres in their recent examination of large company headquarters in Australia's capital cities. These reasons include:

- The city centre is a source of strategic and specialist information, for example information on markets or prices, with which they can formulate their own corporate plans, strategies and approaches.
- Metropolitan areas act as transport and communication hubs facilitating the 'ready assembly' of executives, decision makers and key informants for face to face meetings.
- Co-location and proximity to other enterprises promotes knowledge transfer.
- Firms and large companies can recruit skilled and professional workers more readily in the city environment.
- Locating in the city allows firms to get easy access to specialist functions such as advertising, accountancy, legal services.
- The city can serve as a centre for 'social and class based support structures that contain privileged élites from whom corporate board members are drawn and who share social backgrounds' (p.2645).
- And finally, the impact of path dependency cannot be underestimated. That is to say, '... the contemporary economic structure of cities and the corporate concentrations within them are built on the legacy of their economic, social, political and geographic histories' (p. 2645).

The impact of APS businesses locating in the city centre has led some researchers to assess the impact of agglomeration economics on these localities, even though, as Trubka notes ‘agglomerations have typically been considered to be a self-organising phenomena’ (Trubka 2009, p.2).

Recent studies into the impact of agglomeration on Australian cities have tended to analyse it in terms of labour productivity using sophisticated regression models. Rawnsley and Szafraneic (2010) used an Effective Job Density (EJD) index coupled with estimates of labour productivity at Statistical Local Area (SLA) level to determine that labour productivity in Melbourne is clustered around central Melbourne, the industrial zones of the south-east and airport to the north (the parts of the city with the highest density of workers), and that when analysed by industry, a Property and business services worker (equivalent to an APS worker) based in the central area of Melbourne had a higher labour productivity than a Property and business services worker located in a fringe area of the city. Their analysis also found Finance and insurance services, Education (particularly tertiary education) and Health and community services were other industries whereby firms gained an agglomeration productivity boost, while Manufacturing and Transport and storage did not. Industries such as Cultural and recreational services (now known as Arts and recreation services), Retail trade and accommodation, Cafes and restaurants scored highly in terms of elasticities/co-efficients measuring agglomeration but were interpreted as having ‘amenity’ value as opposed to agglomeration benefits – firms in these industries locate in the central city area in order to have better access to employees, city residents and tourist customers.

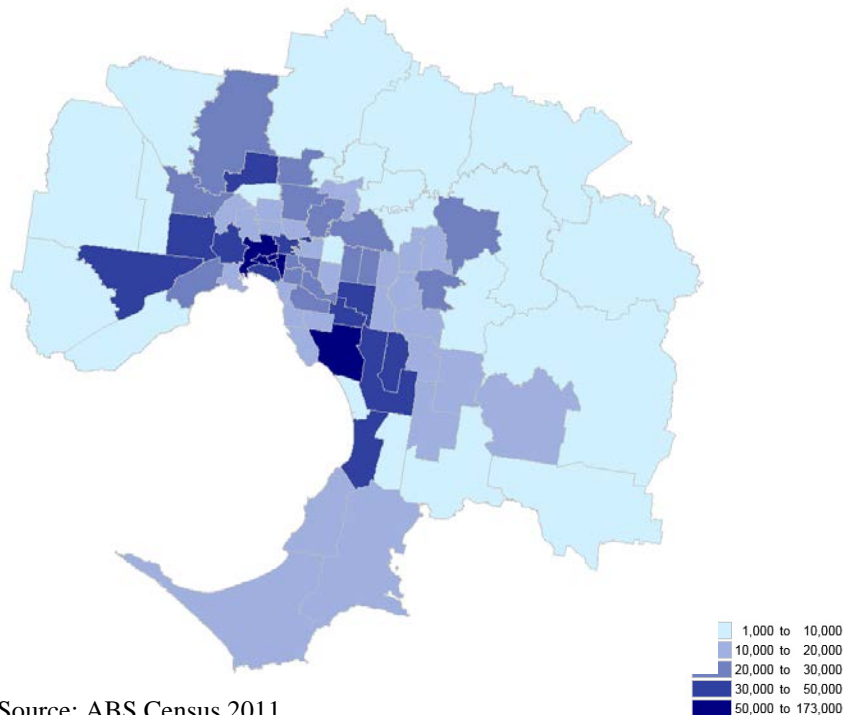
Roman Trubka’s 2009 study of agglomeration benefits in Australian cities used a different methodology to Rawnsley and Szafraneic, calculating a productivity index based on average weekly earnings by occupations and employment by industry across the SLAs within all of the Australian capital cities. Out of all the capital cities, only Melbourne had an internationally comparable elasticity score of 7.4% (similar to Rawnsley and Szafraneic’s 7%, derived using a different methodology) ‘...implying that doubling the density of employment in the centre of Melbourne would result in an average wage (labour productivity) increase of 7.4% across existing occupations’ (p.5).

5.9 Workplace and industrial location change in Melbourne over the 2000s

Having examined the broader planning policy environment in which industrial location and the impact of deindustrialisation and gentrification on greater Melbourne took place over the latter decades of the twentieth century, the industry and locational change that occurred in Melbourne over the 2000s will now be examined in more detail. The following analysis uses two sets of data to demonstrate spatial densities and change in both employment and business establishments sub industries across metropolitan Melbourne over the period 2001 to 2011. Employment change is based on place of employment data derived from the ABS Census in 2001, 2006 and 2011, while business establishments' data is derived from the WorkSafe database of the addresses of their insurance policy holders. The ABS data is presented at the SLA level (the smallest available geographic area over the time period studied), while the WorkSafe data is based on postcodes.

5.9.1 Workplace locations in Greater Melbourne, 2001-2011

Map 5.9.1 Greater Melbourne SLAs by workplace destination population, 2011



The most recent data (2011) on workplace destination in Melbourne indicates the city centre, represented by the Melbourne-Inner SLA, and the two adjoining SLAs of Southbank-Docklands and Melbourne-Remainder have the highest workplace destination population. Melbourne-Inner

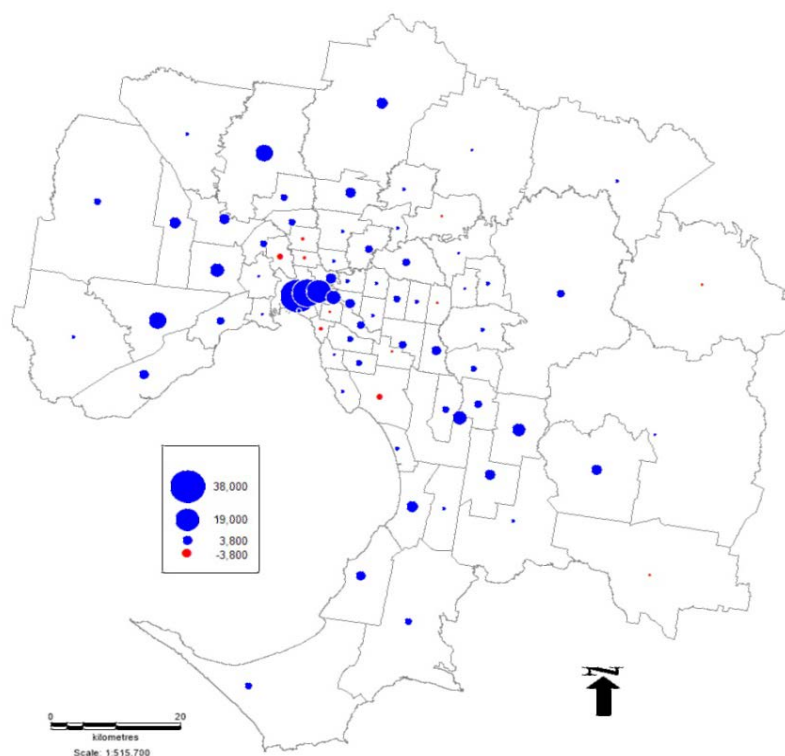
has the greatest workplace destination population with 173,000 workers. Following the city centre, the south-east metropolitan area comprising of SLAs within the cities of Greater Dandenong, Monash and Kingston, the north-west SLA of Hume-Broadmeadows and the western metropolitan area containing SLAs within the Cities of Wyndham and Brimbank have higher densities of workers. These areas contain established industrial areas of the city, which the historical maps in Chapter Three demonstrate they have been building towards since the 1970s.

In the ten years leading up to 2011, Greater Melbourne SLAs that experienced the greatest net growth in workplace destination population were the city SLAs of Melbourne Inner (26,726 increase or 18% growth), Melbourne-Remainder (18,154 increase or 17% growth) and Melbourne Southbank-Docklands (37,900 increase or 139%). Other SLAs to experience increases over this time include a series of SLAs from the western suburbs to the northern suburbs (following the arc of the Western Ring Road), which now acts as a Manufacturing, Wholesale trade, and Transport and logistics industry corridor for the city, in addition to experiencing residential population increases within adjoining suburbs throughout the decade which stimulated employment in population services-style industries such as Education, Health care and social assistance and Retail trade.

The forces driving growth and in some cases decline, from one SLA to another will depend, of course, on the industry composition within that particular SLA.

Map 5.9.2 demonstrates that the inner city area experienced the greatest level of employment growth over the 2000s, which (to some extent) is not surprising given it has the highest overall workplace destination population.

Map 5.9.2 Workplace destination population change by SLA, Greater Melbourne, 2001-2011



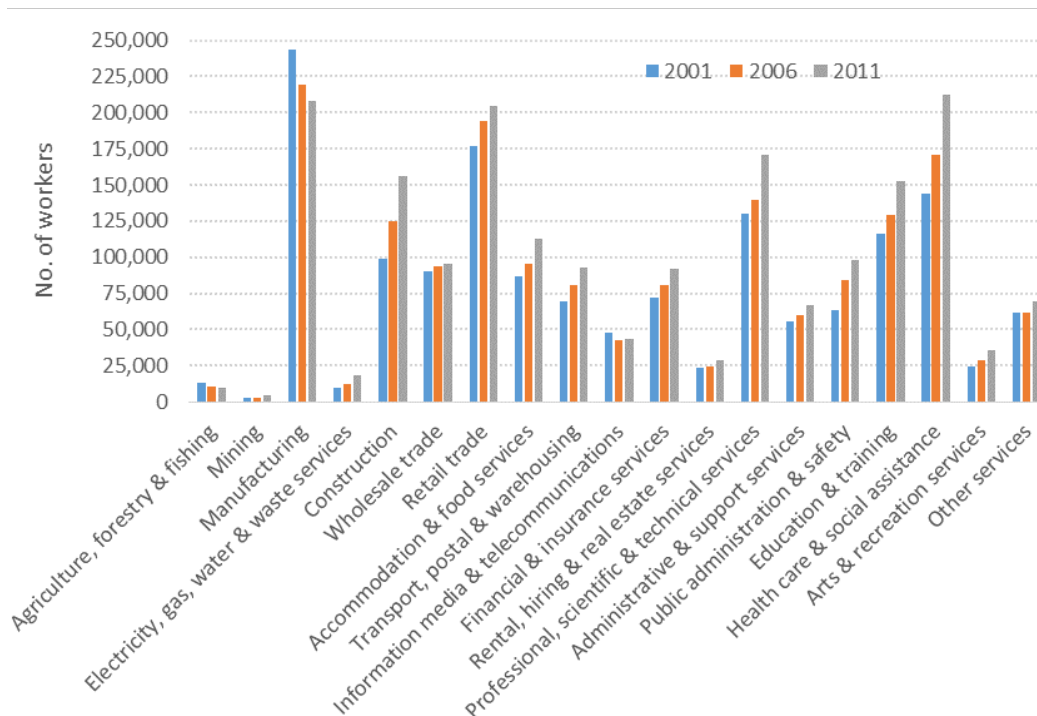
Source: ABS Census 2001, 2011

5.9.2 Industry composition of Greater Melbourne, 2001-2011

The overall change in industry composition of Greater Melbourne over the 2000s is demonstrated in Chart 4.9.1. Over the ten years to 2011, employment in Manufacturing declined to such an extent that by 2011, Health care and social assistance was the highest employing industry, followed by Retail trade. Employment in the construction industry grew considerably, spurred by population growth which increased residential housing demand. Many other services industries experienced employment growth over this time: Accommodation and food services, Finance and insurance services, Professional scientific and technical services all experienced employment increases. Overall, the chart demonstrates Melbourne's growing shift away from the manufacturing centre that characterised its economy throughout the late twentieth century towards one that increasingly catered to services provision – either for the population (retail,

education, health) or business sector (APS such as Professional service and Financial and insurance services).

Chart 5.9.1 Employment by industry change in Greater Melbourne, 2001-2011

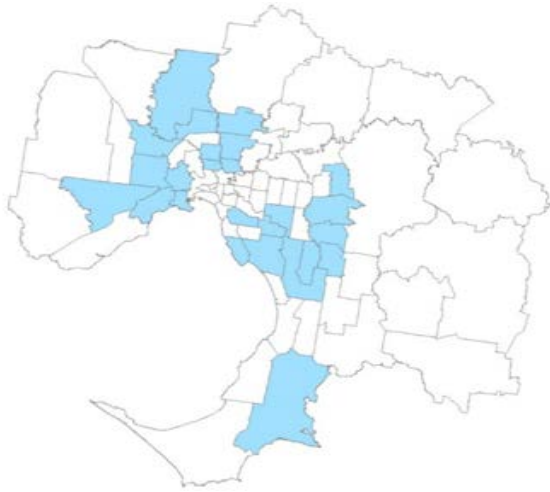


Source: ABS Census 2011 Time Series Profile

5.9.3 Industrial locations in Greater Melbourne, 2001-2011

The fall in manufacturing employment has caused the industry's previously prominent profile as an employment location in the suburban areas of Melbourne to contract, as evidenced by the maps below, which illustrate the number of SLAs with Manufacturing as the highest employing industry. Over the ten years to 2011, the maps demonstrate manufacturing activity is increasingly consolidating around SLAs along the western ring road and the south eastern corner.

Map 5.9.3 SLA with Manufacturing as highest employing industry, Greater Melbourne, 2001



Source: ABS Census 2001

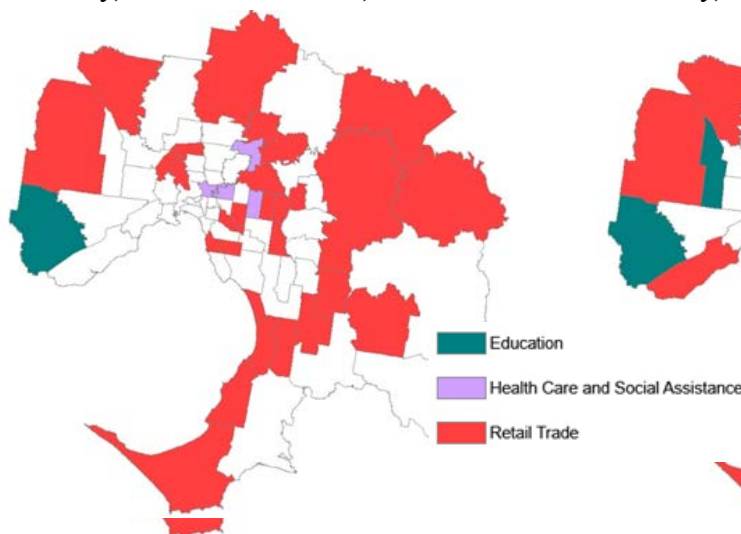
Map 5.9.4 SLA with Manufacturing as highest employing industry, Greater Melbourne, 2011



Source: ABS Census 2011

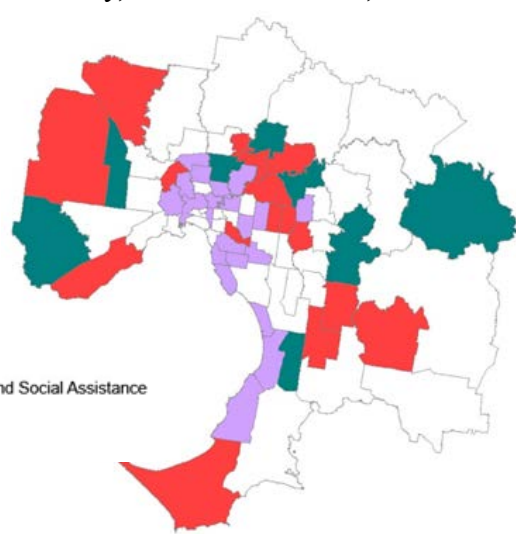
As this occurs, population-services industries such as Health care and social assistance, Retail trade and Education tend to overtake Manufacturing as the highest employing industry at the local level. The maps below demonstrate Health care and social assistance employment in particular has overtaken Manufacturing employment in the inner northern and inner western SLAs, as well as becoming the highest employing industry in south and south-eastern SLAs over the 2000s.

Map 5.9.5 SLA with Retail trade, Health care and social assistance and Education as highest employing industry, Greater Melbourne, 2001



Source: ABS Census 2001

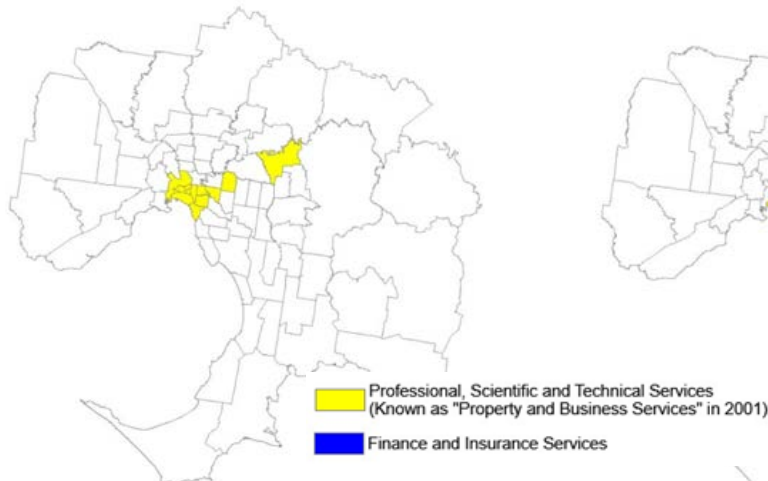
Map 5.9.6 SLA with Retail trade, Health care and social assistance and Education as highest employing industry, Greater Melbourne, 2011



Source: ABS Census 2011

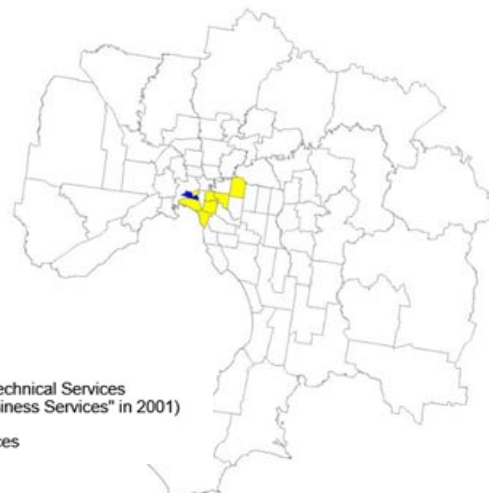
However, the SLAs with APS industries (Professional, scientific and technical services and Finance and insurance services) as their highest employing industry form a tight core at the centre of the city that has, if anything, decreased over the ten years to 2011.

Map 5.9.7 SLA with APS as highest employing industry, Greater Melbourne, 2001



Source: ABS Census, 2001

Map 5.9.8 SLA with APS as highest employing industry, Greater Melbourne, 2011



Source: ABS Census, 2011

This analysis has demonstrated the industry composition of Melbourne's current urban form as a result of societal and industrial change such as: the outward movement of industrial activity away from the city's inner areas throughout the twentieth century; the impact of deindustrialisation and the associated gentrification occurring since the 1970s; the patterns of residential housing development that took place mainly in the eastern and southern suburbs of the city for most of the last century and finally the radial public transport footprint of the city, which has remained largely unchanged since the 1890s.

The maps demonstrating employment change over the 2000s indicate the city centre not only contained the most employment, but experienced the most employment growth to 2011. Key industries in the city's changing, deindustrialised economy such as professional and financial services and those that together comprise advanced producer services, have remained predominately located in the city centre over the same time. The city centre and its economy will now be examined in further detail.

5.10 Economic growth and activity in Melbourne's city centre over 2000s

5.10.1 Employment within the City of Melbourne

Map 5.10.1 illustrates the three SLAs that comprise the City of Melbourne: Melbourne-Inner, encompassing the city's central business district, often called the 'Hoddle grid', Melbourne-

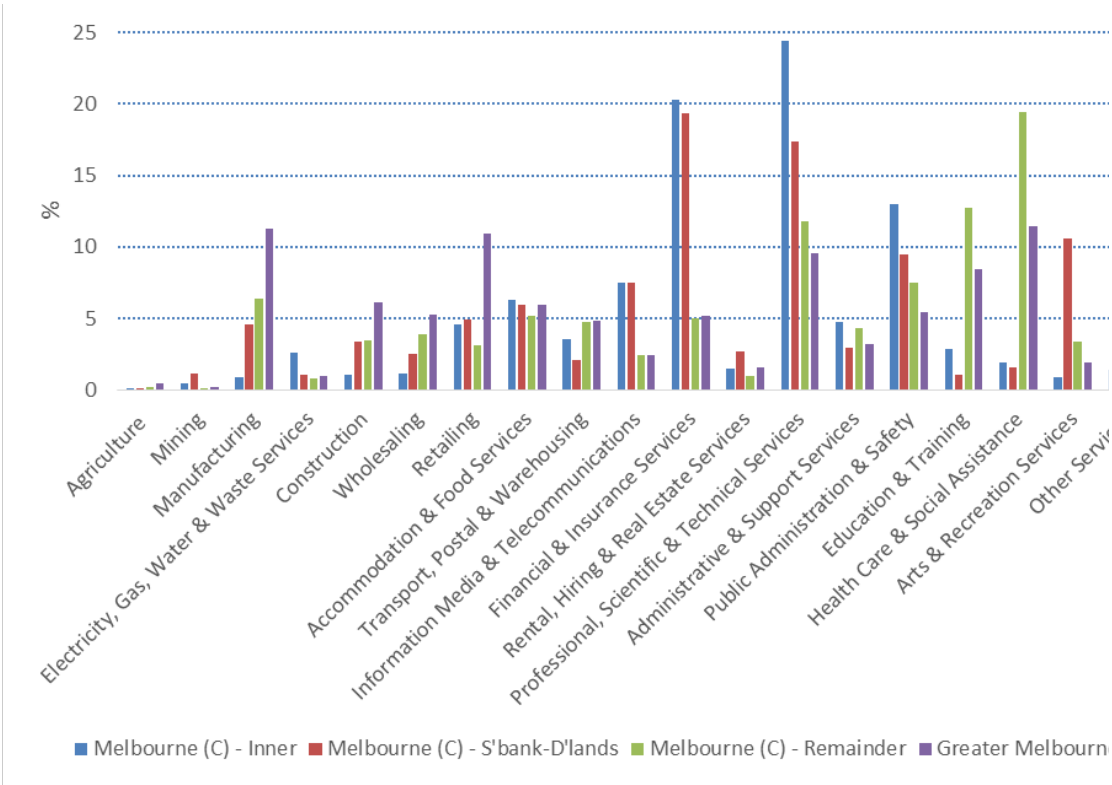
Southbank-Docklands, which includes: the Southbank arts precinct (including The National Gallery of Victoria, Melbourne Theatre Company, Melbourne Recital Centre); the Docklands area (including Etihad Stadium and the Docklands financial precinct) and finally Melbourne-Remainder. This is a larger horseshoe-shaped SLA that is wrapped around the other two SLAs and encompasses: the Fishermans Bend industrial area; West Melbourne; the Flemington Racecourse; the University of Melbourne in Parkville and adjoining Royal Park area; and East Melbourne, Jolimont and Richmond to the east. Chart 4.10.1 demonstrates the various industry strengths of the three SLAs. Just under a quarter of all employment based in the Melbourne-Inner SLA is Professional, scientific and technical services, and when combined with Finance and insurance services we can see that APS, as defined in this study, account for just under half (45%) of all employment in this SLA. Public administration and safety is also a prominent industry in the SLA, due to the public service offices located in the Melbourne CBD. Financial and insurance services are also prominent in the Melbourne-Southbank-Docklands SLA, with the development of the downtown Docklands precinct as a financial centre accounting for a growing number of finance services firms locating there, together with Arts and recreation services, reflecting the development of 'arts precinct' style employment based in the area, including the Victorian Arts Centre, Hamer Hall, the National Gallery of Victoria, the Melbourne Recital Centre, the Melbourne Theatre Company and Malthouse theatres.

The Melbourne-Remainder SLA has high proportions of Health care and social assistance employment by virtue of many of Melbourne's major hospitals being located in the SLA, together with other associated ancillary health services such as consulting rooms and pathology services. Education and training employment is also high due to the location in this SLA of major higher education institutions such as the University of Melbourne and Royal Melbourne Institute of Technology (RMIT).

Map 5.10.1 The three SLAs within the City of Melbourne



Chart 5.10.1 Proportion of employment by industry across the central city SLAs and Greater Melbourne, 2011

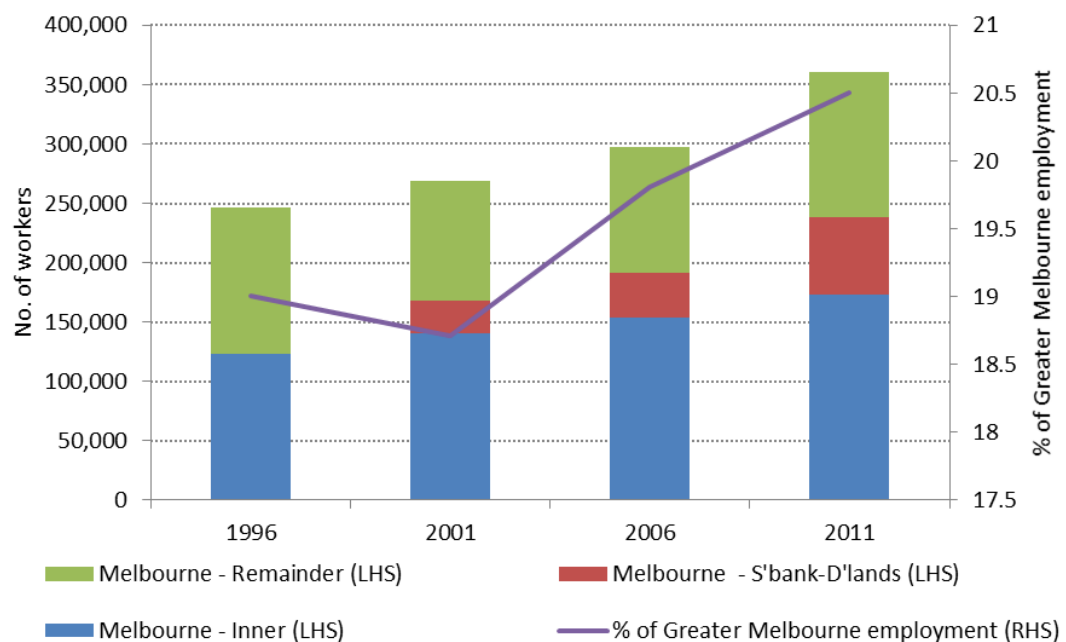


Source: ABS Census 2001, 2006, 2011

While the Melbourne-Inner SLA had the largest workforce out of the three SLAs (increasing steadily from 140,949 workers in 2001 to 172,901 ten years later in 2011) employment in the Southbank-Docklands SLA experienced the greatest employment increase – 38,544 or 145% over the ten years. The history of state government policy regarding the redevelopment of the Southbank Docklands area has been discussed in Chapter Four. The employment growth seen over the ten years was largely due to the development of the Southbank arts precinct over the 2001-2006 period, with recreation and hospitality style employment prevailing as the Crown Casino and many Southbank restaurants and cafes establishing over this time. The employment growth in the SLA between 2006 and 2011 (27,463 additional workers), was the largest increase out of the three SLAs over the inter-censal period and was driven by the relocation of many major banking and finance-related companies to the re-branded finance precinct immediately to the south of Spencer Street in Melbourne’s CBD/Hoddle grid.

When stretching the data back further to 1996 in Chart 5.10.2, we can see the proportion of Greater Melbourne employment located within these three SLAs has grown since 2001 (in 2001 it had fallen from the 1996 rate of 19% to 18.7%), increasing steadily over the next ten years to reach 21.5% of all Greater Melbourne employment by 2011.

Chart 5.10.2 Employment by SLA in the City of Melbourne, 1996-2011



Source: ABS Census 1996, 2001, 2006, 2011

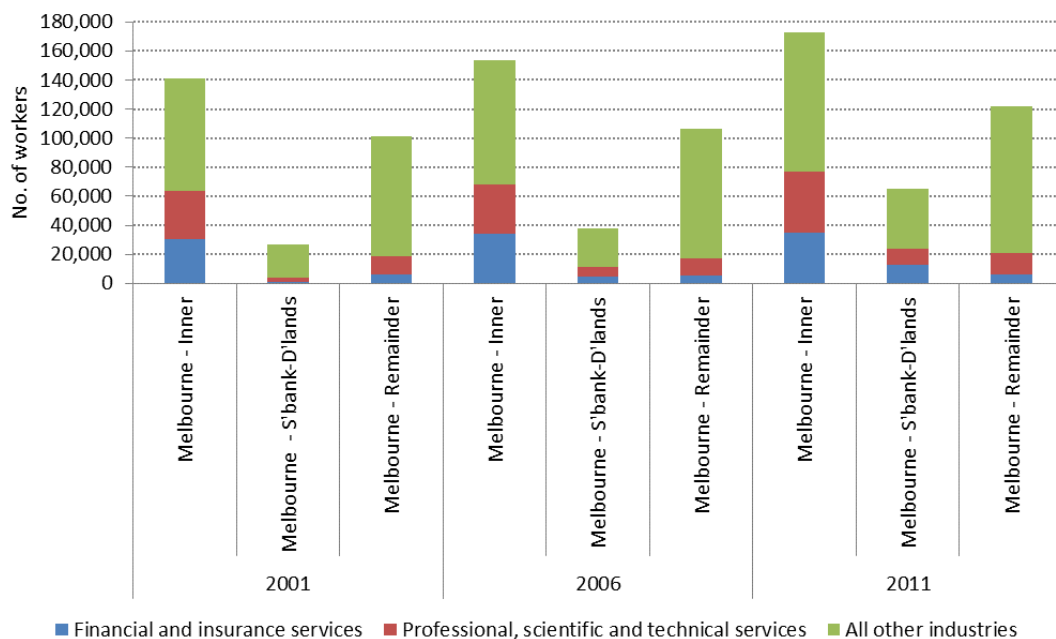
5.10.2 The city centre and Advanced Producer Services (APS) employment

Chart 5.10.3 demonstrates the composition of the employment, particularly APS employment, based in these three City of Melbourne SLAs over the decade. The Melbourne-Inner SLA has the greatest proportion and number of APS workers, and while this grew by 13,072 or 21% over

the ten years, the proportion of APS workers in the SLA did not alter significantly, from 45% in 2001 to 44.6% in 2011. The Melbourne-Remainder SLA experienced the smallest growth of APS workers from 2001 to 2011, increasing by only 2,181 workers and comprising 17% of the total employment based in the SLA. This is explained by the more diverse industry mix based in the SLA, which takes in the industrial and manufacturing precinct of Fishermans Bend (home of General Motors and Boeing), the university precinct of the University of Melbourne in the Carlton/Parkville area and associated research centres such as the Walter and Eliza Hall Institute and the Murdoch Children's Health Institute. There is also considerable Health care and social assistance employment in this SLA as a result of the many major hospitals based there including: the Royal Children's Hospital in Flemington/North Melbourne area; St Vincent's Hospital; the Royal Victorian Eye and Ear Hospital, Freemasons Hospital, and the (now demolished) Mercy Hospital in East Melbourne, in addition to many allied health services such as pathology, dentistry and chiropody, as well as specialists and surgeons rooms located nearby.

The Southbank-Docklands SLA experienced the greatest APS employment growth out of the three SLAs over the period 2001-2011, increasing by 19,842 workers from 4,071 in 2001 to 23,913 by 2011, and increasing the proportion of employment within the SLA from 15% in 2001 to 37% ten years later. The rapid employment increase was a result of a state government led relocation program of many major banking and finance companies into the SLA. A more detailed explanation and analysis of this relocation policy and program is undertaken in Chapter Six.

Chart 5.10.3 APS and other industry employment in City of Melbourne SLAs, 2001-2011



Source: ABS Census 2001, 2006, 2011

5.11 Drivers of the city centre's economy over the 2000s

5.11.1 Increased residential housing in Melbourne's city centre

Policies to rejuvenate the central city in Melbourne reach back to the Cain-Kirner state labour government of the 1980s, and were in keeping with other urban renewal projects of de-industrialising cities of that time (Shaw 2013). Architect Rob Adams credits the 1985 Strategic Plan as instrumental towards the introduction of a new urban design philosophy for the city center, which would combat the sense of decay that many felt was starting to permeate the city at the time.

This design philosophy outlined in the 1985 Strategy Plan was both modest and simple, possibly reflecting the limited resources available to the City at this time. In essence it called for the city to build on its existing strengths in a manner that reflected the local character. It also called for a turn around strategy and for the proactive increase of uses within the central city, namely turning it from a central business district into a central activities district. This would be best achieved by reintroducing residential uses. (Adams, R 2008, pp.6-7)

The economic boom of the 1980s had led to a surplus of newly constructed commercial office blocks in the city, and the subsequent recession in Victoria left many of these buildings vacant. One response to the high vacancy rate of CBD commercial buildings in the late 1980s and early 1990s was to convert them into residential premises (Costello 2005; McLoughlin, J Brian 1992). In 1993 the City of Melbourne released the statement *Postcode 3000 Program: Action Plan for City Living 1992-1995* which outlined a series of local council initiated actions such as lowering rates, reducing permit/development approval fees for residential building works undertaken in the CBD and loosening the approval regulation for converting existing city buildings into residential use, which served to facilitate further residential housing in the CBD.

The development of inner city high rise living in the 1980s and 1990s marked something of a paradigm shift in housing preferences within the city. In the 1960s and 1970s, public perceptions of inner city high rises, which were steadily replacing the inner city worker cottage slums for public housing purposes between 1962 and 1970, considered them to be 'prisons in the sky'. As Costello (2005) notes 'High density living was considered to be an anathema to the Australian way of living' (p.53) and was associated with ghettos, crime, social disadvantage and poverty. However the image of the high rise underwent a transformation into a symbol of success, wealth and prosperity when funded by the private sector and occupied by non public housing residents. 'These new developments were considered to exemplify economic growth in Melbourne and the new residents added vibrancy to the CBD not witnessed before' (Costello 2005, p.55).

In addition to residential activity based in the CBD, considerable housing activity took place in the adjoining Southbank and Docklands areas. The previous chapter has outlined the Cain government's development of the Southbank precinct into an arts and recreation precinct. This was accompanied by considerable residential apartment construction. In 1991 the Docklands Authority was established to oversee development and extend the central business district along its western side. A strategic plan for Docklands was released in 1995. The first construction project undertaken was the football stadium in 1997 (now known as Etihad Stadium, also the headquarters of the Australian Football League), while construction of the first apartments began in 2000.

Table 5.11.1 Residential population of the central city area of Melbourne

SA2	Residential population*			Residential population net change			Residential population % change (CAGR)		
	2001	2006	2011	2001–2006	2006–2011	2001–2011	2001–2006	2006–2011	2001–2011
Southbank	5,752	12,653	15,599	6,901	2,946	9,847	17%	4%	10%
Docklands	787	5,005	7,418	4,218	2,413	6,631	45%	8%	25%
Melbourne	17,478	26,432	33,850	8,954	7,418	16,372	9%	5%	7%

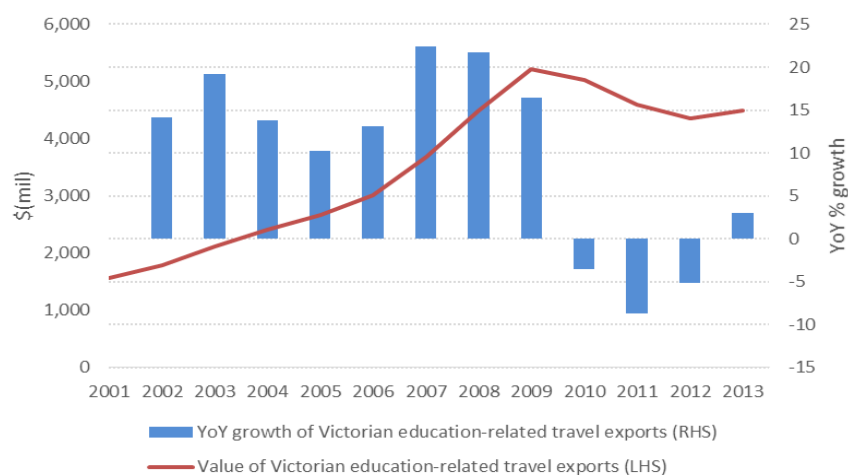
Source: ABS Census, 2001, 2006, 2011

* Residential populations are available from the ABS at the 2011 ASGC classification of Statistical Area 2 – a smaller geographic area than Statistical Local Areas otherwise used in this research.

5.11.2 Growth of higher education participation and the international education industry in Melbourne

Both Bianchini (1995), in his examination of the growth of the ‘night time economy’ (NTE) in western cities, and Roberts in the more recent (2006) study of the NTE in British cities, credit the expansion of the NTE in the late twentieth century with the expansion of the higher education sector and the growth in the numbers of university students in many western city populations. Australia, like Great Britain, has expanded the higher education student population considerably since the 1960s. Since the 1990s, the provision of international education in Australia has also surged. Education related travel (or international education) is now the largest Victorian export (out of both goods and services), and grew by an average of 18.3% per annum from 2000-2001 to 2007-2008, peaking in value in 2009-2010 when it was worth \$5.5 billion.

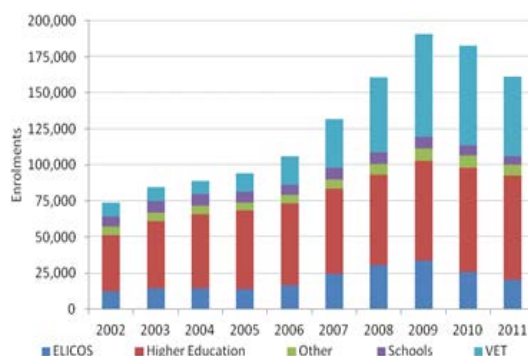
Chart 5.11.1 Value and year on year growth rate of Victorian Education-related travel exports, 2001-2012



Source: ABS 2013 International Trade in Services by Country, by State and by Detailed Services Category, Financial Year, 2012-13, cat. no. 5368.0.55.003, ABS, Canberra

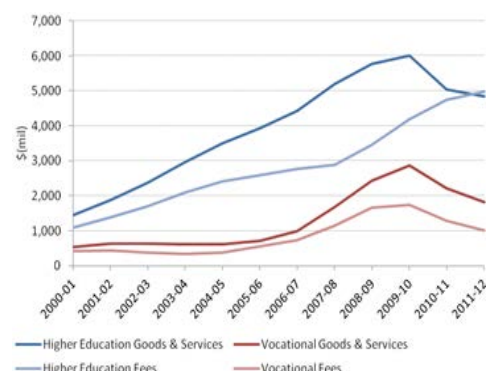
Although the numbers of international students studying in Melbourne has since declined, the period 2000-2008 saw a great expansion of Melbourne's international student population, a great proportion of whom lived and studied in the city centre. Some geographers have even hypothesised that the initial residential expansion of the city centre in the early 2000s was a result of the conversion within the Hoddle Grid of vacant commercial property to residential property that catered to Melbourne's then burgeoning international student population (Tsutsumi & O'Connor 2006). The impact of their presence flowed through to education and training business establishments. There were many 'shop front' universities and higher education institutions located in the CBD throughout 2005-2008, as well as many (largely private) VET providers and English language instruction and testing (ELICOS) establishments – largely prompted by the business generated by the increasing number of students enrolling in local courses in order to assist with residency applications, as per the arrangements (which changed in 2008) of the Skilled Migrant Scheme (Rood & Leung 2006).

Chart 5.11.2 Victorian international student enrolments by sector



Source: Department of Education and Training, International Education Group

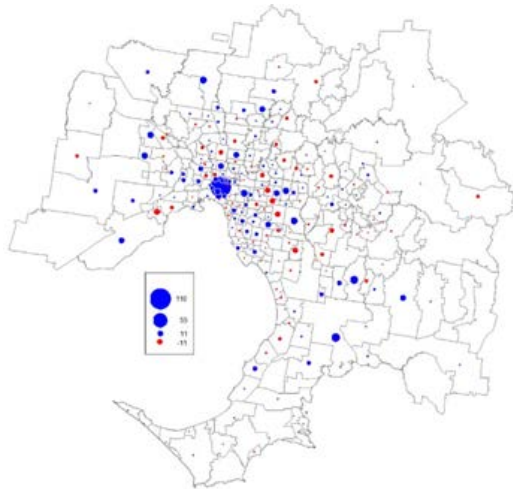
Chart 5.11.3 Education related travel by educational sector and type of expenditure



Source: ABS 2013 International Trade in Services by Country, by State and by Detailed Services Category, Financial Year, 2012-13, cat. no. 5368.0.55.003, ABS, Canberra

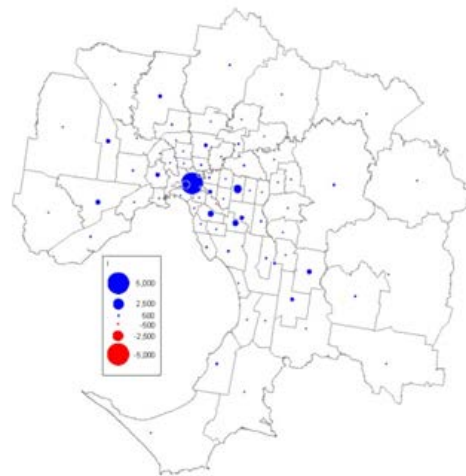
The impact of the increasing education sector related businesses and employment based in the city centre is evident in Maps 5.11.1 and 54.11.2.

Map 5.11.1 Education and training business net change, Greater Melbourne, FY 2001-FY 2011



Source: Worksafe Victoria

Map 5.11.2 Education and training employment change, Greater Melbourne 2001-2011



Source: ABS Census 2001, 2011

5.11.3 Growth of Accommodation and food services employment, businesses and expenditure in the city

A further development that saw increased economic activity in Melbourne's city centre was the increase in consumer spending on cafés and restaurants over the 2000s. According to Frost et al. (2010), the migration over the post-war era of many Italian nationals was key to the gradual transformation of the city into the highly café populated metropolis that we are familiar with today. By the 2000s Melbourne's vibrant café society became a key plank for the tourist experience in marketing material about the city, central to the place promotion that presents a city destination connoting cosmopolitanism and liveability. Frost et al. attribute this purposeful and careful marketing to the need to develop an *experience* economy in a city such as Melbourne, which does not have any large scale tourist attractions, such as the Opera House in Sydney.

A key reform in the development of Melbourne's café culture was the liquor licensing changes wrought by the Cain government in the 1980s. The initial relaxing of liquor licensing laws in Victoria (to what we are familiar with today) began in 1985 with the review of Victorian liquor licensing laws by economist John Nieuwenhuysen. Further deregulation occurred in 1998. Regulation surrounding the licenses to sell and consume alcohol in Victoria had previously followed the social mores of the prevailing era (in line with other Australian states and even Great Britain) – from *laissez faire* regulation when drinking was commonplace and socially acceptable such as in the early days of the colony, to periods of greater restrictions when the

influence of temperance movements arose during other stages of the twentieth century, as liquor licensing became a tool to shield the population from excess (mainly male) alcohol consumption and associated social problems. While alcohol consumption and the public's access to alcohol had been seen as a public health issue, Zajdow (2011) research indicates that by the 1980s, in keeping with the free market economic policies promoted at the time, the regulation of liquor licenses was seen to be inhibiting the market. There was growing demand for 'European-style' cafés, where patrons could order a glass of wine without ordering a meal. Nieuwenhuysen's report

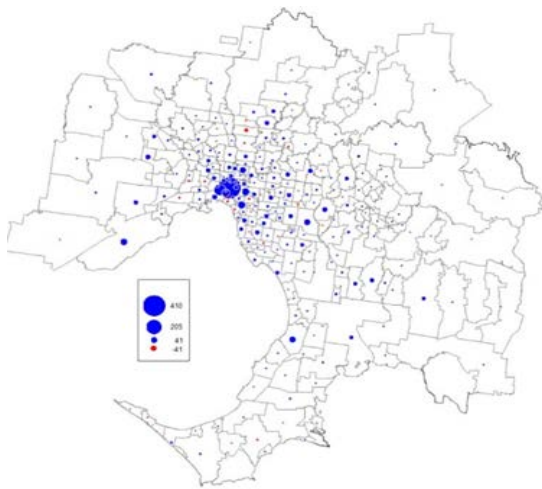
...fell back on the arguments of laissez-faire economists who considered that the markets would provide all that was needed as long as education was in place and the citizen-consumer became self-monitoring and reflective' (Zajdow 2011, p.90).

Harden (2009) charts the growth of Melbourne's café society, from its inception in the post war period when new European migrants to the city brought with them different social dining expectations and traditions, to the fully fledged, 'experience tourism' industry that features so prominently in the city's promotion today. The presence of cafes also featured prominently in Richard Florida's thesis on creative cities. Cafés and bars situated on Melbourne's laneways have continued to figure prominently in the City of Melbourne's marketing material of the city centre, as Harden notes:

'Melbourne-style bar' has become the nationally recognised shorthand for a small, quirky, creative watering hole that is the antithesis of the large, generic, bingeing and blipping pokie joints that proliferate everywhere across the land (Harden 2009, p.143).

The presence of increasing numbers of central city-based business establishments and their workforce, students and residents fuelled the increase in demand for Accommodation and food services in the area. By 2012 retail tenancies in the CBD had experienced a sustained demand for hospitality-related services; increasing shop-front coverage by 85% from 2000 when it numbered 14% of total tenancy mix, compared to 26% in 2012 (Hopkins 2012). The commercial development of the Southbank and Docklands areas had also driven increases in Accommodation and food services establishments over the 2000s, as the data provided by the Worksafe authority indicates, they numbered only 53 for Southbank and 4 for Docklands in 2001, but had grown to 117 and 128 respectively by 2011.

Map 5.11.3 Accommodation and food services business net change, Greater Melbourne, FY 2001-FY 2011



Source: Worksafe Victoria

Map 5.11.4 Accommodation and food Services employment change, Greater Melbourne, 2001-2011



Source: ABS Census 2001, 2011

5.11.4 Impact of increasing discretionary spending on retail and food services

A key driver of the business and employment growth based in the city centre on cafés and restaurants over the period 2001-2011 was an overall increase in the discretionary spending on these services across Victorian and Australia. A report by the University of Canberra's National Centre for Social and Economic Modelling (NATSEM) economic modelling unit (Phillips, B, Li & Taylor 2012) into the cost of living in Australia examined household income and expenditure on key goods and services over recent years and found:

- Income and expenditure for Australian households have outpaced inflation over the last 25 years (indeed after-tax disposable income grew by 45% over this time).
- There was an increase in spending on discretionary items and services (as defined by the ABS Household Expenditure Survey) across all income quintile ranges.
- There were no accelerated costs of living pressures across all household types (e.g. income level and type, household composition, age or housing tenure) either in the long term (since 1984) or recently (from 2003 onwards).

Table 5.11.2 Expenditure growth by detailed expenditure classes, 1984-FY 2010

Top ten items		Expenditure multiple
1	Tertiary education	18.7
2	Childcare	11.9
3	Restaurant meals	9.7
4	Preschool/Primary education	9.6
5	Sport participation	8.1
6	Secondary education	7.7
7	Other services - cars	6.8
8	Pharmaceutical products	6.3
9	Veterinary services	5.5
10	Mortgage interest	5.3

Source: Phillips, B, Li, J & Taylor, M 2012, *Prices These Days: The Cost of Living in Australia*, National Centre for Social and Economic Modelling, University of Canberra, Canberra

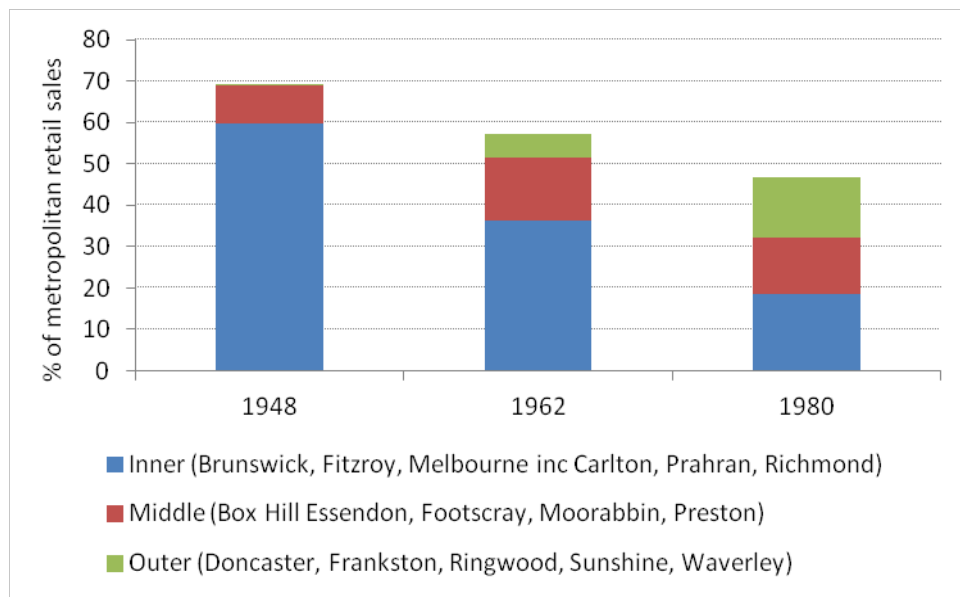
Over the longer term the study identified tertiary education (reflecting the introduction of HECS fees in Australia during the 1990s), child care and restaurant meals as the top three items and/or services with the highest expenditure multiple since 1984.

In addition to the factors identified in the NATSEM study as drivers of changing consumption patterns such as higher income levels, low inflation and decreasing (real) prices for many goods and services, Victoria and Melbourne also experienced a favourable economic environment throughout the 2000s that facilitated the growth in these services-related establishments. This includes a prolonged period of low unemployment (and high labour market participation), as well as the previously mentioned record-level population increases.

5.11.5 Retail trade employment and businesses in the city centre, 2001-2011

Retail trade has always been a dominant industry in Melbourne's city centre; the city was the only retail precinct in Melbourne until the advent of the Chadstone Shopping Centre based in Melbourne's south eastern suburbs in the 1950s (Townsend 2012). Davison (2006) recounts that even as suburbanisation was taking hold in Melbourne in the post-war years, and with it the increase in suburban shopping strips and malls, more than 50 percent of purchases for durable items such as clothing and furniture were made from stores based in the city. The path dependent historical ties between the Retail trade industry and the city centre are once again strong (for example the prominent Myer department store). The business establishment data provided by WorkSafe Victoria shows a considerable increase in the clothing retailing sub-division throughout the 2000s, a mainstay of the retail sector in the city centre.

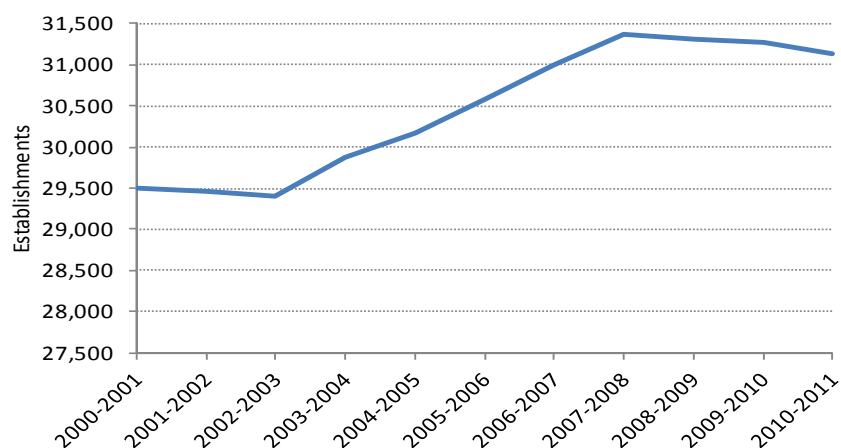
Chart 5.11.4 Proportion of retail sales by metropolitan Melbourne area, 1948-1980



Source: Adapted from Spearitt, P & Young, J 2008, *Retailing*, University of Melbourne, viewed 18/11/2013, <<http://www.emelbourne.net.au/biogs/EM01241b.htm>> .

Retail trade employment and business establishments grew briskly for much of the 2000s, driven largely by increases in clothing retailing. However, in the post Global Financial Crisis (GFC) period (2008 onwards) the industry experienced considerable contraction.

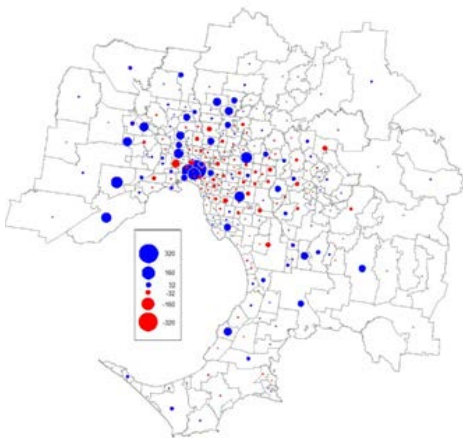
Chart 5.11.5 Numbers of Retail trade businesses in Victoria, FY 2001 to FY 2011



Source: WorkSafe Victoria

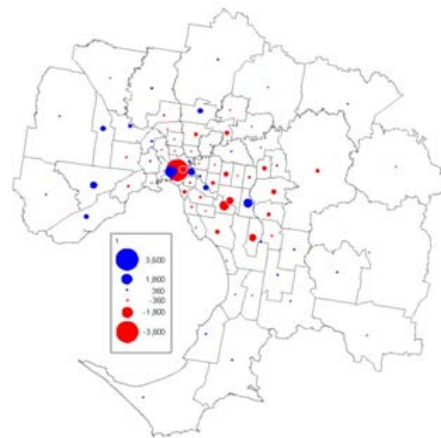
Map 5.11.6 on employment change above indicates a considerable decrease of retail trade employment based in the city centre over the ten years to 2011 and smaller increases in employment in growth areas along the western ring road and specific outer south-eastern and eastern suburban locations where large shopping centres are located, for example Chadstone Shopping Centre and the Glen Shopping Centre.

Map 5.11.5 Retail trade business net change, Greater Melbourne, FY 2001-FY 2011



Source: WorkSafe Victoria

Map 5.11.6 Retail trade employment change, Greater Melbourne, FY 2001-FY 2011



Source: ABS Census 2001, 2011

5.12 Conclusions

This chapter has examined the state level policies relating to urban planning in place in Melbourne over the period 2000-2011, particularly in relation to employment and industry location. The impact of deindustrialisation and gentrification on the inner-city area over the last forty years has been discussed, together with the impact of agglomeration economies on employment and productivity in Melbourne's city centre.

The ensuing analysis of employment and business establishment data in Greater Melbourne over the period 2001-2011 indicated that intense jobs and business growth occurred in the city centre. While this does not discount the impact of agglomeration effects, the growth in economic activity occurring in the city centre could not be attributed to economic geographic phenomena of agglomeration alone. Pivotal in the reinvigoration of the Melbourne CBD over the 2000s was a series of reforms enacted by successive state governments, beginning in the 1980s and continuing through the 1990s reflecting the broader free market ethos of the times – liberalising liquor laws, extending shopping trading hours, and rezoning commercial and office precincts to include residential activity – all contributed to expanding the economic and market capitalisation of the CBD beyond standard 'nine to five' office hours, and the development of the night time economy (NTE). The NTE has also allowed for the proliferation of business and

employment in services industries outside of APS, such as accommodation and food services in the central city area of Melbourne.

Certain factors behind the development and economic growth in the central city area also align with tenets of the Global City thesis; development occurring throughout the 2000s was indeed partly an influx of foreign capital in the form of commercial building construction harking back to the 1980s, and an influx of migration, propelled by growing numbers of international students. Certainly APS services and employment based in the city centre have grown (and this will be examined in further detail in the following chapters) and in keeping with Sassen's thesis of APS growth stimulating growth in other lower skilled, services-style industries. However, in keeping with the findings of Parnreiter et al. (2013) in their study of Johannesburg and Mexico City, and also Grant and Nijman in their earlier (2002) study of Accra and Mumbai, central city area economic change in Melbourne can also be attributed to a series of local state-level policies, many of which in Melbourne's case were initially instigated in the 1980s.

Thus, while the picture presented in this chapter of Melbourne's urban form change throughout the 2000s is of the Melbourne economy as it integrates more and more into a globalising economy, it is also a result of local contextual factors. This is more in keeping with van Kempen's theorization on 'contingencies' that serve to mediate the influence of globalization on a city's spatial development. In van Kempen's set of contingencies, the physical setting and history of the city (the long-established role of the central business district in Melbourne acting as a business and retail hub for the wider suburban area of the city), economic development in the form of greater discretionary spending on services such as accommodation and food creating demand for such activities in the city centre, the growth of the NTE) and the influence of political power and governance (seen in the form of land use and planning policies for Melbourne; the responses to deindustrialization and the potential of 'ghettoisation' in the 1970s, the supposed need for polycentricity to enforce greater containment for Greater Melbourne).

Part Two

Chapter Six: An Examination of Advanced Producer Services (APS) in Australia, Victoria and Greater Melbourne

6.1 Introduction

The previous chapters of this thesis have established the theoretical frameworks for examining cities in a globalised era and presented an economic history of Melbourne together with an examination of the largely historical factors behind what constitutes the city's urban form that remains to this day. An analysis of key state government level policy decisions made in relation to the economic development and marketing of the city throughout the 1980s and 1990s, the growth of the night time economy (NTE) and international student market together with business and employment growth throughout the 2000s, saw Melbourne's city centre transform into the locus for much of the city's economic and recreational activity. The conclusions of the analysis include the observation that the economic growth Melbourne experienced over the 2000s could not be accounted for by globalising city theories alone, as a series of state government-level policy and economic development decisions and campaigns contributed to the spatial and economic change.

Part Two of this thesis returns to the theoretical frameworks outlined in the literature review; specifically the role of APS in Melbourne's economic development throughout the 2000s. Part Two begins with a chapter examining employment trends across Australian jurisdictions over the period 2001-2011 in APS, followed by two chapters examining APS employment and businesses in the Greater Melbourne area, as well as the spatial movement of APS industries across the city. This exercise is necessary to determine the performance of Australian based APS over the period 2001-2011 and the level to which their fortunes were tied to developments across other cities and economies around the world, or whether, in keeping with the findings of the previous chapter, there were local, national or state-level factors also at play.

Part Two concludes with a chapter containing the findings of a series of interviews undertaken with APS firms based in Melbourne, testing key elements of World and Global City theories, and the assumptions that lie behind some of the recent research and analysis undertaken by the Globalisation and World Cities (GaWC) Research Network with its emphasis on company headquarter location and the nature of relationships between members of regional and head offices. Overall, Part Two of this thesis examines APS growth in Australia and Melbourne specifically, in both a quantitative and qualitative sense, using established methods of examining APS growth through data analysis, as well as incorporating a qualitative component that certain critics of elements of existing research on global cities, such as Parnreiter (2010), Beaverstock (2004) and Jones (2002) feel have been underdeveloped to date.

6.2 Previous research and literature review of APS-related studies in Australia

The limited number of studies into APS in Australia stem from broader economic geography research regarding the changing nature of the Australian economy and the impact of globalisation, such as the studies by Daniels and Langdale (1995) and more recently by Stimson (2011) and Beer (2012). These studies noted the impact of neoliberal policy changes and development that occurred in Australia over the late twentieth century, and the impact of this on regional and city economies. Beer in particular notes the impact of the ‘financialised’ economy on the central business districts (CBDs) of Australia’s major cities (Beer, C 2011, p.271), although in-depth studies of industry, employment and labour market change within Australian city CBDs have been few and far between (Edgington 1982; Hu, R. 2010; Scott 1959).

While some early work on the state of APS in Melbourne was undertaken by O’Connor and Edgington (1991), most previous research into Australian cities and APS has largely been Sydney-focussed (Daly, M & Pritchard 2000; Hu, Richard 2013; Searle 2009). More recently there has been analysis undertaken on the economic growth of Melbourne over the 2000s by O’Connor and Searle (2013), and the impact of the post-Olympics (e.g. post 2000) economy on Sydney (Stimson 2011). Given the importance of manufacturing to the Melbourne economy throughout the latter decades of the twentieth century and the suburban nature of manufacturing employment, previous analyses of Melbourne’s economy have tended to centre on regional labour markets, informed by core-periphery theories of labour market mobility (Healy & O’Connor 2002; O’Connor & Rapson 2003). There has been some analysis of Melbourne’s economic growth informed by the world city theory prism in O’Connor’s analysis of air traffic movement, and the transport and logistics industry (O’Connor 2010; O’Connor, Kevin 2003). Yigitcanlar et al. (2008) have also examined the impact of state government economic development policies throughout the 2000s on the city’s knowledge economy and industries.

The following examination of APS growth in Australia uses a similar methodology to Hu’s 2009 study of Sydney and O’Connor and Searle’s recent (2013) examination of Sydney and Melbourne, using ABS Journey to Work (JTW) Census data of employment in Professional scientific and technical services and Financial and insurance services as an approximation of APS in the Australian context. In keeping with the data source used in Chapter Three, this section (Part Two) also makes use of data provided by the Victorian WorkSafe authority (WorkSafe) on Melbourne based business exits and entries throughout the 2000s. This dataset provides the location of all businesses registered with Worksafe by postcode. Businesses have been listed according to Australian and New Zealand Standard Industry Classification

(ANZSIC) 2006 sub industry, thus affording ready comparisons with the ABS data on employment over the same time.

6.3 Defining APS, professional services and financial services in the Australian economy

The definition of APS has consolidated over the last twenty years; Saskia Sassen initially used a loose definition of what constituted APS in her initial texts (1991). The work and research of the GaWC group over the last ten to fifteen years on multinational firms in the accountancy, legal services, advertising, management consultancy and financial sectors has seen these industries largely come to define the APS sector. Taylor et al.'s 2011 study included a chapter on the international media industry (Taylor himself researched architecture services, see Knox & Taylor (2005)), and the literature review contained a brief outline of the many and varied industries that can be used to demonstrate broader world city networks (international air travel, sex industry, youth volunteers).

In terms of the Australian industry classification systems, the most relevant in representing APS are subdivisions within ANZSIC 1993's Property and business services and Financial and insurance services, and ANZSIC 2006's Professional scientific and technical services and Financial and insurance services. The change from Property and business services to Professional scientific and technical services was the most substantial; property, real estate and support services such as building cleaning, secretarial services and employment placement activities were moved to other services related industries such as Rental, hiring and real estate services and Administrative and support services, leaving the updated 2006 ANZSIC with a list confined specifically to business and professional services sub industries. The changes to the Financial and insurance category in the 2006 ANZSIC code was less dramatic, as the changes were largely related to nomenclature, providing a more up to date descriptions of finance industry activities.

6.4 APS in Australia

Industries that align with APS such as Financial and insurance services and Professional, scientific and technical services ('Professional services') are based predominantly in Sydney, New South Wales (NSW). Finance and insurance services, in particular, has over 40% of all employment based in NSW, due to the series of macro-economic reforms instigated throughout the 1980s. Information, media and telecommunications is also heavily represented in NSW, with over 40% of national employment in the sector based there.

Taken together, Professional services and Financial and insurance services account for 1,109,430 jobs, or 11% of the Australian total. Table 5.4.1 demonstrates that growth in the two

sectors has largely been driven by increases in Professional services employment, particularly over the period 2006-2011, when it grew by 21%.

Table 6.4.1 Employment growth in APS services in Australia, 2001-2011

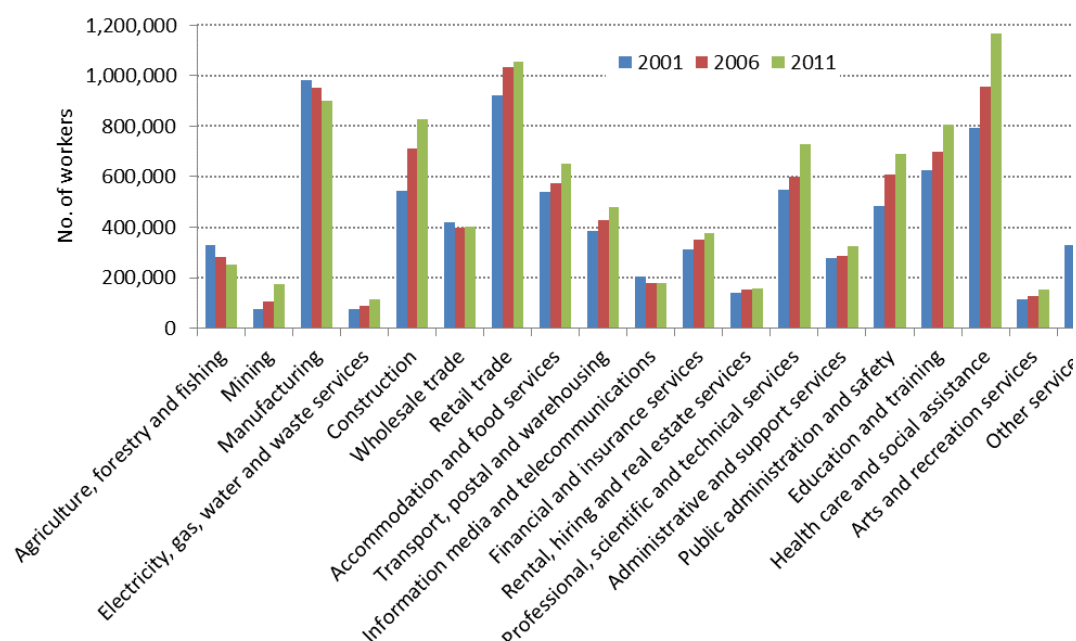
	2001	2006	2011	Change 01-06	Change 06-11	Change 01-11	% change 01-06	% change 06-11	% change 01-11
Professional, scientific and technical services	548,491	602,012	730,071	53,521	128,059	181,580	9.76	21.27	33.11
Financial and insurance services	312,396	348,593	377,348	36,197	28,755	64,952	11.59	8.25	20.79

Source ABS Census 2011 Time Series Profile

6.5 Growth of services industries within the Australian economy, 2001-2011

According to the latest ABS Census data, there were 10,058,314 people employed in Australia in 2011, an increase of 21% from 2001.

Chart 6.5.1 Employment by industry, 2001, 2006 and 2011, Australia



Source ABS Census 2011 Time Series Profile

Chart 6.5.1 demonstrates the longer-term shift towards services industries in the Australian economy over the period 2001-2011. Health care and social assistance, Retail trade and Manufacturing were the three largest employing industries in 2011.

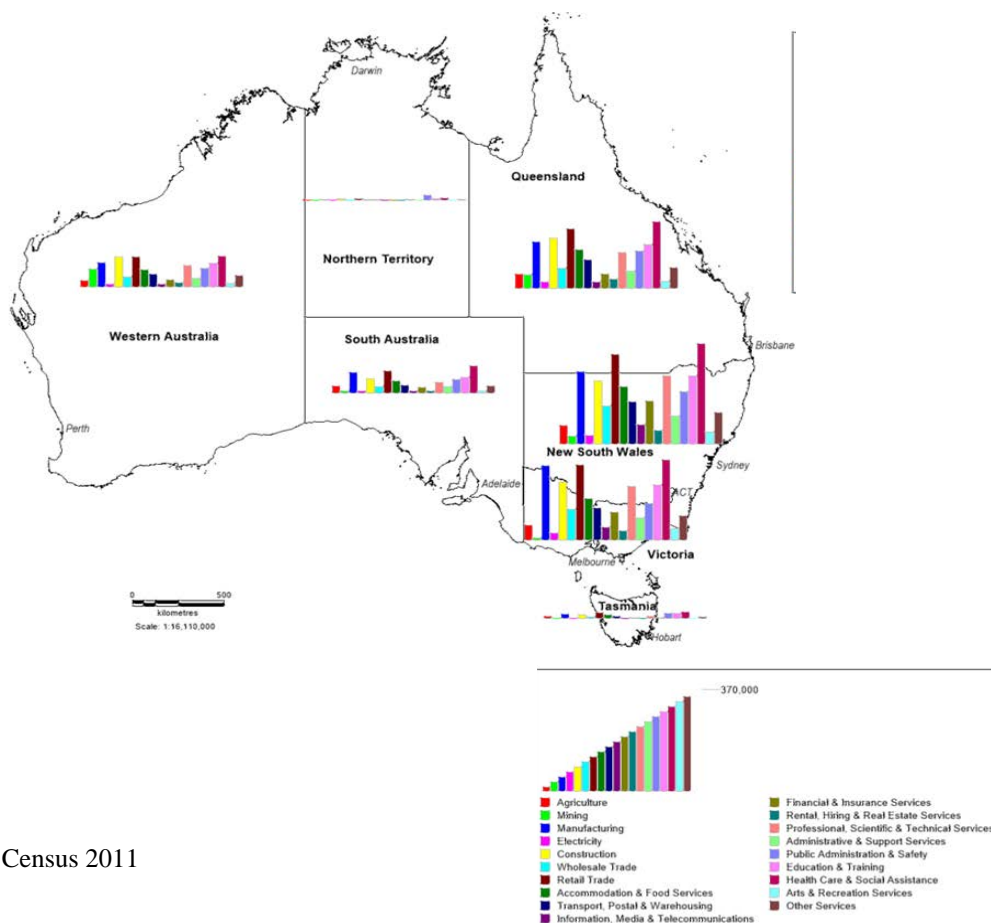
While Manufacturing was the highest employing industry in Australia in 2001, employment fell by 78,126 workers over the next ten years to 902,826 workers, or 8%. By contrast, employment grew by 374,429 workers or 47% for the Health care and social assistance industry, and the second-highest employing industry, Retail trade, grew by 134,747 workers or 15%.

After Health care and social assistance, the industries to experience the greatest net growth in workers between 2001 and 2011 were Construction, which increased by 285,672 workers or 53%, Public administration and safety, increasing by 206,241 workers or 43% and Professional, scientific and technical services, increasing by 181,580 workers, or 33%. In terms of growth rates, Mining and Electricity, gas, water and waste services experienced the largest growth rates – 135% and 50% respectively, although they are the two smallest employing industries in 2011 in terms of actual numbers. Nevertheless, such a large increase in Mining employment in the ten years to 2011 demonstrates the impact of the mining and resources boom on the broader Australian economy during the 2000s.

Agriculture, forestry and fishing experienced the greatest fall in employment numbers, declining by 80,963 workers or 24%, followed by Manufacturing. Other industries to experience overall employment declines between 2001 and 2011 were Information media and telecommunications, falling 26,094 workers or 13% and Wholesale trade, which fell by 14,122 workers or 3.4%.

Map 6.5.1 demonstrates the industry specialties by Australian state. NSW has the largest workforce with 3,138,328 workers or 31% of the national total. Victoria is the second largest, with 2,530,631 workers or 25% of the Australian total. This compares to NSW and Victoria's 32% and 25% respectively proportion of the national population. NSW has the greatest share of employment across all industries with the exceptions of Mining, where Western Australia (67,942 or 38%) and Queensland (52,953 or 30%) have the greatest number of workers and national share, and Manufacturing, where Victoria (still) has the greatest number of workers (271,051) and national share (30%). Thus the Victorian economy's specialisation in manufacturing, discussed in greater detail in Chapters Three and Four, remains to this day.

Map 6.5.1 Australian states by employment by industry, 2011

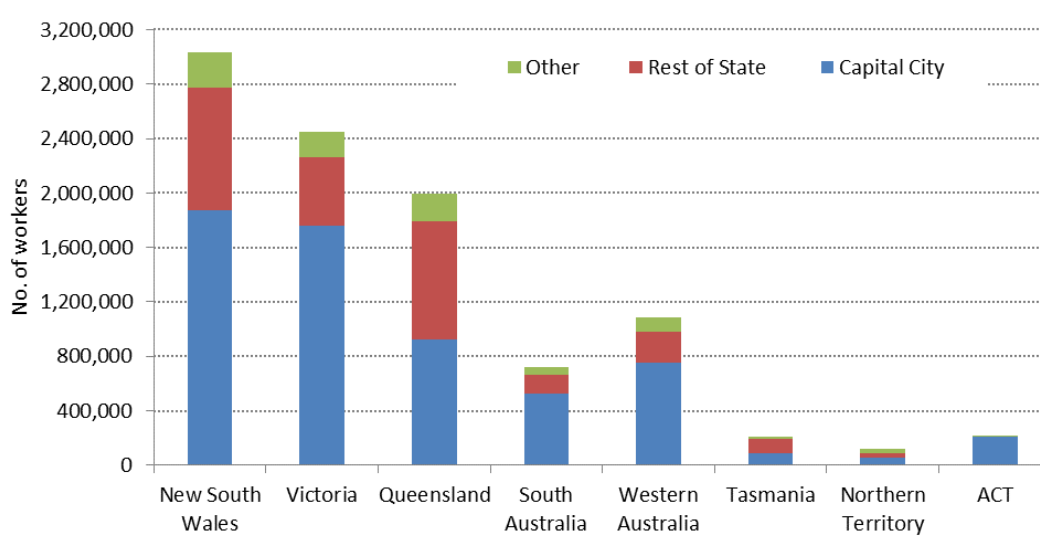


Source: ABS Census 2011

6.6 Economic importance of Australia's capital cities

Chart 6.6.1 demonstrates that most employment in Australia is based in the capital cities, although there are some state variations – less than half of employment in Queensland (46%), Tasmania (44%) and the Northern Territory (45%) is based in their capital cities. South Australia (73%) and Victoria (72%) have the greatest proportion of state employment based in their capital cities of Adelaide and Melbourne respectively. Sydney had the largest capital city-based workforce at 1,874,116 people, comprising 62% of the total NSW workforce in 2011.

Chart 6.6.1 Capital city and rest of state employment in Australia, 2011



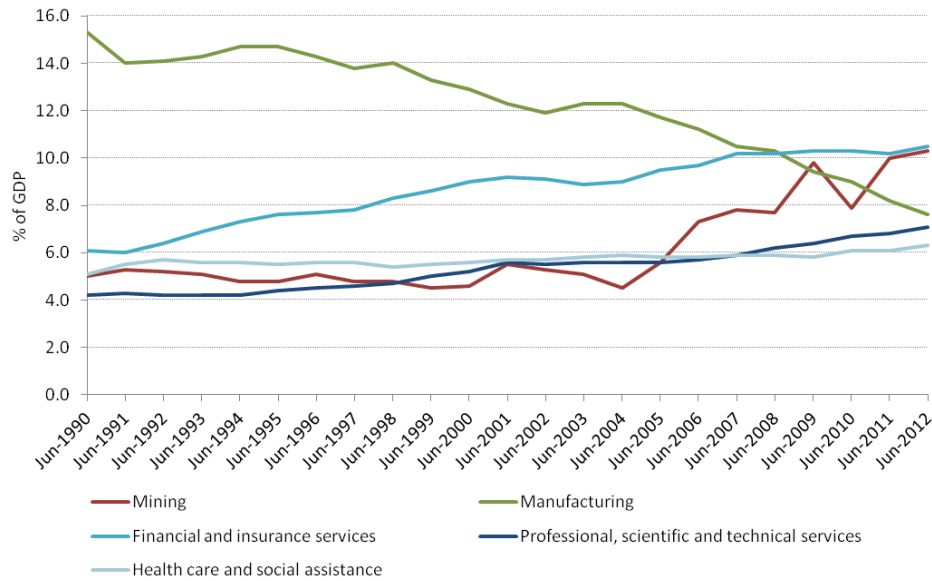
Source ABS Census 2011

The weighting of Australian employment towards the capital cities is unsurprising given the country's population settlement pattern and history, whereby most of the population has been located in the capital cities since the post war period (Hugo 2008).

6.7 APS in Australia

The advancement of APS within the development of global cities and the WCN in the current era of globalisation was outlined in detail in the literature review chapter. Australia, in keeping with other developed countries, has seen the growth of APS in recent decades, both in productivity and employment terms. The chart below on selected industries' contribution to Australian gross domestic product (GDP) demonstrates the long term declining GDP share of the manufacturing industry, while Professional services, Health care and social assistance, Mining and Financial and insurance services all increased in terms of their contribution. The Financial and insurance services industry increased its share of GDP relatively steadily over the period 1990-2012. The mining industry's contribution to GDP also increased considerably from 2004 onwards, although this fluctuated over the period 2008-2011. Financial and insurance services remained the highest contribution industry to GDP since 2008, despite the increased productivity in Mining.

Chart 6.7.1 Selected industries' contributions to Australian gross domestic product (GDP), 1990-2012

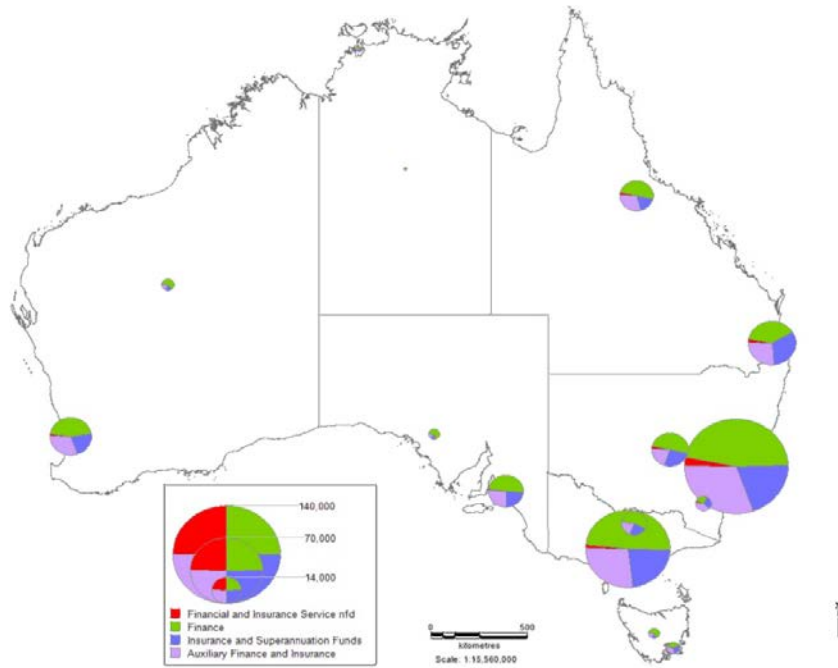


Source: ABS Cat. No. 5204.0 Australian System of National Accounts

6.8 Location of APS in Australia

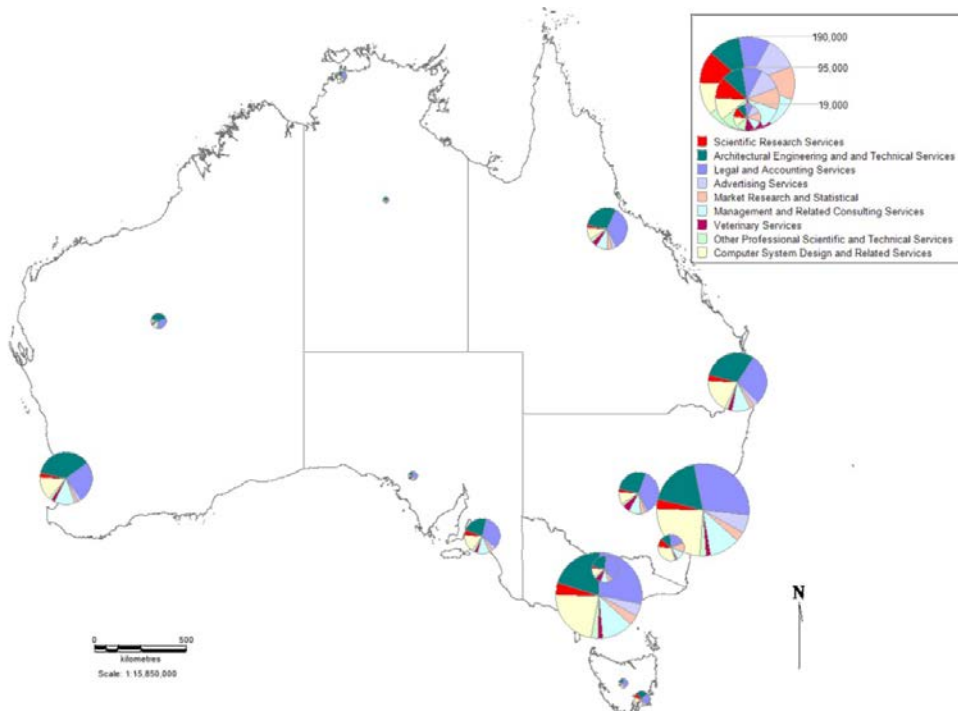
Other studies have noted the tendency for APS industries to be based in cities (Novakowski 2010) and Australian based Financial and insurance services and Professional, scientific and technical services ('Professional services') are no exception – the charts below demonstrate that employment in these industries is largely based in Australia's capital cities – 83% of Financial and insurance services and 81% of Professional services in 2011. This proportion once again varies from city to city; for Financial and insurance services, 85% of NSW total employment is based in Sydney, and 88% of Victoria's Financial and insurance services employment is based in Melbourne; for Professional services 80% of NSW employment is based in Sydney while 88% of Victorian Professional services employment is based in Melbourne. Tasmania, Queensland and Western Australia have lower proportions of Professional and Financial and insurance services employment based in their capital cities. Both industries are heavily loaded towards NSW and Victoria – 70% of all financial services and 61% of all Professional services are based in Victoria and NSW combined.

Map 6.8.1 Financial and insurance services employment 2011, place of work, capital city and rest of state



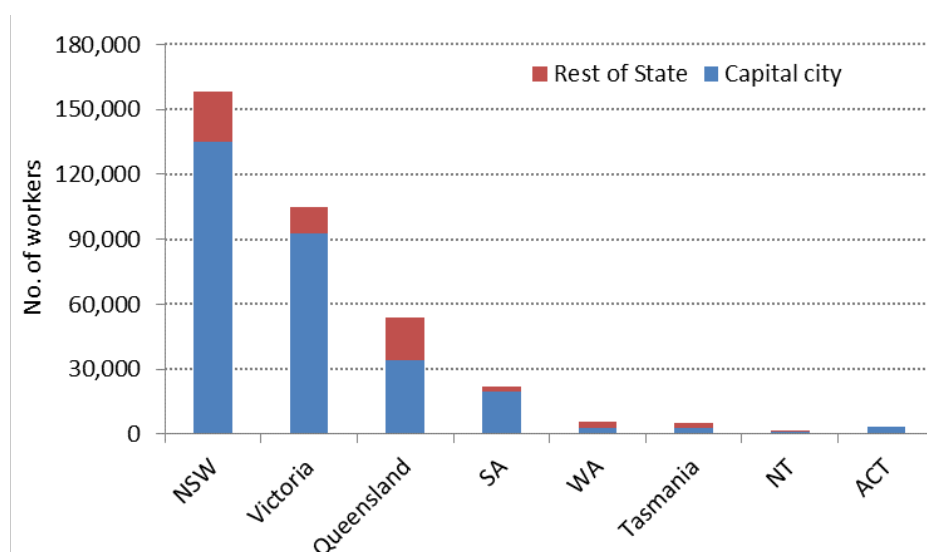
Source ABS Census 2011

Map 6.8.2 Professional services employment 2011, place of work, capital city and rest of state



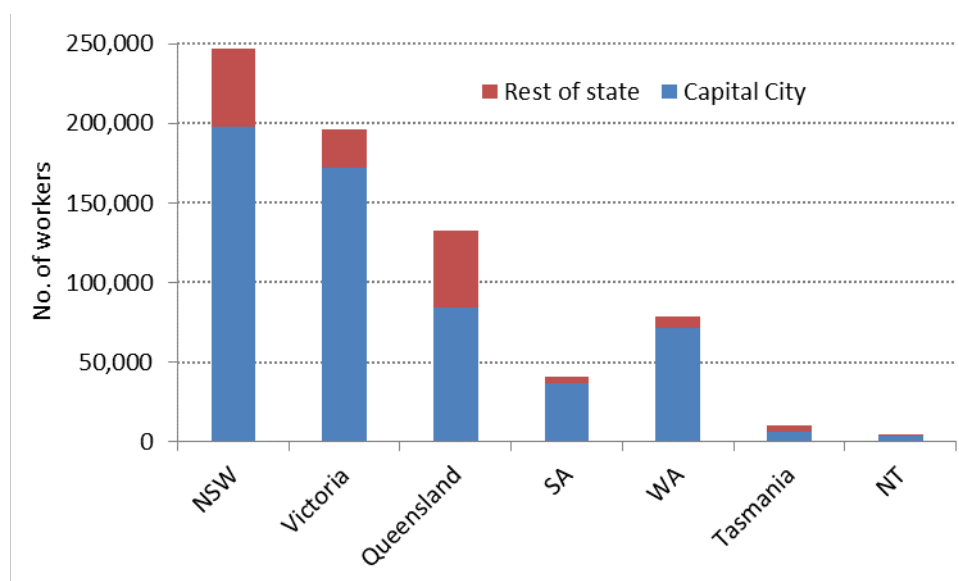
Source ABS Census 2011

Chart 6.8.1 Financial and insurance services employment, 2011



Source ABS Census 2011

Chart 6.8.2 Professional services employment, 2011



Source ABS Census 2011

6.9 Professional services in Australia

The contribution of Professional services to Australia's GDP has grown consistently over the last twenty years, from just over 4% in 1990 to around 7% in 2012. As mentioned earlier, the Professional services category underwent considerable definition change between the 1993 and 2006 ANZSIC classification systems, whereby service support sub industries such as building, cleaning and administrative services were moved to other ANZSIC 2006 classification

industries. What remains in the 2006 classification (entitled 'Professional, scientific and technical services') is a more specific list of sub industries that has at its focus a delivery of service and expertise (not necessarily a physical product) conducted by a highly skilled, often tertiary educated worker. The ABS defines the Professional, scientific and technical services industry thus:

The Professional, Scientific and Technical Services Division includes units mainly engaged in providing professional, scientific and technical services. Units engaged in providing these services apply common processes where labour inputs are integral to the production or service delivery. Units in this division specialise and sell their expertise. In most cases, equipment and materials are not major inputs. The activities undertaken generally require a high level of expertise and training and formal (usually tertiary level) qualifications (ABS 2006, p.72).

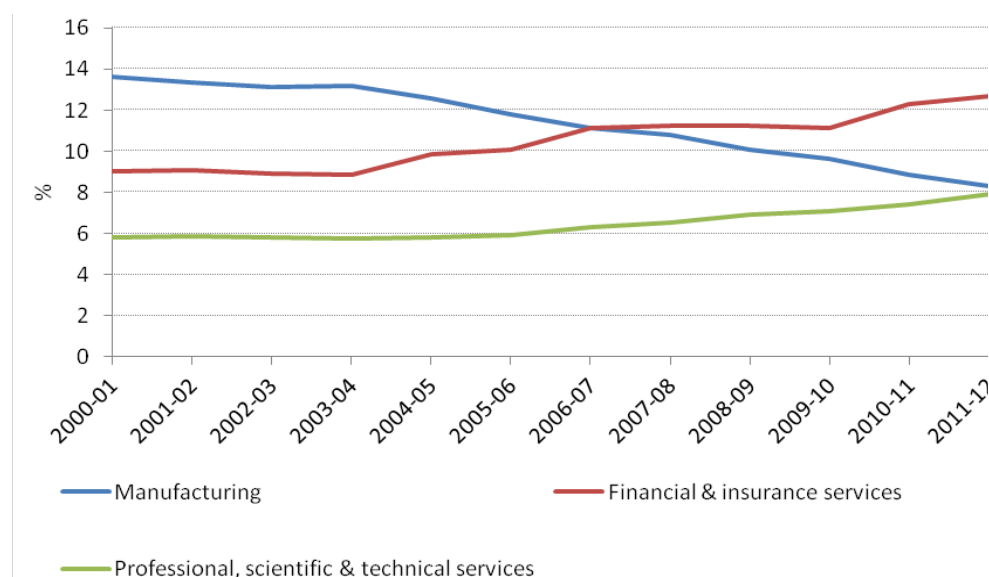
At the national level in 2011, the top five Professional services subdivisions accounted for 70% of the industry total. These were: Computer system design and related services (139,408 workers or 19%); Accounting services (113,433 or 15%); Legal services (95,718 or 13%); Engineering design and engineering consulting services (94,567 or 13%) and Management advice and related consulting services (68,653 or 9%). Other smaller-employing Professional, scientific and technical services sub industries include: Architectural services (33,835); Advertising services (30,455); Scientific research services (28,233); Market research and statistical services (28,154); Other specialised design services (22,466); Veterinary services (16,856); Scientific testing and analysis services (15,042); Surveying and mapping services (9,402); Professional photographic services (9,289); Corporate head office management services (8,541) and Other professional, scientific and technical services not elsewhere classified (nec) (8,383).

Maps 6.8.1 and 6.8.2 demonstrate that Professional, scientific and technical services and Financial and insurance services employment is largely based in the capital cities, and in particular in Sydney and Melbourne. Professional, scientific and technical services employment in Queensland appears to be less capital city-based than the other states, however, as the ensuing analysis will demonstrate, the growth in engineering services employment in Queensland over 2001-2011 has also driven increases in employment outside of the capital city, largely due to the mining boom.

6.10 Financial and insurance services in Victoria 2001-2011

The contribution of the Financial and insurance services industry to Victorian gross state product (GSP) had grown by such an extent throughout the 2000s that by 2006-07 it passed Manufacturing to become the highest contributing industry out of all 19 digit ANZSIC industries, and at 2011-12 it stood at 12.7% of Victorian GSP. In their recent study of the geography of corporate control in Australia over the period 1953-2009, Tonts and Taylor (2011) found that while Sydney's role as Australia's corporate headquarter capital increased and consolidated over this time, Melbourne's historical links to the mining and financial sector still had some impact on Australia's corporate landscape, as the city held an increasing share of shareholder profits, leaving . '...Melbourne [as] an important locale in terms of corporate profits in Australia, [as]...it would also appear that firms based in this city tend to be better performers.' (Taylor, P et al. 2011, p.10) This is reflected in the ever increasing GSP contribution on the part of the Financial and insurance industry, in spite of employing a relatively small labour force.

Chart 6.10.1 Selected industries contribution to Victorian GSP, 2000-01 to 2011-12



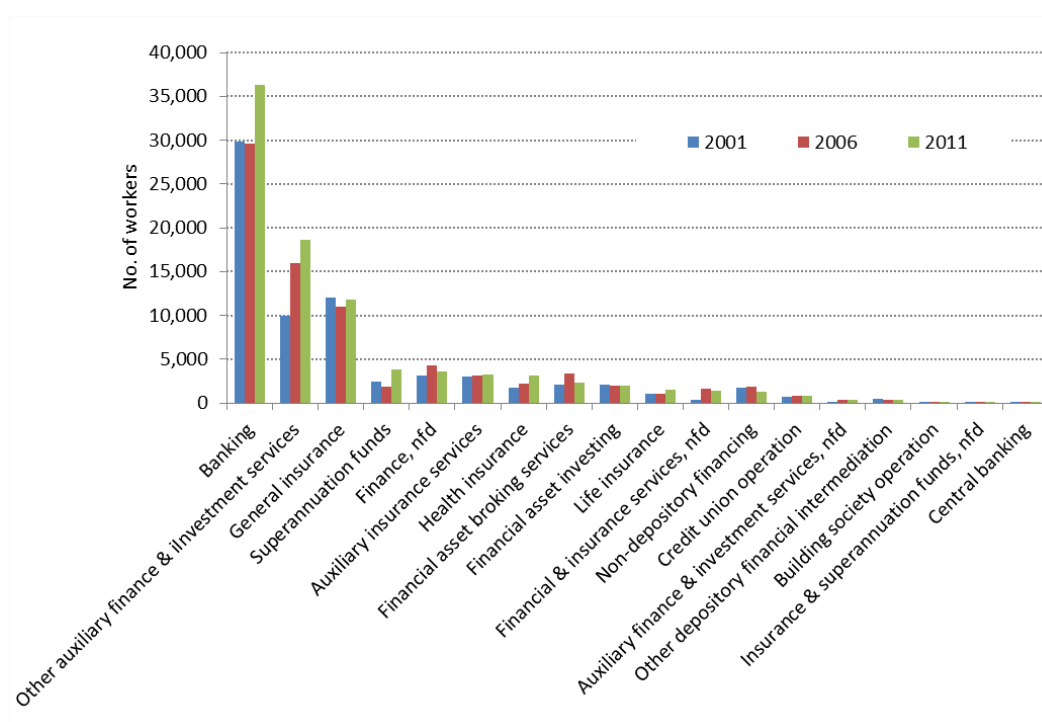
Source: ABS Australian National Accounts: State Accounts, 2011-12, Canberra, cat. no.

The Financial and insurance services industry was of such importance to the Victorian economy throughout the 2000s it warranted its own Ministry, established in 2002 when The Hon. Tim Holding was appointed Minister for Financial Services. In 2004 the *Investing in Victoria's future: the Victorian government's action plan for the financial services industry* was released. In 2009, the then Minister for Financial Services, John Lenders, released *A great place to do business: Growing Victoria's financial services sector*, a larger, glossier strategy document that served as a report card on the 2004 statement, as well as outlining further finance industry initiatives. The statement itself made much of Melbourne and its role as a centre for finance,

including a section extolling Melbourne as a ‘great global city’, and as the headquarters of key investment companies, health insurers and superannuation funds. A key announcement was the proclamation of the ‘Docklands Financial Services Precinct’. Although no mention was made of any financial incentives to finance-related companies to locate in the Docklands area, the statement listed banking, insurance and funds management companies such as NAB, ANZ, Bendigo Bank, SunCorp, AXA Asia Pacific, Medibank Private, AMP and LUCRF Super as businesses that had recently moved head office operations into the Docklands area.

Census data on employment in the Financial and insurance industry over the 2001 to 2011 period reveals that Banking, Other auxiliary finance and investment services and General insurance comprised the top three employing subdivisions in Melbourne by 2011. Employment growth stalled in Banking and General Insurance over the period 2001 and 2006, reflecting the effects of the ongoing restructuring that took place in Australia’s banking sector throughout the 1990s and early 2000s, and the reordering within the insurance industry that came as a result of the HIH insurance company collapse in 1999. Banking employment did, however, rebound over the 2006 and 2011 period.

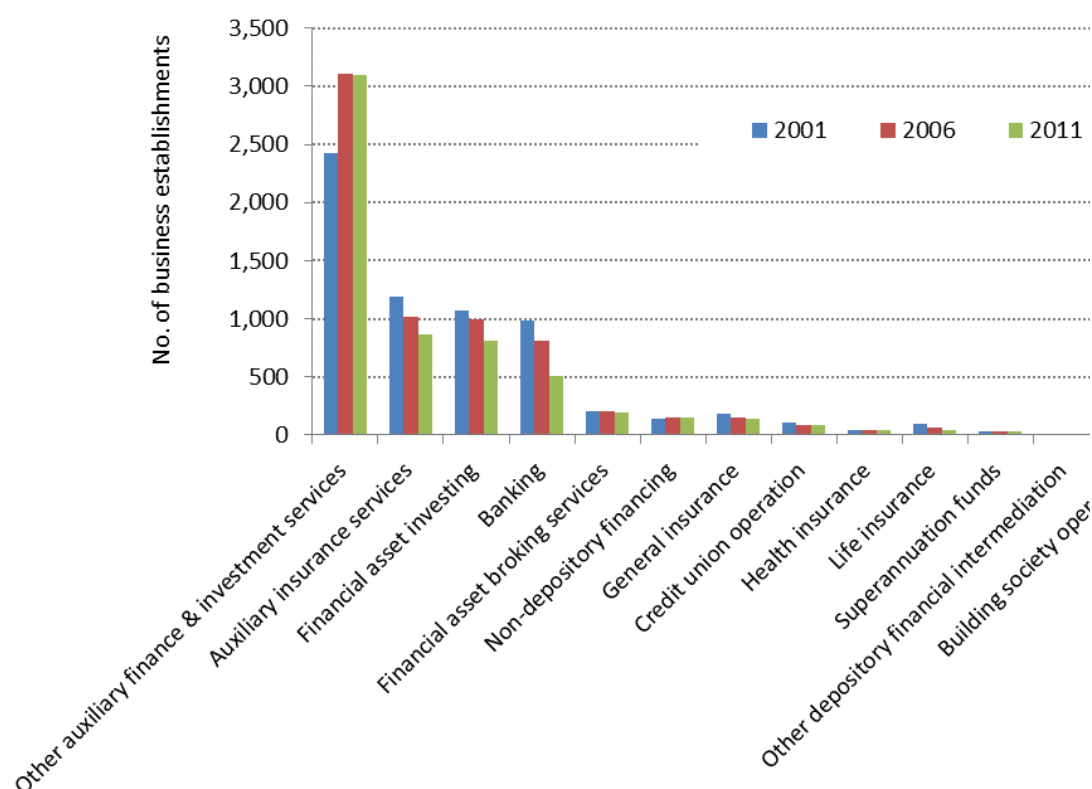
Chart 6.10.2 Employment in Financial and insurance services by subdivision, Greater Melbourne, 2001-2011



Source: ABS Census 2001, 2006, 2011

The Other auxiliary finance and investment services sub industry includes the burgeoning financial advisory service sector, and this may explain the considerable employment growth within this subdivision over the decade. Health insurance and superannuation funds employment grew considerably, particularly between 2006 and 2011. Both these sub industries featured in state government's 2009 statements regarding building the capabilities of the financial services industry within Melbourne (*A Great Place to do Business*, Victorian State Government August 2009).

Chart 6.10.3 Number of business establishments in Financial and insurance services by subdivision, Greater Melbourne, 2001-2011



Source: Worksafe Victoria

The corresponding data on Melbourne based business establishments in the Financial and insurance sector indicates that businesses, rather than employment, bore the brunt of the GFC and its impact. The number of business establishments declined across all Financial and insurance subdivisions between 2001 and 2006, and 2006 and 2011, with the exception of Other auxiliary finance and investment services, which grew considerably between 2001 and 2006, and then experienced a slight fall between 2006 and 2011. Once again restructuring that took place in the banking and insurance sectors is seen in the fall in banking and insurance related establishments (General and Life insurance and Auxiliary insurance services), reflecting restructuring in terms of outlets and branches (particularly in the case of the banking sector). The relatively small number of Health insurance and Superannuation funds business

establishments, which barely changed over ten years, when considered against the increasing employment figures in Chart 5.10.2, indicates that the key employers and business establishments in these sub industries increased their workforce over the decade.

6.11 Employment and business establishment change in APS in Greater Melbourne 2001-2011

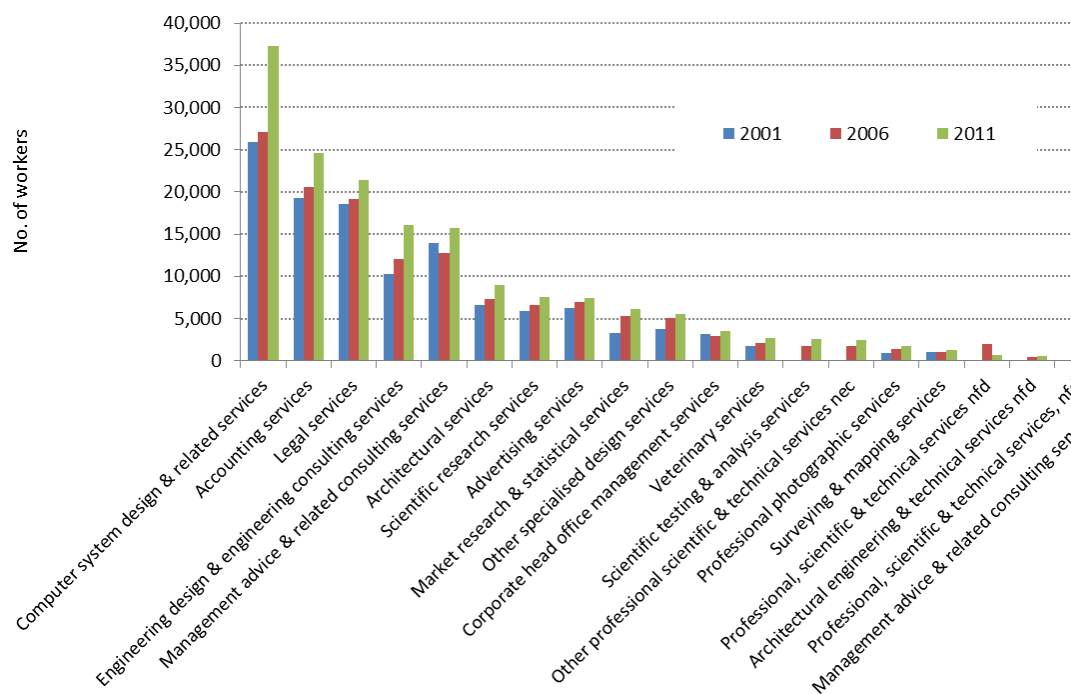
6.11.1 Professional, scientific and technical services

Professional, scientific and technical services employment grew at a healthy rate in Melbourne throughout the 2000s, partly due to the aforementioned favourable economic conditions, also due to the nature of the skilled migration program whereby certain professional occupations – engineers, computer programmers and accountants – were classified under the Critical Skills List (CSL) introduced in 2008, expanding the migrant intake of people with these qualifications. Computer system design and related services, Accounting services and Legal services were the top three employing Professional, scientific and technical services subdivisions in 2011 and accounted for 50% of the total industry Melbourne based employment. Of the larger employing subdivisions, Computer system design and related services and Engineering design and engineering consulting services increased employment by over a third between 2006 and 2011 (again, reflecting those changes in the skilled migrant program). Employment in Management advice and Related Consulting Services fell between 2001 and 2006, but rebounded over the next five years, in line with employment growth across the other major employing subdivisions.

In using WorkSafe data to measure the composition of business establishments by sub industry, it is worth noting the data does not display increases and decreases to the same extent as employment based data. Chart 6.11.2 demonstrates the number of Melbourne based business establishments in Computer system design and related services, Management advice and related consulting services and Engineering design and Engineering consulting services comprise the top three Professional services sub industries. This is a reflection of the contract employment nature of the information technology sector, as many ICT professionals will classify themselves as businesses for contract purposes and have WorkSafe policies to this end, and many single operator, small business style management consultancies will also be registered with WorkSafe for these purposes. The appearance of Accounting and Legal services after the top three sub industries indicates they tend to be larger employing businesses. The small level of growth for Accounting services business establishments over the ten years and the small decline in Legal services establishments, taken together with the employment growth both sub industries experienced over the same period (as seen in Chart 6.11.1) indicates existing legal and

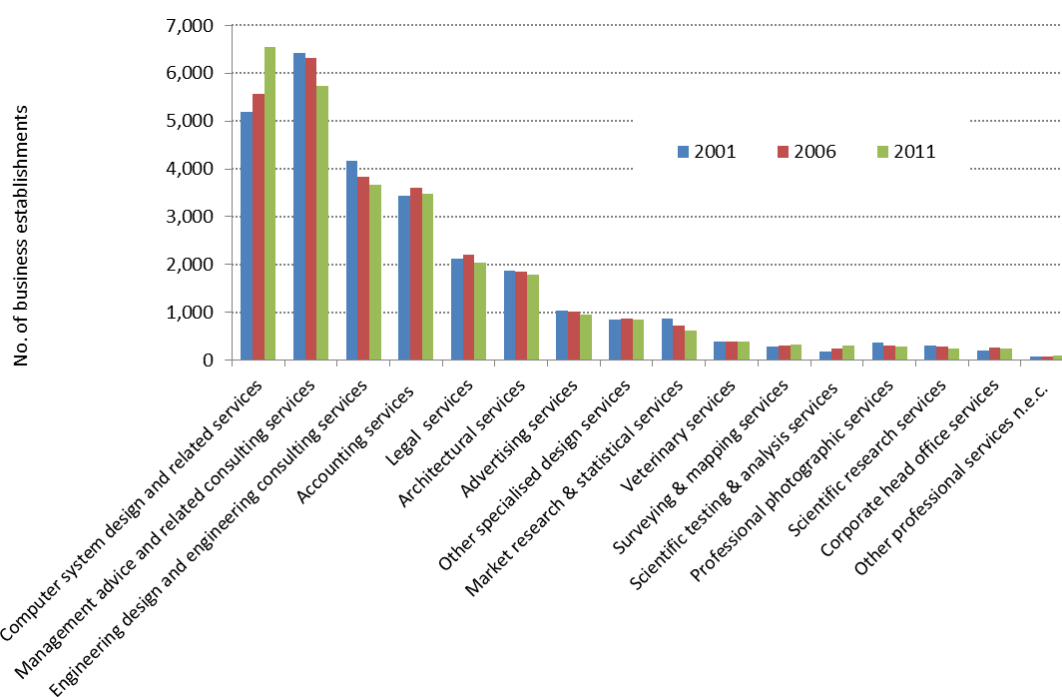
accounting practices are given to expanding their practices considerably in terms of staffing in good economic times, as opposed to having many new businesses arise.

Chart 6.11.1 Employment in Professional, scientific and technical services by subdivision, Greater Melbourne, 2001-2011



Source: ABS Census 2001, 2006, 2011

Chart 6.11.2 Number of business establishments in Professional, scientific and technical services by subdivision, Greater Melbourne, 2001-2011

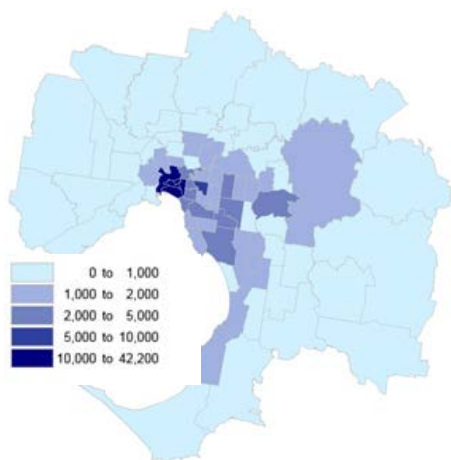


Source: Worksafe Victoria

6.12 Location and spatial change of APS in Greater Melbourne, 2001-2011

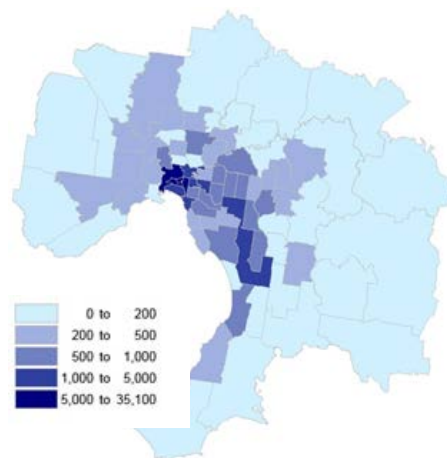
Maps 6.12.1 to 6.12.6 of both business establishments and employment indicate that employment in these APS sectors are clustered around Melbourne's city and immediate adjoining suburbs. Financial and insurance services employment is distributed slightly more throughout Melbourne's suburban areas, reflecting the presence of suburban bank branch outlets.

Map 6.12.1 Professional, scientific and technical services employment, Greater Melbourne, 2011



Source: ABS Census 2011

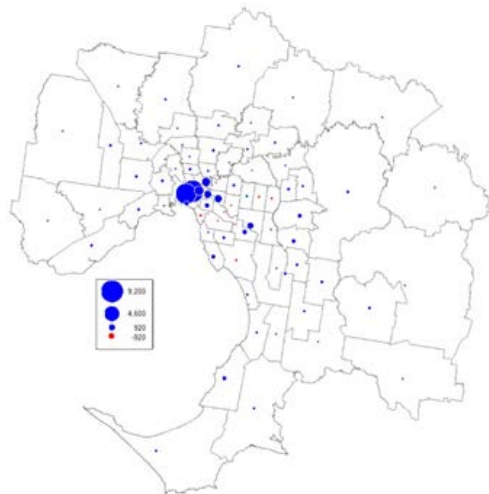
Map 6.12.2 Financial services employment, Greater Melbourne, 2011



Source: ABS Census 2011

The following employment and business establishment maps demonstrating change over the 2001-2011 period show increases in the city centre and immediate surrounding suburbs, while decreases appear across the eastern and inner southern suburban areas of the city.

Map 6.12.3 Professional, scientific and technical services employment change, Greater Melbourne, 2001-2011



Source: ABS Census 2001, 2011

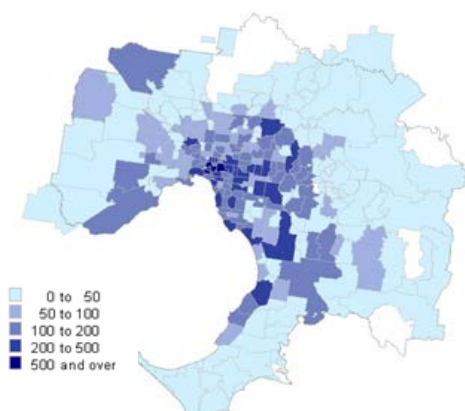
Map 6.12.4 Financial services employment change, Greater Melbourne, 2001-2011



Source: ABS Census 2001, 2011

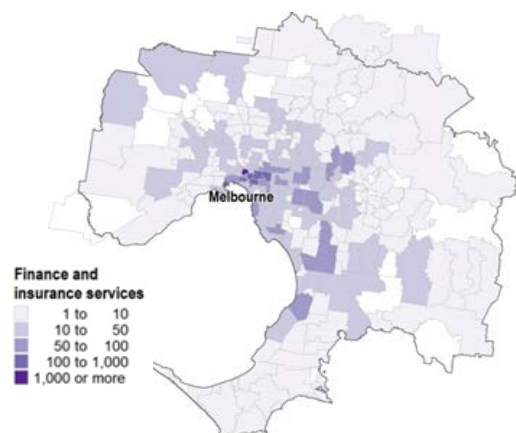
Maps 6.12.1 to 6.12.4 demonstrate that not only have the businesses increased their presence in the city centre, but have decreased in the eastern and southern suburbs. Maps 6.12.5 and 6.12.6 on the densities of Professional and Financial and insurance services business establishments indicate the greatest concentrations of establishments occur in the city centre, with densities then spreading mostly out through the inner eastern suburbs and key employment centres such as Dandenong, Monash and Box Hill.

Map 6.12.5 Professional services establishments, Greater Melbourne, 2011



Source: WorkSafe Victoria

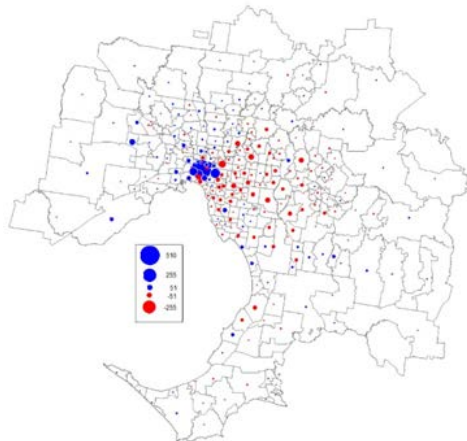
Map 6.12.6 Financial and insurance services establishments, Greater Melbourne, 2011



Source: WorkSafe Victoria

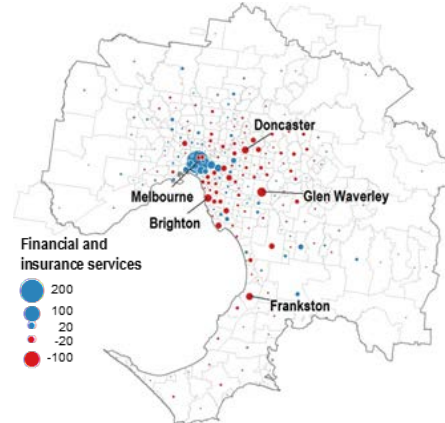
Further analysis of the WorkSafe dataset indicates that although the overall net number of Professional and Financial Services establishments did not increase over the period 2001-2002 to 2010-2011, there was a net decrease of establishments across the mainly eastern suburban locations and net increases towards inner city locations, and specifically the city centre.

Map 6.12.7 Professional services establishments net change, Greater Melbourne, FY 2001-FY 2011



Source: WorkSafe Victoria

Map 6.12.8 Financial and insurance establishments net change, Greater Melbourne, FY 2001-FY 2011



Source: WorkSafe Victoria

6.13 Conclusions

This chapter has reviewed the nature of APS in Australia. It has been necessary to undertake this exercise in order to place ‘the Melbourne story’ in a national context, in terms of the location and existing APS activity across the states and cities, which assists in determining national-level factors that may account for change in these sectors over the 2000s, as opposed to international or global factors. Studies of APS have informed analysis of the impact of globalisation on cities since the World Cities and Global Cities theories were first promulgated twenty years ago, and an examination of their place in Australia, Victoria and finally the city of Melbourne is key to the main questions posed in this piece of research.

The chapter defined what can be considered APS in the Australian context, through a review of the existing literature on the topic, and applying what has been used in these studies to define APS using the statistical data collection and industry classification provided by the Australian Bureau of Statistics, as well as the data on business establishment provided by WorkSafe Victoria. This literature review confirmed there has been a lack of analysis concerning the role of APS in Melbourne to date, as most studies into APS in Australia have been Sydney-centered.

After establishing the growing importance of services to the Australian economy and GDP, the data and spatial analyses established the tendency for APS to be based in Australia’s capital cities, and that APS employment grew nationally over the 2000s. The analysis did confirm the

prominence of Sydney as the key center for APS activity in Australia – reflecting (and perhaps justifying) the Sydney-centric level of research interest of APS in Australia so far. There were certain variations to the capital city pattern; the states of Queensland and Western Australia have greater proportions of non-capital city based APS employment than the other Australian capital, largely due to the mining and exploration-based activity that created a level of APS demand outside of their respective capital cities.

For the state of Victoria, the chapter examined the growing importance of APS industries to the economy over the 2000s, as evidenced by the increasing contribution of the APS industries (Professional, scientific and technical services and Financial and insurance services) to Victorian GSP. Following the national pattern, the vast majority of APS activity over the 2000s was based in the capital city of Greater Melbourne.

Within Greater Melbourne, the data indicates the centralised nature of APS business establishments and employment. A key finding of this analysis indicates that while APS services continued to be based in Melbourne's central city area throughout the 2000s, following the long established historical tradition, growth of both APS employment and businesses not only grew in this centrally located region, but simultaneously declined across the outer suburban locations of the Greater Melbourne throughout the 2000s.

Thus while APS employment and businesses grew over the 2000s in Greater Melbourne, APS became concentrated in the central area. This finding aligns with Tonts and Taylor (2011) summary of the benefits of companies locating in central city areas, including providing proximity to a source of strategic and specialist information, a transport and communication hub that facilitates the 'ready assembly' of executives, decision makers and key informants for face to face meetings, to other enterprises promotes knowledge transfer and skilled and professional workers that can be recruited more readily as well as allowing firms to achieve easy access to specialist functions such as advertising, accountancy, legal services (Tonts and Taylor, 2011 p. 2645)

The following chapter will examine the key sub industries that comprise Australian APS in greater detail, including an analysis of their respective histories, state and national policies impacting on the jobs and location growth of these sub industries in the Australian context, the national employment patterns between 2001 and 2011, and the spatial and location change experienced by these sub industries in terms of employment and business establishments within Melbourne over the period 2001-2011.

Chapter Seven: The Financial and Insurance Services Industry

7.1 Introduction

The performance of financial services has been paramount within Global Cities and WCN research and a number of studies have chartered the corresponding rise of the global finance industry with the development of the WCN and associated lists (Taylor, PJ et al. 2001; Taylor, PJ et al. 2010). Similarly, the impact of the Global Financial Crisis (GFC) in 2008 has seen a reassessment of what constitutes the WCN and the revision of the status of many cities listed as part of the pre-GFC WCN (Derudder, Ben, Hoyler & Taylor 2011; Taylor, P et al. 2011; Wojcik 2011).

This chapter examines the Australian Financial and insurance services industry. It contains: an analysis of employment movements at the national scale over the 2000s; an overview of the history and national policy settings for relevant finance and insurance sub industries and a discussion of the impact of the GFC on the sector; followed by an examination of the business and employment data for the largest employing Financial and insurance industry sub industries in Victoria: Banking; Health; General, Life insurance and Superannuation and financial advisory services), together with a spatial analysis of the employment and business change of these sub industries across Greater Melbourne over the 2000s.

7.2 History of the Australian finance sector

The Australian finance sector developed and operated over the latter half of the twentieth century in a broadly similar neoliberal policy environment to other western countries such as Great Britain and the United States. In the Australian context, O'Neill and Fagan (2006) identify six key trends that contributed to the remake of Australia's financial and corporate environment in the latter decades of the twentieth century as follows.

1. Financial markets were liberalised with new regulatory regimes and less restriction of cross border and cross sectoral flows, largely as a result of the economic liberalisation policies put in place during the Hawke/Keating years in the 1980s, which included: floating the Australian dollar; removing bank controls over market interest rates and bank liquidity levels; reduced surveillance over international capital flows and reduced regulation in regard to foreign owned and non-traditional financial institutions operating in the Australian financial market.
2. In size and scope both the Australian and international financial market grew significantly. Assets managed by financial institutions not only grew considerably but also products such as superannuation funds, managed funds and securitisation vehicles.

3. Australian and foreign financial markets are increasingly integrated. The authors posit that reasons for this include: the standardisation of financial products bought and sold within the Australian market that were available globally; the high level of prudential supervision over financial trade in Australia, ensuring reliable market knowledge and low levels of corruption (also a factor attributed to the relatively 'soft' impact of the 2008's GFC in Australia in comparison to other countries according to Davis (2011)); and finally Australia's strategic (and geographic) position in world time zones and the operational hours of the major global financial markets – Australia's financial markets open for trading shortly after the US markets have closed for the day, and close just as the European markets are about to begin the day's trading, meaning Australia's financial markets compete for international business with Singapore, Hong Kong and Tokyo traders 'very successfully relative to national size' (p. 209).
4. Rising foreign trade activity has contributed to an acceleration of the volume and pace of international flows of capital.
5. The change in size, shape and structure of modern corporations in order to capture the value circulating through trade and financial transactions led to 70,000 multinational companies (MNCs) controlling US\$9000 billion of foreign direct investment through their 690,000 affiliates by 2005. The consequences of this include the increased control on the part of MNCs on international commodity chains and a broadening of scope of the transnational firm.
6. Finally, savings from the world's pensions and superannuation funds have become a major source of corporate financing. Fund managers of these products seek quick returns for their members, prompting company managers to make corporate decisions that maximise share value added (capital gains and dividend payments) (O'Neill & Fagan 2006, pp.208-210).

While the literature review examined the interconnections that globalisation has wrought across national boundaries and the world's developed economies, and the profound effects this has had across the globe, there remain nation specific aspects to the regulation, development and growth of Australia's finance and insurance system, particularly since the 1980s, occurring independently of broader global trends. One of the key policy initiatives is the implementation of compulsory superannuation, mandating that all Australian workers must be a member of a compliant superannuation fund, which was introduced with the passing of the *Superannuation Guarantee Act 1992*. Australia also has a similarly singular arrangement with private health insurance provision.

Key companies in Australia's banking and insurance system were mostly established in the 1890s and remained active throughout most of the twentieth century with little external or foreign competition, at least until the 1960s. A survey of the Forbes Global 2000 list of multinational companies demonstrates that many of these are still in operation today (Forbes 2013). By the early twenty-first century, these banking and insurance companies operated within the *bancassurance/allfinanz* model similar to that operating in Europe, whereby major banks also offered insurance and other financial products to their customers. There is now a great deal of cross over in the finance and insurance sector and it is not as stratified as ANZSIC subdivisions may seem – banks operate as insurers, superannuation funds operate as banks, mortgage lenders and so on.

This is perhaps apparent in the ABS industry classification system and collection themselves – in spite of the industry classification change, there is a great deal of 'not further defined' (nfd) and 'not elsewhere classified' (nec) in the Financial and insurance services industry counts for all three Census years studied. Despite this difficulty, the main employing three 4 digit subdivisions for both intercensal periods were Banks, Services to finance and investment nec (mainly encompassing the financial advice sector) and General insurance. These three subdivisions accounted for 71% of the total 2011 Financial and insurance services national employment and 67% in 2006. In the Greater Melbourne context, Banking, Finance nfd, Other auxiliary finance and investment services, Superannuation funds, Health, Life and General insurance comprise 87% of total sector employment in 2011. These will be discussed in detail but firstly the economic context of the 2000s and the impact of the Global Financial Crisis (GFC) on the Australian Financial and insurance services industry will be examined.

7.3 Impact of the GFC on the Australian finance sector

The 2000s began tumultuously for the Australian financial sector, with the 'tech crash' of the early 2000s and the spectacular collapse of HIH (Allan 2006; Haines 2007) in 2001. Despite this local upheaval, and until the GFC took place in 2008, the 2000s were a relatively 'tranquil' period, in keeping with the global financial sectors period of the 'great moderation'. Australia did follow the global financial services trend in risk-taking, albeit to a lesser extent than overseas jurisdictions (Davis 2011; French, Leyshon & Thrift 2009; Lee et al. 2009).

Changes to the Australian prudential regulatory system adopted after the HIH collapse – which encompassed a change in the governance structure at industry regulator Australian Prudential Regulatory Authority (APRA) and the enhancement of the role of the Council of Financial Regulators – led to a 'more supervisory culture in APRA', and this, along with 'lingering memories' of bankers in the early 1990s has been credited as key reasons why Australia avoided the worst excesses of the GFC (Davis 2011, p.313).

Although there was limited exposure to the off shore subprime crisis on the part of the Australian financial sector, there were some notable collapses: a number of local councils had bought ‘toxic’ collateralised debt obligations (CDOs) from the Lehmann Brothers Australian arm, Lehmann Australia, causing enormous losses (Sykes 2010, pp. 99-103). Storm financial, Opes Prime and Babcock and Brown managed investment fund firms collapsed in the aftermath of the GFC, and in many cases caused significant losses. As a result of the Storm financial collapse, in 2009 an inquiry by the Federal Parliamentary Joint Committee on Corporations and Financial Services was held into the nature of financial products and services in Australia.

The major reforms introduced in response to the GFC by the Rudd federal government in October, included a guarantee to all banking deposits and a wholesale funding scheme for the Australian banks. There was some criticism that this measure only served to bolster the already considerable market share and power of the Australian ‘Big 4’ banks, as evidenced by the takeover of St George Bank by Westpac Banking Corporation in December 2008. Australia’s banking sector will now be discussed in greater detail.

7.4 Banking in Australia

Chapter Four briefly outlined the series of macroeconomic policy changes instigated by the Hawke Labor government under then Treasurer Paul Keating during the 1980s that saw the deregulation of the Australian financial sector. Chapters Three and Four also outlined the historical and geographical links that two of Australia’s four major banks have with the city of Melbourne. The Australian banking system was substantially deregulated in 1981 upon the tabling of the final report of the *Australian Financial System Inquiry* (known widely as the “Campbell Inquiry” after the Committee chair, Sir Keith Campbell), after which time reforms such as: granting foreign banks licenses to operate in Australia; beginning the transition of the then wholly government-owned Commonwealth Bank towards full privatisation and allowing building societies to operate as banks were established. As mentioned previously, these neoliberal based reforms such as banking deregulation were intended to promote greater competition that would drive the banking sector towards greater productivity and efficiency gains and would ultimately result in better outcomes for banking customers.

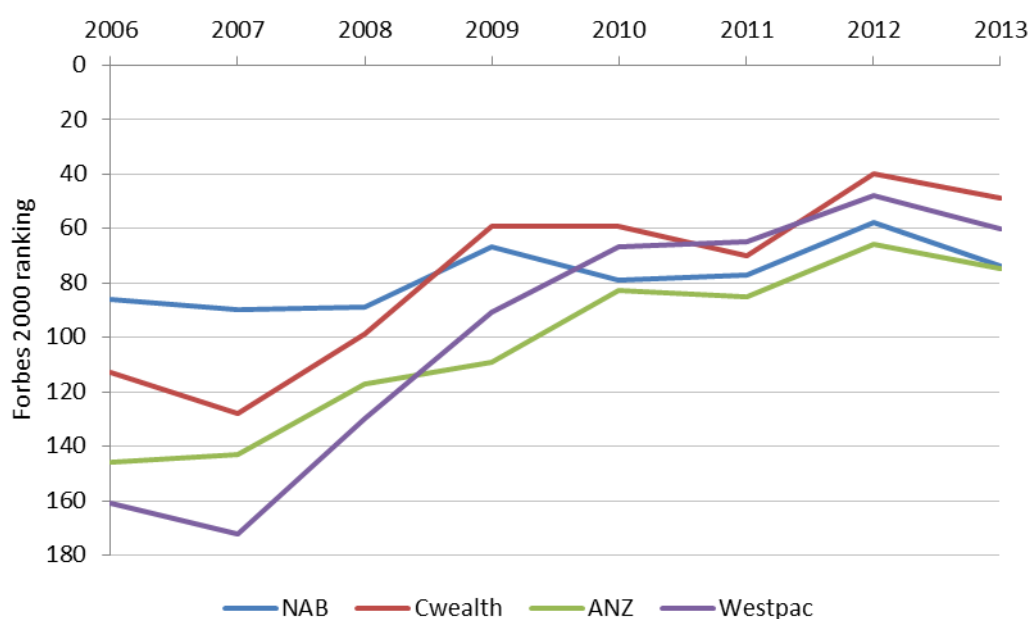
7.4.1 Domination of the ‘Big 4’

In reality the Australian banking system continued to be (and remains) dominated by ‘the Big 4’: the Commonwealth Bank of Australia (CBA); WestPac Banking Corporation (WestPac); National Australia Bank (NAB) and the Australia and New Zealand Banking Group (ANZ). In 1985 banking licences were granted to 16 foreign banks (Sykes 1998) and by 2010 there were 56 banks operating in Australia, comprising of 12 domestic banks, 9 foreign subsidiary banks

and 35 foreign branch banks. Throughout the 2000s and post GFC, the Australian ‘Big 4’ have regularly featured in the top 25 ‘World’s Safest Banks’ by Global Finance (Hunkar 2009).

The ‘Big 4’ banks have also consistently improved their ranking in the Forbes 2000 list of global companies since the mid-2000s.

Chart 7.4.1 Ranking of Australian ‘Big 4’ banks in Forbes 2000 Global company list, 2006-2012



Source: Forbes.com

7.4.2 The Australian banking system

The Australian Prudential Regulation Authority (APRA) has prudential oversight of the banking and insurance sector in Australia. The Reserve Bank has responsibility for monetary policy, financial stability and oversight of the payments system. The Australian Securities and Investment Commission (ASIC) oversees capital markets, corporate conduct and consumer protection for financial products and services. Until 2010 the conduct of the stock market was self-regulated by the Australian Stock Exchange (ASX). This prudential regulatory system was introduced in 1998 as part of the accepted recommendations of the *Wallis Report on the Australian Financial System* (*‘The Wallis Review’*), a wide-ranging review of the Australian finance system and industry commissioned by the then newly elected Howard government Treasurer, Peter Costello, shortly after the Liberal Party’s return to government in 1996.

7.4.3 Impact of deregulation

The first post deregulation decades of Australian banking saw widespread job losses and bank branch closures, which were particularly harsh through the 1990s. Banking employment

numbers increased throughout the 1980s due to increases in business volumes, offsetting any job losses that occurred due to technological changes. The early 1990s recession, however, saw major cost cutting and downsizing on the part of three of the four major banks, and these job cuts continued throughout the 1990s (Kitay 1999, p.73). The nature of the banking workforce also changed, from one that was largely comprised of school leavers undertaking process work behind tellers, to more sales oriented roles whereby bank staff, in addition to a certain amount of teller style account processing work (for the decreasing number of customers physically using retail banks), were also required to 'on sell' other financial products offered by the bank (for example, insurance and/or financial advice) to the customers. Throughout the 1990s banking employment also became increasingly casualised and part time in nature (Baethge, Kitay & Regalia 1999).

These continuing branch closures, together with increasing bank fees, saw growing public disdain for the banking sector, and the 'Big 4' in particular (Argent 2005, p.31). Dunn et al. (2000) note that studies in the 1990s on banking consumers found that although banks saw themselves as service providers operating in a competitive commercial environment, many of their customers still saw their relationship with the bank as a personal, trust based one.

The post deregulation period (1980s and 1990s) also saw a considerable amount of technological enhancement and innovation across the retail banking sector in particular, and this was also partly responsible for job losses. This included technology and innovation advances such as: the introduction of personal identification numbers (PINs) between 1980 and 1985; increasingly commonplace automated teller machines (ATMs); widespread adoption of monthly income term deposits; the use of VISA and Mastercard credit cards; the establishment of electronic funds transfer at point of sale (EFTPOS) facilities and phone banking between 1985 and 1990 and mobile EFTPOS in the 1990s. By the year 2000, such advances were followed by the availability of international ATMs and increased use of internet banking. All these innovations saw less need for retail bank branches, as bank users increasingly undertook transaction processes themselves (Edirisuriya & O'Brien 2001, p.198).

Upon taking government in 1997, the Howard coalition government announced an inquiry chaired by Stan Wallis, into Australia's financial regulatory framework sector. The subsequent *Wallis Review* was released in 1997, and while the government accepted the majority of the report's recommendations, it rejected one recommendation when it decided to keep the 'four pillars' policy (previously known as the 'six pillars' after Treasurer Paul Keating intervened in blocking a merger between ANZ bank and insurer National Mutual Holdings Limited in 1990, although it had been approved by the then regulator, the Trade Practices Commission). The six

pillars, as they were then known, were the four banks and the two insurers, National Mutual and Australian Mutual Provident Society Limited (AMP) (Bakir 2005, p.238)).

7.4.4 Banking between 2001-2011

In examining banking employment data over the period 2001 to 2006 it is necessary to use the 1993 ANZSIC definition, which simply describes this subdivision as ‘...units of recognised banks engaged in banking activities’ (ABS 1993) and lists their primary activities as Development, Savings and Trading Bank operations. This will include all foreign and retail banks across Australia. The data demonstrates that banks comprised around 30% to 40%, (depending on the state concerned) of all Financial and insurance services employment by 2006. New South Wales (NSW) had the highest employment level, but this fell between 2001 and 2006, as it did across all states and territories with the exception of Western Australia and Tasmania. Bank employment in Victoria fell only slightly (19 workers) while NSW and Queensland appeared to experience the greatest falls – 4,251 and 1,729 workers respectively.

Table 7.4.1 Employment in Banking by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	49,716	45,465	-4,251	-8.55	-1.77%	40.31%	38.75%	-1.56%
Vic	35,340	35,321	-19	-0.05	-0.01%	28.65%	30.10%	1.45%
Qld	18,379	16,650	-1,729	-9.41	-1.96%	14.90%	14.19%	-0.71%
SA	8,238	7,522	-716	-8.69	-1.80%	6.68%	6.41%	-0.27%
WA	8,581	8,917	336	3.92	0.77%	6.96%	7.60%	0.64%
Tas	1,587	2,145	558	35.16	6.21%	1.29%	1.83%	0.54%
NT	559	470	-89	-15.92	-3.41%	0.45%	0.40%	-0.05%
ACT	926	833	-93	-10.04	-2.09%	0.75%	0.71%	-0.04%
Total	123,334	117,330	-6,004	-4.87	-0.99%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Table 7.4.2 Employment in Banking by state, 2006-2011

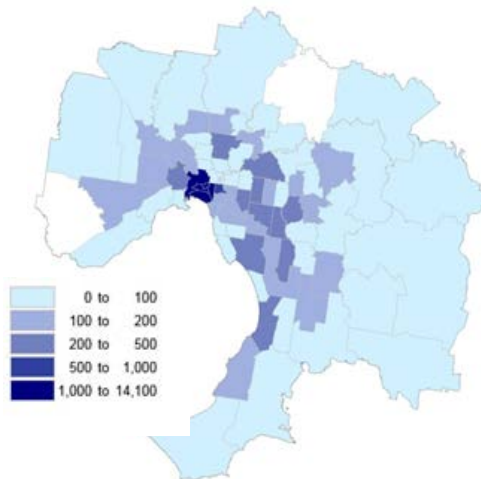
State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	45,465	54,311	8,846	19.46	3.62%	38.75%	40.13%	1.38%
Vic	35,332	42,481	7,149	20.23	3.75%	30.11%	31.39%	1.28%
Qld	16,655	17,366	711	4.27	0.84%	14.19%	12.83%	-1.36%
SA	7,522	7,603	81	1.08	0.21%	6.41%	5.62%	-0.79%
WA	8,916	10,253	1,337	15.00	2.83%	7.60%	7.58%	-0.02%
Tas	2,144	2,104	-40	-1.87	-0.38%	1.83%	1.55%	-0.27%
NT	470	442	-28	-5.96	-1.22%	0.40%	0.33%	-0.07%
ACT	833	781	-52	-6.24	-1.28%	0.71%	0.58%	-0.13%
Total	117,344	135,341	17,997	15.34	2.89%			

Source: ABS Census 2006, 2011

There was little change in the definition of this subdivision in the 2006 ANZSIC code, except that the following was added 'Banks incur liabilities by accepting demand and other deposits and make commercial, industrial and consumer loans' (ABS 2006, p.297). The 2006-2011 data shows that NSW and Victoria maintained the greatest banking employment out of all the states, although Banking remained a prominent Financial and insurance service subdivision employer across the other jurisdictions. Employment numbers rebounded in the banking sector in Australia over the period 2006-2011 (thus if there were job losses in the intervening Census years due to the GFC, they had rebounded strongly by 2011), particularly in NSW, Victoria and Western Australia.

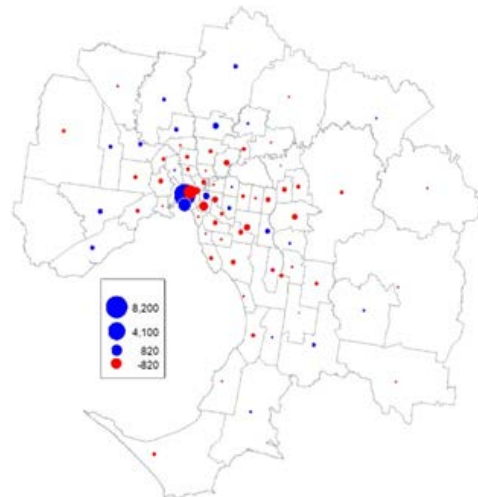
7.4.5 Spatial change in Banking employment and business establishments, Greater Melbourne 2001-2011

Map 7.4.1 Banking employment, Greater Melbourne, 2011



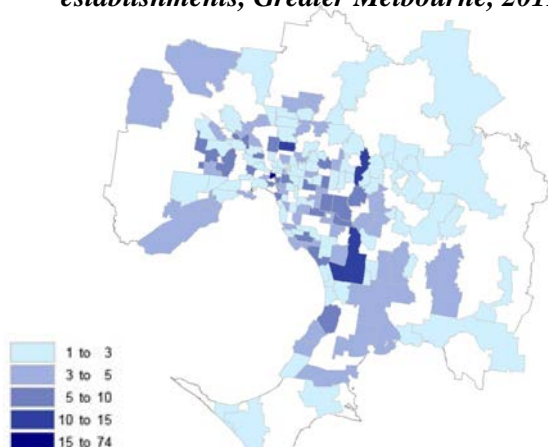
Source: ABS Census 2011

Map 7.4.2 Banking employment change, Greater Melbourne, 2001-2011 (log scale)



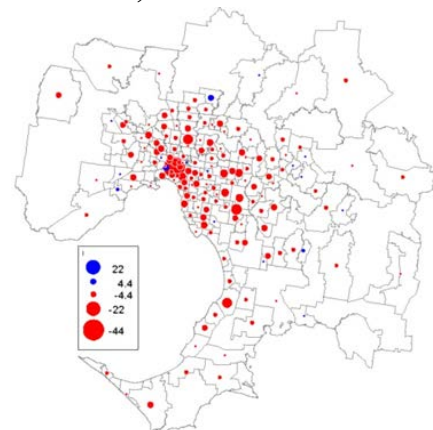
Source: ABS Census 2001, 2011

Map 7.4.3 Banking business establishments, Greater Melbourne, 2011



Source: Worksafe Victoria

Map 7.4.4 Banking business establishments change, Greater Melbourne, FY 2001-FY 2011



Source: Worksafe Victoria

Banking employment in Greater Melbourne became highly centralised over the period 2001-2011, reflecting the restructuring of suburban branch outlets and technological changes such as internet banking that altered consumer behaviour in the use of banking services and products. Banking employment increased between 2006 and 2011 and Map 6.4.2 indicates almost all this employment increase occurred in the city centre. This is where the major banking headquarters

are located, including the NAB and ANZ head offices, since their move to the Docklands precinct in the late 2000s.

While Map 6.4.3 of Banking business establishments indicates that they remain relatively evenly spread across the Greater Melbourne area, Map 6.4.4 of change indicates widespread losses of business establishments across the suburban area of Melbourne.

7.5 The financial advice sector in Australia

Over the last twenty five years the growth of the financial advice sector and the associated profession of financial advisor has been entwined in broader changes occurring across Australian society, whereby the higher standard of living on the part of most of the population together with increasing life expectancy, has driven demand for financial products and for advice to maximise household lifetime savings to cover an estimated long period of retirement. Changes made to workers superannuation, introduced in the 1980s and bolstered throughout the 1990s with the introduction of the Super Guarantee in 1992, meant there was greater interest on the part of consumers about the performance of financial products, and thus the variety of financial products available to consumers.

The genesis of the contemporary financial advice industry in Australia goes back to the 1970s, whereby members of the sales oriented life insurance sector began to cross over to the financial advice sector, along with some accountancy professionals. The Financial Planning Association (FPA) was established in 1992, and this body commissioned the *Birkett Report* in 1996 to establish knowledge, skills and competencies required for the profession for, according to Cull (2009):

Although selling life insurance required excellent interpersonal skills, it did not require a wide range of technical and other competencies that the Birkett report highlighted were required for comprehensive financial planning (p.30).

The *Financial Services Reform Act 2001* (FSRA) was an attempt to increase consumer protection, and was initiated as a result of recommendations stemming from 1997's *Wallis Review*. The sector, however, continued to receive negative publicity throughout the 2000s with the much publicised collapse of managed funds such as Westpoint and Opes Prime: funds largely financed by investors who were sold such products by financial advisors (Sykes 2010). The industry's fundamental problem stemmed from the commission based products many financial planners were signing their customers on to (known as 'trailing commissions') and a perceived lack of objectivity in the provision of advice. Despite more recent attempts to legislate for training and qualifications to further professionalise the industry, the industry itself has not

volunteered to cease selling commission based products nor to operate solely on a fee for service basis in the same way that financial service professionals such as accountants do.

7.5.1 Financial advice sector employment, 2001-2011

Employment regarding the financial advice industry can be followed using the second largest employing Financial and insurance services subdivision: Services to finance and investment, nec. According to the 1993 ANSZIC code, this was a very broad subdivision that ‘...consists of units mainly engaged in providing nominee, trustee, investment management and advisory services or other services in the field of finance or investment (except insurance or superannuation)’ (ABS 1993). Examples then given by the ABS include financial advisory services, credit card administration services and money changing services. Employment numbers increased considerably in this category across all states – NSW had the greatest increase in terms of numbers but other states increased in terms of percentage growth – a reflection of the burgeoning financial advisory market. In addition, many of the other activities such as credit card operation and money exchange were largely based in Sydney, especially after the Olympics in 2001, to service Sydney’s international tourist market.

Table 7.5.1 Employment in Services to finance and investment, nec by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	20,652	29,066	8,414	40.74	7.07%	45.49%	43.78%	-1.71%
Vic	11,050	16,770	5,720	51.76	8.70%	24.34%	25.26%	0.92%
Qld	6,189	9,885	3,696	59.72	9.82%	13.63%	14.89%	1.26%
SA	2,490	4,052	1,562	62.73	10.23%	5.48%	6.10%	0.62%
WA	3,676	4,861	1,185	32.24	5.75%	8.10%	7.32%	-0.77%
Tas	629	908	279	44.36	7.62%	1.39%	1.37%	-0.02%
NT	139	157	18	12.95	2.47%	0.31%	0.24%	-0.07%
ACT	578	695	117	20.24	3.76%	1.27%	1.05%	-0.23%
Total	45,403	66,394	20,991	46.23	7.90%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

The 2006 ANZSIC subdivision, Other auxiliary finance and investment services, aligns with the 1993 code’s Services to finance and investment nec. The definition states it counts units:

...mainly engaged in providing nominee, trustee, investment management and other advisory services, arranging home loans for other (mortgage brokers) or other auxiliary finance and investment services not elsewhere classified (ABS 2006, p.302).

Around 60% of employment in this subdivision was based in NSW and Victoria in 2011, and it includes the financial advice sector, which over the period 2006-2011 had come under

increasing pressure to be better regulated. Much of the employment growth between 2006 and 2011 occurred in NSW and Victoria, and to a lesser extent Western Australia.

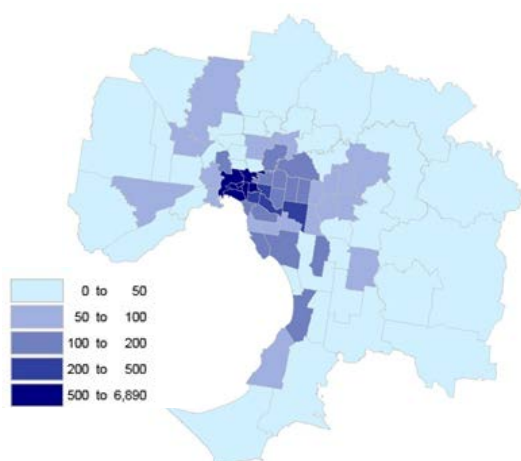
Table 7.5.2 Employment in Other auxiliary finance and investment services by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	30,859	34,181	3,322	10.77	2.07%	43.40%	44.12%	0.73%
Vic	17,988	20,619	2,631	14.63	2.77%	25.30%	26.62%	1.32%
Qld	10,534	10,609	75	0.71	0.14%	14.81%	13.69%	-1.12%
SA	4,319	4,188	-131	-3.03	-0.61%	6.07%	5.41%	-0.67%
WA	5,113	5,719	606	11.85	2.27%	7.19%	7.38%	0.19%
Tas	1,051	869	-182	-17.32	-3.73%	1.48%	1.12%	-0.36%
NT	159	139	-20	-12.58	-2.65%	0.22%	0.18%	-0.04%
ACT	1,088	1,147	59	5.42	1.06%	1.53%	1.48%	-0.05%
Total	71,111	77,471	6,360	8.94	1.73%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

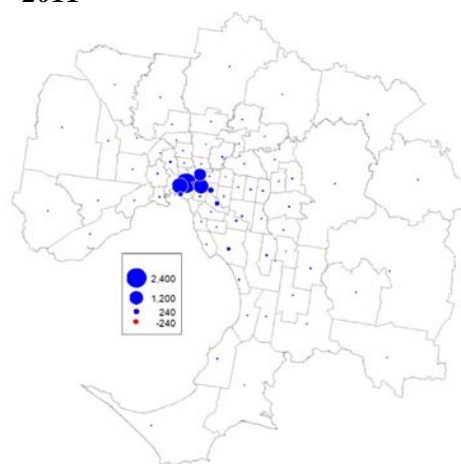
7.5.2 Spatial Change in Financial advice services employment and business establishments, Greater Melbourne, 2001-2011

Map 7.5.1. Other auxiliary finance and investment services employment, Greater Melbourne, 2011



Source: ABS Census 2011

Map 7.5.2 Other Auxiliary finance and investment services employment change, Greater Melbourne, 2001-2011

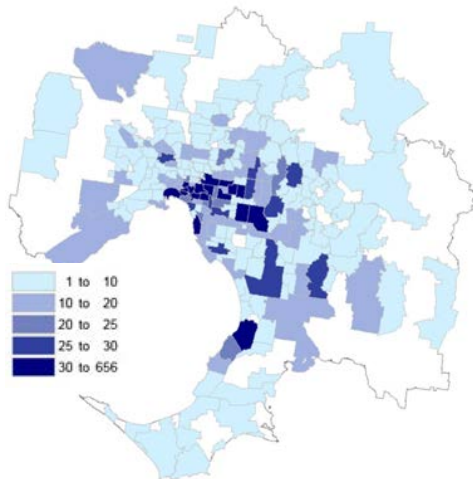


Source: ABS Census 2001, 2011

Maps 7.5.1 and 7.5.2 demonstrate that this sector is largely city based and the growth in employment has been tightly clustered around the city centre.

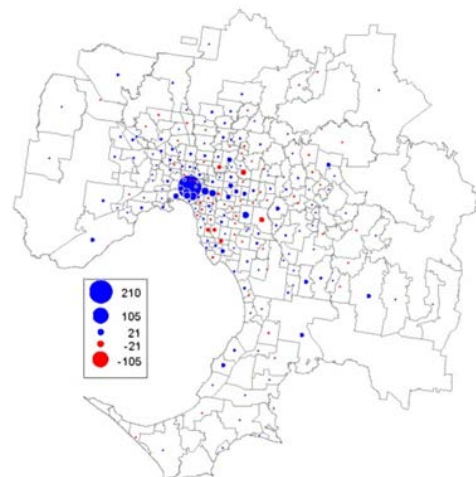
Map 7.5.4 of business change in the Other auxiliary finance and investment services subdivision, which includes financial advisory businesses, indicates these have also grown considerably in the city centre.

Map 7.5.3 Other auxiliary finance and investment services business establishments, Greater Melbourne 2011



Source: Worksafe Victoria

Map 7.5.4 Other auxiliary finance and investment services business establishments net change, Greater Melbourne FY 2001-FY 2011



Source: Worksafe Victoria

7.6 Insurance in Australia

The insurance sector can be divided into the three main markets of general insurance, life insurance and health insurance. These three markets are used in both the 1993 ANSIC and 2006 ANZSIC classification systems. Traditionally the insurance sector in Australia was divided into general insurance, that began by covering fire and marine insurance, and life insurance, which emerged from mutual aid organisations and ‘...had more in common with friendly societies than insurance companies’ (Keneley 2004, p.6). These ‘mutuals’ included the well recognised names of Australian Mutual Provident (AMP), Colonial Mutual and National Mutual. Throughout the twentieth century the rise of car ownership (and road accidents) saw compulsory third party insurance cover mandated, and Employers Liability Insurance was instigated by the state (the Victorian State Insurance Office was established in 1915) (Keneley 2004). Additionally, the Victorian Cain government introduced the key reform of workers’ compensation with the establishment of WorkCover during the 1980s.

7.6.1 Life insurance

The history of life insurance in Australia is dominated by the above mentioned mutuals, which were established between the 1850s and 1880s (no new mutuals were formed after 1881). They operated with little government intervention (Keneley 2004, pp.7-8). There was some movement on the part of government insurers into the life insurance market in the 1980s but this

was rather limited, and posed little competition to the established mutuals. The 1950s and 1960s saw an influx of foreign companies operating within the Australian market, and by the 1980s the historical division between life and non-life insurance began to break down. Keneley's research indicates that by 1970 the major insurers had general insurance subsidiaries, separately constituted superannuation funds, finance companies and dealerships in the short term money market (Keneley 2004, p.12). Previous discussion has also noted the move on the part of life insurance salesman into the financial advice industry around this time.

The 1970s also saw the life insurance industry come under pressure from increasing *bancassurance* activity, for example banks offering insurance products. By the 1980s, a combination of increased competition amongst firms and a move away from the traditional 'collector' salesman to large agency networks meant

Almost anyone could sign on as an agent and the high, undisclosed sales commissions on the new investment-style products encouraged mass misrepresentation of the products by agents. This led to disputes over what consumers believed they had been sold and to early surrender of policies, usually at a significant loss to consumers. Not only did these unethical selling practices undermine the reputation of the whole industry but many of the sales clearly made a loss in real terms. Had the sales practices continued, the financial implications would have been considerable. It was only the introduction of compulsory superannuation in 1992 that arrested the sector's decline (Smith 2000, pp. 69-70).

Deregulation over the 1980s and 1990s saw the prominence of the 'mutuals' diminish in the life insurance industry, replaced by the influence of banks.

Employment data indicates a nation-wide slump in employment in the sector between 2001 and 2006, whereby employment fell across all states with the exception of NSW (where there was a very small increase).

Table 7.6.1 Employment in Life insurance by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	3,503	3,508	5	0.14	0.03%	61.66%	64.20%	2.54%
Vic	1,168	1,126	-42	-3.60	-0.73%	20.56%	20.61%	0.05%
Qld	565	462	-103	-18.23	-3.95%	9.95%	8.46%	-1.49%
SA	155	133	-22	-14.19	-3.02%	2.73%	2.43%	-0.29%
WA	213	173	-40	-18.78	-4.07%	3.75%	3.17%	-0.58%
Tas	42	33	-9	-21.43	-4.71%	0.74%	0.60%	-0.14%
NT	12	11	-1	-8.33	-1.73%	0.21%	0.20%	-0.01%
ACT	21	18	-3	-14.29	-3.04%	0.37%	0.33%	-0.04%
Total	5,681	5,464	-217	-3.82	-0.78%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Employment numbers in the life insurance sector increased between 2006 and 2011, but these increases were predominantly in NSW and Victoria. The life insurance sector employment was impacted by the HIH collapse in 2001 and the growth of banks and superannuation funds operating within their market. In the national context the growth of life insurance employment in Victoria is notable and its size and growth is also a reflection of the connections between the life insurance industry and the establishment of many superannuation fund headquarters in the city of Melbourne.

Table 7.6.2 Employment in Life insurance by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	3,313	3,499	186	5.61	1.10%	63.53%	59.99%	-3.54%
Vic	1,118	1,551	433	38.73	6.77%	21.44%	26.59%	5.15%
Qld	445	429	-16	-3.60	-0.73%	8.53%	7.35%	-1.18%
SA	129	133	4	3.10	0.61%	2.47%	2.28%	-0.19%
WA	156	162	6	3.85	0.76%	2.99%	2.78%	-0.21%
Tas	30	29	-1	-3.33	-0.68%	0.58%	0.50%	-0.08%
NT	11	12	1	9.09	1.76%	0.21%	0.21%	-0.01%
ACT	13	18	5	38.46	6.72%	0.25%	0.31%	0.06%
Total	5,215	5,833	618	11.85	2.27%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

7.6.2 General insurance

General insurance encompasses all insurance cover activity excluding health and life insurance, and includes motor vehicle and household insurance. Until the 1970s the general insurance system in Australia operated separately from the life insurance sector, and acted essentially as a

cartel, known as the ‘tariff’, which set ‘...rates and product conditions, controlled distribution and effectively determined who could sell insurance in Australia’ (Smith 2000, p.65). The arrival of overseas competition beginning in the 1960s, increasing competition from a State-based insurer via third party motor vehicle insurance and finally the *Trade Practices Act 1974* (which outlawed anti-competitive practices that were not in the public interest, such as the tariff’s price setting), saw an end to this era.

The deregulation of financial services in the 1980s and 1990s saw further changes to the general insurance industry in the form of a series of mergers and acquisitions across the sector, thus reducing their number. Further changes to the financial sector regulatory system were made after the then Howard government accepted the recommendation made by the *Wallis Review* whereby the industry was, and continues to be, overseen by the Australian Prudential Regulatory Authority (APRA).

The Australian general insurance sector experienced some upheaval as a result of the collapse of HIH insurance at the start of the twenty-first century – a corporate collapse that warranted a Royal Commission to determine factors leading to its demise. This is reflected in the Census employment figures over this time: while this subdivision was the third largest employing Financial and Insurance subdivision in 2001 and 2006, employment numbers fell considerably between 2001 and 2006, particularly in NSW and Victoria, with numbers consolidating in Queensland. There was some restructuring of the industry throughout the 2000s after the HIH collapse which resulted in a series of mergers (Allan 2006). This saw the emergence of SunCorp based in Queensland as a major player in the insurance sector, as evidenced in the ABS figures. By 2006-2011, employment numbers increased across all the states in this subdivision, suggesting the sub industry had stabilised after the restructuring and employment losses experienced over the previous five years.

Table 7.6.3 Employment in General insurance by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	22,087	18,597	-3,490	-15.80	-3.38%	41.19%	37.96%	-3.23%
Vic	13,837	12,657	-1,180	-8.53	-1.77%	25.80%	25.84%	0.03%
Qld	7,291	9,098	1,807	24.78	4.53%	13.60%	18.57%	4.97%
SA	3,823	3,083	-740	-19.36	-4.21%	7.13%	6.29%	-0.84%
WA	4,474	4,025	-449	-10.04	-2.09%	8.34%	8.22%	-0.13%
Tas	870	650	-220	-25.29	-5.66%	1.62%	1.33%	-0.30%
NT	426	316	-110	-25.82	-5.80%	0.79%	0.65%	-0.15%
ACT	815	565	-250	-30.67	-7.07%	1.52%	1.15%	-0.37%
Total	53,624	48,991	-4,633	-8.64	-1.79%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Table 7.6.4 Employment in General insurance by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	18,506	21,349	2,843	15.36	2.90%	37.94%	38.27%	0.32%
Vic	12,569	14,223	1,654	13.16	2.50%	25.77%	25.49%	-0.28%
Qld	9,085	10,664	1,579	17.38	3.26%	18.63%	19.11%	0.49%
SA	3,074	3,616	542	17.63	3.30%	6.30%	6.48%	0.18%
WA	4,010	4,249	239	5.96	1.16%	8.22%	7.62%	-0.61%
Tas	646	695	49	7.59	1.47%	1.32%	1.25%	-0.08%
NT	315	320	5	1.59	0.32%	0.65%	0.57%	-0.07%
ACT	569	674	105	18.45	3.45%	1.17%	1.21%	0.04%
Total	48,774	55,790	7,016	14.38	2.72%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

7.6.3 Health insurance

Chart 6.6.1 in Chapter Six demonstrated the great increases in employment that the Health care and social assistance industry in Australia has experienced in the ten years from 2001 to 2011, when it grew from the third largest employing industry to the largest. The health system in Australia is unique amongst those in the developed world, combining universal health care (known as Medicare) with private health insurance (Hall, de Abreu Lourenco & Viney 1999, p. 653). The proportion of the Australian population with private health insurance peaked in 1970, when 80% of the population held private health insurance. It fell subsequently to 50% of the population when Medicare was introduced in 1984, and continued to fall to 30% by 1997 (Hall, de Abreu Lourenco & Viney 1999, p.654). A series of reforms were then implemented to shore up private health coverage: a 30% rebate on health premiums for individuals taking out private

health insurance and an additional tax penalty of 1% in addition to the Medicare levy payable by individuals who did not have private health cover and earned over \$50,000 per annum (and \$100,000 for families) (now \$84,000 for individuals and \$168,000 for families). The ‘Lifetime Health Cover’ policy was introduced in July 2000, whereby an age penalty is imposed on individuals who join private health insurance after the age of 30 (aimed at encouraging younger and healthier less risky members to join private health funds. Latest figures (2014) show that 45% of the Australian population has some form of private health insurance (Private Health Insurance Administration Council 2014).

Other markets for health insurance in Australia include overseas visitors, including the burgeoning international student market throughout the 2000s.

Victoria is the headquarters of the two largest private health insurance schemes in Australia: Medibank Private Limited (which is owned by the Commonwealth Government) and is responsible for 28.9% of the market and British United Provident Association (BUPA) Asia Pacific Pty Ltd, which has a market share of 27.6% (Chia 2013). While the Census figures indicate national employment fell between 2001 and 2006, it increased in Victoria. This growth continued throughout the 2006-2011 period, whereby Victorian Health insurance employment increased by just under another half to fall just short of the NSW employment figures for the sub industry (3,559 to NSW 3,618) – an increase of 1,107 workers or 45% against the NSW increase of 364 workers or 11%.

Table 7.6.5 Employment in Health insurance by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	3,729	3,254	-475	-12.74	-2.69%	42.05%	39.74%	-2.31%
Vic	2,107	2,344	237	11.25	2.15%	23.76%	28.62%	4.86%
Qld	1,093	1,183	90	8.23	1.60%	12.33%	14.45%	2.12%
SA	544	554	10	1.84	0.36%	6.13%	6.77%	0.63%
WA	805	660	-145	-18.01	-3.89%	9.08%	8.06%	-1.02%
Tas	167	116	-51	-30.54	-7.03%	1.88%	1.42%	-0.47%
NT	44	22	-22	-50.00	-12.94%	0.50%	0.27%	-0.23%
ACT	377	56	-321	-85.15	-31.71%	4.25%	0.68%	-3.57%
Total	8,868	8,189	-679	-7.66	-1.58%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Table 7.6.6 Employment in Health insurance by state, 2006-2011

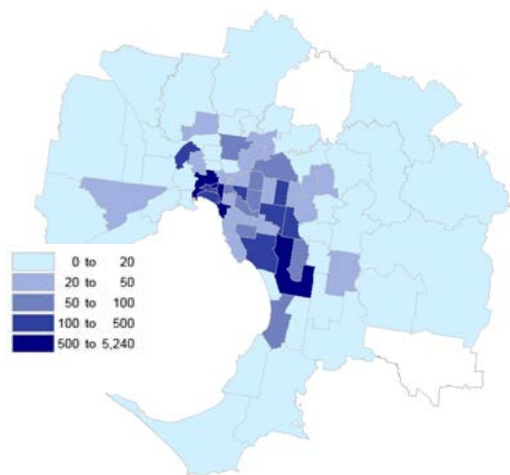
State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	3,254	3,618	364	11.19	2.14%	39.08%	34.65%	-4.44%
Vic	2,452	3,559	1,107	45.15	7.74%	29.45%	34.08%	4.63%
Qld	1,184	1,325	141	11.91	2.28%	14.22%	12.69%	-1.53%
SA	580	686	106	18.28	3.41%	6.97%	6.57%	-0.40%
WA	665	992	327	49.17	8.33%	7.99%	9.50%	1.51%
Tas	114	136	22	19.30	3.59%	1.37%	1.30%	-0.07%
NT	22	36	14	63.64	10.35%	0.26%	0.34%	0.08%
ACT	55	91	36	65.45	10.60%	0.66%	0.87%	0.21%
Total	8,326	10,443	2,117	25.43	4.64%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

7.6.4 Spatial change in General and Health insurance sub industries employment and business establishments, Greater Melbourne, 2001-2011

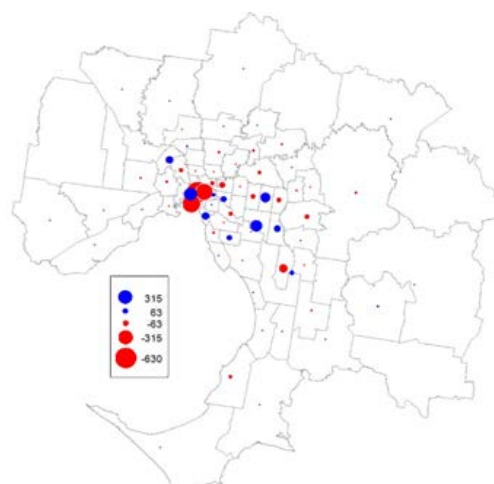
As mentioned earlier, General insurance employment fell between 2001 and 2006 in the aftermath of the HIH insurance collapse. Employment numbers recovered between 2006 and 2011. Map 6.6.1 demonstrates employment is based not only in the city but also in the Monash/Dandenong area in Melbourne's south eastern metropolitan area. Over the ten years to 2011 employment increased in the Melbourne Southbank-Docklands SLA within the City of Melbourne, due to the establishment of AMP headquarters in the new financial district. Otherwise the central city area suffered employment losses in this sub industry and growth occurred in suburban areas around the Cities of Monash, Port Phillip, Boroondara, Yarra and Moonee Valley.

Map 7.6.1 General insurance employment, Greater Melbourne, 2011



Source: ABS Census 2011

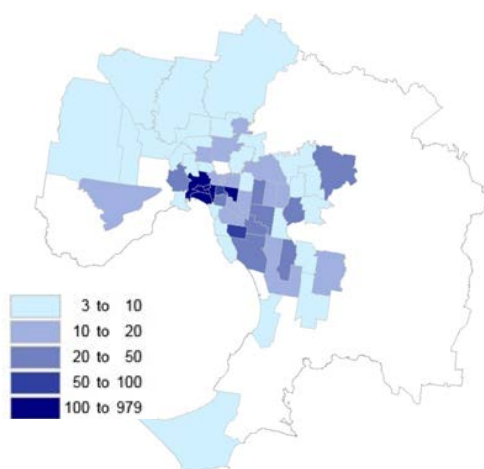
Map 7.6.2 General insurance employment change, Greater Melbourne, FY 2001-FY 2011



Source: ABS Census 2001, 2011

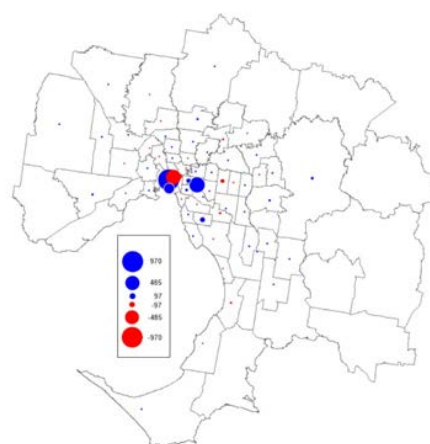
Health insurance employment increased over the ten years to 2011, with the greatest employment growth between 2006 and 2011. Once again there was some relocation of the sub industry to the Southbank-Docklands SLA with Medibank Private, part of the broader movement of the Melbourne based financial services industry relocating to the new district. Another large employer in the sub industry is the health provider BUPA, which was located in Hawthorn at the time the Census was taken in August 2011, but has since relocated to the Melbourne CBD.

Map 7.6.3 Health insurance employment, Greater Melbourne, 2011



Source: ABS Census 2011

Map 7.6.4 Health insurance employment change, Greater Melbourne, FY 2001-FY 2011



Source: ABS Census 2001, 2011

7.7 Superannuation

Prior to a series of reforms introduced under the Hawke/Keating government throughout the 1980s, superannuation existed for only a small proportion of the Australian population, mainly public servants and other white collar workers. The introduction of universal compulsory superannuation for all Australian workers occurred in 1992 with the *Superannuation Guarantee Act (1992)*, legislating that 3% of all Australian workers' income and/or wages was required to be withheld and invested into a complying superannuation fund. The contribution level rose gradually over the next ten years and by 2002-2003 it reached 9%, now increased to 12%). This was a landmark piece of legislation, and changed the financial services industry in Australia markedly. By 2011 there was approximately \$1.4 trillion saved in Australian superannuation funds – or 10% of the Australian 2011 GDP. In 2011 superannuation savings were divided into \$452.6 million in the non for profit sector(for example industry super funds), \$369.4 million in retail funds and \$415.9 million in self-managed super funds (SMSFs) (St Anne 2012, p.277).

The superannuation industry is mostly comprised of union movement associated industry superfunds, retail funds such as those operated by various banks and managed funds and self-managed funds (SMSFs). As the 2000s continued, the money available for investment on the part of superannuation funds has seen them diversify considerably. By the early 2000s, union associated industry funds were garnering better returns for their members (Kohler 2003). Additionally, the poor performance of many of the bank associated retail funds has been interpreted as the catalyst for the increasing numbers of SMSFs – so much so that SMSFs comprised over 35% of the market by 2012 (Gottlieb 2012).

The growth and diversification of Australia's superannuation funds demonstrates the *allfinanz* nature of the industry as a whole. Industry fund C-Bus, for example, was initially formed as the building and construction industry super fund, but later branched out to offering insurance, then mortgages and took early advantage of extending its membership beyond construction workers covered by the award. In 2003, a consortia of industry super funds took up equity in ME Bank after AXA departed. According to St Ann (2012), some industry figures even feel that the existence of superannuation was essential to Australia's relatively strong economic performance throughout the years of the GFC, when superannuation fund industry had access to \$68.4 million in cash throughout the crisis in 2009 (p. 197).

7.7.1 Superannuation sub industry employment, 2001-2011

In terms of employment, ABS Census data indicated employment in superannuation fell in Australia between 2001 and 2006, however it increased between 2006 and 2011. The employment growth occurred mainly in Melbourne, whereby it was almost even with NSW

employment by 2011. This is due to the location of many industry funds' head offices in the city center of Melbourne near Trades Hall, the Carlton based headquarters of the union movement.

Table 7.7.1 Employment in Superannuation by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	3,185	2,504	-681	-21.38	-4.70%	38.68%	39.69%	1.01%
Vic	2,525	1,948	-577	-22.85	-5.06%	30.67%	30.88%	0.21%
Qld	780	807	27	3.46	0.68%	9.47%	12.79%	3.32%
SA	500	347	-153	-30.60	-7.05%	6.07%	5.50%	-0.57%
WA	680	377	-303	-44.56	-11.13%	8.26%	5.98%	-2.28%
Tas	159	226	67	42.14	7.29%	1.93%	3.58%	1.65%
NT	21	11	-10	-47.62	-12.13%	0.26%	0.17%	-0.08%
ACT	384	89	-295	-76.82	-25.35%	4.66%	1.41%	-3.25%
Total	8,234	6,309	-1,925	-23.38	-5.19%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Table 7.7.2 Employment in Superannuation by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	2,480	4,112	1,632	65.81	10.64%	39.60%	37.37%	-2.24%
Vic	1,946	3,956	2,010	103.29	15.25%	31.08%	35.95%	4.87%
Qld	789	1,645	856	108.49	15.83%	12.60%	14.95%	2.35%
SA	346	428	82	23.70	4.35%	5.53%	3.89%	-1.64%
WA	374	456	82	21.93	4.04%	5.97%	4.14%	-1.83%
Tas	226	265	39	17.26	3.24%	3.61%	2.41%	-1.20%
NT	12	17	5	41.67	7.21%	0.19%	0.15%	-0.04%
ACT	89	125	36	40.45	7.03%	1.42%	1.14%	-0.29%
Total	6,262	11,004	4,742	75.73	11.94%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

7.8 State government policy regarding financial services during the 2000s

Throughout the 2000s, the growing importance of the finance and insurance industry to the Victorian economy saw the sector increase in political importance, from initially being contained within the industry and state development portfolio when Labor took government in 1999, to warranting its own Ministry by 2002, when Tim Holding was appointed Minister for

Financial Services, along with Minister for Manufacturing and Exports. An action plan for the industry: *Investing in Victoria's future: Financial Services Action Plan* was released in 2004, following an audit of the sector. Initially the finance services ministry was aligned with other industry related portfolios: Andre Haermeyer took over the ministry for financial services in 2005, along with the other industry related portfolios of Manufacturing and Export, and Small Business. After the 2008 resignation of Premier Steve Bracks and subsequent reshuffle, Treasurer John Lenders took over the portfolio, moving away from industry aligned ministries and into the treasury and finance portfolios.

The key plank of the 2004 action plan entitled *Investing in Victoria's Future* was the establishment of the Melbourne Centre for Financial Studies, aiming to:

...bridge the gap between universities, academic research and industry, and generate international linkages with other research institutions, universities and expatriates from the financial and academic sectors...[playing] a leading role in establishing Melbourne as a major focus for finance and investment research, comparable with Boston in the United States and Cambridge in the United Kingdom' (Holding 2004, p.18).

The modest \$1 million seed funding saw the Melbourne Centre for Financial Studies established, a joint research collaboration between the University of Melbourne, Monash University and Royal Melbourne Institute of Technology (RMIT) (Now known as the Australian Centre for Financial Studies).

Other funding initiatives in the statement included: the establishment of an Australian Investment Research Forum, owned and operated by the industry and tasked with:

...commercialising our finance research, and sharpening our competitive edge in investment funds management, further promotion of the local finance industry to overseas markets through investment missions and encouraging further take up of finance education related courses at Australian universities (Holding 2004, p.9).

In 2009, Minister for Financial Services John Lenders released *A great place to do business: growing Victoria's financial services sector*, a glossy statement that served as a report card on the 2004 statement, as well as outlining further finance industry initiatives. The statement itself made much of Melbourne and its role as a centre for finance (including a section extolling Melbourne as a 'great global city'), and as the headquarters of key investment companies, health insurers and superannuation funds. A key announcement, and a change in direction from previous state government policy, however, appeared to be the proclamation of the 'Docklands Financial Services Precinct'. While there was no mention of any financial incentives made to finance related companies to locate in the Docklands area, the statement trumpeted how 'Many of Australia's premier financial services companies and organisations have made Docklands

their home, including NAB, Bendigo Bank, SunCorp, AXA Asia Pacific, Medibank Private, AMP and LUCRF Super'. In the *pièce de résistance*: 'The ANZ Bank is developing Australia's largest office building at the precinct, catering for more than 6,500 staff' (Department of Innovation, Industry and Regional Development, 2009, p.17).

Chapter Four outlined the chequered history of development within the Docklands project since its inception under the Cain government in the 1980s (Dingle & O'Hanlon 2009; Dovey 1997; Shaw 2013). By the late 2000s, the state government was pursuing a branding strategy for the site as a financial services business employment cluster, neatly merging the prevailing geography related thought on clusters and global cities with Victoria's burgeoning central city based financial services industry.

7.9 Conclusions

This chapter has outlined the employment change across all subdivisions in the Financial and insurance services industry across the Australian jurisdictions between 2001 and 2011. This analysis has shown that while Financial and insurance services have increasingly contributed to Australian GDP, the employment growth in the industry has been less consistent over the decade. Overall, employment gains and falls throughout Australia in the Financial and insurance services sub industries were subject to specific national level events that occurred over the period, such as: the HIH collapse; the continuing restructuring of Australian banks that began in the 1990s; the growth of the superannuation and financial advice industries and policy changes made to the Australian health insurance system.

Throughout the 2000s, Victoria (and more specifically Melbourne) experienced a consolidation of employment in certain Financial and insurance services sub industries, such as Health insurance, Superannuation, and Banking. As the Australian 'capital' for the Financial and insurance services industries, NSW (and more specifically Sydney) bore the brunt of the impact of the GFC, with employment falls in finance related industries such as Financial asset broking, although overall the Australian finance and insurance industry was not as badly affected by the GFC as other Trans-Atlantic countries. This has been attributed to a variety of factors, including Australia's sound prudential regulatory environment, the existence of the country's compulsory superannuation scheme and the then Labor government's response to the crisis.

Throughout the 2000s the move towards an *allfinanz/bancassurance* model of delivery, whereby a variety of financial services products are increasingly offered by various finance industry entities, continued; blurring the divisions within the sector's markets in keeping with global developments in the industry. Perhaps in contrast to developments overseas (in the NY-Lon related jurisdictions of the United Kingdom and United States of America, for example),

the Australian government continued to keep a close eye on developments within the finance sector, as is evidenced by the series of government inquiries and royal commissions into the sector, its oversight and regulation. These were partly prompted by public concern over the treatment within the sector of consumers of financial products and their investments. In Victoria, the financial services industry was considered to be so important to the state, its capital city and economy, as to warrant its own ministry and associated strategy.

The increasing importance of the Financial and insurance services sector to Victoria and its economy saw the industry gain prominence in economic development policies and statements made by the then Labor government as the 2000s progressed. This fitted neatly into the broader economic development and place marketing strategies for the state, and specifically for Melbourne, with an emphasis on global connectivity and world city status.

However the successes in terms of jobs for the sector in Melbourne and Victoria were more a result of path dependency, in the case of the banking sector and the location of the superannuation fund headquarters, as well as national policy settings such as the health insurance system, than any globalisation-based factor.

While Financial and insurance services employment in Melbourne increasingly centralised throughout the 2000s into the three SLAs comprising the central city area, this has not occurred solely as an agglomeration-style 'self-organising phenomena' (Trubka 2009), but also as a result of relocation policies enacted by the state government, such as transforming the Docklands area into a financial services precinct.

These findings confirm van Kempen's theorisation on 'contingencies' that may mediate the impact of globalisation on cities. In the case of the Financial and insurance services activity in Melbourne, governance factors as van Kempen may term it, seen in the Australian context by the national prudential regulatory environment protecting much of the local finance sector from the impact of the GFC, together with the political response to the crisis by the then-Labor government.

Economic development policies for Victoria, another 'contingency' outlined by van Kempen, were established for the Financial and insurance services sector, and these had some bearing on the performance of the industry throughout the 2000s, particularly in terms of the spatial development, whereby many major employers in the sector were encouraged to move to the Docklands area as part of a broader, longer term urban regeneration project.

The following chapter will examine the sub industries comprising Professional, scientific and technical services in similar detail.

Chapter Eight: Professional, scientific and technical services

8.1 The growth of the services sector and knowledge workers in the Australian economy

Pervious discussion in Chapter Two outlined the growth of the services sector across world's major developed economies, and the changing composition of developed economies' workforce towards 'symbolic analysts' who

...solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, juggled, experimented with, communicated to other specialists, and then, eventually transformed back to reality. The manipulations are done with analytical tools, sharpened by experience...(Reich 1992, p.178).

The discussion in Chapter Two outlined the importance of APS in Global Cities hypothesis, as posited by Saskia Sassen, together with subsequent research undertaken as part of the World Cities Network body of research. Chapter Six defined APS in the Australian context, combining Financial and insurance services and Professional, scientific and technical services as defined by the Australian Bureau of Statistics industry classification to represent APS in Australia. The previous chapter presented an in-depth analysis and discussion of sub industries within Financial and insurance services in order to determine the development of that sector at the national, state and city level over the 2000s, and to determine whether this was due to international or global factors of connection (as global cities theorisation would term it) or more local factors.

This chapter examines Professional, scientific and technical services sub industries in similar detail. The sub industries comprising Professional, scientific and technical services in this chapter are; Computer systems design and related services; Engineering design and engineering consulting services; Accounting services; Legal services; and Management advice and related consulting services. A brief history of each sub industry in Australia is given at the start of the analysis in order to present the necessary local context. National, state and city-based analysis using ABS Census and WorkSafe Victoria data on employment and business change is then presented in the same fashion as the previous chapter's analysis of the sub industries comprising Financial and insurance services.

8.2 Computer systems design and related services in Australia

Computer systems design and related services was a new sub industry created in the ANZSIC 2006, and it is difficult to concordance the subdivision with Computer systems design and information technology-related sub divisions in the previous 1993 ANSIC industry code. The creation of the sub industry has come under some criticism from stakeholders within the

information technology industry itself, who feel the category is misnamed (the Australian Computer Society (ACS) prefers the term ‘Software and Services’ (ACS 2012, pp.6-7)) and includes elements that were previously (1993 ANSZIC) counted in Wholesale trade categories.

In broad terms, however, the 2000s saw the information technology sector in Australia recover from the ‘tech crash’ of the late 1990s. In Australia the main industry players are: IBM Australia; Dimension Data Australia Pty Ltd; Hewlett Packard (which absorbed computing consultancy giant EDS in 2008); CSC Computer Sciences Australia Holdings Pty Ltd; Accenture and InfoSys. These firms have relatively small overall market share (17% according to Flores (2015)), indicating the prevalence of many smaller companies operating in the industry. The industry has long relied on the propensity of major companies such as the major Australian banks and government departments, to outsource their information technology needs, and thus the labour market performance of the industry has been contingent on the prevailing business conditions of their clients.

8.2.1 Computer systems design and related services employment, 2006-2011

Table 8.2.1 Employment in Computer systems design and related services by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	43,164	53,477	10,313	23.89	4.38%	40.71%	38.36%	-2.35%
Vic	29,991	41,455	11,464	38.22	6.69%	28.28%	29.74%	1.45%
Qld	14,133	20,259	6,126	43.35	7.47%	13.33%	14.53%	1.20%
SA	5,284	6,071	787	14.89	2.82%	4.98%	4.35%	-0.63%
WA	7,690	10,546	2,856	37.14	6.52%	7.25%	7.56%	0.31%
Tas	851	1,182	331	38.90	6.79%	0.80%	0.85%	0.05%
NT	463	644	181	39.09	6.82%	0.44%	0.46%	0.03%
ACT	4,463	5,774	1,311	29.37	5.29%	4.21%	4.14%	-0.07%
Total	106,039	139,408	33,369	31.47	5.62%	100.00%	100.00%	0.00%

Source ABS Census 2006, 2011

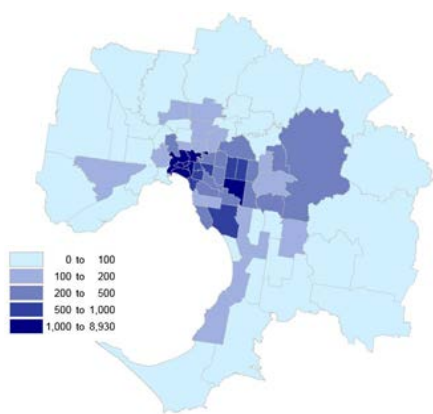
The employment figures for people working within the sub industry may be understated, due to the propensity of the major accountancy firms and management consultancy companies to offer information technology related services to their clients. IBM, for example, took over ‘Big 4’ firm PricewaterhouseCoopers’ information technology consultancy arm in 2002.

The labour market data over the period 2006-2011 indicates NSW maintained the greatest share of employment in the sub industry. Information technology activity has historically been mainly located in NSW, and more specifically Sydney, due to its connection to the Finance and insurance services industry based there (Searle 2009). The mining industry was a major client of

the Computer systems design and related services sub industry in the latter half of the 2000s, investing heavily in information technology projects. This may explain the increase in employment in Victoria, which experienced the greatest level of employment growth in the sub industry out of all the states between 2006 and 2011.

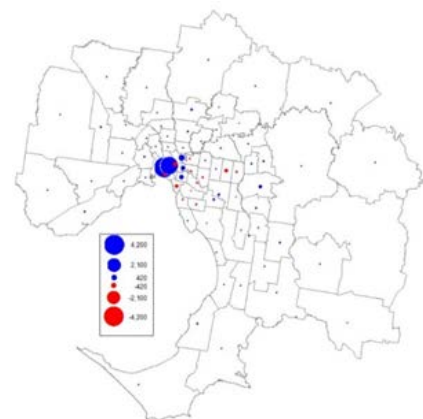
8.2.2 Spatial change in computer systems design sub industry employment and business establishments, Greater Melbourne, 2001-2011

Map 8.2.1 Computer systems design employment, Greater Melbourne, 2011



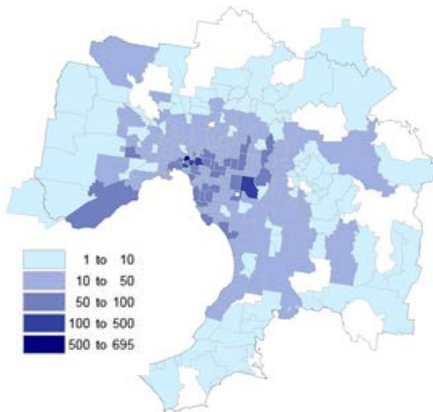
Source: ABS Census 2011

Map 8.2.2 Computer systems design employment change, Greater Melbourne 2001-2011



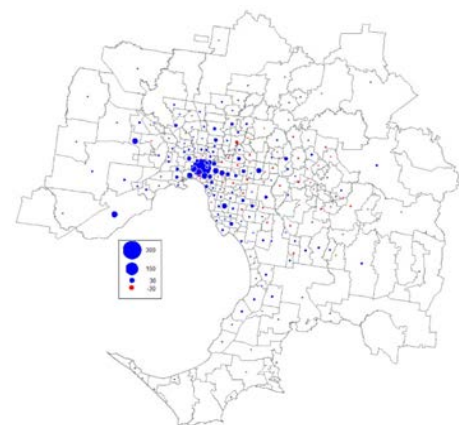
Source: ABS Census 2001, 2011

Map 8.2.3 Computer systems design businesses, Greater Melbourne, 2011



Source: Worksafe Victoria

Map 8.2.4 Computer systems design businesses net change, Greater Melbourne 2001-2011



Source: Worksafe Victoria

Computer system design and related services experienced increases in both business establishments and employment in metropolitan Melbourne between 2001 and 2011. This is notable as the large increase in business establishments in part reflects the growth of ICT and

computing professionals. Taking this into account, one may have expected the increase to be scattered throughout the suburbs in residential locations, reflecting possible residential addresses of ICT contractor-style workers registered with WorkSafe Victoria for work insurance purposes. Despite this, the data indicates the increases for the sub industry that occurred for both employment and business establishments were predominantly city centre based.

8.3 Engineering services in Australia

The changes and growth of the engineering industry in Australia are a reflection of the specialisations and composition of the country's overall economy. Engineers and engineering services were integral during the 'Marvellous Melbourne' era, both in terms of town planning and city building (Chambers & Mayne 2004; Lewis 1995) and the growth of the mining and resources industry itself (Blainey 1993). In the post war period, the engineering workforces were critical to the country's nascent manufacturing, process and infrastructure industries. The government itself was the major employer of engineers throughout the twentieth century: Lloyd et al. (2001) estimates that 60% of all engineers were employed by the government from after the war to the mid-sixties (p.15). The 1970s saw technological innovation change the composition of the industry, moving away from electrical and mechanical engineering towards electronic engineering and computing (hence Computer systems design services warranted its own 4 digit industry code by the time of the 2006 Census). The 1980s heralded further changes to the industry and profession, as Lloyd notes:

The changing social environment required a realisation that engineering is not an end in itself, but that professional engineers are employed to create and manage assets, products and services for economic and social purposes, and to facilitate the conduct of commercial, community and government functions' (Lloyd et al. 2001, p.28).

And thus engineers (and the engineering industry) began to encompass broader managerial and project management skills, in addition to the technical skills and competencies that had comprised the nature of work within the sector. The 1990s saw increasing privatisation of government entities, and the engineering labour force shifted further from one that was employed in government departments and authorities to increasingly contractor and consultancy arrangements. Victoria, in particular, saw privatisation occur across the electricity, gas (the State Electricity Commission (SEC)), rail transport and water sectors (MMBW), in addition to the then contractor arrangement for large state infrastructure projects such as City Link (Costar, B. & Economou 1999).

The major engineering consultancy companies in operation in Australia are: WorleyParsons; GHD Group; Sinclair Knight Merz; SMEC Holdings and Aurecon Australia. Worley Parsons (headquartered in Sydney), has increased its ranking in the Forbes 2000 list in recent years as a

result of strategic mergers with other international engineering firms. The leading foreign engineering firms include: AECOM Australia; Bechtel Australia; KBR Holdings; Arup Australia; Hatch Associates and Fluor Australia (Chia 2014).

8.3.1 Engineering services design and related services employment 2001-2011

Table 8.3.1 Employment in Consulting engineering services by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	15,809	17,025	1,216	7.69	1.49%	31.35%	27.05%	-4.30%
Vic	12,087	13,759	1,672	13.83	2.63%	23.97%	21.86%	-2.11%
Qld	10,243	14,742	4,499	43.92	7.55%	20.31%	23.42%	3.11%
SA	2684	3,632	948	35.32	6.24%	5.32%	5.77%	0.45%
WA	8,029	10,848	2,819	35.11	6.20%	15.92%	17.23%	1.31%
Tas	751	931	180	23.97	4.39%	1.49%	1.48%	-0.01%
NT	502	786	284	56.57	9.38%	1.00%	1.25%	0.25%
ACT	743	1,213	470	63.26	10.30%	1.47%	1.93%	0.45%
Total	50,429	62,946	12,517	24.82	4.53%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Table 8.3.2 Employment in Engineering design and engineering consulting services by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	17,652	23,635	5,983	33.89	6.01%	27.02%	24.99%	-2.03%
Vic	14,316	19,034	4,718	32.96	5.86%	21.92%	20.13%	-1.79%
Qld	15,309	25,136	9,827	64.19	10.43%	23.44%	26.58%	3.14%
SA	3,913	4,832	919	23.49	4.31%	5.99%	5.11%	-0.88%
WA	11,046	18,615	7,569	68.52	11.00%	16.91%	19.68%	2.77%
Tas	1,048	1,204	156	14.89	2.81%	1.60%	1.27%	-0.33%
NT	791	826	35	4.42	0.87%	1.21%	0.87%	-0.34%
ACT	1,234	1,275	41	3.32	0.66%	1.89%	1.35%	-0.54%
Total	65,322	94,567	29,245	44.77	7.68%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

The employment data from the Census indicates that Engineering services employment grew considerably over the 2000s. This reflects a number of factors, such as the shift to greater contracting on the part of previous engineering employers (e.g. state governments) and the

employment growth that occurred in Western Australia and Queensland due to the mineral resources boom. In contrast to other Advanced Producer Services (APS) sub industries, which tend to be city based, most engineering services employment growth occurred outside of the capital cities. Such was the growth in employment in engineering services that by 2011 Queensland and Western Australia had the greatest employment growth, followed by NSW and Victoria.

Census data indicates that engineers generally comprise a third of all workers within the Engineering design and engineering consulting services industry, and this proportion grew from 35% to 37% in Victoria between 2006 and 2011.

Chart 8.3.1 demonstrates that Civil engineering professionals dominate the industry, comprising the largest 4 digit occupation category across all states in the Engineering design and engineering consulting services, and also accounting for the greatest growth across all states. This reflects the growth in infrastructure, construction and mining activity in Australia throughout the 2000s.

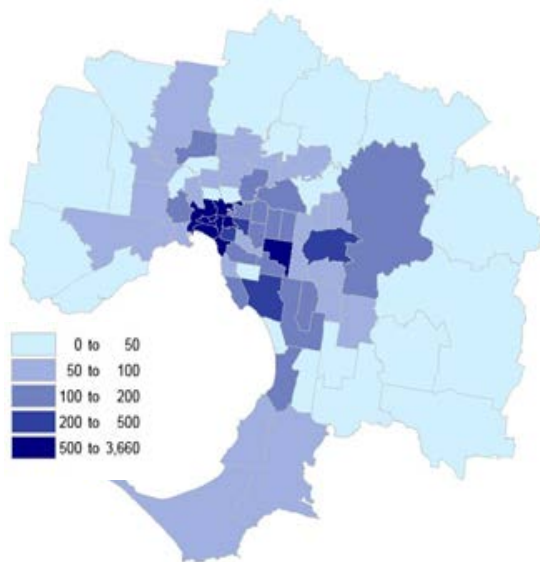
Chart 8.3.1 Number of engineering professionals (by 4 digit occupation) employed in Engineering design and engineering consulting services by state, 2006-2011 (Place of work)



Source: ABS Census 2006, 2011

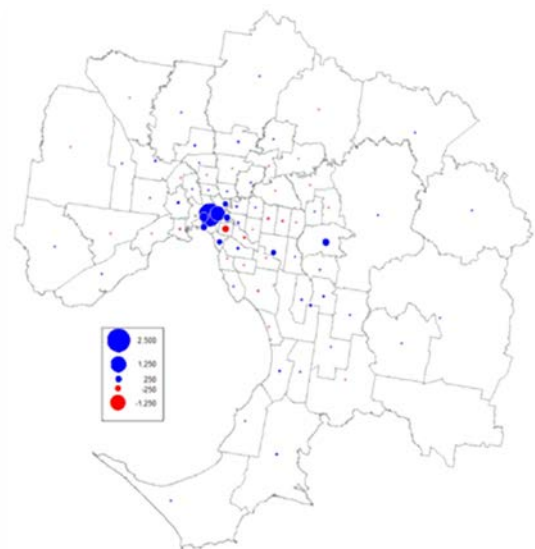
8.3.2 Spatial change Engineering design and engineering consulting services employment and business establishments, Greater Melbourne, 2001-2011

Map 8.3.1 Engineering design and engineering consulting services employment, Greater Melbourne, 2011



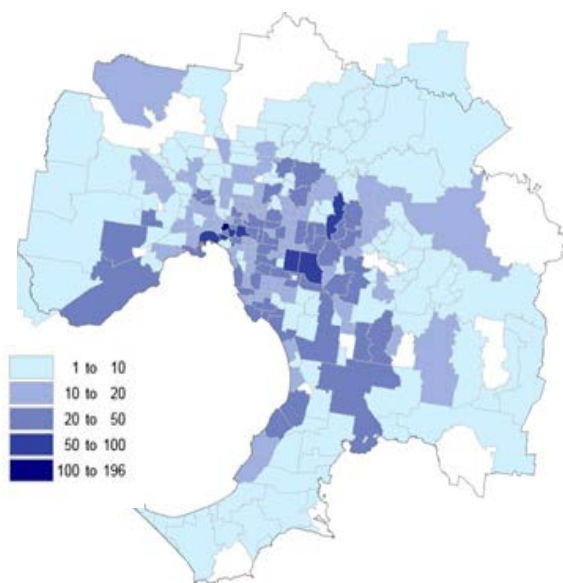
Source: ABS Census 2011

Map 8.3.2 Engineering design and engineering consulting services employment change, Greater Melbourne, 2001-2011



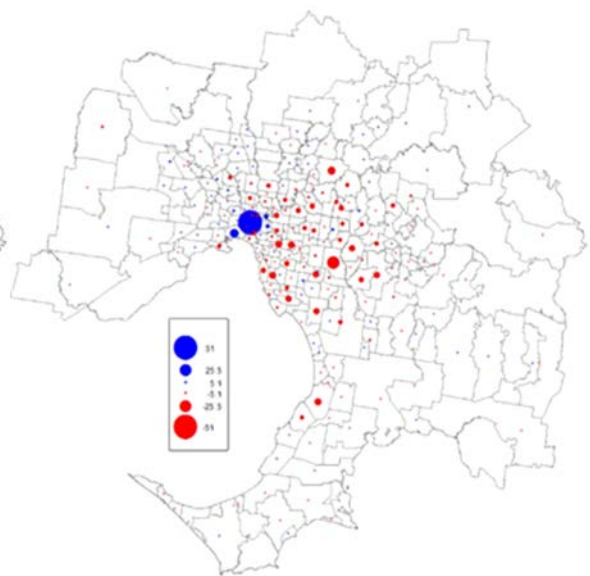
Source: ABS Census 2001, 2011

Map 8.3.3 Engineering design and engineering consulting services businesses, Greater Melbourne, 2011



Source: Worksafe Victoria

Map 8.3.4 Engineering design and engineering consulting services businesses net change, Greater Melbourne, FY 2001-FY 2011



Source: Worksafe Victoria

The maps above of location change for Engineering design and engineering consulting services show the sub industry increasingly centralised throughout the 2000s, both in terms of employment numbers and business establishments. This can be explained by the increasing tendency towards a consultancy style delivery of engineering services, and the premium location of the central city area for this activity. The changing nature of engineering services itself, away from industrial, production style engineering service associated with suburban based manufacturing activity, has also translated to a decline of Engineering design and engineering consulting services employment and business establishments across the suburbs, particularly in eastern and south eastern regions.

8.4 Accounting Services in Australia

Accounting services industry in Australia is dominated by 'the Big 4' international/global accountancy firms: PricewaterhouseCoopers (PwC); Deloitte; Ernst and Young and KPMG. The 'Big 4' has been settled after a series of large mergers occurring in the industry over the last thirty years. In 1998 the 'Big 6' became the 'Big 5' with the merger of Price Waterhouse with Coopers and Lybrand. In 2002, the collapse of the Enron Corporation and the subsequent congressional indictment of the company's auditing firm Arthur Anderson saw the various practices within that auditing firm merge with the remaining 'Big 4' companies.

The Australian headquarters of these firms is Sydney, with the exception of KPMG where Sydney and Melbourne alternate as the company headquarters, depending on the location of the Australian Chief Executive Officer (CEO). The large accounting firms, such as Coopers and Lybrand and Price Waterhouse, established a presence in Australia in the 1940s and were offshoots of their British parent companies (Wright, C 2000, p.97). The growth of large accounting based multinationals and their global reach was at the heart of Sassen's study into global cities and subsequent research into global networks (Sassen 2001; Taylor, PJ et al. 2010). Perera et al. (2003) contend that the development and growth of the 'Big 4' firms throughout the current era of globalisation has been facilitated by an economic environment of deregulation and technological change, as well as '...scale factors, [whereby] large organisations need large firms to audit them and, to some extent, large firms to provide them with consulting and other non-audit services' (Perera, Rahman & Cahan 2003, p.31). The move towards homogenised global accounting standards, together with competition from other professionals, has seen these big accounting firms 'branch out' into other areas of professional expertise such as management consultancies. This will be examined further in the following chapter.

8.4.1 Accounting services employment 2001-2011

The previous chapter examining the Financial and insurance services sector in Australia outlined the increasing demand for financial advisory services in the country throughout the 2000s, with accountants also increasingly performing financial advisory functions. The Census data indicates employment in Accounting services grew across all states between 2001 and 2006, with Victorian jobs growth third after NSW and Queensland.

Table 8.4.1 Employment in Accounting services by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	31,648	34,275	2,627	8.30	1.61%	35.92%	35.69%	-0.22%
Vic	23,754	25,651	1,897	7.99	1.55%	26.96%	26.71%	-0.25%
Qld	14,683	16,840	2,157	14.69	2.78%	16.66%	17.54%	0.87%
SA	5,655	6,101	446	7.89	1.53%	6.42%	6.35%	-0.06%
WA	8,687	9,369	682	7.85	1.52%	9.86%	9.76%	-0.10%
Tas	1,431	1,489	58	4.05	0.80%	1.62%	1.55%	-0.07%
NT	667	574	-93	-13.94	-2.96%	0.76%	0.60%	-0.16%
ACT	1,587	1,725	138	8.70	1.68%	1.80%	1.80%	0.00%
Total	88,114	96,024	7,910	8.98	1.73%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

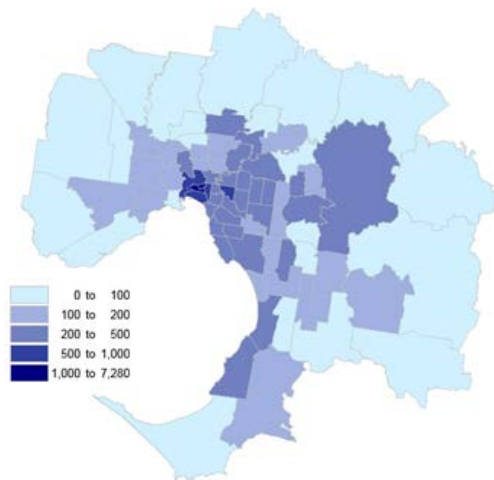
Table 8.4.2 Employment in Accounting services by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% Change
NSW	34,353	38,991	4,638	13.50	2.57%	35.56%	34.37%	-1.19%
Vic	25,891	30,866	4,975	19.22	3.58%	26.80%	27.21%	0.41%
Qld	16,957	20,860	3,903	23.02	4.23%	17.55%	18.39%	0.84%
SA	6,182	7,050	868	14.04	2.66%	6.40%	6.22%	-0.18%
WA	9,405	11,489	2,084	22.16	4.08%	9.74%	10.13%	0.39%
Tas	1,489	1,650	161	10.81	2.07%	1.54%	1.45%	-0.09%
NT	572	697	125	21.85	4.03%	0.59%	0.61%	0.02%
ACT	1,752	1,830	78	4.45	0.87%	1.81%	1.61%	-0.20%
Total	96,601	113,433	16,832	17.42	3.26%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

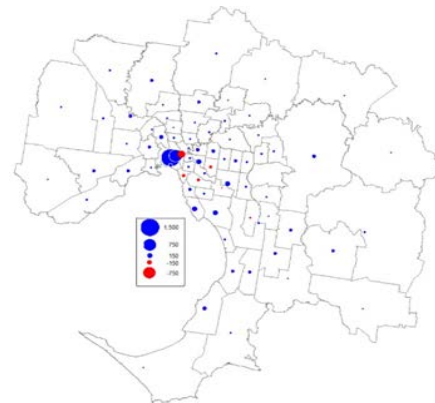
Over the period 2006-2011, net jobs growth in Accounting services in Victoria outstripped that of all the other jurisdictions.

Map 8.4.1 Accounting services employment, Greater Melbourne, 2011



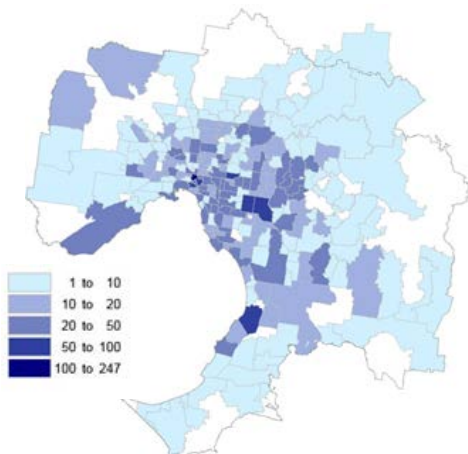
Source: ABS Census 2011

Map 8.4.2 Accounting services employment change, Greater Melbourne, 2001-2011



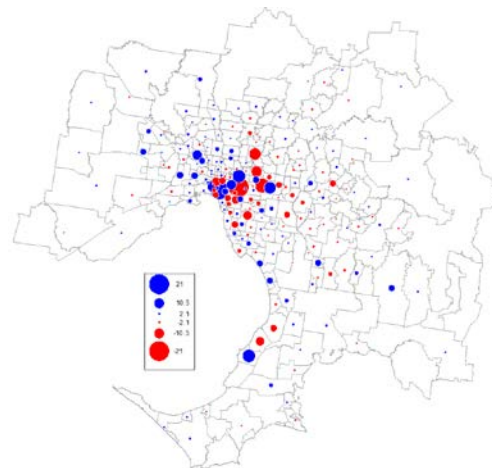
Source: ABS Census 2001, 2011

Map 8.4.3 Accounting services businesses, Greater Melbourne, 2011



Source: Worksafe Victoria

Map 8.4.4 Accounting services businesses net change, Greater Melbourne, FY 2001-FY 2011



8.4.2 Spatial change in Accounting services employment and business establishments, Greater Melbourne, 2001-2011

Accounting services has a high concentration of employment in the city centre – although map 8.4.1 demonstrates a greater spread of accounting services employment throughout the eastern and south eastern suburbs, reflecting the many accountancy practices based in the suburbs.

Employment within the non-accountancy sections of the ‘Big 4’ accounting firms, for example Management advice and related consulting services, will be classified in accountancy services according to the ABS, and these are all based in the city centre, which may also explain some of the density and growth. The pattern of growth of employment change in the central city area,

seen in Map 8.4.2, is not discernible in Map 8.4.4 showing business establishment changes in Accounting services, pointing to the growth in employment by existing firms largely based in the central city area as the key driver for expansion of the sub industry over the period 2001-2011.

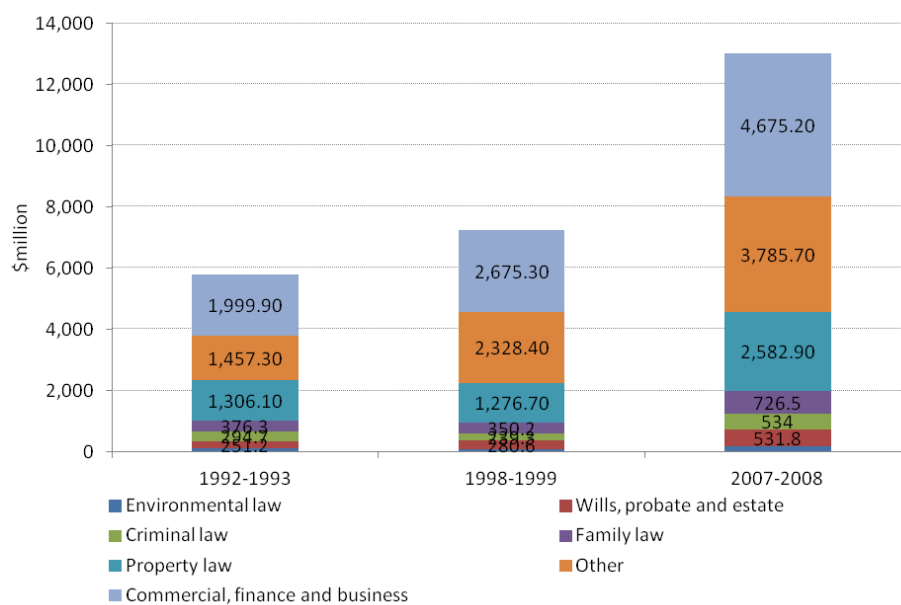
8.5 Legal services in Australia

Sassen indicated that Legal services were an integral component of part of APS and Taylor et al.'s 2011 study included a section on the networks of Legal services. Legal services are an adjunct service to the wider business and finance sector, so it follows that where there is growth in these sectors the demand for Legal services increases. According to 2011 Census data, 69% of all Victorian Legal professionals work within the Legal services industry, 2% in other Professional, scientific and technical services sub industries, 14% in Public administration and safety and 4% in Finance and insurance services.

In the Australian context, the commercial legal sector was dominated throughout the 2000s by the 'Big 6': Freehills; Clayton Utz; Allens Arthur Robinson; Mallesons Stephens Jaques; Minter Ellison and Blake Dawson. All of these major firms are headquartered in Sydney and all underwent a series of mergers throughout the 2000s, often with British based law firms, becoming larger and thus more global and often establishing offices in the Asia Pacific as British firms used Australian firms as a foothold in the region (Chin & Dobrjanski 2012).

Chart 8.5.1 illustrates the real fee income for the Legal services industry from 1992-1993 to 2007-2008, and demonstrates the growth of commercial, finance and business law as a source of fee income, as opposed to traditional areas such as family and criminal law.

Chart 8.5.1 Sources of real fee income for the Legal services industry 1992-1993 to 2007-2008 (2001 dollars)



Source: Daly, A 2012, 'What is the recent evidence on an excess supply of legal qualifications in Australia?', *Australian Economic Review*, vol. 45, no. 4, p.44

8.5.1 Legal Services employment 2001-2011

The employment data reveals that the Legal services industry did suffer a slump between 2001 and 2006, particularly in NSW whereby employment in Legal services actually fell between 2001 and 2006, in part reflecting the NSW post-Olympics malaise. Employment increased in Victoria, albeit by a very small margin of 305 workers. Legal services employment in Queensland increased considerably over the period however, reflecting the demand for the service generated by the mining boom of the time.

Table 8.5.1 Employment in Legal services by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	34,690	33,504	-1,186	-3.42	-0.69%	40.46%	38.59%	-1.87%
Vic	21,467	21,817	350	1.63	0.32%	25.04%	25.13%	0.09%
Qld	14,793	16,401	1,608	10.87	2.09%	17.25%	18.89%	1.64%
SA	4,558	4,804	246	5.40	1.06%	5.32%	5.53%	0.22%
WA	6,090	6,432	342	5.62	1.10%	7.10%	7.41%	0.30%
Tas	1,302	1,326	24	1.84	0.37%	1.52%	1.53%	0.01%
NT	764	574	-190	-24.87	-5.56%	0.89%	0.66%	-0.23%
ACT	2,072	1,970	-102	-4.92	-1.00%	2.42%	2.27%	-0.15%
Total	85,737	86,828	1,091	1.27	0.25%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Table 8.5.2 Employment in Legal services by state, 2006-2011

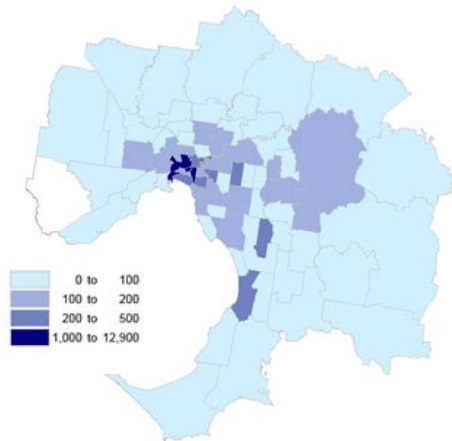
State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	Change
NSW	33,978	35,553	1,575	4.64	0.91%	38.27%	37.14%	-1.12%
Vic	22,323	24,785	2,462	11.03	2.11%	25.14%	25.89%	0.75%
Qld	16,529	17,992	1,463	8.85	1.71%	18.62%	18.80%	0.18%
SA	5,180	5,744	564	10.89	2.09%	5.83%	6.00%	0.17%
WA	6,853	7,666	813	11.86	2.27%	7.72%	8.01%	0.29%
Tas	1,337	1,352	15	1.12	0.22%	1.51%	1.41%	-0.09%
NT	628	610	-18	-2.87	-0.58%	0.71%	0.64%	-0.07%
ACT	1,965	2,016	51	2.60	0.51%	2.21%	2.11%	-0.11%
Total	88793	95718	6,925	7.80	1.51%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

The period 2006-2011 saw employment in the Legal services industry increase across all states, although Victoria experienced the greatest net increase of employment of 2,462 workers.

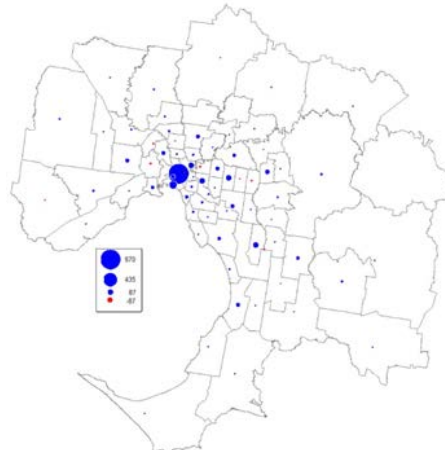
8.5.2 Spatial change in Legal services employment and business establishments, Greater Melbourne, 2001-2011

Map 8.5.1 Legal services employment, Greater Melbourne, 2011



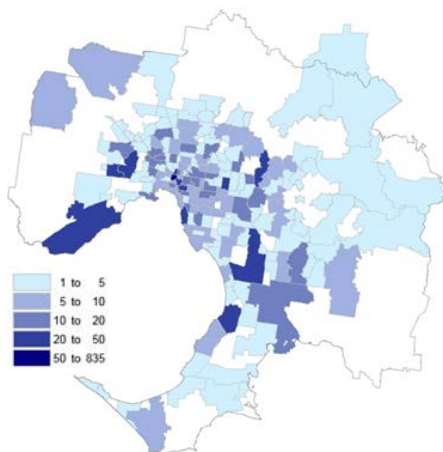
Source: ABS Census 2011

Map 8.5.2 Legal services employment change, Greater Melbourne, 2001-2011



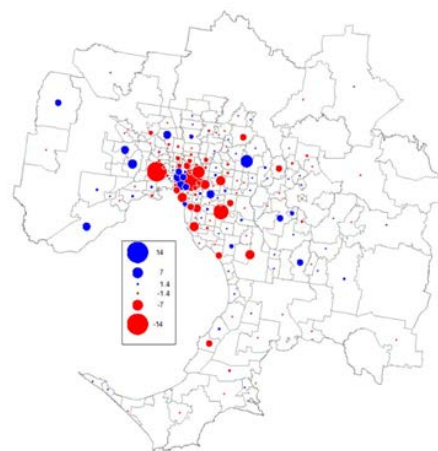
Source: ABS Census 2001, 2011

Map 8.5.3 Legal services businesses, Greater Melbourne 2011



Source: Worksafe Victoria

Map 8.5.4 Legal services businesses net change, Greater Melbourne, FY 2001-FY 2011



Source: Worksafe Victoria

Legal services employment and business establishments follow a similar pattern to Accounting services. The sub industry is heavily centrally located, and while employment grew considerably over the 2000s there was not a corresponding growth in business establishments. Again this indicates that city based large firms drove employment increases throughout the decade. The WorkSafe data on business establishments for Accounting and Legal services demonstrates there has not been a pattern of centralisation for businesses within these sub industries, rather, there were smatterings of both net increases and declines across the suburban area.

8.6 Management advice and related consulting services in Australia

Business management services, as it was known under the 1996 ANSIC code, or Management advice and related consulting services as it is now known under the 2006 ANZSIC code, originated in Australia in the post war period, initially servicing the needs of industrial firms for shop floor productivity and time management improvements. As a result of this, early management consultancies were often industrial-engineering based, and reflected the time and motion study techniques (for example Methods Time Measurement (MTM)) developed in the United States throughout the 1950s. Wright, C (2000), in his history of management consulting in Australia, detailed the ground breaking work undertaken by the Australian consultancy firms WD Scott and Co ('Scotts') and Personnel Administration Pty Ltd (PA) throughout the 1950s and 1960s in Australia. They implemented these American time study management techniques into the major mid twentieth century Australian companies, and extended their influence to industry sectors beyond the then dominant mining and manufacturing industries such as the health sector, transport departments, finance and insurance companies and department stores (Wright, C & Kipping 2012, p.93). Scotts also introduced the first Australian based management conferences and short courses in management training in the 1950s, which went on to set the foundations of the University of Melbourne graduate business school.

The 1960s saw further diversification, in part reflecting technological changes that saw greater computerisation and electronic data processing being utilised by businesses (and thus creating demand within the consultancies), but also into areas such as executive recruitment and selection, management and organization restructuring and marketing. Throughout the 1970s the large chartered accountancy firms increasingly entered the management consultancy market, partly as a result of their traditional audit activities becoming less profitable and partly because they were following the changing business approach of their British parent companies. As Wright and Kipping (2012) note:

... the accounting firms could now market an emphasis on solving business problems for clients, rather than simply identifying them. Client networks based on years of audit work also provided these firms with a strategic advantage in the marketing of their consulting services (p.97).

Human resources consulting also expanded during this time, influenced by theories developed overseas regarding human relations and socio-technical systems, which were adopted by major Australian companies seeking to address workforce problems associated with high labour turnover and declining productivity. The 1970s also saw the emergence of the Australian arm of American executive strategy giant McKinsey into the local management consultancy market.

The deregulation of the Australian finance sector in the 1980s and further computerisation and information technology innovation saw the management consultancy industry grow

dramatically throughout the 1980s. Over this period, the large accounting firms increased their market share of the executive recruitment market becoming a 'one stop shop' for many management related services. The industry as a whole was divided into the large accountancy firms, strategy consultants such as McKinsey's and 'a diverse range of smaller, specialist consultants in areas such as human resource management and organisational change. (Wright, C & Kipping 2012, pp.98-99). At this point, the public sector increasingly became clients of the large firms for a range of services, including policy advice. The changing nature of the management consultancy sector will be examined in greater detail in Chapter Eight.

8.6.1 Management advice and related consulting services employment, 2001-2011

The Census data from 2001 to 2006 indicates that overall employment in management consultancies was not buoyant, with Queensland experiencing the greatest net growth in employment, and employment falling in NSW. Victorian employment in business management services grew only slightly.

Table 8.6.1 Employment in Business management services by state, 2001-2006

State	2001	2006	Change	% growth	% CAGR growth	% of national total 2001	% of national total 2006	% change
NSW	22,247	19,355	-2,892	-13.00	-2.75%	38.08%	33.81%	-4.27%
Vic	15,980	16,607	627	3.92	0.77%	27.35%	29.01%	1.65%
Qld	7,693	9,180	1,487	19.33	3.60%	13.17%	16.03%	2.87%
SA	3,486	3,727	241	6.91	1.35%	5.97%	6.51%	0.54%
WA	5,645	5,413	-232	-4.11	-0.84%	9.66%	9.46%	-0.21%
Tas	899	869	-30	-3.34	-0.68%	1.54%	1.52%	-0.02%
NT	420	336	-84	-20.00	-4.36%	0.72%	0.59%	-0.13%
ACT	2,046	1,763	-283	-13.83	-2.93%	3.50%	3.08%	-0.42%
Total	58,419	57,250	-1,169	-2.00	-0.40%	100.00%	100.00%	0.00%

Source: ABS Census 2001, 2006

Over the period 2006-2011, employment in Management advice and related consulting services rebounded, with employment increasing, particularly in NSW, across the eastern seaboard states and Western Australia.

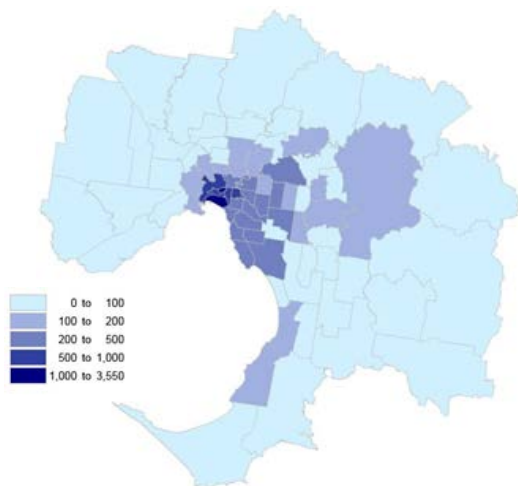
Table 8.6.2 Employment in Management advice and related consulting services by state, 2006-2011

State	2006	2011	Change	% growth	% CAGR growth	% of national total 2006	% of national total 2011	% change
NSW	17,578	23,664	6,086	34.62	6.13%	33.88%	34.47%	0.59%
Vic	14,746	18,520	3,774	25.59	4.66%	28.42%	26.98%	-1.45%
Qld	8,130	11,572	3,442	42.34	7.32%	15.67%	16.86%	1.19%
SA	3,962	4,110	148	3.74	0.74%	7.64%	5.99%	-1.65%
WA	4,827	7,541	2,714	56.23	9.33%	9.30%	10.98%	1.68%
Tas	764	843	79	10.34	1.99%	1.47%	1.23%	-0.24%
NT	306	455	149	48.69	8.26%	0.59%	0.66%	0.07%
ACT	1,570	1,940	370	23.57	4.32%	3.03%	2.83%	-0.20%
Total	51,883	68,653	16,770	32.32	5.76%	100.00%	100.00%	0.00%

Source: ABS Census 2006, 2011

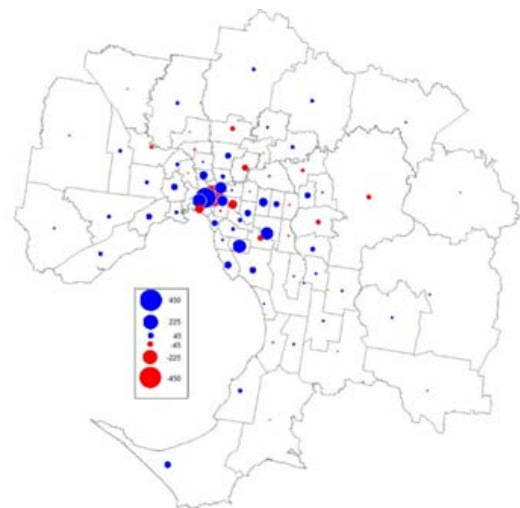
8.6.2 Spatial change in Management advice and related consulting services employment and business establishments, Greater Melbourne, 2001-2011

Map 8.6.1 Management advice and related consulting services employment, Greater Melbourne, 2011



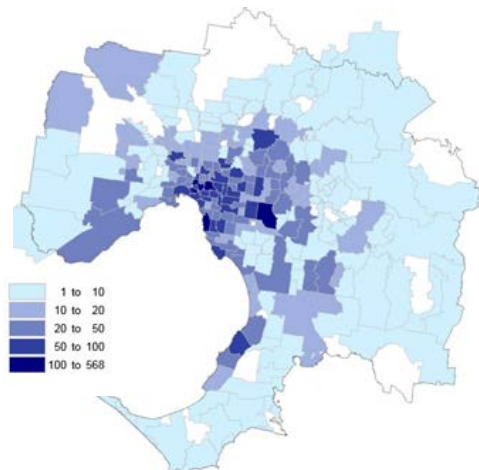
Source: ABS Census 2011

Map 8.6.2 Management advice and related consulting services employment change, Greater Melbourne, 2001-2011



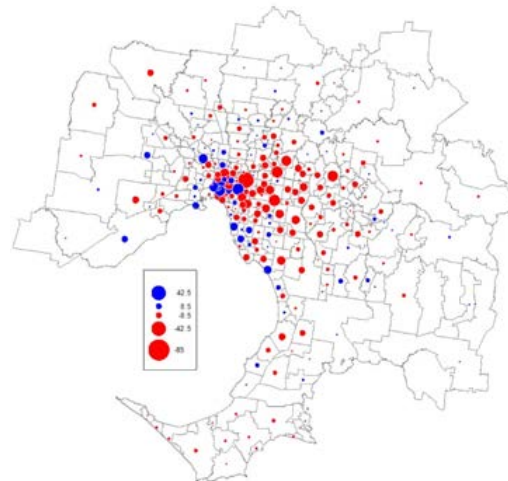
Source: ABS Census 2001, 2011

Map 8.6.3 Management advice and related consulting services businesses, Greater Melbourne, 2011



Source: Worksafe Victoria

Map 8.6.4 Management advice and related consulting services businesses net change, Greater Melbourne, FY 2001-FY 2011



Source: Worksafe Victoria

WorkSafe data on business establishments contained in Map 8.6.4 demonstrate large scale declines of businesses across suburban areas of Melbourne over the 2000s. As the employment figures for the state demonstrate employment growth, the decreases suggest that the smaller businesses within Management advice and related consulting services experienced a considerable market decline.

8.7 Conclusions

The purpose of this chapter on employment in Professional, scientific and technical services by state and sub division has been to examine which sub industries have experienced employment growth or decline and where in Australia this has occurred over the period 2001 to 2011. The analysis has found that in keeping with data on Financial and insurance services over the same period, there is a certain level of crossover between categories, for example accountancy firms into management consultancy and computer system and design services. While many Professional, scientific and technical services sub industries are dominated by a small number of large multinationals, (for example, the 'Big 4' for accounting and the 'Big 6' for Legal services), certain sub industries remain comprised of smaller players such as Computer system design and related services.

The national employment patterns show a slump (particularly in NSW between 2001 and 2006) across a number of Professional services sub industries such as Legal services and Management advice and related consulting services. Victorian employment was less affected during that time and Queensland showed high levels of growth. While NSW employment numbers rebounded between 2006 and 2011, Victorian employment numbers were often better than those of NSW over the latter half of the decade. The impact of the mining boom once again affected the employment numbers in Queensland and Western Australia, with very pronounced employment increases in the Engineering and design services subdivision (and even Management advice and related consulting services). The data suggests that state factors are at play, with growth occurring unevenly throughout the Australian jurisdictions over the decade.

While there was no major global event such as the GFC directly impacting the Professional, scientific and technical services sector, unlike the Financial and insurance services sector in Australia over the same period, local factors continued to impact on growth and change in terms of employment business growth, such as mining boom creating demand for engineering services.

In terms of Professional services sub industries within Greater Melbourne, data on employment location together with business establishments show a clear migration towards the city centre. Certain sub industries such as Accounting services and Legal services have always been predominantly based in the central city area, so any employment increases in these sub industries are naturally going to be mostly felt in the CBD. However, other sub industries such as Engineering and design services and Computer systems design, sub industries that are not as heavily dominated by large firms, still demonstrated a spatial drift into the city centre. Both these sub industries increasingly rely on contract and project work and the data suggests the increasing shift into the city centre is a result of this need to be closer to clients and industries

that generate potential future projects. This is in keeping with previous research undertaken by Tonts and Taylor (2011) on services companies locating centrally in order to be closer to clients and other services subindustries.

The analysis in this chapter found there was a presence of MNC in Melbourne – such as the ‘Big 4’ Accounting services firms, the large Computer systems companies and certain large engineering companies, and to a certain extent their presence is in keeping with globalisation city research, such as that espoused in the WCN and IWCN research. The presence of these firms across the world’s major cities informs increasing research into WCN and the IWCN as geographers look to MNCs, their headquarters and regional offices to comprise rankings for cities and create lists demonstrating the presence networks formed by the effects of globalisation across economies.

Once again, however, this findings in this chapter point to local factors providing considerable bearing on the jobs, business and spatial outcomes for the Professional, scientific and technical services sub industry outcomes based nationally and also within the city of Melbourne.

The following chapter is a closer examination of one of these Professional services sub industries, that of accounting firms based in Melbourne, their networks, and the reasons behind their recent spatial change outlined in this chapter within the city of Melbourne, to further test some of the theories behind APS business growth.

Chapter Nine: APS Activity in Melbourne over the 2000s: A Case Study of the 'Big 4' Accounting Firms

9.1 Introduction

In a recent critique of Global City studies, Christof Parmentier (2013) writes:

A starting point to empirically corroborate the global city concept is to verify the clustering of producer services in a specific city. To do so requires, on the one hand, the compilation of attribute data on the size, growth dynamics and compositions of the producer services sector, and on the other hand, to locate headquarters and affiliates of globalized producer services firms, because it is these firms that are supposed to have the highest capability for servicing, managing and controlling the global operations of firms (p.26).

The analysis and research undertaken in Chapters Six, Seven and Eight of this study of Melbourne can be seen in this light; as an examination of the growth of Advanced Producer Services (APS) employment and businesses establishments in Melbourne. Chapter Four gave an outline of the history and location of various APS company headquarters, charting the historical/path dependent nature of the locations of major company headquarters in Australia, which are mostly in the major Australian cities of Sydney and Melbourne.

Yet Parnreiter argues that to fully address the central questions concerning global connectivity and networks posed in global and world city theorisations undertaken by Sassen and Friedmann, it is necessary to '... confirm the trading of these services...to corroborate demand and to identify the producer services firms' clients'(p.27). In order to do so requires:

...the creation of relational data informing about connections between suppliers of producer services and client firms... [examining] whether and how these service flows contribute to the articulation and governance of the client firms' cross-border activities...it is also important to measure and map the intra-producer services firms and inter-city networks and to specify the divisions of labour between offices and services (p.27).

Prior to Parnreiter's 2013 critique, Neal (2011) also noted that the current methodology of using rankings and lists of head and regional offices of firms does not prove in itself that there exists a network of offices, only that a multinational company happens to have offices across a number of cities. This approach can also be seen as a continuation and further examination of the issues raised earlier by Jones (2002), who noted that:

...to use physical locations as an epistemological framework for theorising command and control is to a large extent arbitrary and obfuscates the socially constituted complexity of managerial power within the transnational firm (Jones 2002, p.343).

Following this, the purpose of this chapter is to provide an analysis of a set of relational data (as Parnreiter would describe it) to test some of the implicit assumptions underlying such Global City analyses as the IWCN on headquarters and key decision making processes on the part of global companies. In order to do this I have undertaken a closer examination of the structure of Australian APS firms, in this case the 'Big 4' accountancy firms, to understand the notions of networks and how local, regional offices interact with global headquarters.

This chapter is based on a series of interviews undertaken with Melbourne based partners of the 'Big 4' accounting firms. The qualitative research methodology used here follows in the path of relatively small but nevertheless important pieces of geography related research into World Cities and the growth and development of APS across the world, using the findings from a series of semi structured interviews with industry participants as representative of the broader industry. Such previous studies (Beaverstock 2004; Faulconbridge & Jones 2012; Parnreiter 2010) have found this approach to be the most effective way of researching companies as quantitative surveys of company representatives would be unlikely to yield sufficient responses, together with the need to address a company's concerns regarding privacy and commercial-in-confidence information.²

9.2 Definitional issues arising from studying accountancy services in Australia

Previous chapters have also indicated the considerable employment growth in APS employment, as presented by Professional services and financial services employment in Melbourne between 2001 and 2011 outpacing the higher WCN ranked world city of Sydney. This employment growth occurred mainly in the city centre of Melbourne, and specifically the Central Business District (CBD). In the process of this analysis it was noted that definitional issues arise in tracking employment growth across certain Professional (and Financial and insurance) services. There is considerable overlap, for example, in the activities undertaken within businesses falling under the Financial and insurance services classification in Australia, following the *bancassurance* or *allfinanz* model developed internationally. For example, banks offer insurance products and superannuation funds offer insurance and banking products. Increasingly, heterogeneity is also occurring in APS firms: the 'Big 4' accountancy firms increasingly offer a range of non-accountancy professional services, especially management consulting. In terms of official statistics, however, employment in these accountancy firms will be classified as accounting services.

² For example, Melbourne headquartered banks were approached for interviews for this study, but requests were refused due to company policies forbidding the participation of employees in private research.

9.3 Major accountancy firms in Australian and Melbourne – some background

Previous research undertaken by McDougald and Greenwood (2012) examined the tendency since the 1960s, accelerating from the 1980s, of consolidations and mergers amongst the major international accountancy firms. This has occurred to such an extent that they are now known as the 'Big 4'. Over this time the large accountancy firms have also metamorphosed into companies providing other professional services beyond simply auditing and accounting functions, and this has seen them labelled as 'cuckoos in the nest' (McDougald & Greenwood 2012, p.93). By the early twenty-first century, it was commonplace for other professional service firms (engineering, ICT, merchant banks) to offer services outside their historical or traditional area of expertise (Wright, C & Kipping 2012, p.29).

9.4 Management consultancies in Australia

In the Australian context, business management services or management consulting arose during the post war period, initially servicing industrial firms' needs for shop floor productivity and time management improvements. Wright, in his history of management consulting in Australia (2000), detailed the ground breaking work undertaken by the Australian consultancy firm WD Scott and Co and Personnel Administration Pty Ltd (PA) throughout the 1950s and 1960s in Australia implementing these American time study management techniques into the major Australian companies of the mid twentieth century, and extending their influence beyond the then predominant mining and manufacturing industries to industry sectors such as the health sector, transport departments, finance and insurance companies and department stores (Wright, CF 2006, p.93).

The 1960s saw further diversification, in part reflecting technological changes that saw greater computerisation and electronic data processing being utilised by businesses (thus creating demand within the consultancies), but also into areas such as executive recruitment and selection, management and organisation restructuring and marketing (Wright, C 2000, p.96). Throughout the 1970s the large chartered accountancy firms increasingly entered the management consultancy market as a result of their traditional audit activities becoming less profitable and of following a changing business approach by their British parent companies. As Wright notes:

... the accounting firms could now market an emphasis on solving business problems for clients, rather than simply identifying them. Client networks based on years of audit work also provided these firms with a strategic advantage in the marketing of their consulting services. (Wright, C 2000, p.97).

Human resources consulting also expanded during this time, influenced by theories developed overseas regarding human relations and socio-technical systems, which were adopted by major Australian companies that were seeking to address workforce problems associated with high labour turnover and declining productivity. The 1970s also saw the emergence of the Australian arm of American executive strategy giant McKinsey into the local management consultancy market.

The deregulation of the finance sector in the 1980s and further computerisation and information technology innovation saw the management consultancy industry grow dramatically throughout the 1980s. Over this period, the large accounting firms increasingly found market share of the executive recruitment market, becoming a 'one stop shop' for many management related services (Wright, C 2000, p.98). The industry as a whole was divided into the large accountancy firms, strategy consultants such as McKinsey's and 'a diverse range of smaller, specialist consultants in areas such as human resource management and organisational change (Wright, C 2000, p.99). At this point the public sector increasingly became clients of the large firms for a range of services, including policy advice. The 1980s also saw a series of large mergers within the accountancy firms, for example in the early to mid-eighties the 'big nine' became the 'big eight' and by the late eighties the big eight became the 'big six'. The large accounting firms are now known as the 'Big 4'.

The growth of large accounting based multi nationals and their global reach was at the heart of Sassen's study into global cities and subsequent research into global networks (Sassen 2001; Taylor, PJ et al. 2010). In Taylor et al.'s 2010 broad study of the WCN, the Australian city of Sydney came fourth behind London, New York and Hong Kong in terms of network connectivity within the global accountancy industry. The authors noted the:

...international spread of accountancy preceded globalisation especially with respect to the Old British Commonwealth, hence London easily outscores New York for this service, and Sydney at fourth and Toronto at 11th have unusually high ranks (Taylor, PJ et al. 2010, p.30).

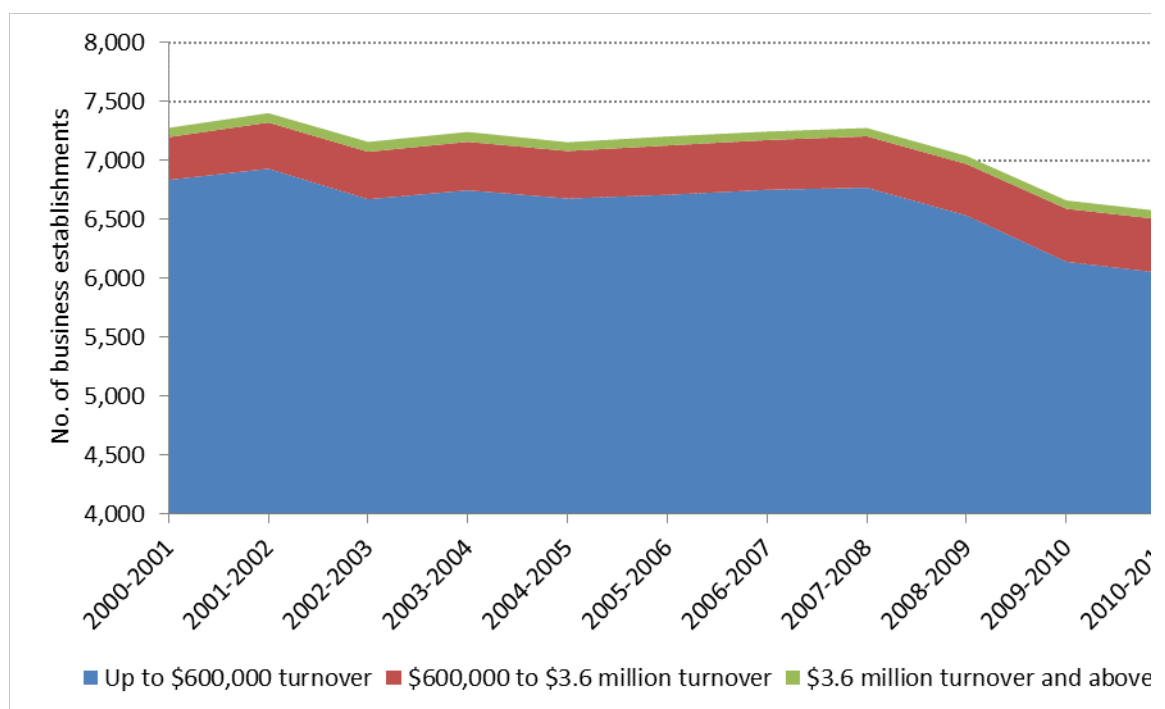
Accounting services industry in Australia is indeed dominated by the 'Big 4' global accountancy firms: Price Waterhouse Coopers (PwC); Deloitte; Ernst and Young and KPMG, all of whom began their corporate existence as British accountancy firms, often dating back to the mid nineteenth century (McDougald & Greenwood 2012, p.112). One interviewee from one of the 'Big 4' noted that they have existed since 1849. The large accounting firms such as Coopers and Lybrand and Price Waterhouse established a presence in Australia in the 1940s and were off shoots of their British parent companies (Wright, C 2000, p.97).

The official Australian headquarters of these firms is Sydney (with the exception of KPMG where both Sydney and Melbourne act as joint headquarters).

9.5 The state of management consultancies and accountancy practices in Melbourne and Victoria throughout the 2000s

Data analysis based on business establishments' counts derived from WorkSafe Victoria data over the 2000s indicate there was a considerable fall in the overall number of Management Advice and Consulting services business establishments, from 7,277 in 2000-2001 to 6,565 by 2010-2011, an overall decline of 9.78% over the decade. Chart 9.5.1 provides some insight into the size of the businesses that left the Victorian economy over this time. The overall decline was driven by smaller consultancy businesses (under \$600,000 turnover), whose numbers fell considerably after the 2007-2008 financial year. The number of business establishments with a middle range (\$600,000 to \$3.6 million) turnover grew from 363 in 2000-2001 to 454 in 2010-2011, or an increase of 25%. Larger business establishments (over \$3.6 million in turnover) decreased from 78 in 2000-2001 to 70 in 2010-2011, or 10%.

Chart 9.5.1 Victorian Management advice and related consulting services business establishments by selected turnover range, 2000-2001 to 2010-2011



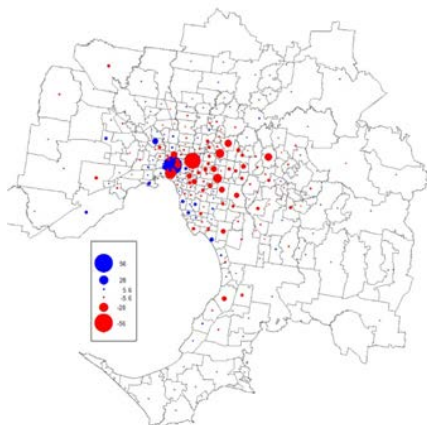
Source: WorkSafe Victoria

Maps 9.5.1 and 9.5.2 demonstrate where these exiting business establishments were based in Melbourne. The smaller (under \$600,000) managerial consulting businesses declined considerably across the eastern suburbs of Melbourne. It is difficult to know exactly how 'active' these businesses were when they were registered with WorkSafe, and the maps certainly suggests that they were based largely in suburban home offices. Nevertheless the data from

WorkSafe does indicate a decline in the business conditions for smaller operators over the 2000s, particularly after 2008.

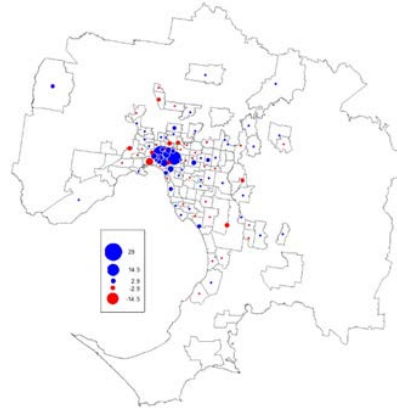
In terms of the Melbourne based employment in the industry under the old ANSIC code, employment grew from 14,052 in 2001 to 14,295 in 2006 (1.7% growth) under the title 'Business management services'. Under the ANZSIC 2006 code, Management advice and related consulting services, employment grew from 12,732 in 2006 to 15,684 in 2011, or 23%. This employment data suggests that although smaller management consultancy businesses were leaving the economy after 2008, the hiring environment remained healthy for the larger businesses in the sector over the same time.

Map 9.5.1 Management advice and related consulting services businesses under \$600,000 turnover net change, Greater Melbourne, FY 2001 – FY 2011



Source: WorkSafe Victoria

Map 9.5.2 Management advice and related consulting services businesses over \$600,000 turnover net change, Greater Melbourne, FY 2001 – FY 2011



Source: WorkSafe Victoria

As Kitay and Wright (2003) also note, major accounting firms are key players in the management consultancy sectors, which are classified as 'Accounting services' in the official statistics (Kitay & Wright 2003). To that end, Melbourne based employment in Accounting services grew from 19,552 in 2001 to 20,404 in 2006 (4.3%, ANZSIC 1993) and from 20,628 in 2006 to 24,640 in 2011, or 21%, under the current ANZSIC. The WorkSafe data on Accountancy services business indicates very little change in the number of business establishments – 4,211 in 2000-2001 increasing by 1.5% to 4,276 by 2010-2011, the great majority of these being smaller accountancy practices.

One way in which to understand how management consultancies services, and even broader professional services within accountancy practices, have grown is to examine the composition of occupations within the industry and how this has changed in recent years. Table 9.5.1 demonstrates the growth of management and organisation analysts within Melbourne-based accounting firms in the five years from 2006 to 2011, a 45% increase from 342 in 2006 to 624 by 2011.

Table 9.5.1 Top ten 4-digit occupations within Accounting services, 2006 and 2011, Greater Melbourne

	Occupation	No. 2006	% of industry total	Occupation	No. 2011	% of industry total
1	Accountants	10870	52.70	Accountants	12620	51.20
2	Bookkeepers	2095	10.16	Bookkeepers	2985	12.11
3	Auditors, company secretaries and corporate treasurers	737	3.57	Auditors, company secretaries and corporate treasurers	938	3.81
4	General clerks	692	3.35	General clerks	786	3.19
5	Receptionists	630	3.05	Receptionists	633	2.57
6	Secretaries	619	3.00	Management and organisation analysts	624	2.53
7	Personal assistants	574	2.78	Personal assistants	605	2.45
8	Office managers	455	2.21	Accounting clerks	522	2.12
9	Accounting clerks	356	1.73	Office managers	516	2.09
10	Management and organisation analysts	342	1.66	Secretaries	379	1.54

Source: ABS Census 2006, 2011

The industry composition of those workers who were listed as having a management and organisation analyst occupation demonstrates the broad nature of the occupation and activity, and also the increasing levels of heterogeneity within the professional services sector (Malhotra & Morris 2009; McDougald & Greenwood 2012, p.104). Table 9.5.2 demonstrates that although the Management advice and related consulting services sub industry has accounted for 21% of all management and organisation analysts since 2006, the remainder of workers within the occupation are employed across sub industries covering the Finance and insurance industry (Banking, Other auxiliary finance and investment services, General insurance and Superannuation funds); Professional, scientific and technical services (Computer system and related design services and Accounting services); Government (State and Central government administration) and even Information technology and media telecommunications (Wired telecommunications network operation, for example Telstra).

Table 9.5.2 Top ten 4-digit industries comprised of Management and organisation analysts, 2006 and 2011, Greater Melbourne

	Industry	No of workers 2006	% of occupation total	Industry	No. of workers 2011	% of occupation total
1	Management advice and related consulting services	1,999	21.67	Management advice and related consulting services	2,674	21.13
2	Banking	681	7.38	Banking	1342	10.60
3	Computer system design and related services	579	6.28	Computer system design and related services	645	5.10
4	Other auxiliary finance and investment services	386	4.18	Accounting services	624	4.93
5	Wired telecommunications network operation	357	3.87	Wired telecommunications network operation	539	4.26
6	Accounting services	342	3.71	Other auxiliary finance and investment services	477	3.77
7	General insurance	203	2.20	Central government administration	242	1.91
8	State government administration	152	1.65	General insurance	209	1.65
9	Central government administration	139	1.51	State government administration	197	1.56
10	Professional, scientific and technical services nfd	115	1.25	Superannuation funds	157	1.24

Source: ABS Census 2006, 2011

9.6 Evolution of services offered by 'Big 4' in Melbourne

Perera et al (2003) contend that the development and growth of the 'Big 4' firms throughout the current era of globalisation has been facilitated by an economic environment of deregulation and technological change. Advances in technology, for example, has seen the development of computer products that have reduced the manpower required for the once labour intensive process of auditing (Brock 2006, p.162). The move towards homogenised global accounting standards, together with competition from other professionals 'crossing over' from other, previously regulated professional services, has seen these big accounting firms expand into other areas of professional expertise (management consultancies etc.). 'Because of scale factors, large organisations need large firms to audit them and, to some extent, large firms to provide them with consulting and other non-audit services' (Perera, Rahman & Cahan 2003, p.31). However, large scale corporate takeovers that have occurred since the 1980s have resulted in 'More lawyers and accountants than ever before ...chasing fewer large clients' (Brock 2006, p.161).

While all interviewed firms did start out as accountancy firms, the Australian and Melbourne based operations have now diversified considerably. Indeed two of the partners, Ernst and Young (EY) and Price Waterhouse Coopers (PwC) interviewed described their relevant industry

as ‘Professional Services’, as opposed to ‘Accountancy’ or ‘Management consultancy’ services. Consulting, in its various professional services forms, comprises at least 50% of the business undertaken at the Melbourne offices, with auditing and accountancy functions steadily shrinking over the last twenty years.

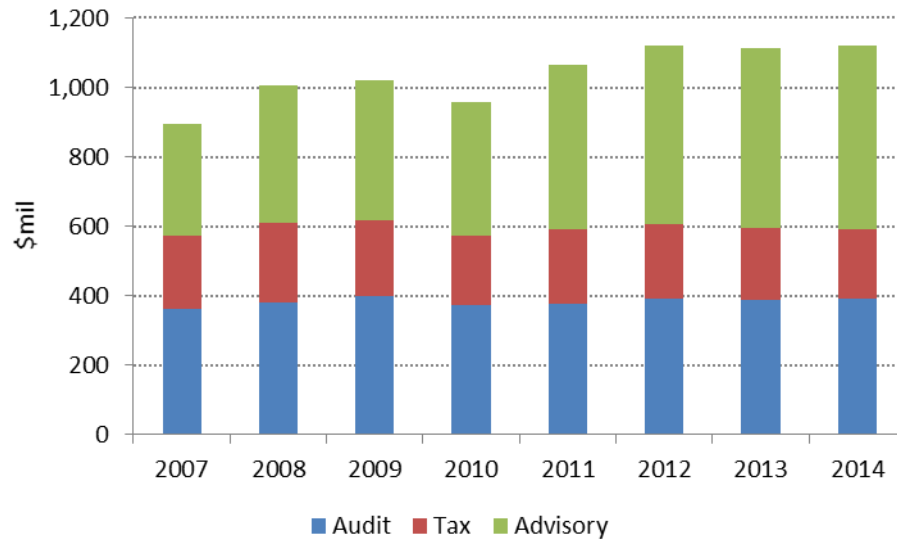
Table 9.6.1 Changing services functions of ‘Big 4’ firms in Australia

Big 4 firm	Proportion of business as consulting services	Proportion of business as audit/accountancy
PwC	60	40
KPMG	50	50
Deloitte	32	40

Source: PwC 2014, KPMG 2014, Deloitte 2014

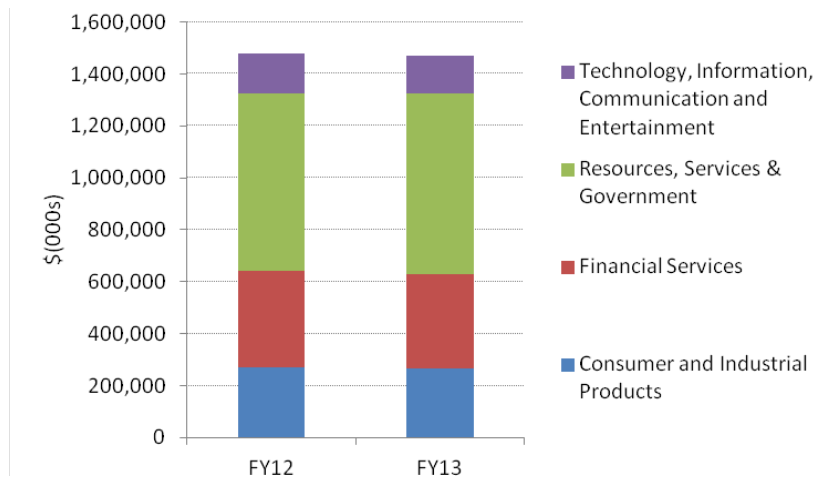
Charts 9.6.1 and 9.6.2 demonstrate the expansion of the firms into consultancy services, which in the case of KPMG consisted of 50% of their revenue by 2013. Chart 9.6.2 on PwC’s revenue by industry indicates that the resources services and government sectors account for just under half (47%) of their revenue for the 2013 financial year.

Chart 9.6.1 Revenue for Big 4 firm KPMG in Australia for the financial years ending 30 June



Source: KPMG Australia 2015, Performance, viewed 20 May 2015, <http://www.kpmg.com/AU/en/about/Performance/Pages/default.aspx>.

Chart 9.6.2 Revenue for Big 4 firm PwC Australia for 2012 and 2013 financial years by industry



Source: PwC 2013, 2013 Annual Review, <<http://www.pwc.com.au/about-us/annual-review/assets/Annual-Review-13.pdf>>.

Interviewees conceded that their history as auditors were partly instrumental in the transformation to other business services provision, providing a ready client base for these extra services (McDougald & Greenwood 2012, p.95). (Although one interviewee felt that the conflict of interest issue prevented this from being the case.) The presence of audit functions saw the company's clients divided into two streams - 'channel 1' clients are audit clients, and 'channel 2' clients are non-audit clients to whom the company can offer a full suite of services.

EY...these organisations (accountancy firms) are in a fight for growth, and we are continually looking for new areas of work, and we had to diversify away from our reliant area, because the mix was wrong – relying on audit.

9.7 Consultant and client relationship – driving the expansion of consultancy services

However, it appears that the list of existing clients derived from auditing services became insufficient, and they began to market their expertise to companies beyond their existing client base. This has led to a very competitive professional services consulting market, whereby the 'Big 4' are free to chase business from another 'Big 4's' auditing client, but also where their clients are demanding more from them, together with a willingness to shop around to other providers for the services they require for the best deal. This is a double-edged sword, as it also means a rival firm's previously loyal client base business is up for grabs too.

KPMG: In this day and age, one of the other three, or an investment bank, or the McKinseys, that are just as hungry for work – competition is fierce!

PwC: We have to keep reinventing ourselves in order to help our clients. If they are better than us they don't need us!

KPMG: When you're in there ...Thinking about the clients' issues and the services KPMG can offer. (this is)... a transformational shift compared to a decade ago ...(when)...we were a captive client firm and us and all the others had our own clients as of right. Clients are selective, they'll pick and choose and they'll shop around...cut price...we are not complacent...it's not a sacrosanct relationship with a client.

Interviewees also felt the diversification of their firms was in part driven by the clients themselves. One interviewee gave the example of mining giant BHP setting up an operation in Vietnam, which may require regulatory assistance or mining consulting services. The following quote was used to describe the way in which the firms follow the client – the relationship appears almost symbiotic.

PwC: We exist for our clients.

The client-consultant relationship outlined by the interviewees, whereby the consultant is constantly thinking of the client's future advisory needs and how the consultant firm may be able to assist, has been characterised by Kitay and Wright (2003) as performing a 'partner ...role to the client', which:

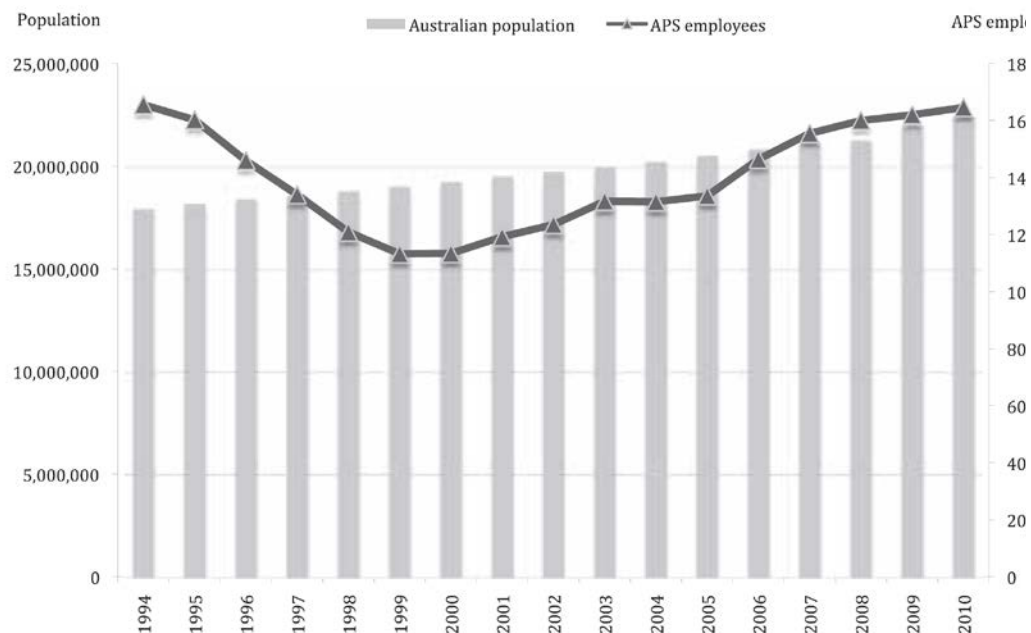
...emphasises building social ties with the client beyond a simple market relationship, with the result that the boundaries between client and consultant become somewhat blurred. For the client, the consultant becomes a known quantity who can be trusted and who has a good prior knowledge of the business. The consultant in turn becomes privileged in gaining work against competitors (Kitay and Wright, 2003, p.25).

9.8 Economics units within the 'Big 4' and management consultancies – a case study

While the Australian companies are offshoots of international counterparts, they are able to adapt to provide services specific to the local, state and national conditions. Previous discussion has detailed the manner in which the public sector increasingly became clients of the large consulting firms for a range of services including policy advice, from the 1980s. The increasing demand for consultants to provide policy and economic advice throughout the 1990s and 2000s at both state and federal levels can be seen as an extension of this. Chart 9.8.1 demonstrates that at the national level there was a decline in the number of Australian public servants from 1994 to 2000 (both the federal Keating and Howard governments), after which time numbers began to steadily increase (although notably not yet back to the 1994 levels), while the Australian population also continued to increase.

In 2009 The Australian newspaper reported that the Rudd government spent \$454 million on consultants in its first financial year in office, while the Howard government spent \$480 million in its last financial year in office (2006-2007) (Dusevic 2009). In 2012, a Canberra Times investigation found that the Rudd government had spent an average of \$486 million a year on consultancies since it came into office in 2007-2008, and the top earning consulting firms over this time were KPMG (over \$100 million), PricewaterhouseCoopers (\$69 million) and Ernst and Young (\$54 million) (Tadros & Mannheim 2012).

Chart 9.8.1 Number of ongoing Australian Public Service (APS) employees and corresponding population growth, 1994-2010



Source: Whelan, J 2011, *The state of the Australian Public Service: An alternative report*, Centre for Policy Development, Sydney, p.22

At the state level in Victoria, while the amounts of money spent on consultancy services were smaller, there was nevertheless a culture of contracting out policy and advisory services. Some interviewees commented on the more generous propensity of the Bracks/Brumby government over the 2000s towards consultancies than their New South Wales (NSW) counterparts. Furthermore, by 2013 it had become commonplace for exiting (and entering – ‘a revolving door’ (Baker & McKenzie 2013)) senior Victorian public servants to take up partnership or managerial roles within the ‘Big 4’ firms (for example, Penny Armitage Secretary of the Department of Justice left for KPMG; Fran Thorn, Secretary of the Department of Health left for Deloitte). Indeed, upon retiring from Victorian politics in 2008, the newly ex-Premier Steve Bracks took a consultancy role at KPMG, while ex-Victorian Liberal Party Opposition leader Robert Doyle took a role at management consultancy Nous Group upon leaving politics in 2006.

Such demand on the part of the public sector for policy and economic advice has seen the Australian based ‘Big 4’ firms move to establish economics units to cater for the work, a feature of their Australian based operations that does not exist in their European based counterparts. Deloitte, for example, had an economics team of eight people five years ago, and after a steady stream of mergers and acquisitions of smaller, boutique economic analysis companies, together with the acquisition of Access Economics in 2011, now have upwards of 150 economists working within the organisation. Ernst and Young did not have an economics team at all six years ago but now they have an economics unit of 40 staff. Table 8.8.1 demonstrates the range of economic analysis-related services these large firms now offer.

Table 9.8.1 Economic and policy services offered by Australian ‘Big 4’ firms

Deloitte	<ul style="list-style-type: none"> • Policy analysis • Regulatory analysis • Health economics 	<ul style="list-style-type: none"> • Strategic advisory • Forecasting • Econometric modelling
KPMG	<ul style="list-style-type: none"> • Policy development • Cost benefit analysis • Industry analysis and business strategy • Economic and financial modeling • Urban planning and infrastructure analysis 	<ul style="list-style-type: none"> • Forecasting • Program review and evaluation • Regulation and industry reform • International trade evaluation • Business cases and feasibility studies
EY	<ul style="list-style-type: none"> • Business case development • Economic impact statements • Economic and financial cost benefit analysis • Conflict, business and economic models • Feasibility studies • Demand estimation • Program evaluation • Business planning industry and organisation restructures 	<ul style="list-style-type: none"> • Regulatory advice • Pricing and revenue submissions • Pricing model development and review • Regulatory cost modelling and benchmarking • Regulatory impact statements • Regulatory due diligence • Strategic policy development and analysis • Competition policy reviews
PwC	<ul style="list-style-type: none"> • Benchmarking • Business case development • Cost effective analysis • Cost modeling and price reviews • Economic impact analyses • Feasibility studies 	<ul style="list-style-type: none"> • National competition policy and legislative reviews • Post-implementation reviews • Program reviews • Regulatory impact statements • Triple bottom line-based benefit-cost analyses

Sources: KPMG 2014, *Economics*, viewed 15 March 2014, <<http://www.kpmg.com/AU/en/services/Advisory/management-consulting/strategy-operations/economics/Pages/default.aspx>>, Ernst and Young Australia, 2014, *Economics, Regulation and Policy Advice*, viewed 15 March 2014, <[http://www.ey.com/Publication/vwLUAssets/Economics_regulation_and_policy_advice/\\$FILE/Economic_Advisory_Cap_Statement.pdf](http://www.ey.com/Publication/vwLUAssets/Economics_regulation_and_policy_advice/$FILE/Economic_Advisory_Cap_Statement.pdf)>, 2014, PwC, 2014 Consulting - Economics and Policy, viewed 15 March 2014 <<http://www.pwc.com.au/consulting/economics-policy/index.htm>>, Deloitte 2013, *Economics*, viewed 15 March 2014, <http://www2.deloitte.com/au/en/services/economics.html?icid=top_economics>.

The increasing competition from ever larger consulting firms and the broadening of their service range has led to further consolidation within the Australian consulting and advisory industry. In early 2013, Australian-based consultancies ACIL Tasman and Allens Consulting announced a merger (with Geoff Allen, head of Allen consulting, commenting at the time that the company had had ‘...most of the large accounting firms knocking on our door’ (Boxsell 2013)).

9.9 Industry specialisations of Melbourne based consultancy offices – evidence of path dependency?

All interviewed firms had offices across all Australian capital cities, in addition to having offices in regional centres such as Launceston, Alice Springs and Newcastle. The presence of the ‘Big 4’ firms in smaller regional centres is a legacy of their accounting and auditing history (Taylor, P et al. 2011; Taylor, PJ 2004). Interviewees did indicate there were some differences in the industry mix of their clients across the various Australian capital city offices. Sydney offices serviced the large financial services industry based there, and suffered accordingly after the downturn in the sector after the GFC in 2008. Perth and Brisbane offices have some specialisation in natural resources, while the client base of one Melbourne office (PwC) was described as ‘a pot pourri’ – but included a large telecommunications practice, by virtue of Telstra’s Melbourne based head office, as well as large banking consulting practice, courtesy of the headquarters of two of the major Australian banks. One interviewee did mention that the major mining firms BHP and Rio Tinto, with their Melbourne based headquarters, provided the firm with some consultancy work, although a lot of work was also undertaken for them in their Perth based office.

The burgeoning economic teams mentioned earlier in the various ‘Big 4’ firms are predominantly based along the eastern seaboard, reflecting the location of their major clients (for example state and federal government departments). Interviewees did note that the Victorian state government had provided a more fruitful environment for consultancy companies over the 2000s than their NSW counterparts. One interviewee (Deloitte) noted that the Sydney office of the company had undertaken a greater amount of mergers and acquisition related work, which had dried up in recent years and led to the shedding of staff within the Sydney office, while the Melbourne office had thrived on an increasing work load generated by the state government. Another interviewee (KPMG) agreed that both the NSW and Victorian state governments had become major clients for the firm and ‘they weren’t a decade ago’.

DELOITTE: I wonder what influence having decent state governments has.

Overall however, the industrial and sectoral spread of the client base of the ‘Big 4’ firms and their offices around the Australian capital cities can be characterised by the interviewee who

noted that their clients: ‘...work in every sector under the sun...we would even audit one of our competitors.’

9.10 Teams formed beyond geographic boundaries

Divisions of labour and team formations that cater to a local industry composition appear to matter less to the ‘Big 4’ firms as increasingly their project team members are drawn from across their Australian offices (and even in many cases across the world), to form teams best suited to the project needs of that particular client. On the differences between the Melbourne and Sydney offices, one interviewee felt that: ‘The delineation between the two is decreasing’. If Melbourne has a lot of work on they will draw down staff from Sydney and vice versa. The economics-related area for that particular ‘Big 4’ firm (infrastructure and regulation) did not have any Sydney based staff, thus the Melbourne based partner would fly up to Sydney to meet with relevant clients. Teams were described as an ‘accident’ of who people are and where they are based, rather than a planned strategy to have an infrastructure team in Melbourne and another one in Sydney. Industry and sector specialisation in various city offices was more a result of:

DELOITTE: ...where you recruit people from and how things work out.

9.11 Professional services work as ‘networks of spaces’ across time and space

The ‘global reach’ that these companies now command, due to their presence in offices based in cities around the world, means that increasingly they can form teams across the world. Paradoxically this appears to mean that location matters less and less. Many respondents talked about the global nature of their team formation and projects. Interviewees found it difficult to quantify how much work was generated for the Melbourne office by Melbourne based clients, for example, as projects and teams tend to be comprised increasingly on a case by case basis based on who has the most relevant skills for that particular piece of work, often regardless of where they are physically based. This can work both ways: if a job primarily conducted in Melbourne for a Melbourne based client requires the skill of a ‘Big 4’ expert based in Hong Kong, the company will fly them in to Melbourne to work on the project. Alternatively if a job is being conducted in Tokyo, they will fly a Melbourne based expert to Tokyo to work on the job. One company demonstrated their approach by showing an organisation chart based on an ‘Asia team’ whereby partners listed on the chart were a combination of Australian and Asian based members. The interviewees felt that more and more teams were comprised of partners across the world and this was ‘...where we are headed in the future as an organisation’.

This is not say that some element of locally engaged work has disappeared: the KPMG interviewees mentioned there are places they don't go because their clients are already well serviced by existing KPMG services, such as in America, and PwC mentioned that their Indian operation has 56 offices servicing Indian clients. However, it is entirely possible that the firms may fly a partner to London if an Australian company has a project over there and they want their Australian partner to head the job. Once again, this development in the consultancy was attributed to the needs of their clients: 'Clients post GFC are looking for the best team you've got globally.' and 'The days of winning a tender for Melbourne or Victoria with only a Melbourne and Victorian team, those days are over.'

9.12 Notions of the Head Office. Where is it?

Although Sydney is officially listed as the Australian head office in the 3 out of the 'Big 4' firms (EY, PwC and Deloitte), interviews with firm partners indicated that the notion of where the head office is located is more porous. Rather, the head office of the Australian operation of the firm in question depended on the home town of the head partner. The draw of the head office is not the locational aspect – such as Sydney (with its status and connections as a global city with links to the growing Asia-Pacific region) or Melbourne (which also houses the headquarters of major mining companies and banks), or even which city's office has the greatest workload – but rather where the head partner comes from:

EY: Where is the Head Office? It depends on where the head partner comes from.

One firm's (KPMG) CEO was currently in Sydney although he keeps an office in Melbourne. The CEO in question was originally from Melbourne but was asked in 2008 to go up to Sydney to run the large advisory section of the firm. There was a 'general understanding' within the business that if that national chairman is based in Melbourne, then the CEO will come from Sydney, and this arrangement rotates, although it was 'Not a hard and fast rule.' Similarly, PwC's current (at the time of interviewing) CEO and his executive team do largely reside in Melbourne, but that is subject to change depending on who is in the team. PwC interviewees felt it was more appropriate to say Sydney and Melbourne are the centres for the Australian firm.

9.13 Impact of the global headquarters, NY- Lon, on the Australian operation

If there was some changeability in answers to questions regarding the location of the Australian head office of the 'Big 4' firms, the location of their global headquarters proved to be even more unfamiliar amongst the interviewees. The primacy of New York and London (NY-Lon) across all industries that comprise APS in WCN lists has been the focus of much discussion in WCN circles (Neal 2011; Taylor, PJ et al. 2010; Wojcik 2011). In terms of regionality and connectivity, certain WCN research indicates that Australian cities form part of an Asian-Pacific

network and even a Commonwealth related one (Derudder, B, Hoyler & Taylor 2013). Locally based interviews confirm that the global head office of these multinational organisations is indeed very far away. I would contend that the confusion from partners regarding where their global headquarters was actually located indicates the lack of relevance to the operations of the business.

Q: Where is the global HQ of EY?

EY: Er (pause)...Maybe New York but I wouldn't guarantee it.³

Another firm (KPMG) responded that there was no international headquarters, but rather a global board of management comprised of representatives of offices around the world. At the time of interviewing their current global chairman was based in Hong Kong (but was originally a Melbourne based partner). The chairman in question actually resisted pressure to base himself in London or New York when he rose to top of company, as he wanted to send a message about the Asian region. More broadly the global company was broken up into different regions '...probably more for revenue recording reasons...' and even then what constitutes those regions is a flexible arrangement. Another 'Big 4' firm (PwC) confirmed there were global regions, such as the Americas or European divisions of the company, and that:

PwC: 'If there was (a global headquarters)....New York is a notional global head office... as that's where the global chairman sits.

Another interviewee contended his firm (Deloitte) does not really have a global head office, as each country operates quite separately from one another. While conceding offices within the company do work together, this is not driven by a US or UK head office. While the Australian offices receive edicts regarding how things should look, and the marketing and branding of the company comes from a central source, that particular partner felt '...it's a reasonably decentralised model'.⁴

The key to the head office arrangement amongst the Australian 'Big 4' firms appears to be the partnership system upon which the management structures are based. This will now be examined in further detail.

³ This was wrong – EY's head office is in London according to their website.

⁴ The corporate look that is dictated by the central office's marketing and branding department has put these Australian based firms at an advantage when preparing tenders and reports over local firms for Government work and the like. The international branding and marketing reduces costs at the local level.

9.14 A brief explanation of the partnership system in professional services firms

While firms operating as private corporations or publicly traded companies have divisions between the ownership, management and operational practices of the employees, the partnership model differs in that: 'ownership, management, and operations are fused. A partner is an owner of a firm, is involved in its overall management, and operations are fused' (Greenwood, Hinings & Brown 1990, p.730). The partnership model of ownership and managerial structure has been a feature of professional services firms particularly in law, medicine and accountancy for many decades.

Recent studies within the organisational management studies literature has theorised that of the three main forms of government or management of professional services firms – professional partnership, private corporation and publicly traded company – the professional partnership is ideally suited to professional services firms as this management structure uses: '...collegial rather than hierarchical controls which are more typical of the public corporation with its emphasis on targets and the close monitoring of results.' (Greenwood & Empson 2003, p.91). For professional services firms, the key 'capital' is the workforce and their specialised knowledge, (unlike, for example, manufacturing firms where plant and equipment are key capital inputs), thus the partnership incentive to these firms' workforce – to work your way up the firm from junior to associate and then to partnership and a share in the company's profits – is a way of tying workers (with their key capital: their knowledge) to the firm.

Organisational management theorists such as Greenwood have surmised that as large and increasingly multinational organisations such as the 'Big 4' accounting firms, grow and increase the number of partners within their organisations, they will inevitably become more unwieldy and less productive as the partnership system slows down management processes and adds costs to the business, lessening efficiency (Greenwood, Hinings & Brown 1990, p.751). However, this does not seem to have stopped the Australian operations in terms of their business growth, as evidenced by the earlier charts on revenue increases of certain 'Big 4 firms' over recent years.

Furthermore, the partnership system appears to blur the distinctions between head offices and regional offices. All the Australian based 'Big 4' firms had an interchangeable head office arrangement between Sydney and Melbourne, depending on the location of the head partner and other senior members of their board of management. The terms used by the interviewees to describe the head office location arrangement, for example: 'not a hard and fast rule', indicate a fluid practice contingent on the head partner and management team.

This finding does allow for some reassessment of WCN lists and associated matrices built on apportioning values according to the location of head offices, as the vast majority of WCN research has done in recent years (Taylor et al. 2011, De Rudder 2013). In 2002, Jones critiqued the epistemological foundations of the Global City hypothesis, arguing the theory places too much emphasis on location of the ‘command and control centre’, and that the focus of power within Transnational corporations ‘...needs to centre on people rather than places in the relational network of command and control’ (Jones 2002, p.341). His study of partners in advanced producer firms (management consultancies and banks) based in New York and London drew similar conclusions to this research on Melbourne based ‘Big 4’ firms. That is, power and control functions within the firm are held by the network of partners and:

‘...command functions...do not exclusively occur in any meaningful way within global city spaces – head office board rooms, meeting rooms – but are ongoing dynamics of social interactions between different groups of social actors who are physically both mobile and scattered’ (Jones 2002, p.343).

9.15 Getting the right people: the ‘social actors’

KPMG: In essence ours is a people business. The people being our clients and our staff. We need to be located in places where our clients are doing business and we need to service those needs by teams that are appropriately aligned to our clients’ needs.

Tonts and Taylor’s most recent (2011) research into the location of corporate power in Australia concluded that one of the factors underlying the location of corporate control in Australia has been the role of networks amongst business and social elites. Interviews conducted for this study did provide some insight into the sociological and cultural aspect of professional services, such as the culture of the industry and the ability of such businesses within it to draw on a particular type of worker, one who is *au fait* with the relevant professional culture, particularly in cities.

The rapid change within the ‘Big 4’ in terms of the services they offer to their clients means they must be able to recruit experts from outside the firm swiftly. An example given by a partner was the possible scenario where Telstra is a client and this requires the firm to place a telecommunications expert on a team. If there isn’t one in-house: ‘...you can’t grow one. You’ll have to step into the market. More and more of that I believe is happening. More lateral hires...’ Another interviewee made the point that in his area (taxation), you used to require just in depth knowledge of the tax laws and how to apply this in a commercial scenario, but now they require an ability to apply an ‘overlay (of) the commercial nuance’ as opposed to the ‘right answer’.

9.16 Return to the impact of location of offices - within Melbourne and the city area

At the local level, these recent developments affecting the composition of the 'Big 4' Australian city offices outlined above: the push into new services industries to fuel future growth; the expansion into new consulting markets such as policy and economics or responding rapidly to demand from particular client groups such as the public sector and the demand for a certain type of worker within the firm have led to greater centralisation in terms of location.

All the 'Big 4' firms were solely located in the city centre of Melbourne.⁵ Unlike Sydney where large companies often have another office based in the western area of Parramatta in addition to a CBD office. There was a feeling amongst interviewees that their clients dictated the central city location, as it was suitable for the clients to get hold of partners or relevant members of the firm easily, even if the client themselves was based outside the city in a suburban location. Using the central city as a location is also a result of the various mergers these firms have undergone since the 1990s.

Additionally, as these firms acquire smaller consulting services across other professional services such as economics, engineering and IT consulting firms, an outcome of this inexorable expansion and growth seems to be to increasingly relocate these workers into office space in the central city area. One interviewee described the process thus:

Deloitte: There is a general trend in towards the city and CBD as those industries agglomerate and the big firms take over small firms, the small firms might be in St Kilda Road or out in the 'burbs, they come in to the head office in the city...it comes together like that.

Thus it would appear that in an environment of increasing professional services employment, expanding multinational and transnational firms swallowing smaller firms in their drive for growth and the demand for workers in cities, the greatest expansions of employment will occur in central city areas in a monocentric capacity, as opposed to a polycentric development.

9.17 Conclusions

The firms interviewed are some of Australia's oldest firms, and yet they appear at the cusp of the latest corporate changes. In an economic environment that includes greater levels of internationalisation and technological advances, the Australian 'Big 4' firms have been able to take advantage of greater global clients, moving into new markets and establishing new clients in an era of increased competition. At the same time, the local (for example Australian) operation of these firms has been nimble enough (while still increasing in size) to take

⁵ Although PwC used to have an office in suburban Dandenong in 1990s. Dandenong itself was touted in the 1990s as a potential second CBD for Melbourne (Mees, Paul 1993).

advantage of local conditions, such as an environment where both state and federal levels of government increasingly contract out services such as economic and policy advice.

The effects of the globalised economy, such as decreasing international regulation and greater transnational business activity, does seem to be impacting on these companies and their operations, as they increasingly comprise teams from across offices around the world, reflecting Manuel Castells famous 'new geography' observation that cities in a globalised world increasingly operate as networks of spaces across time as opposed to networks of places (Castells 2002).

Nevertheless, the research findings demonstrate that one of the main current measures of this global interconnectedness and networks – the location of company head offices in WCN research – is something of a blunt instrument. It transpires that the actual arrangements of how the command and control of these Australian companies occurs is quite loose and is based around the very established corporate governance function of the professional partnership.

Thus this finding concurs with the hitherto relatively small amount of research that critiques the WCN research and the direction it has taken over the last ten years in particular. The findings of this research align with the research undertaken by Jones (2002) on the then ten year anniversary of WCN research: that the emphasis on head office location unduly emphasises the physical location of these global command and control centres, at the expense of '...a relational network of ...scattered social and non-human actors' (Jones 2002, p.348).

Overall the previous three chapters have examined APS industry growth in Melbourne, Victoria and the national level as well as the spatial level. The analysis has shown that much of the growth and development of APS industries can be attributed to local or national factors, as opposed to globalised ones. For Financial and insurance services, national policy settings were a play (such as superannuation and health insurance). For certain Professional, scientific and technical services, national factors such as the mining boom that took place over the 2000s in Western Australia and Queensland were instrumental in driving expansion for these industries at the state level for legal services and engineering. Each of these factors can be seen to fall within one or more of the seven 'contingencies' outlined by van Kempen in his set of developments that mediate the impact of globalisation on cities at large. The contingencies of economic development, political power and governance were especially influential in the growth and spatial change of sub industries forming APS in Melbourne over the 2000s.

Part Three

Chapter Ten: Occupational Change and Knowledge Workers in Melbourne over the 2000s

10.1 Introduction

Part One of this thesis established the theoretical background and key frameworks that exist regarding the impact of globalisation on cities, such as the WCN, before examining the relevance of these frameworks in understanding the economic development over the 2000s for the city of Melbourne. Chapters Four and Five provided an economic history of Melbourne, establishing: the historical importance of the mining and banking industries; the changing role of Australia's most populous and premier financial services in Melbourne and Sydney over the late nineteenth and twentieth centuries; and outlining a series of key policy decisions made primarily in the 1980s that sought to reinvigorate Melbourne's city centre in the face of increasing deindustrialisation.

Part Two provided a close examination of the economic performance of Advanced Producer Services (APS) industries in Melbourne and Victoria in comparison to other Australian jurisdictions. Theorists such as Saskia Sassen and Peter Taylor of the GaWC network place special emphasis on APS business and employment growth based in the world's cities, determining their growth as a key development in the impact of the globalised economy. After undertaking an empirical analysis of APS performance in Melbourne throughout the 2000s in chapters five, six and seven, chapter eight sought to examine the impact of globalisation on Melbourne using a different methodology (a quantitative study using interviews) that examined the role of networks and relationships between headquarters and regional offices on APS in the city. In undertaking this exercise the study addressed some of the criticisms of research into World and Global Cities, that is, the increasingly positivistic approach used by members of the GaWC using data derived from lists of the location of the headquarters of global companies, which does not address the role of other social actors within the city, their relationships and the nature of global networks, as first countenanced by Sassen and van Kempen.

The findings from Parts One and Two of this research indicate that while Melbourne indeed has displayed key features of a globalised economy (or a globalising city) – such as the growth of APS services – this growth cannot be attributed to globalisation alone. It occurred in a context of key path dependent, historical factors (stretching back to the gold rush era of the 1880s), such as the headquarter location of key mining companies or the radial public transport system that has remained largely unchanged since the 1890s, that facilitate the growth of city centre based businesses and employment to this day. The analysis of economic outcomes across Greater

Melbourne over the period 2001-2011 found the rejuvenation of the city centre was instrumental in driving the economic success of the city as a whole.

This final section, Part Three, examines the role of workers in Melbourne and, specifically, the professional or knowledge workers that largely comprise the APS industries examined previously in this thesis. In doing so, the role and development of 'knowledge' and the 'city' is undertaken; in terms of knowledge workers and knowledge cities, and the impact of globalisation on knowledge cities and knowledge workers around the world. This section examines key policies, such as skilled migration and higher education policy, that impact on the city's labour supply in order to determine the impact of knowledge workers in the Melbourne economy, and once again the location of these workers throughout the 2000s.

Part Three begins with this chapter (Chapter Ten) examining the development of theories relating to professional and knowledge workers and the growth and locational change of these workers in Melbourne over the period 2001-2011.

10.2 Theories related to knowledge and professional workers

The 'knowledge worker' is a concept first developed by Reich (1992), who characterised the post-industrial economy's workforce as one increasingly comprising of 'symbolic analysts' who:

'...solve, identify, and broker problems by manipulating symbols. They simplify reality into abstract images that can be rearranged, jiggled, experimented with, communicated to other specialists, and then, eventually transformed back to reality. The manipulations are done with analytical tools, sharpened by experience...' (Reich 1992, p.178).

The growth of knowledge workers and the associated knowledge economy has not passed unremarked in the Victorian and Melbourne context. It is a result of the various structural changes that have in the Victorian and wider Australian economy, such as decreasing manufacturing activity and employment and increasing education participation and completion on the part of the labour force, and reflects the broader changes to the services oriented economy experienced by other western economies.

Professionals differentiate themselves from other occupational groups in that their work deals with the application of knowledge, often specified, technical and/or applied. Their cachet in the labour market comes from applying this knowledge to problems or situations presented by their clients. The nature of the professions was of considerable interest to sociologists throughout the latter twentieth century, examining their history and development through both Marxist and Weberian frameworks. Marxists interpreters saw the activity through the prism of a class struggle – as an attempt at continuing domination of jurisdictions whereby the dominant class

owning the means of production will overpower others. Whereas when professionalism is examined through the Weberian framework, class is conceptualized as having a:

number of components derived from the market and from status honour, both of which involve the notion of social actors, in the first instance as competitors and in the second as participants in mutual evaluation (Macdonald 1995, p.44).

Malhotra and Morris (2009) use Halliday's Weberian framework (1987) to group professionals according to their epistemological knowledge foundations: technical knowledge (for example engineering with its foundations in scientific and mathematical knowledge); normative (such as law, drawing on knowledge based on jurisprudence, concepts of justice, property and social contracts) and syncretic (such as accounting, which spans both the technical and normative knowledge bases.)

Established research into the history of the professions (sometimes referred to as the 'professional project') has determined that professionalism requires the application of a 'discretionary intangible skill' (Friedson 2001, quoted from Malhotra & Morris 2009) that is, a form of knowledge that is so difficult it requires training, yet reliable enough to produce results. Historically, professions have also been able to assert a monopoly or control over their work and have to mitigate against their codified knowledge becoming widely understood and critiqued: 'in order to sustain professional power some degree of mystique or impenetrability has to be sustained' (Larson, quoted from Malhotra & Morris 2009, p.899).

In Abbott's 1988 study of the professions, he provides some historical examples of various professionals from the nineteenth century to the present day (such as apothecaries and members of the clergy, mostly based in the US context), their codified knowledge and how they failed to maintain this aura of mystique. Abbott also outlined some of the methods by which professionals carve out and maintain a given jurisdiction, including educational attainment and relevant qualifications; public perception (such as outlined in the previous chapter on the management consulting industry and the perceived need on the part of their clients for the firm's services); the role of the particular profession in the workplace; licensing arrangements and membership of professional associations.

In addition to establishing a jurisdiction, professions have an ongoing task of maintaining it. This process has been labelled 'social closure' by sociologists, which is, '...the exclusion of rivals, protection of their privileges, defence against incursions to their territory and, in some cases, attempts to usurp the territory of other groups' (Malhotra & Morris 2009, p.900). An example may once again be seen in the examination of the recent 'incursion' on the part of accountancy firms into the arena of management consulting given in chapter eight. Malhotra and Morris (2009) assert that jurisdictional control, and following this social closure, comes as a

result of both knowledge base of a particular profession and the measures the profession takes to ensure jurisdictional control, such as licensing or membership. Clients form an important part of the 'production' of professions, with a varying degree of participation in the production process. Leicht and Fennell (2001) define the situation whereby clients control the process of production of the professional service, and therefore judge what it is worth, as professions with a high degree of 'client capture'. This will again depend on the nature of the knowledge base of the profession, the level of jurisdictional control and on the power of the clients themselves.

10.3 Knowledge workers and knowledge economies

Theorisation and attempts to understand knowledge – its various elements such as the scientific, technical and practical – and the vital role knowledge plays in humanity, date back to antiquity and Aristotelian philosophy. The early modern period heralded an emphasis on scientific knowledge and the increasing connection between knowledge and its association with academic disciplines. More recently the term 'knowledge economy' has gained currency through the increasing importance of the economic application of knowledge itself:

Knowledge economy is an economy that uses knowledge in the production, exchange and use of goods and services; which produces knowledge goods and knowledge services; and which creates and accumulates knowledge as an asset (Madanipour 2011, p.84).

Knowledge workers and their role in the wider knowledge economy have been the subject of discussion and analysis since Daniel Bell's 1973 article *The Coming of Post-industrial Society*, whereby the shift from manufacturing to services based economies and the rise of the science based production and industries indicated 'a changeover from a goods-producing society to an information or knowledge society' (Madanipour 2011, p.52). The role of the knowledge worker came to be recognised within the process of deindustrialisation occurring in developed economies in the latter twentieth century, when physical items were produced less and less and knowledge itself, be it tacit, technical or applied, became the good/service being produced and exchanged.

10.4 Knowledge cities

Cities are at the heart of the knowledge economy, acting as nodes where knowledge is produced, managed and exchanged (Madanipour 2011, p.63). The growth of scholarship and interest in knowledge cities indicates an intersection between economic, geographic and economic development theorisation. The research into what constitutes and comprises a knowledge city parallels the increasing interest in economic development-driven place marketing campaigns, established from the 1980s to garner investment into cities (Ergazakis et al. 2006).

Richard Florida's 2002 work *Rise of the Creative class* and its reception can be seen in this light. Florida's work sought to cast the impact of globalisation in terms of the growth of knowledge cities, underpinned by a highly mobile and selective professional and tertiary educated 'creative class' of workers who could choose where to work. Thus it was up to cities (and their town planners, policy makers and politicians) to make their city environments' conducive to creative class members (Berry, M. 2005; Berry, M. & Fleming 2003; Florida 2002, 2004).

10.4.1 Melbourne as a knowledge city and Victoria as a knowledge economy

Knowledge cities have been characterised as containing a successful and well promoted biotechnology, innovation and knowledge intensive business service sectors, in addition to an urban development policy focus undertaken within the city towards greater public amenity (laneways, safety) and sustainability (Ergazakis et al. 2006). As the conceptualisation of the knowledge city developed (Carrillo 2004; Edvinsson 2006; Matthiessen, Schwarz & Find 2006; Simmie & Strambach 2006), its influence on policy makers can be seen even in the local context. Innovation and its promotion was a key policy area for the Victorian Bracks/Brumby government over the 2000s, with a number of major statements and policy initiatives based on the science and technology theme, as the term featured a series of policy statements across various portfolios (for example VET and higher education statements were titled: *Knowledge and Skills for the Innovation Economy: future directions for the Victorian vocational education and training system* and *Knowledge and Skills for the Innovation Economy; Future directions for higher education*. See also Yigitcanlar, O'Connor and Westerman (2008)). The City of Melbourne continues to have a knowledge city webpage within its website and a knowledge city event week (City of Melbourne 2015).

The science and innovation policy statement *Victorians. Bright Ideas Brilliant Future*, released in October 2002, emphasised the development of innovation, defined as growing the Victorian biotechnology sector and wider science and technology industries through greater research and development funding. The policies of the time emphasised the need for knowledge workers and, in particular, science, technology, engineering and mathematics (otherwise known as STEM) graduates and workers. The document states the need explicitly:

Throughout the world, the demand for skilled information of 'knowledge workers' is growing – people who use creativity, ideas and knowledge, rather than physical effort, to solve problems, develop new products and find better ways of doing things (Victorian Government 2002, p.6).

The first key area amongst the six listed as part of the then state government's new 'Innovation Economy Policy' was '...to build and educated and highly skilled workforce – supported by a high quality and flexible education and training system' (p.14). There was a concerted effort

expressed within the statement to maintain and increase the STEM capacity within the Victorian workforce by various scholarship initiatives and prizes for outstanding science researchers, promotional campaigns to increase awareness of the sciences within the school system and other promotional campaigns aimed at shoring up interest in careers in the ICT sector.

10.5 Professional workers in the Australian labour market

Knowledge workers can be analysed via official statistics thorough the 'Professionals' ANZSCO occupation group. The ABS defines professional workers as those who:

...perform analytical, conceptual and creative tasks through the application of theoretical knowledge and experience in the fields of the arts, media, business, design, engineering, the physical and life sciences, transport, education, health, information and communication technology, the law, social sciences and social welfare (ABS 2006, p.140).

The definition goes on to list a bachelor degree qualification or higher as the indicative skill level for the occupation group. Previous research analysing professional occupations as a representation of knowledge workers include Florida's work on creative cities (2002, 2004).

While most (but not all) professionals require a bachelor degree or higher qualification, graduate outcomes surveys of Australian university graduates indicate over 80% of graduates in full time employment are employed in manager or professional occupations within three years of graduation.⁶ The trend towards increasing levels of university qualified professionals is apparent via data from the ABS Census: in 2006, 69.8% of professionals working in Greater Melbourne had bachelor or higher degrees, and by 2011, this had increased to 73.8% (ABS Census 2006, 2011).

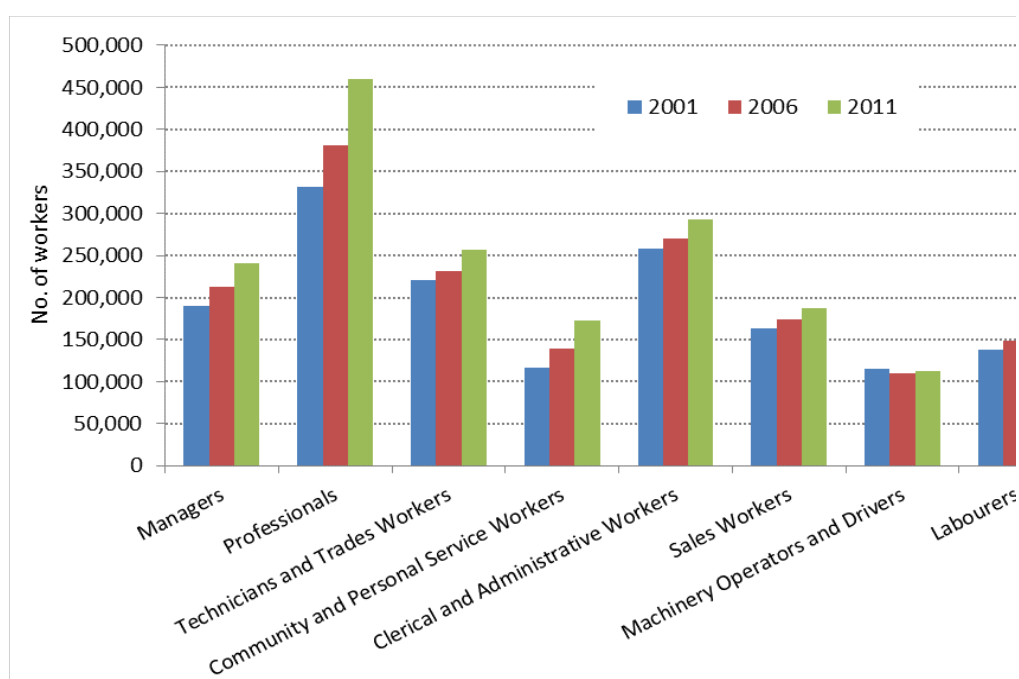
This thesis has already examined the importance of student and higher education participation in the growth of economic activity based in Melbourne's central city area since the 1990s, such as increasing residential housing and the development of the night time economy (NTE). The development of the education services market was integral to the wider success of the Victorian economy over the 2000s, with the successes of the international education market on the state's export performance. This section now takes a closer look at the mostly degree educated professional workers and the skilled migration policies adopted at the state and federal levels to increase their supply in the Melbourne and Victorian labour markets, and the impact of this spatially on the city.

⁶ Graduate Careers Australia's 2009 *Beyond Graduation* report (Carroll 2010) found that 81.7% of all 2006 graduates in full time work were working as Managers or Professionals three years later, and this proportion had increased to 84.2% according to the 2013 report on outcomes for 2010 graduates (Carroll 2014).

10.6 The labour market and Melbourne's knowledge workers

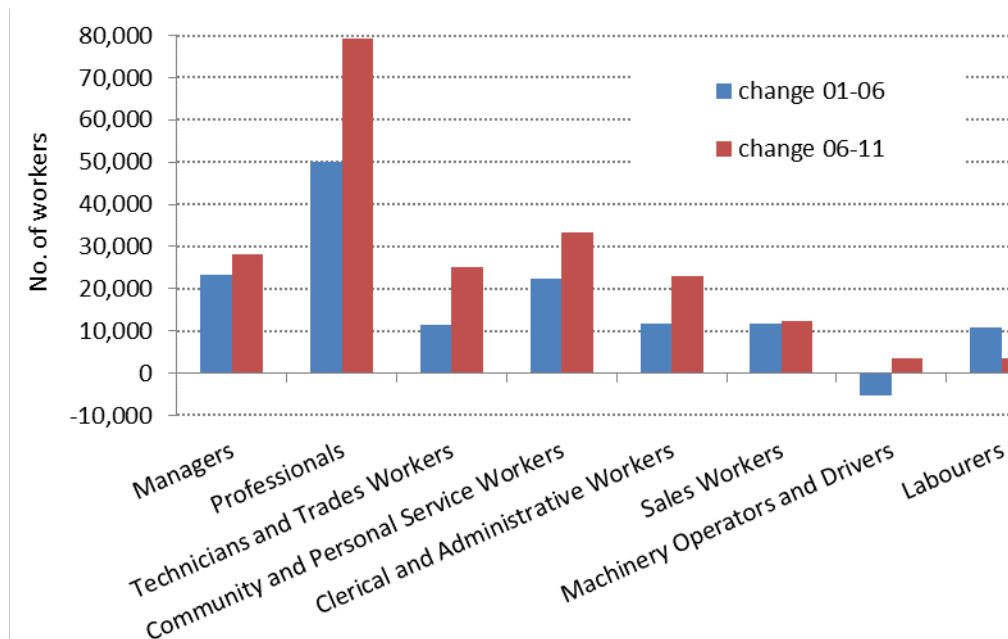
Chart 10.6.1 demonstrates employment growth occurred across all 1 digit occupational categories in Greater Melbourne between 2001 and 2011, with the exception of machinery operators and drivers. Professional was the largest of all occupation categories, and grew by just under 129,291 workers over the ten years from 2001 to 2011 (39.46 %), with most growth occurring within the 2006 and 2011 intercensal period. The rate of 39.46% growth for professional workers over period 2001 to 2011 compares with an overall growth rate for all workers in Greater Melbourne of 22.7%. (Although Community and personal services workers had the highest growth rate of 47.83%, reflecting employment increases in health and community services sectors).

Chart 10.6.1 Employment in Greater Melbourne by 1 digit occupation, 2001-2011



Source: ABS Census, 2001, 2006, 2011

Chart 10.6.2 Employment change in Greater Melbourne by 1 digit occupation, 2001-2011



Source: ABS Census, 2001, 2006, 2011

The drivers of this growth in professional occupations within the Greater Melbourne area will now be examined in greater detail. In order to do this, it is necessary to examine broader, national level policies impacting upon higher education and skilled migration, which had a large effect on labour supply within the city.

10.7 Labour market supply – issues for professional workers

Labour market theory posits that demand for labour on the part of employers is met by supply of workers, and that wages will shift in response to changes in supply and demand. The labour supply must cover not only the workers who are exiting or no longer participating in the workforce (due to factors such as retirement or family duties), but ideally must meet the level of demand currently required by the economy.

In the case of professional occupations this labour supply, not yet universally but nevertheless increasingly, is provided by graduates. There is, however, some unevenness within the process of higher education level qualification attainment and eventual participation in the labour market. A university student and potential graduate has no control over the state of the labour market for a particular profession that he/she wishes to enter or establish a career within – indeed, their entry to the labour market may be as much as six or seven years after the time they first enrol in a university course. Furthermore, certain professions such as accountants and solicitors (and medical doctors) require considerable periods of further study, work experience and membership before an individual is truly qualified.

All this is to say the entry into the labour market for many potential professional workers is not seamless, and supply and demand for professional workers can often become unbalanced leading to either an oversupply of potential workers, when there is insufficient demand for the relevant professional skills within the labour market on one hand, to labour shortages and gaps when supply is not sufficient on the other.

One method by which skill gaps and labour shortages can be alleviated is through skilled migration, whereby sufficiently qualified workers from other countries are brought in to fill the gap that local labour supply cannot fill. The following discussion focusses on the policy settings that impacted on the Melbourne labour market's local professional supply, provided by University graduates, and external labour supply provided by skilled migrants throughout the 2000s. The analysis will then examine labour market outcomes for 'knowledge economy' professions in the city over the period 2001 to 2011, where the jobs growth occurred geographically and following this, the impact upon the city's workplace locations.

10.8 Higher education in Victoria, 2000-2011

Higher education funding in Australia has traditionally been the domain of the federal level of government. Access to higher education has been considered 'universal' since the Whitlam reforms of the 1970s. A key reform of the sector was the introduction of the Higher Education Contribution Scheme (HECS), implemented in 1989, whereby tertiary students are charged a fee for their course and this is paid back through the personal taxation system once their income reaches a certain threshold. Since its initial inception the HECS and student loan schemes have undergone additional changes, particularly through the years under the federal Howard government (1996-2007), including increases to HECS fees for certain courses (such as law and medicine), the option to pay full fees for courses and the establishment and expansion of a supplementary student loans scheme.

Until 2010, the number of undergraduate student places in Australian universities were capped by the Commonwealth Government. In order to receive a place in a nominated undergraduate course, students largely had to achieve a relevant Australian Tertiary Admission Rank (ATAR) score, a score derived from their final secondary school year HSC/VCE results. The greater demand for the course, the higher the ATAR score, for example law and medicine require near perfect ATAR scores for the top universities. There are various reasons why students chose particular courses, including interest in establishing a career in a particular profession, employment prospects, potential wages and personal interest. We expect the majority of graduating students enter the labour market upon completion of their course, although the labour market conditions and outlook for the particular profession of the degree holder may have altered considerably over the previous three to four years since they first enrolled in their

bachelor degree. There is also a fair degree of personal choice in students settling on a tertiary course of their choosing. Prior to the Rudd government reforms of uncapping student places in 2010, the capped place system and ATAR scores mediated the supply of undergraduate places across Australia's universities and the demand of potential students.

Similarly, universities are not beholden to labour market trends in determining the numbers and thresholds for their courses/disciplines. Courses and their enrolment numbers are largely determined by student demand. The labour market situation outside of the university may or may not influence this.

10.8.1 Higher education policy during the Howard government, 1996-2007

In terms of providing skilled workers for the Australian labour market, the Howard government era shifted focus towards the attainment of Vocational education and training (VET) level trade qualifications at Certificate III, Diploma and Advanced Diploma levels. Despite this VET focus, studies into labour market outcomes for the period 1996 to 2006 demonstrated that the occupation level demonstrating the greatest jobs growth (and thus reflecting labour market demand) was professionals, the occupation level that requires (for the most part) bachelor degree qualifications (Birrell, B et al. 2008).

Changes made to higher education policy specifically during the eleven years of the Howard coalition government included amendments made to the HECS loans scheme for students and a policy emphasis on increasing VET provision over higher education.

The mantra, pushed with more and more vigour as the resources boom took hold in the early years of the century, was that higher education was an indulgence which reflected parents' status aspirations for their children (Birrell, B & Edwards 2009, p.5).

In addition to a decline in government funded university places, the period was also marked by the growing lucrative international student enrolments, as outlined in chapter four. Revenue from international student enrolments and higher HECS fees increasingly made up the shortfall in government funded spending within the sector (Bradley et al. 2008, p.148). In 2005 the HECS contribution system was rebadged HELP (Higher Education Loan Program) and a new fee structure was introduced whereby courses that would lead to employment in certain high earning professional occupations such as law and medicine attracted higher contributions. The availability of full fee courses was also introduced, that is students who missed out on a Commonwealth funded place but achieved entry requirements could undertake that course by paying the full fee level.

10.8.2 Higher education during the Rudd era (2007-2010) and the Bradley Review

Increasing higher education participation had been a key policy change platform for the incoming Rudd government when in opposition, and in March 2008 the then Education minister Julia Gillard commissioned Professor Denise Bradley to undertake a review of the Australian higher education system. *The Bradley Review* (as it became known), released in December 2008 was ‘...underpinned by a predominantly economic rationale that tied higher education to workforce productivity and skills shortages’ (Kayrooz & Parker 2010, p.168).

A key policy change made to higher education as a result of *The Bradley Review*’s recommendations was to ‘uncap’ student places at Australian universities. This was a response to data contained in the review demonstrating the proportion of 25-34 year olds holding bachelor degrees in Australia was 29% in 2006, leading the country to slip from seventh to ninth amongst OECD nations in terms of university level educational attainment over the previous ten years. Labour market forecasts, undertaken by economics house Access Economics as part of the Bradley Review into future demand for workers holding university qualifications, suggested a much higher proportion of the 25-34 year old age cohort with university qualifications would be required to fill labour demand in 2025. In response to this the Rudd government set the ambitious target of 40% of 15-35 year olds holding degree qualifications by 2025. In order for this target to be achieved, the Rudd government introduced a policy of ‘uncapping’ of student places, leaving Australian universities free to enrol as many students as they wished, provided the students met entry criteria such as ATAR scores (which the reform of uncapping places had rendered less relevant).

This key change was to begin in 2010 and be fully implemented by 2011. More immediately however, in 2008 the Rudd government made certain courses in education, health (particularly nursing, but also clinical psychology, veterinary studies, dental and medical studies) and engineering ‘special interest’ courses – due to the by then well publicised labour shortages in those particular fields, (although the student contribution for teaching and nursing courses had already been ‘frozen’ in 2005 under the Howard government to stimulate demand in these courses).

Chart 10.8.1 on completions from Victorian universities demonstrates the low level of growth for undergraduate courses, particularly between 2001 and 2008 when completions grew at a compound annual growth rate (CAGR) of 1.1%.⁷ Undergraduate completions began to increase

⁷ I have used graduates from Victorian universities to illustrate labour supply at the Victorian state level. Australian university students, unlike their British and American counterparts, have low levels of relocation when undertaking their studies, as King and James (2013) note ‘Australia is a large continent with a dispersed population and university students have shown little interest in interstate mobility for the

more obviously from 2008 onwards. Numbers of graduates began increasing more considerably in 2011 and 2012, who would have been the first university enrollees under the Rudd government reforms made in 2008, when the special interest courses were first implemented. Completions of 2012 were the first enrollees under the ‘uncapped system’, fully implemented by 2011, and the higher number of completions in 2011 and 2012 can be attributed to this policy change.

Chart 10.8.1 Number of completions from Victorian universities/higher education providers for domestic students, 2001-2012

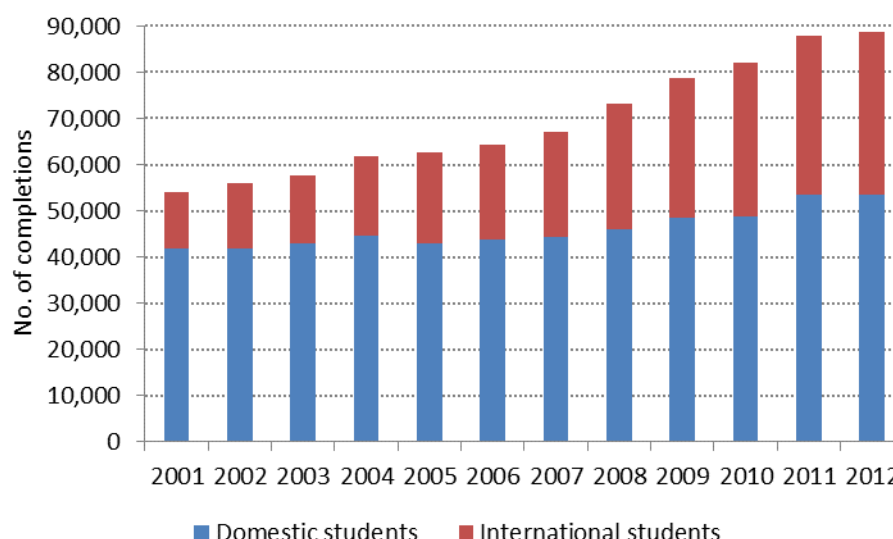


Source: Department of Education and Training 2014, *Student Data: Selected Higher Education Statistics – Time Series Data and Publications*, Australian Government, viewed 5 May 2014, <<http://www.education.gov.au/selected-higher-education-statistics-time-series-data-and-publications>>

purposes of higher education participation. The market in higher education and the competition for students is thus played out in a localised context, usually in the major capital cities and often only between a handful of universities.’ (King, C & James 2013, p.13) A report in 2000 undertaken by demographer Graeme Hugo addressing the interstate migration of South Australian graduates and the ensuing ‘brain drain’ reported that 93.2% of Victorian graduates find work in Victoria (Hugo et al. 2000, p.82).

Chart 10.8.2 also demonstrates the continuing expansion of international education provision in the Victorian higher education system, growing from 25% of all completions in 2001 to 40% by 2012.

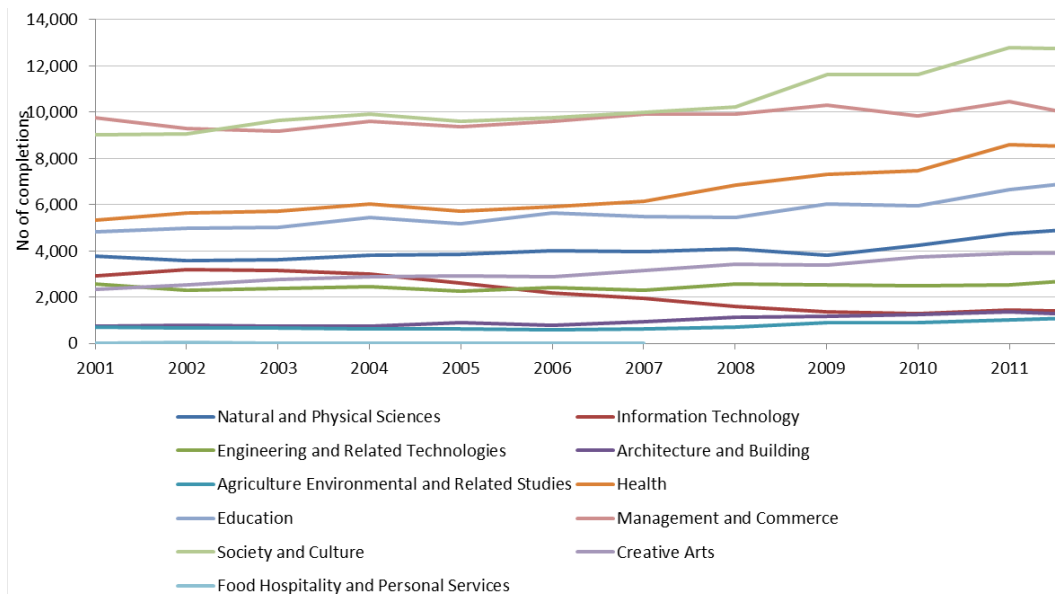
Chart 10.8.2 Number of completions from Victorian universities/higher education providers for domestic and international students, 2001-2012



Source: Department of Education and Training 2014, *Student Data: Selected Higher Education Statistics – Time Series Data and Publications*. Australian Government. viewed 5 May 2014.

Chart 10.8.3 demonstrates the numbers of domestic undergraduate completions in Victorian universities under the various broad field of study categories. While no single category grew to any considerable level between 2001 and 2007, completions for health courses began to increase from 2007 onwards (driven by nursing and medical studies completions), education, creative arts (led by communication and media studies and graphic design studies) and society and culture (studies in human society, arts and behavioural science) completions also began to increase from 2008. As mentioned earlier, education and health related courses were subject to special conditions as the 2000s continued in order to attract greater numbers of students with a view to ultimately boosting labour supply, such as increasing the number of Commonwealth funded places and lower HECS/HELP fees. Completion levels for management and commerce studies and engineering and related technologies largely stayed at the same level over the period, and information technology completions declined consistently from 2004 before levelling from 2010 onwards.

Chart 10.8.3 Number of domestic completions for undergraduate by broad field of study from Victorian universities, 2001-2012



Source: Department of Education and Training 2014, *Student Data: Selected Higher Education Statistics – Time Series Data and Publications*, Australian Government, viewed 5 May 2014, <<http://www.education.gov.au/selected-higher-education-statistics-time-series-data-and-publications>>

10.9 Australian skilled migration

Migration has also been central to the economic story of Melbourne, from the population boom that occurred after the gold rush and the ‘Marvellous Melbourne’ era, to the post war tariff protected economy with its emphasis on building the manufacturing labour force (and population) of the nation.

We have seen in Chapter Five of this study the importance of the burgeoning international education market to the Melbourne economy throughout the 2000s, both in terms of the generous contribution international students have made to the Victorian economy (apparent in Victoria’s services export statistics) and also in a spatial sense, where their impact has been most keenly felt in areas such as the central city, with its high international student population increasing residential housing demand and occupancy, as well as fuelling demand for other services and activities such as hospitality and entertainment services.

Policies regarding both international education and migration in Australia became entwined in the late twentieth and early twenty-first centuries. The 1990s saw a shift in Australia’s migration policies and systems away from family (reunion) migration and towards skilled migration, in order to address labour market problems such as skill shortages and to begin to offset the looming economic and demographic consequences of Australia’s ageing population.

Australia's 'two step' skilled migration system was introduced by the Howard government in 1997. The term 'two step' refers to the gaining of study visas for international students to study at Australian universities (step one), followed by application of permanent residency upon completion of the Australian degree (step two). Under the points system used throughout 1997-2011, extra points were awarded to overseas students applying for permanent residency who completed an Australian qualification in a subject area listed under the Migrant occupation in demand list (MODL), introduced in 1999, followed by the Critical skills list (CSL) introduced in 2008 (Hawthorne 2008). Under this General skilled migration (GSM) system, skilled migration applicants who had completed courses in Australia were able to apply for residency as they remained in the country – previously they had been required to apply offshore (Phillips, J & Spinks 2012).

10.9.1 Global demand for knowledge workers – the race for talent

The increasing movement of professional workers around the globe has been interpreted as one consequence of globalisation (Appadurai 1996). Iredale (2001) has previously outlined the theories of professional migration: human capital theory asserts simply that people will relocate to find employment and wages most appropriate to their formal education training. A structuralist neo-Marxist macro level interpretation allows for the impact of rich core and peripheral geographical networks. By 1989, Salt and Findlay argued for a framework that would include such elements as the NIDL, as well as '...the nature of careers, the role of intra-company labour markets and the lubrication provided by recruitment and relocations agencies (Iredale 2001, p.9).

By 1995, a third theoretical stream had emerged known as the 'structuration' approach, whereby it was argued that private capital and the state engage in recruitment to fill labour market needs (in addition to individual and organisational agents that provide the employment opportunity motivating migration), directly recruiting workers and exerting indirect control over this by setting the qualifications required for employment (Goss & Lindquist 1995). Iredale also asserted in 2001 that bilateral and multilateral trade agreements increasingly served to facilitate the flow of international labour, with such state and regional level agreements serving as 'lubricators' to speed up industry led labour market and skills outcomes. 'The policies are important although it is now clear that flows are being driven largely by industry and market requirements (Iredale 2001, p.9).

Linking the higher education system to the migration system has become a common method for many developed world economies (for example, Canada, the USA, Australia and New Zealand) to offset a series of labour market, economic development, skill shortage and population growth issues, and reflects a broader development in the global movement of skilled workers. (Shachar

2006) posit that the effect of linking higher education and skilled migration is four-fold: it serves to offset fertility declines in developed nations; it meets labour and economic demand for (ever-greater) numbers of highly skilled workers; it provides a ready supply of graduates for home countries employment needs (and graduates who are already reasonably familiar with the relevant society and culture having studied there for the previous three to four years) and finally, using the prospect of potential permanent residency has become a key recruitment tool in the increasingly competitive international student market.

10.9.2 Skilled migration and international education in Victoria over the 2000s

Australia (and Victoria) experienced record migration growth throughout the period 2001 and 2011, fuelled by the buoyant economy and generous skilled migration policies set in place by the Howard government in 1997, largely continued by the Rudd government from 2007 onwards. Both Victorian Labor Premiers Steve Bracks and John Brumby were known as supporters of high immigration intakes into the state, believing strongly in the economic benefits of population growth. The high population growth figures were also welcome after the period of economic downturn in the 1990s, when net migration out of the state occurred (Searle & O'Connor 2013).

Trade based occupations were placed on the MODL in 2005, leading to a substantial increase in enrolments in VET sector courses in hospitality and personal services, courtesy of the placement of chefs and hairdressers on the MODL. Student numbers in these courses began to increase dramatically (Birrell, B, Healy & Kinnaird 2007; Hawthorne 2010), with the issue erupting in 2009 after violent incidents involving Indian international students sparked demonstrations in Sydney and Melbourne and led to public attention being drawn to the issue via the Australian and international media. A review of the skilled migration system was undertaken in 2008 under the Rudd government, led by the then Migration Minister, Senator Chris Evans. This saw the level of skilled migration scaled back, partly in light of the GFC and the perceived need to protect local workers and jobs. The MODL was replaced with the Critical skills list (CSL) which largely excluded trades related occupations and focused on professional occupations, and heralded a move towards a more 'demand driven' system, whereby employer sponsored visas were given greater priority (Phillips, J & Spinks 2012, p.4). Chart 9.9.1 demonstrates the considerable growth in general skilled migration (GSM) applications in Victoria, with numbers between 2,200 and 2,400 towards the end of the 1990s before expanding considerably after 2000-2001, and peaking at 13,986 in 2007-2008. The growth in skilled migrant applications over this time was in the skilled independent category. Estimates made by Koleth (2010) suggest that half of these were on-shore applications (for example previous international students). The effect of the programme changes made after the GFC can be seen, as the numbers fell over 2008-2009 and particularly in 2009-2010, but in recent years the numbers have

increased once more. The effect of the Evans era policy changes can be seen with an increasing proportion of skilled visas falling under the ‘employer sponsored’ category from 2010 – 2011 onwards, (and to a lesser extent the Business innovation and investment category), so much so that that this category achieved almost the same proportion of applicants (29.9%) as the skilled independent category (30.0%) by 2012-2013.

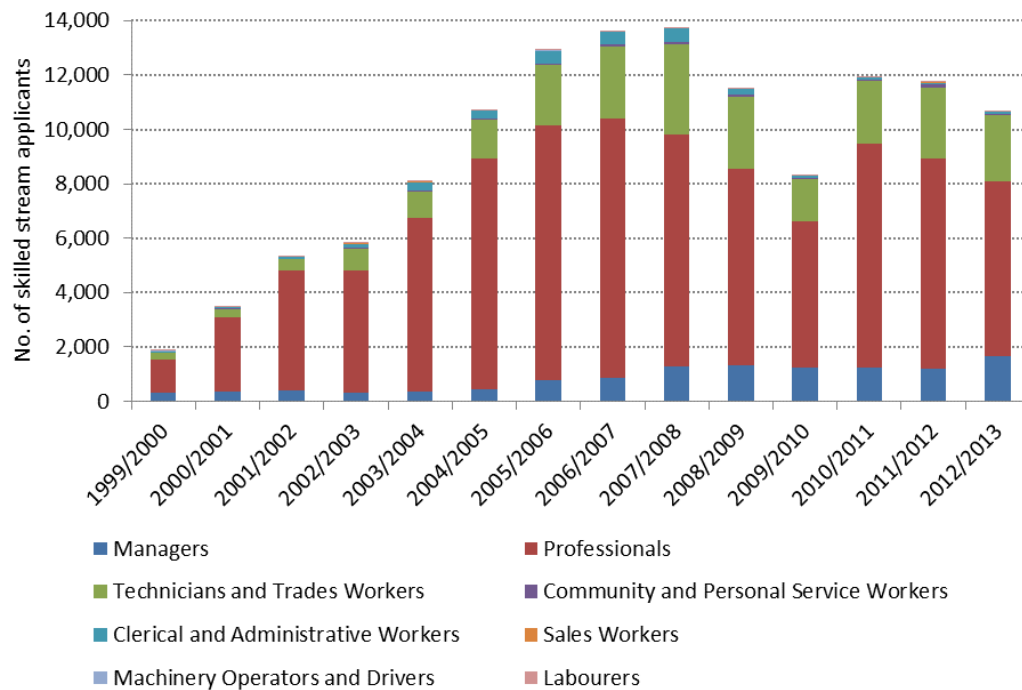
Chart 10.9.1 Migration programme outcome Skill Stream Primary Applicants (Principal) by category, Victoria, 1996-97 to 2012-13



Source: Department of Immigration and Border Protection

Chart 10.9.2 on major occupation groups of Victorian skilled stream applicants demonstrates that professional workers comprised the vast majority of skilled migrant applicants, even in the midst of the MODL era of the financial years (FY) 2005 to 2009, when hairdressers and cooks were placed on the skilled migrant list and there was a subsequent dramatic increase of students in the VET system seeking to qualify and gain permanent residency. Professional occupations averaged over 60% between FY 2001 and FY 2012, going as high as 73% and 71% over 2004-2005 and 2005-2006.

Chart 10.9.2 Number of Victorian skilled stream applicants by major occupation group category, 1999-00 to 2012-13



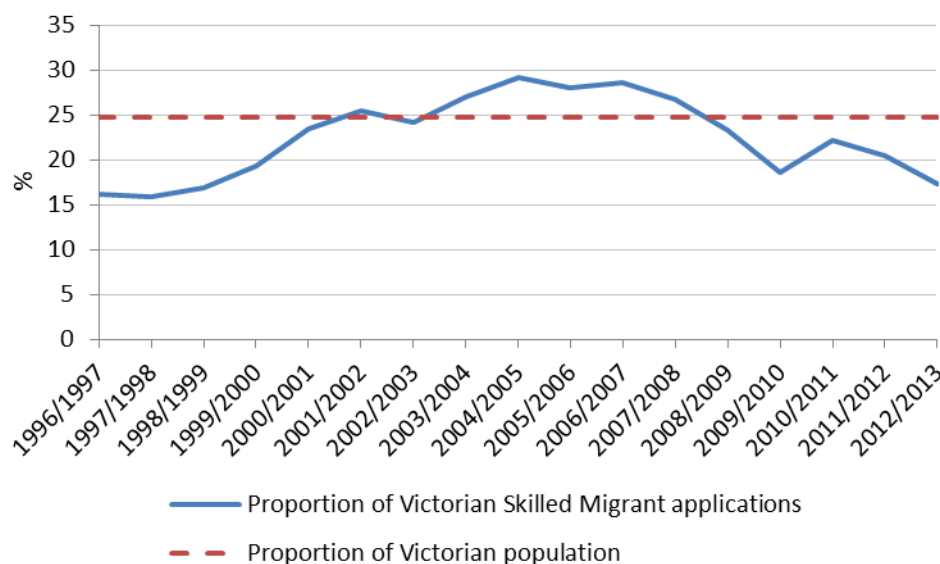
Source: Department of Immigration and Border Protection

Previous research into Australian migration patterns has established the tendency for most recent migrants to Australia to settle in the two major capital cities, Sydney and Melbourne. This has been a long standing pattern (Hugo 2008, pp.556-557). Regional skills visa schemes were administered by various state level governments throughout the 2000s in order to bolster regional populations and industries while filling labour shortfalls. Such a scheme was also administered with enthusiasm in Victoria, whereby the skilled regional visa stream grew over the period 2000-2001 to 2006-2007 when it peaked at 8,678 applicants. However, further studies indicate such programs are largely unsuccessful in terms of luring recent migrants away from the major capitals to settle in often depopulating regional areas (Hugo 2008, p.569; Tran, Roos & Giesecke 2012).

Chart 10.9.3 demonstrates the high numbers of skilled stream migrants to Victoria over the period 1999-00 to 2012-2013. The number of skilled migrants to Victoria rose steadily from 2002 to 2003 and reached its zenith over 2006-2007 and 2007-2008, when there were just under

14,000 skilled migrant applications.⁸ Victoria accepted a greater than its population share (24%) of Australian skilled migrants from 2002-2003 through to 2007-2008.

Chart 10.9.3 Share of Victorian skilled migrant applications against Victoria's share of Australia's population, 1996-1997 to 2012-2013



Source: ABS 2013, *Australian Demographic Statistics*, cat. no. 3101.0 Australian Bureau of Statistics, Canberra and Department of Immigration and Border Protection

The next section of analysis examines the labour market outcomes within Greater Melbourne for knowledge workers over the period 2001-2011, together with the spatial change experienced across the city in relation to the densities of these workers over the same time.

10.10 Labour market outcomes in Greater Melbourne for professional occupations, 2001-2011

There are some difficulties in calculating change in professional occupation employment over the ten years from 2001 to 2011, due to changes made in 2006 to the occupation classification system, from the 1993 ASCO classification system to the 2006 ANZSCO classification. Where applicable (for example the same 4 digit occupation has been maintained in the two systems), data from the 2001 Census using the ASCO classification system has been used to examine employment change over the ten years. In the case of engineering occupations, some grouping has taken place in order to create ten year comparisons for the various sub occupations. In the case of Information communication technology (ICT), comparisons are most easily drawn at a

⁸ These figures are for principal applicants. The boost to the residential population is much greater than the figures used here, as dependents (e.g. spouses and children) accompanying the principal applicant can increase the figures considerably. For example, there were 13,986 principal applicants to Victoria under the skilled migrant stream in 2007-2008, but including dependents the figure was 27,101.

three digit ‘ICT workers’ level for a comparison spanning the ten years, but at a more detailed 4-digit level, only the 2006 and 2011 data has been used.

Table 10.10.1 establishes the top ten 4 digit professional occupations in Melbourne taken at the most recent Census (2011). *Registered nurses have the greatest numbers, followed by accountants and primary school teachers.* Other education professionals (secondary school teachers and university lecturers and tutors) also have high numbers of workers. While education and health professionals were integral to Melbourne and Victoria’s larger labour market story throughout the 2000s⁹, I have exempted health and education occupations from further analysis in this chapter. This is due their status as population service industry occupations, where most employment is based throughout the residential population area.

Table 10.10.1 Top ten 4 digit Professional occupations in Greater Melbourne, 2011

	Occupation	No. employed
1	Registered nurses	36,623
2	Accountants	31,961
3	Primary school teachers	24,037
4	Secondary school teachers	24,002
5	Software and applications programmers	16,630
6	Management and organisation analysts	12,654
7	Advertising and marketing professionals	12,262
8	Human resource professionals	11,059
9	Solicitors	10,944
10	University lecturers and tutors	10,463

Source: ABS Census 2011

The data in Table 10.10.2 provides a picture of growth for knowledge worker professions in Melbourne over the period 2001 to 2011. The table indicates certain occupational groups such as engineers (Civil; Other; and Industrial, mechanical and production) and ICT professionals (ICT business systems analyst) categories experienced high levels of growth within either one of the 2001-2006 or the 2006-2011 intercensal periods, while solicitors employment grew to such an extent over the entire ten year period that their number nearly doubled from 5,987 in 2001 to 10,943 by 2011.

⁹ Occupations within both these professional groups were in high demand throughout the decade and were subject to a number of policies to boost their supply, such as nurses and doctors appearing as ‘skills in demand’ on the MODL/CSL and attracting lower HECS-HELP fees in an effort to increase attractiveness of their courses to undergraduates.

Table 10.10.2 Selected 4 digit Professional occupations employment change in Greater Melbourne, 2001-2011

	2001	2006	2011	Change 01-06	Change 06-11	Change 01-11	CAGR change 01-06	CAGR change 06-11	CAGR change 01-11
Accountants	24,888	27,650	31,861	2,762	4,211	6,973	2.13%	2.88%	2.50%
Legal Professionals	7,345	9,684	12,825	2,339	3,141	5,480	5.68%	5.78%	5.73%
Solicitors	5,987	8,146	10,943	2,159	2,797	4,956	6.35%	6.08%	6.22%
Barristers	1,358	1,538	1,882	180	344	524	2.52%	4.12%	3.32%
Engineers	11,439	16,984	20,531	5,545	3,547	9,092	8.23%	3.87%	6.02%
Civil engineers	3866	3869	5775	3	1,906	1,909	0.02%	8.34%	4.09%
Electrical and electronics engineers	3261	2121	2674	-1,140	553	-587	-8.24%	4.74%	-1.97%
Industrial, mechanical, production engineers	2865	4097	4688	1,232	591	1,823	7.42%	2.73%	5.05%
Chemicals and materials engineers	638	453	480	-185	27	-158	-6.62%	1.16%	-2.81%
Mining and petroleum engineers	109	206	400	97	194	291	13.58%	14.19%	13.88%
Other engineers	700	1221	1458	521	237	758	11.77%	3.61%	7.61%
Engineers nfd		5017	5056	-	39	-	-	0.15%	-
IT workers	34,615	37,636	47,525	3,021	9,889	12,910	1.69%	4.78%	3.22%
Software and applications programmers	-	14,194	16,631	-	2,437	-	-	3.22%	-
ICT professionals, nfd	-	5,340	7,941	-	2,601	-	-	8.26%	-
ICT business and systems analysts	-	4,150	6,109	-	1,959	-	-	8.04%	-
Database and systems administrators, and ICT security specialists	-	4,659	5,650	-	991	-	-	3.93%	-
Computer network professionals	-	4,032	4,388	-	356	-	-	1.71%	-
Telecomms engineering professionals	-	1,979	2,499	-	520	-	-	4.78%	-
Multimedia specialists and web developers	-	1,365	2,048	-	683	-	-	8.45%	-
ICT support and test engineers	-	1,670	1,864	-	194	-	-	2.22%	-
Business and systems analysts, and programmers, nfd	-	144	252	-	108	-	-	11.84%	-
ICT network and support professionals, nfd	-	103	143	-	40	-	-	6.78%	-
Architects	3,321	3,993	5,091	672	1,098	1,770	3.75%	4.98%	4.36%
Financial dealers and brokers	8,005	7,192	7,461	-813	269	-544	-2.12%	0.74%	-0.70%
Financial advisors	4,787	6,809	7,475	2,022	666	2,688	7.30%	1.88%	4.56%
Management and organisation analysts	8,347	9,226	12,631	879	3,405	4,284	2.02%	6.48%	4.23%
Advertising and marketing professionals	7,888	9882	12,262	1,994	2,380	4,374	4.61%	4.41%	4.51%
Human resources professionals	6,654	9,051	11,059	2,397	2,008	4,405	6.35%	4.09%	5.21%

Source: ABS Census 2001, 2006, 2011

The employment growth of key professional occupations connected to knowledge workers and

economies in Melbourne over the period 2001 to 2011 will now be analysed in greater detail. This section will focus on the levels of jurisdictional control these professions have in the Australian and Victorian context, employment change, and labour demand and supply issues they faced. This section also examines where these occupations are employed in the city, and what areas of the city felt any growth or decline over the decade.

10.11 Accountants

10.11.1 The accountancy profession in Australia

In Australia, there is no legislative or regulatory requirement for the use of the term ‘accountant’. It is possible for the holder of a bachelor degree in accounting to call themselves an accountant. However, there is a widely accepted labour market requirement, albeit un-legislated, that the individual must be a member of an accountancy professional membership organisation in order to practice as an accountant. The two main professional membership organisations for accountants in Australia are the Certified Practising Accountants Australia (CPA Australia) and the Institute of Chartered Accountants Australia (ICAA).

In the case of CPA Australia, in order to achieve ‘designation’, an individual is required to hold a bachelor degree in an accredited course which has the necessary core CPA knowledge requirements. The individual is then eligible for a member assessment, which determines whether they can start the professional level CPA course. The professional level course comprises of six segments, and in the event that an individual does not hold a bachelor degree in a CPA accredited course (but has attained, for example, a broader commerce, finance or economics degree) they must also undertake a series of ‘foundation’ level units, followed by the six professional level segments. According to a CPA representative interviewed for this study, the process can take up to six years, although it is possible to complete it in three years. The individual must also complete three years of practical experience. Having achieved the status of designated CPA accountant, members are required to pay an ongoing membership fee, as well as undertake professional development activities of at least 120 hours over three years inclusive of at least 40 hours in any one year.

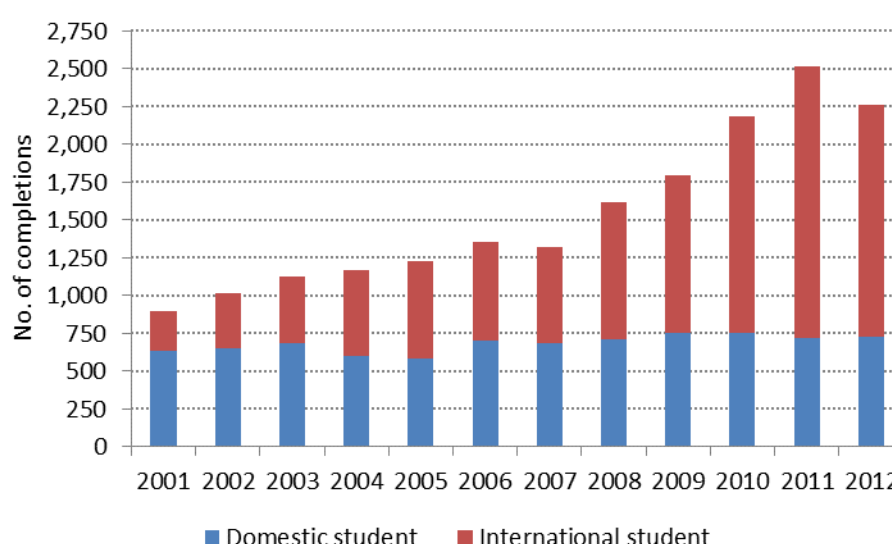
In this example of a Certified Practising Accountant, the lengths to which the profession exerts jurisdictional control can be seen – the degree is not enough, one must undertake further units of study and have 3 years professional experience, and then undertake ongoing professional development. All this in order to gain designation and call yourself a CPA accountant when no such regulation or legal requirements exists! It is a reflection of the high cultural value attached to the profession by the labour market and broader society.

In the 2011 Census, accountants were the second largest of all 4 digit level professional occupations in Greater Melbourne after nurses, with employment at 31,861 workers, up from 24,888 in 2001 or a CAGR of 2.5% over the ten years. The proportion of accountants working in the corresponding industry of Accounting services was 41.7% in 2011, barely changing from the 41.5% proportion in 2006. Outside of Accounting services, the next largest 4 digit industries employing accountants were Other auxiliary finance and investment services, Banking, Management advice and related consulting services, Computer system design and related services and State government administration. However, this collection of sub industries accounts for only 53% of all accountants employed in Greater Melbourne, with the remainder employed in smaller numbers and proportions across a vast range of sub industries engaged in all aspects of the city's economy, demonstrating the universality of the profession to the economy and workplaces as a whole.

10.11.2 Labour supply of Accountants

Completion rates for accountancy courses in Victoria over the 2000s, growing at a CAGR of 1% between 2001 and 2012, indicate there was stagnating demand. In contrast, student completions for international students grew at a CAGR of 17%. The expansion of international student accounting completions from 260 in 2001 to 1,527 by 2012 saw the proportion of international undergraduate students completions grow from 29% of the total in 2001 to 67%, or over two thirds, by 2012.¹⁰

Chart 10.11.1 Number of accounting field of study undergraduate completions from Victorian universities, 2001-2012

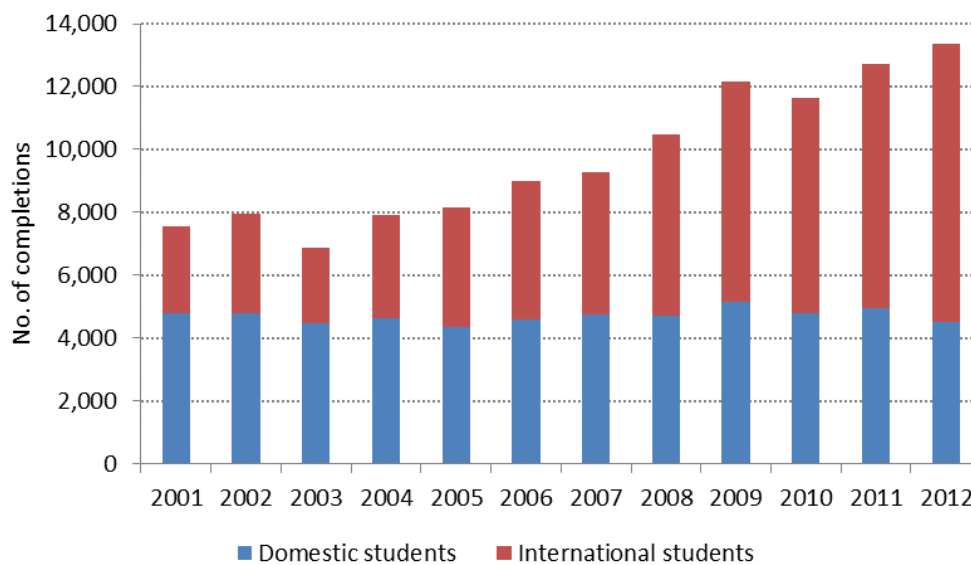


Source: Department of Education and Training

¹⁰ These state level figures reflect a national pattern and the issue reported on in the Australian Financial Review in the context of moves to remove accountants from the Skilled Occupation List for Migrants (Tadros & King 2014).

Other business, management and commerce related undergraduate courses that contained a component of accounting show a similar decline in domestic student completion, and rapid growth of international student completions. For these courses, domestic student completion declined by 1% CAGR over the period 2001-2012, while international student completion increased by 11% CAGR over the same time. Thus international student completion in these courses grew from 36% of the total completions in 2001 to 66% by 2012.

Chart 10.11.2 Number of commerce, business and management field of study undergraduate completions from Victorian universities, 2001-2012*

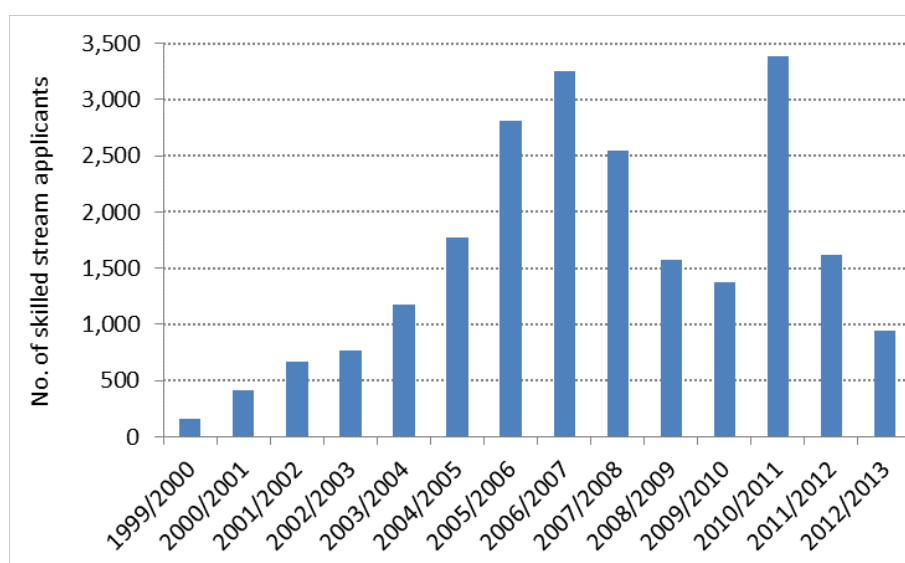


*Note: combines Management and commerce, business and management and other Management and commerce small area fields of study.

Source: Department of Education and Training

10.11.3 Accountant skilled migration levels

Chart 10.11.3 Number of Accountants in the Victorian skilled stream, 1999-00 to 2012-13



Source: Department of Immigration and Border Protection

Accountants were placed on the MODL throughout much of the 2000s. Chart 10.11.3 shows a steady increase in accountants applying for skilled stream visas in Victoria from 1999-2000 to 2006-2007, followed by a fall in 2009-2010. Numbers spiked again in 2010-2011, around the time of MODL/CSL changes, perhaps showing a surge on the part of relevant accountancy qualified residency applicants before changes to the scheme were introduced the following year. In more recent years the numbers have again fallen.

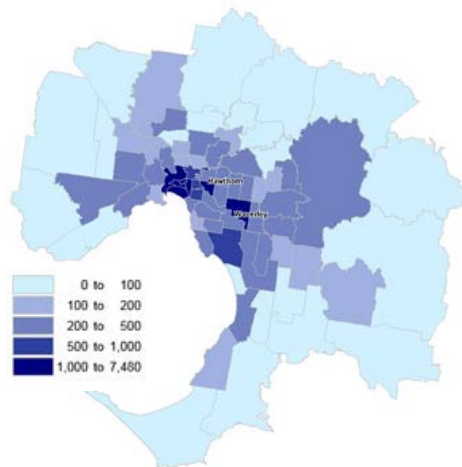
Research undertaken by Jackling (2007) indicates there was some discrepancy between the standard of Australian training of overseas accountancy graduates and their post study employment expectations, with graduates feeling they were often overlooked for employment in Australia after graduation. Jackling's research indicated employers felt their English language skills were not sufficient for the rigours of the large accountancy firms, which is in line with similar studies into labour market outcomes for recent accountancy qualified migrants (Birrell, R & Rapson 2005).

10.11.4 Location of accountants in Greater Melbourne, 2001-2011

Spatially, the employment pattern of accountants demonstrates a high concentration in the city centre followed by the inner eastern suburb of Hawthorn and the outer eastern suburb of Waverley, (where there is a high level of manufacturing and retail activity, as well as the education and health-related Monash University and Medical precinct). The map demonstrating change between 2001 and 2011 shows the greatest growth in the city centre, followed by the Southbank-Docklands precinct and the inner eastern suburbs, spreading over to the Waverley

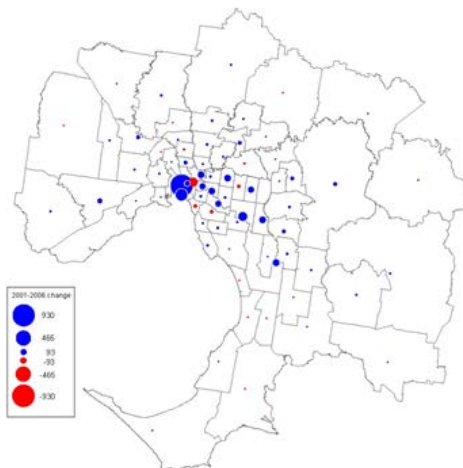
area. Certain eastern and northern SLAs experienced a decline in the number of accountants working there, reflecting broader industry declines in those areas.

Map 10.11.1 Accountants employment, Greater Melbourne, 2011



Source: ABS 2011

Map 10.11.2 Accountants employment change, Greater Melbourne, 2001-2011



Source: ABS 2001, 2011

10.12 Legal Professionals

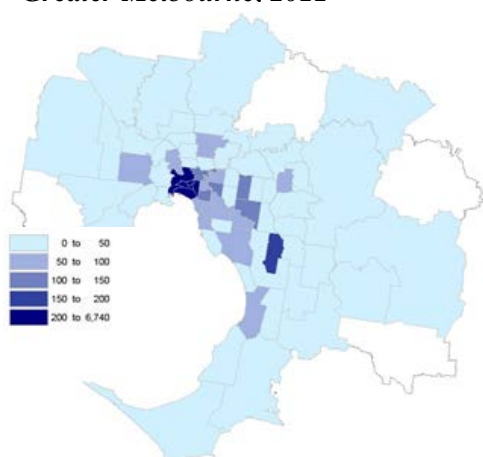
10.12.1 Legal professionals in Australia

Australia's legal system reflects the British (Common Law) system and is comprised of solicitors and barristers. The legal profession displays a high degree of what sociologists would term social closure: in order to work as a lawyer in Victoria, a candidate needs not only a relevant degree in law, but also must complete a year of 'articles' (working as a clerk for a year for a practising lawyer), before qualifying to become a member of the Law Society of Victoria. In order to become a barrister one must also pass an exam after completing a relevant course. Current membership of the relevant state Law Society is required in order to practise as a barrister and/or solicitor in Australia. Thus there are considerably high barriers to entry: legal professionals have a high level of jurisdictional control in keeping with accountants as described earlier. Broader sociological studies of these professions in the American and British context attribute this to the longevity of the professions, as their continuing existence over the centuries have allowed such 'social closure' practices to develop (Abbott 1988; Macdonald 1995).

10.12.2 Labour market outcomes and locations of lawyers in Greater Melbourne, 2001-2011

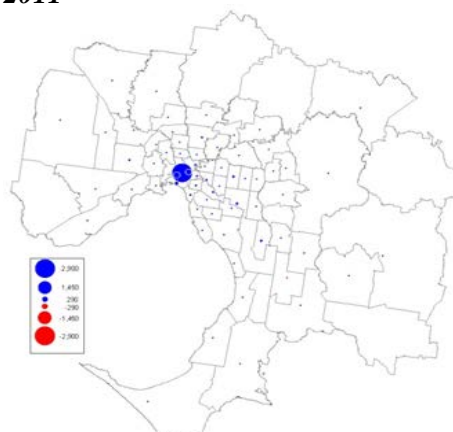
The period 2001-2011 saw a considerable increase in the number of lawyers, particularly solicitors employed in Melbourne. According to Census figures, solicitors employed in Greater Melbourne grew from 5,987 in 2001 to 10,943 in 2011, a CAGR of 6.22%. The number of barristers also increased but at lower rate, from 1,358 in 2001 to 1,882 in 2011 or 3.32% CAGR. The legal profession is highly concentrated – 77% of solicitors work in the Legal services industry (76% of Barristers also work within the Legal services industry). Of the solicitors working in Greater Melbourne, 72% are based in the City of Melbourne, and 67% based in the Melbourne-Inner SLA (or the city/Hoddle Grid). Barristers are even more highly concentrated – 84% of barristers working in Greater Melbourne were located in the Melbourne Inner SLA in 2011, largely due to the need to be in close physical proximity to the law courts.

Map 10.12.1 Solicitors employment, Greater Melbourne, 2011



Source: ABS 2011

Map 10.12.2 Solicitors employment change, Greater Melbourne, 2001-2011

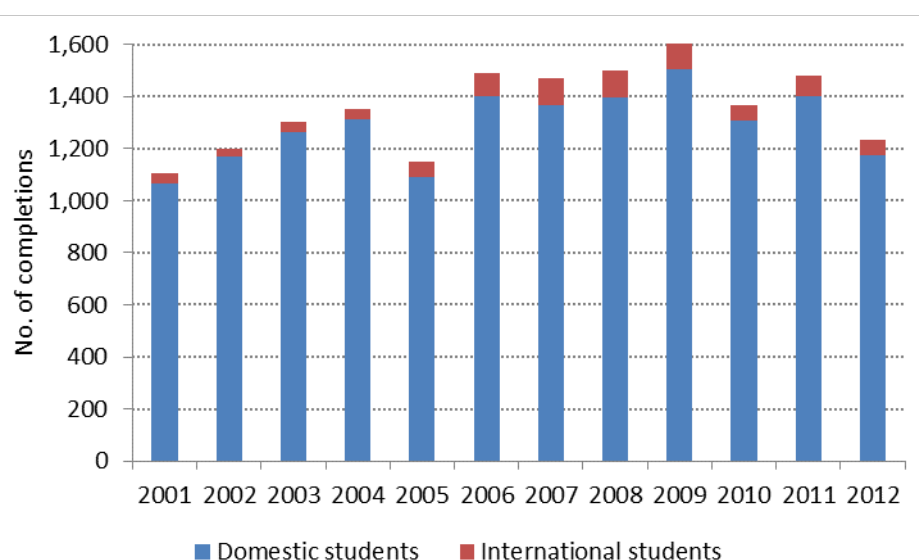


Source: ABS 2001, 2011

10.12.3 Labour supply of Lawyers

As noted earlier, requirements to operate within the legal profession go beyond the provision of a relevant law degree. As part of the Bachelor of Laws (LLB) program, Law Schools are required to conduct a core of 11 subjects – also known as the ‘Priestly 11’ – to satisfy the various state level Law Societies’ uniform admission rules (Daly, A 2012, p.446). While state level Law Societies regulate the profession, they have no hold over how many students universities enrol in the courses required for their potential future members. However, the degree is the first mandatory step towards becoming a lawyer, so it is worthwhile examining the state of law degree completions in Victoria over the period 2001 to 2011. Law occupations were not on the MODL or skills occupation list, there being no shortage of local labour supply for the legal occupations. Perhaps as a result of this, together with the legal occupations’ relatively limited international ‘portability’ (an Australian law degree is most recognisable/portable/useful in other ex-British colonies with similar, Common Law based legal systems for example New Zealand, Canada, Ireland, Malaysia, India, but of more limited use for jurisdictions based on civil codes such as within the European Union or United States) we can see in the chart below that the vast majority of law course completions were domestic students between 2001 and 2011. Law completions grew considerably between 2001 and 2009, increasing from 1,064 in 2001 to a peak of 1,505 in 2009, or a CAGR of 4%.

Chart 10.12.1 Number of law field of study undergraduate completions from Victorian universities, 2001-2012

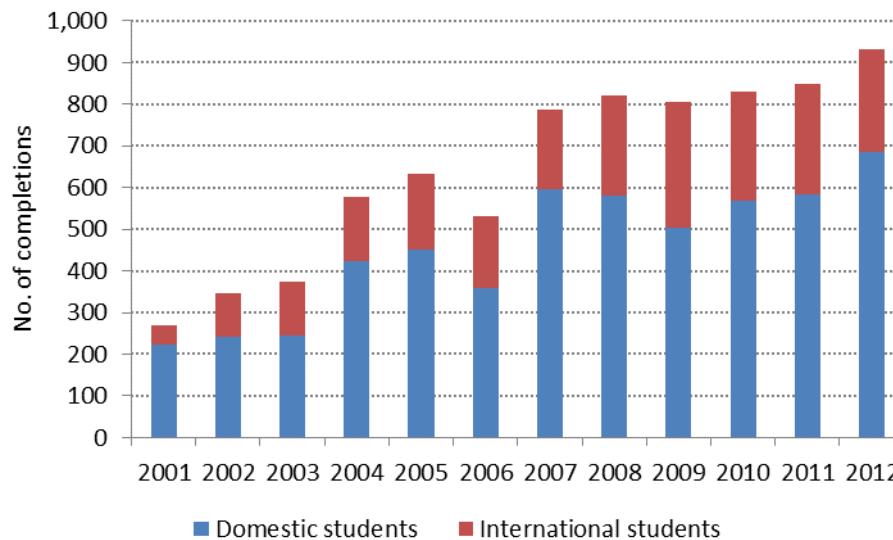


Source: Department of Education and Training

The advent of the ‘Melbourne model’ implemented by the University of Melbourne in 2008, whereby undergraduates were streamed into seventeen generalist undergraduate course, and law

courses delivered by the faculty became post graduate (Juris Doctor) courses, possibly explains the fall in undergraduate completions after 2009 (Schwab 2009). Chart 9.12.2 on postgraduate completions of law shows these also increased steadily for both international and domestic students throughout the 2000s. The peak figure of 685 domestic postgraduates in 2012 is perhaps a reflection of the Melbourne model changes introduced in 2008.

Chart 10.12.2 Number of law field of study postgraduate completions from Victorian universities, 2001-2012



Source: Department of Education and Training

Evidently there was considerable jobs growth and labour market need for legal occupations in Melbourne throughout the 2000s – the number employed as solicitors nearly doubled over the ten years (83% increase). In a study on the evidence of excess supply of legal qualifications in Australia, based largely on 2006 Census data, Daly (2012) found that while the proportion of the population holding legal qualifications has indeed increased since the 1980s, the labour market demand for legal professionals increased simultaneously, and that any difficulty law graduates experienced in gaining a foothold in the industry was more a result of labour market fluctuations affecting graduates in the economic cycle, rather than a surplus of law graduate supply. More recently, however, there has been media commentary examining the cooler labour market conditions for law graduates, and as the number of graduates continues to climb, some discussion that the market is becoming saturated with law graduates (Tadros 2014a, 2014b). In Victoria, Deakin, LaTrobe and Victoria Universities all increased the student intake in their relatively new law schools at both the undergraduate and post graduate level over the 2000s, joining the ‘traditional’ law schools within the University of Melbourne and Monash University. Explanations as to why these universities saw fit to establish law schools vary, although it was

often not based on labour demand so much as student demand and market positioning for the universities concerned (Pyke 2009, p.106).

10.13 Engineers

10.13.1 Engineers in Melbourne

Engineers have been important to the Melbourne story throughout the city's history: the gold rush-era mining boom; the many large infrastructure projects for road and rail transport overseen by the MMBW, as well as the state's manufacturing industry (industrial design, car companies) (Blainey 1993; Chambers & Mayne 2004; Lewis 1995). The premium that the then state government placed on engineering graduates and developing worthwhile career opportunities for engineers can be seen in the innovation and state development policies implemented throughout the Bracks/Brumby era, together with the STEM promotion policies outlined earlier in the chapter.

10.13.2 Labour market outcomes for engineers in Greater Melbourne, 2001-2011

Overall, engineers in the Greater Melbourne labour market grew from 11,788 in 2001 to 20,531 in 2011, or 6.02% CAGR. While the proportion of the profession that is employed within the corresponding sub industry (Engineering design and engineering consulting services) is relatively small, (30% in 2011), this has increased from 24% in 2006, indicating an increasing propensity for consulting and contracting services. After Engineering design and engineering consulting services, the second largest sub industry based in Melbourne employing engineers was Motor vehicle manufacturing at 5.74%, followed thereafter by a long list of sub industries across the government, construction, manufacturing and utilities sectors.

Table 10.13.1 Employment of engineers in Greater Melbourne by sub-occupation, 2001-2011

Engineering sub occupation	2001	2006	2011	Change 01-06	Change 06-11	Change 01-11	CAGR change 01-06	CAGR change 06-11	CAGR change 01-11
Civil engineers	3,866	3,869	5,775	3	1,906	1,909	0.02%	8.34%	4.09%
Electrical and electronics engineers	3,261	2,121	2,674	-1,140	553	-587	-8.24%	4.74%	-1.97%
Industrial, mechanical, production engineers	2,865	4,097	4,688	1,232	591	1,823	7.42%	2.73%	5.05%
Chemicals and materials engineers	638	453	480	-185	27	-158	-6.62%	1.16%	-2.81%
Mining and petroleum engineers	109	206	400	97	194	291	13.58%	14.19%	13.88%
Other engineers	700	1,221	1,458	521	237	758	11.77%	3.61%	7.61%
Engineers nfd		5,017	5,056		39			0.15%	
Total	11,439	16,984	20,531	5,545	3,547	9,092	8.23%	3.87%	6.02%

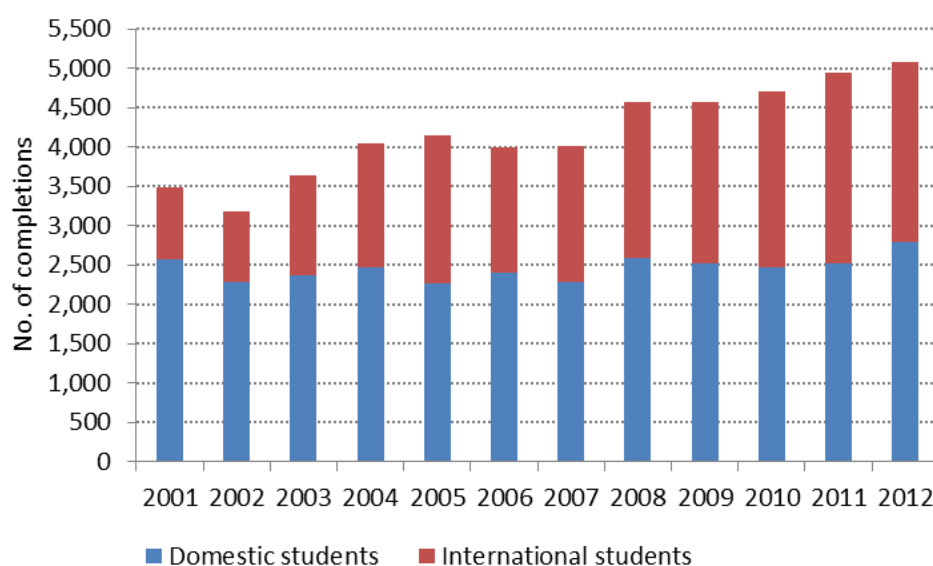
Source: ABS Census 2001, 2006, 2011

Breaking the engineering profession down into smaller sub occupations groups: Civil engineers comprise the largest sub occupation; followed by Industrial, mechanical and production engineers (reflecting the manufacturing activity based in Melbourne); Electrical and Electronics engineers (which often has an information technology focus); and Other engineers (comprising aeronautical, biomedical and environmental sectors). Some concordancing of these occupational groups took place between the 2001 and 2006 Censuses, when the 1996 ASCO changed to the 2006 ANZSCO. The 'not further defined' (nfd) category was calculated differently under the two systems and there are high numbers of engineers nfd for both the 2006 and 2011 Census. The changing sub occupation groups for engineers is a reflection of the many evolving needs of the city and its economy for engineers: a construction and infrastructure boom; a movement away from manufacturing activity; the growth and interest in renewable energy and the development of the biomedicine industry.

10.13.3 Labour supply of Engineers

The number of domestic engineering and related technology higher education course completions hovered around the 2,500 mark throughout the period 2001 to 2012. Domestic completions in these courses grew at a CAGR of 1% from 2001 to 2012, while international student completions grew at 9% CAGR over the same period, increasing their share of completing students from 26% of total Victorian undergraduate student completions in 2001 to 45% by 2012.

Chart 10.13.1 Number of completions for engineering and related technologies courses, 2001-2011, in Victorian universities/higher education providers



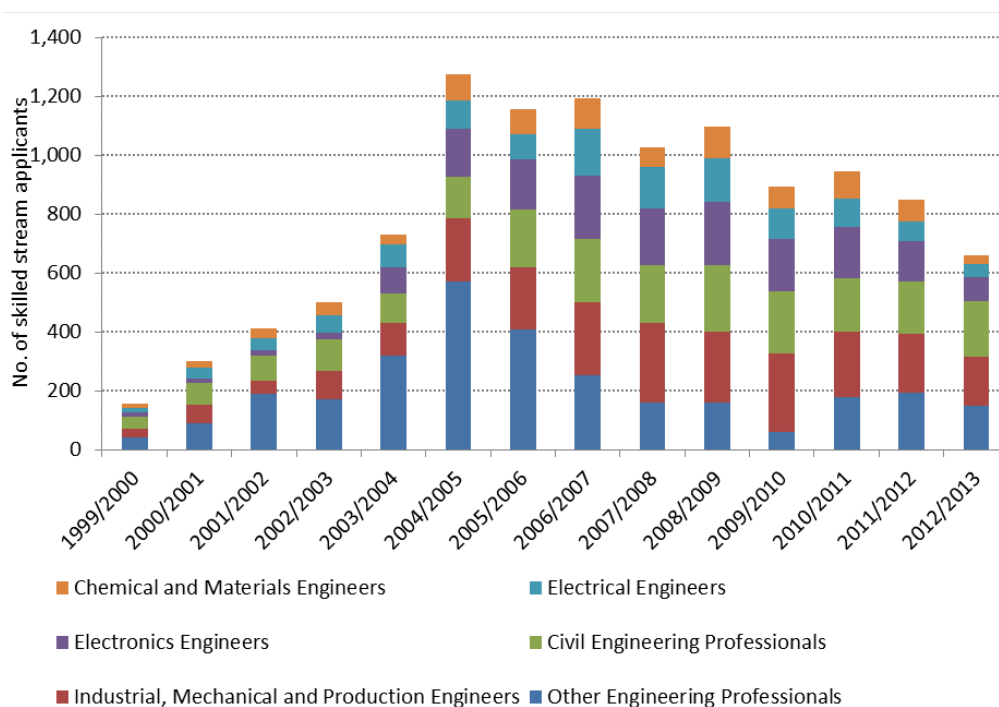
Source: Department of Education and Training

The failure to substantially increase the number of domestic student engineering course completions was the subject of a series of reports by government agencies and the like throughout the 2000s, particularly at the height of the mining boom, and also in light of the stated need for the occupation if Melbourne was to fulfil its destiny as a knowledge city with innovation-style industries (King, R 2008). Possible explanations for the flat lining number of graduates and subsequent new entrants to the labour market include: increasingly lower levels of mathematics and science students completing VCE (the Victorian secondary school completion certificate); the extreme sex imbalance, currently greatly skewed towards males; the pressing need to increase the appeal of engineering courses and careers to women and the need to reinvigorate the curriculum of undergraduate engineering courses (Kaspura 2013).

While the professional body, Engineers Australia, optimistically interpreted any increase in engineering course commencements and enrolments in their annual statistical reports throughout the 2000s as evidence of engineering gaining popularity, by 2013 the organisation seemed to

have become reconciled to the fact that such increases rarely translated into increases in completions, and even when completions increased it was to be short-lived. Attempts to increase student numbers, such as lowering the HECS-HELP fees for engineering courses in the 2000s, did not stimulate much further demand for the undergraduate courses. The sector has been reliant on skilled migrants for some time, and using the country of birth as an indicator of skilled migrants Engineers Australia pronounced the industry had passed a ‘watershed’ moment by 2011, as the Census results indicated more than half of all working Australian engineers were overseas born (Kaspura 2013).

Chart 10.13.2 Number of Engineering professionals in the Victorian skilled stream, 1999-00 to 2012-13



Source: Department of Immigration and Border Protection

Chart 10.13.2 illustrates engineers were placed on the MODL in 2005, heralding a spike in the applications that financial year. Numbers began to drop off in 2008-2009. Over the years the number of engineer skilled migrants has been spread across the sub occupational groups, with no one sub occupation standing out, save for ‘other’ engineers in 2004-2005.

One method to calculate the growing number of recently arrived skilled migrants working as engineers in Melbourne is to establish the year of arrival through the migration questions at the last Census, as opposed to calculating the country of birth (which may be casting the net a bit too wide). Using this function, Table 10.13.2 establishes the proportion of the various engineer sub occupations and gives the numbers working as engineers in 2011 who arrived in Australia after the year 2000. Using this methodology; Civil, Electrical, Electronics, Mining and

Industrial mechanical and production engineers all had over 20% of their populations arrive in Australia since 2000.

Table 10.13.2 Year of arrival for Engineers employed in Greater Melbourne, 2011

	No employed in Greater Melbourne 2011	No arrived since 2000	% arrived since 2000
Engineering professionals nfd	5,054	888	17.57
Chemical and materials engineers	479	82	17.12
Civil engineering professionals	5,774	1,280	22.17
Electrical engineers	1,838	484	26.33
Electronics engineers	842	194	23.04
Industrial, mechanical and production engineers	4,686	1,043	22.26
Mining engineers	403	94	23.33
Other engineering professionals	1,460	244	16.71
Total	20,536	4,309	20.98

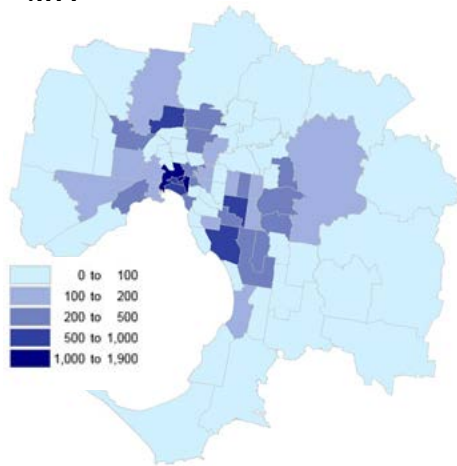
Source: ABS Census 2011

10.13.2 Location of Engineers in Greater Melbourne

Map 10.13.1 demonstrates that the majority of engineers work in the city centre, but this is not as concentrated as accountants or lawyers. There are considerable densities of engineers in the Broadmeadows/Campbellfield and surrounding suburban industrial areas in the North West, and the Kingston and Monash areas in the south east.¹¹ In terms of change, the three City of Melbourne SLAs had the greatest increases of engineers, and to lesser extent SLAs encompassing the Western ring road and parts of the east and south east. With the increasing proportion of engineers working in 'Engineering services' (together with the impending closure of suburban based car manufacturing plants in the Broadmeadows, Fishermans Bend, Altona and Dandenong areas) increasing employment of engineers in the city centre can be expected.

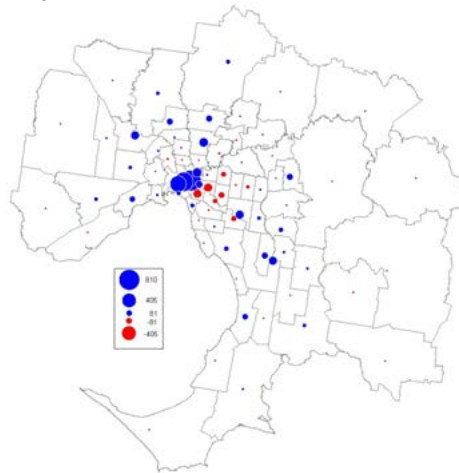
¹¹ With over 5% of engineers working in the motor vehicle manufacturing industry at the time this data was gathered (2011), the 2014 announcements made by the multinational car manufacturers Ford, Toyota and General Motors indicating they intend to cease car production in Australia by 2017 will mean considerable reductions to the distribution suburban-based engineers in Greater Melbourne by the next Census in 2016 and beyond.

Map 10.13.1 Engineers employment, Greater Melbourne, 2011



Source: ABS 2011

Map 10.13.2 Engineers employment change, Greater Melbourne, 2001-2011



Source ABS 2001, 2011

10.14 Information and communications technology (ICT) workers

10.14.1 Information and communications technology (ICT) workers in Australia

ICT workers as a profession have been at the forefront of the global migration of knowledge workers. As Iredale (2001) notes, ICT is a 'dynamic and fluid' industry and most developed countries found themselves short of suitably qualified ICT professionals by the late twentieth and early twenty-first centuries. Iredale characterised the industry in the following terms: ICT is international in scope, with the English language largely serving as its *lingua franca*, meaning its workers do not require the in-depth cultural contextual knowledge that is essential for many other professions (for example law); on the job experience is most important in gaining the relevant fluid knowledge and skills, together with an industry preference for vendor qualifications for example Cisco, Microsoft. Additionally, the industry is dominated by a relatively small number of large multinational firms that encourage the intra and inter-company mobility of its workers. It is also an industry that is largely unregulated by unions and even professional associations (Iredale 2001).¹²

Although the Australian Computer Society (ACS) accredits ICT courses delivered in the Australian universities, (and also currently holds the authority to assess overseas-trained and qualified ICT workers wishing to gained skilled residency and employer-sponsored visas and

¹² Indeed in the wake of the tech collapse, US ICT company EDS had a sustained industrial battle with its Australian workforce over contracting and wage issues in the mid- 2000s (Beer, S 2005a, 2005b; O'Neill 2005).

employment in Australia), ICT workers are not required to be members of this organisation in order to gain work as an ICT professional (unlike membership requirements in the Law Society for barristers and solicitors, or the Medical Board for doctors). Indeed, according to the Australian Workforce Productivity Agency (AWPA) report of 2013, an ICT qualification is not compulsory for ICT professionals, with sizable proportions of the ICT professionals holding degrees in engineering (21.3 %) and management and commerce (12 %) (AWPA 2013, p.86). As a relatively new or young profession, ICT workers lack the jurisdictional control that can be seen operating across older professions such as lawyers and accountants.

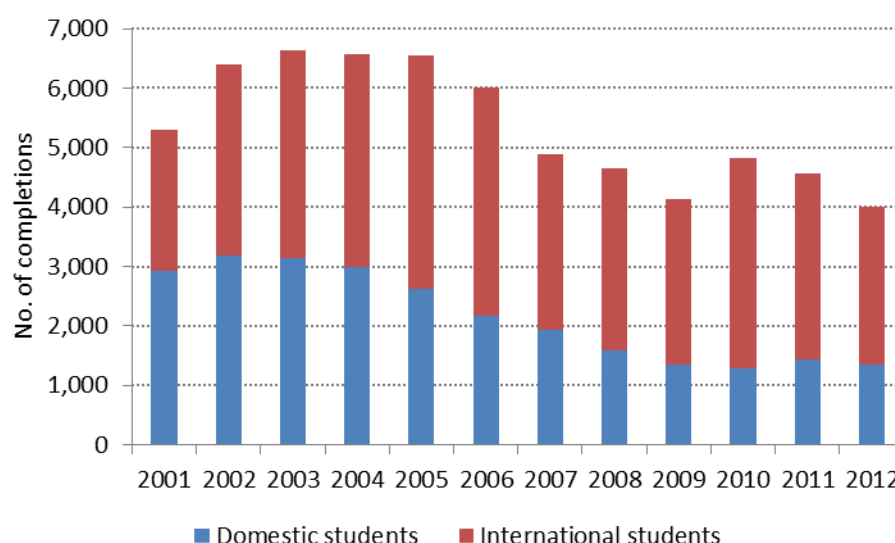
The pattern of ICT workers within the ICT sub industry is similar to engineers and engineering systems, in that the proportion of ICT professionals working with the adjoining professional sub industry of Computer system design and related services increased, from 33% in 2006 to 37% in 2011, demonstrating once again the growing consulting and contracting arrangements preferred by companies. After Computer system design and related services, the other prominent 4 digit sub industries were Banking (5.9 %), Wired telecommunications network operation (4.4 %), Other auxiliary finance and investment services (2.2 %).

10.14.2 Labour market outcomes for ICT workers

There is some difficulty in comparing 2001, 2006 and 2011 Census data in employment in ICT occupations at the 4 digit level, due to the definitional changes and counts from the ASCO to ANZSCO standards. Under the higher level 3 digit comparison (which excludes telecommunication engineers), Table 10.10.2 indicated employment for ICT occupations fell between 2001 and 2006, from 34,615 to 33,987 workers, as the fallout of the ‘tech. collapse’ of 2000 reverberated through the local industry. Census data from 2006 and 2011 affords better comparisons at the 4 digit level however, and over this period employment grew for IT occupations overall at a CAGR of 4.78%. Table 10.14.1 at the four digit level shows Software and applications programmers dominating ICT occupations, encompassing 16% of all IT professionals in 2011. Discounting the ‘not further defined (nfd)’ category, ICT Business and systems analysts comprise the next largest sub occupation group, and grew by 8.04% CAGR in the five years to 2011.

10.14.3 Labour supply of ICT workers

Chart 10.14.1 Number of completions for Information Technology courses, 2001-2011, in Victorian universities/higher education providers



Source: Department of Education and Training

The number of domestic students completing ICT higher education course completions consistently fell from 2002 until 2010, after which time the number of domestic completions increased slightly. The sector has yet to recover in terms of domestic student participation in ICT related courses since the ‘tech. collapse’ of 2000 and the ensuing collapse in interest in establishing a career in the sector (AWPA 2013, p.51). International students have propped up information technology courses in Victorian higher education institutes and universities throughout the 2000s, growing at a CAGR of 7% from 2001 to 2012 (against a domestic student completion CAGR over the same time period of -1%) and expanding their share of overall completions from 45% in 2001 to 66% in 2012, even as these completions overall began to fall from 2005 to 2009.

It is clear that the sector lost its appeal to domestic students after the ‘tech. collapse’ and failed to regain this; the number of domestic completions began to fall after 2003 (when students enrolled prior to the ‘tech. collapse’ were completing their courses), but even ten years after the ‘tech. collapse’ the sector had not recovered in terms of local enrolments. Other data sources used in this study for ICT business and industry employment point to considerable employment growth, particularly after 2006, however it seems the turnaround for the industry failed to impact or inform school leavers’ tertiary education and careers choices concerning ICT. In Victoria, the ICT industry also had various programs and grants via Multimedia Victoria, a branch within the State Government Department of Business Innovation and State Development dedicated to monitoring and promoting the sector as a career.

The void in domestic labour supply was filled once again by skilled migration. ICT workers were put on the MODL intermittently throughout the 2000s. The chart shows ICT skilled migrants to Victoria surpassed 2,000 in 2001-2002, 2003-2004 through to 2006-2007 and again in 2011-2012. Applications peaked at over 3,000 in 2004-2005. The vast majority of applicants were software applications and programmers, although in the most recent years ICT business and systems analysts have increased.

Chart 10.14.2 Number of ICT professionals in the Victorian skilled stream, 1999-00 to 2012-13

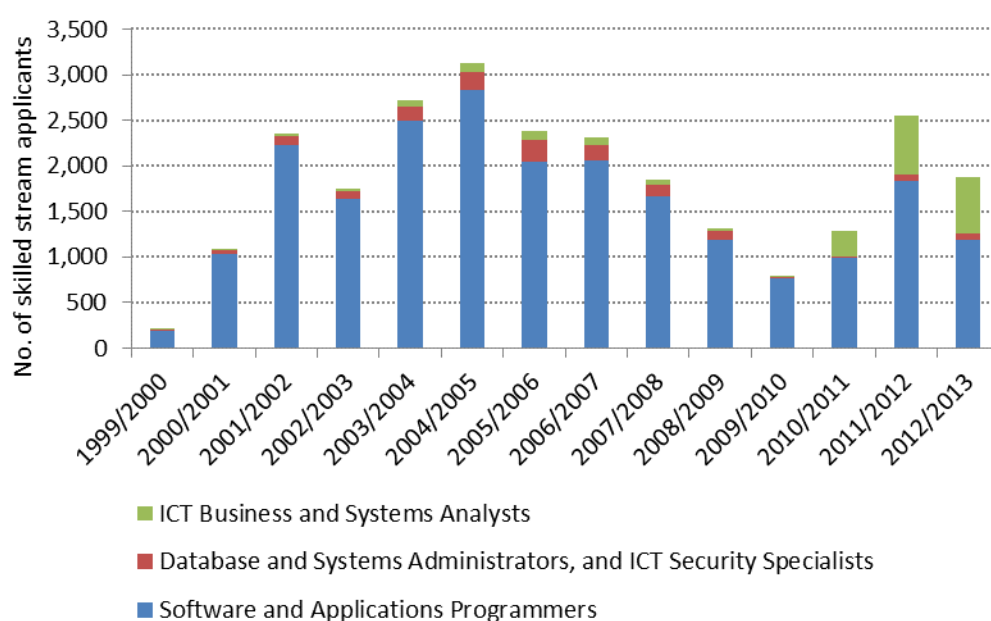


Table 10.14.2 Year of arrival for ICT professionals employed in Greater Melbourne, 2011

	No employed in Greater Melbourne 2011	No arrived since 2000	% arrived since 2000
Software and applications programmers	16,629	5,531	33.26
ICT professionals, nfd	7,940	1,830	23.05
ICT business and systems analysts	6,109	1,453	23.78
Database and systems administrators, and ICT security specialists	5,650	1,140	20.18
Computer network professionals	4,388	1,042	23.75
Telecommunications engineering professionals	2,498	610	24.42
Multimedia specialists and web developers	2,049	531	25.92
ICT support and test engineers	1,866	562	30.12
Business and systems analysts, and programmers, nfd	253	66	26.09
ICT network and support professionals, nfd	144	35	24.31
Total	47,526	12,800	26.93

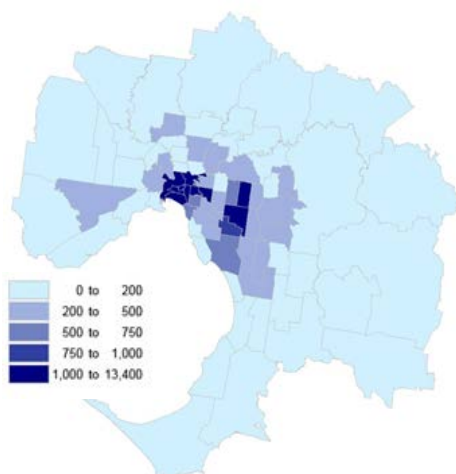
Source: ABS Census 2006, 2011

By 2013 the use of employer sponsored 457 visas within the industry was attracting greater political and media attention, with media reports of employers exploiting the visa system to import cheaper workers.¹³ The table below on the year of arrival in Australia for people working in the various IT sub occupations in Greater Melbourne in 2011, shows all occupation populations had at least 20% of their workforces arrive in the country since 2000, with Software and applications programmers reaching one third, and ICT Support and test engineers close behind on 30%.

10.14.3 Location of ICT workers in Greater Melbourne, 2001-2011

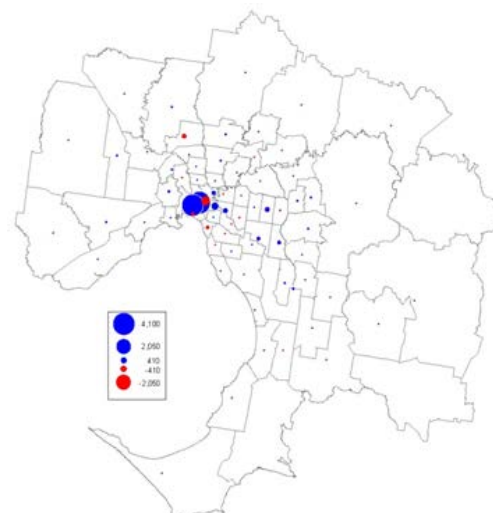
In terms of the location of ICT workers and their workplace within Greater Melbourne, Map 10.14.1 shows the greatest concentrations in the central city area, spreading to Melbourne's inner east, as well as the Waverley area in Melbourne's south east. In terms of net change since 2001, the overwhelming growth has been in the two SLAs within the City of Melbourne – Melbourne Inner (4,036) and Melbourne Southbank-Docklands (3,826). The next largest increase was in the adjoining Yarra-Richmond SLA with an increase of 615 workers over the ten years. While ICT is an occupation group that is employed across industries, it would appear that the propensity for the industry to increasingly become a contracted service, together with the city-based location of many other sub industries that employ ICT workers (for example banking, finance, telecommunications, management advice and consulting), translates to this occupation being increasingly centrally located.

Map 10.14.1 ICT workers employment, Greater Melbourne, 2011



Source: ABS Census 2011

Map 10.14.2 ICT workers employment change, Greater Melbourne, 2001-2011



Source: ABS Census 2001, 2011

¹³ The ABC broadcast an expose in June 2013 on 457 visas used by Indian tech giant Tata, whose Australian clients include Qantas (Brian 2013a, 2013b; Cooper 2013).

10.15 Conclusions

Over the period 2001-2011, there was a distinctive shift whereby key knowledge workers were increasingly located in Melbourne's city centre. In their study of the location and concentration of large company headquarters across Australian cities, Tonts and Taylor (2010) noted that cities provide the optimum environment for professional services firms and their labour force, by pooling appropriately qualified professional workers together in a small area, enabling easy replacement for employers seeking to fill positions and easy access to places of employment for workers seeking to find work. The same may be said for Melbourne's city centre and its knowledge workers and knowledge economy over the 2000s. In addition, the increasing heterogeneity amongst professional services industries (Malhotra & Morris 2009) has seen greater 'cross over' for various knowledge workers – the accountancy services sub industry employs most accountants for example, but other sub industries employing high numbers of accountants tend to be professional, finance and/or ICT services also based in the central city area such as: Auxiliary finance and investment services; Banking; Management advice and related consulting services and Computer system design and related services. The growth of outsourcing in the ICT and engineering sectors has also led to these professions being increasingly centrally located. The spatial mapping exercise conducted in this chapter has illustrated how a key factor in the development of Greater Melbourne knowledge city status was employment increases and relocation of knowledge workers to the central city area over the 2000s.

Studies into what constitutes a knowledge city, such as those undertaken by Carrillo (2004) and Ergazakis et al. (2006), explicitly mention a vibrant university sector and student population that act to attract international students and, following this, potential globally mobile knowledge workers. This was certainly true in the case of Melbourne. However, the number of international students increased in conjunction with policy changes to the national skilled migration system and higher education funding regimes, as opposed to some more urban and economic development based knowledge city promotion and place marketing campaign. The greatest growth in the knowledge worker occupations in Melbourne were the ones that featured on the various skilled migrant lists throughout the 2000s, where the supply of local university students into the labour market could not reach demand.

In describing the anticipated impact of the changes to higher education wrought over the Rudd era, Marginson (2013a) noted:

It was expected that the demand-driven system would establish a virtuous circle between student demand (which was assumed to partly reflect labour market demand for skills), institutional program offerings, and teaching quality, generating continuous improvement over time (p.65).

While Marginson then dismissed this expectation as ‘wishful thinking’, it is apparent that a virtuous circle did indeed exist. Instead, it existed between international education provision, the skilled migrant program and increasing labour demand for professional occupations that local graduate supply was failing to meet. While recent commentary on the state of higher education notes that growth in international student enrolments has begun to decline (Marginson 2013b), such was the growth throughout the 2000s that international students comprised at least half, and in some cases two thirds, of graduates in key professions working in the knowledge economy industries singled out for promotion, and seen as essential for Victoria’s future economic success, such as engineering and ICT.

The growth of professional employment throughout the 2000s does provide evidence to suggest that policy statements aiming for Melbourne to become one of the world’s premier knowledge cities made in the early years of the decade came to pass. However, this did not occur due to economic development style city promotion, or targeted campaigns and program funding to, for example, support and promote careers and activities in STEM areas. Rather, the impact of the mobile, globalised worker and the increasingly internationalised labour market, facilitated by federal government level migration policies, assisted in the growth of Melbourne’s increasingly professional, knowledge oriented labour force and economy.

The growth of professional workers in the Melbourne labour market throughout the 2000s can also be seen as an outcome of globalisation. However, this was not an outcome of the impact of globalisation on cities as espoused by WCN or global city related research, but rather another stream of theorisation on the impact of globalisation on migration and skilled workers. While this is not an extensive body of research, initial theorization by Appadurai (1996) on globalisation’s impact on the increasing movement of professional workers around the world was further applied to the increasing promotion of skilled migration programs across certain developed economies by Iredale (2001) and Shachar (2006). The international higher education and skilled migration policies put in place in Australia over the 2000s can be seen in this light. In addition, to return to the theorization by van Kempen once again, the contingency of governance, seen here in the form of the skilled migration policy, played a considerable role in shaping Melbourne’s labour force and interconnected economy throughout the 2000s.

Chapter Eleven: Conclusions

11.1 A return to the key research questions of this thesis

The 2000s were a time of key change in the economy, labour force and industry composition within Greater Melbourne, as the city's population and economy grew at an accelerated rate. This thesis sought to examine the factors behind this rise in the fortune of Greater Melbourne, and specifically the rapid revival of the central city area of Melbourne, establishing this central area growth was a key factor responsible for the economic success of the 'wider' Greater Melbourne. It considered the key causes of Melbourne's economic revival throughout the 2000s; what was the impact of increased economic activity in the city centre, the object of a series of policy, infrastructure and place marketing campaigns that began thirty years previously? How did increased activity, as measured by employment, residential population, a growing NTE, and increased student population, impact on Greater Melbourne and its economic performance? Was this change in Greater Melbourne over the 2000s consistent with recent theories put forward by city theorists related to the impact of globalisation on cities? Was this change a result of more path dependent, historical and cultural factors?

Key economic geography related theories regarding cities and their economies, as well as cities and the impact of globalisation upon them, were discussed in the literature review in Chapter Two. This chapter examined the role of the multinational enterprise (MNE) in globalised world city economies, and the manner in which the MNE serves to 'link' world cities together creating nodes of 'spaces' rather than places. Within the discussion, a contemporary history of theories relating to cities and the impact of globalisation on the city was outlined – from Friedman's early theorisation on World cities (1986); to Saskia Sassen's Global Cities theory (2001); and the more recent scholarship on World cities, the WCN and IWCN undertaken by the GaWC project, driven by Peter Taylor based at Loughborough University together with other international geographers.

Urban theorist Ronald van Kempen's assertions on the impact of globalisation on cities have been key to this study, as this thesis has attempted to extricate the wider impact of globalisation on Melbourne's economic development throughout the 2000s from national, state and city level factors. Van Kempen's set of seven 'contingencies' that he believes are at play, mitigating the impact of globalisation on cities (the physical setting of the city; history; economic development; inequality; race and racism; political power and governance), have been canvassed throughout this research. Five of these; the physical setting of the city; history; economic development; political power and governance, have proven to be particularly relevant to the Melbourne story.

Other more established geography based theories regarding workplace location and cities were canvassed, such as the key economic geographical concept of agglomeration, which has particular relevance to the city of Melbourne with its radial transport system delivering workers into the city centre from the late nineteenth century to the present day, and its ever outward moving residential settlement pattern. The more recent re-examination of agglomeration theory, such as that undertaken by Amin and Thrift (1992), was also discussed. This theory sought to connect the basic agglomeration theory developed in the nineteenth and early twentieth century by economists such as Marshall and Weber (whose foundation observations of the phenomena were based on production or manufacturing-based economies), with the changing services focussed economies of the late twentieth and early twenty first centuries.

The importance of knowledge and creativity, in terms of both cities and workers, was also examined, as increasingly porous geographic national boundaries, competitive skilled migration schemes and the growing movement of highly educated people across the world to global cities has created a global 'race for talent'.

This was followed by Chapter Three outlining the methodology used in this study. The mixed methods study design chosen for this thesis was placed in the context of the mainly positivistic studies that dominate the international research into the impact of globalisation on cities. Thus it was argued that the chosen mixed methods research design was the most appropriate to challenge established findings promulgated largely by the GaWC network.

The following chapter, Chapter Four, gave an economic history of Melbourne and placed its development in the wider national and international political and economic context, with an emphasis on the changing industrial specialities of Australia's two largest cities, (Sydney and Melbourne), throughout the twentieth century. Data was analysed establishing that throughout the 2000s, Melbourne experienced better economic outcomes than Sydney.

The chapter also demonstrated that Melbourne's economic history has played a crucial role in its industrial specialisation, a role it retains to this day, such as: the historical headquartering of Australia's major international mining companies, which can be traced back to the Victorian Gold Rush of the 1850s; and the headquartered presence of many recently privatised public organisations (Telstra, CSIRO, CSL) that reflects Melbourne's federation era ascendancy.

Chapter Five examined the state level policies relating to urban planning in place in Melbourne over the period 2000-2011, particularly in relation to employment and industry location. The impact of

deindustrialisation and gentrification on the inner city area over the last forty years and the policy responses, led in large part by the Victorian State Government were discussed.

The ensuing analysis of employment and business establishment data in Greater Melbourne over the period 2001-2011 indicated that intense jobs and business growth occurred in the city centre. This analysis examined the outcomes of previous research undertaken on the impact of agglomeration economies on employment and productivity in Melbourne's city centre, which indicated an increase in productivity in Melbourne's city centre, and confirmed an agglomeration effect. However, this analysis concluded that the increases in employment and business establishment between 2001-2011 could not be solely attributed to economic geographic phenomena such as agglomeration alone, as the city centre's economy of the 2000s had benefitted from a series of policy decisions taken to reinvigorate the CBD dating from 1980s, and continued throughout the following decades, such as: the liberalisation of liquor laws; extended shopping trading hours, rezoned commercial and office precincts to include residential activity, (thus expanding the economic and market capitalisation of the CBD beyond standard 'nine to five' office hours) and the development of the night time economy (NTE). The NTE also allowed for the proliferation of business and employment in services industries outside of APS, such as accommodation and food services in the central city area of Melbourne.

This analysis also concluded that certain factors behind the development and economic growth in the central city area align with tenets of the Global City thesis; development occurring throughout the 2000s was indeed partly due to an influx of foreign capital in the form of commercial building construction harking back to the 1980s, and an influx of migration in the form of expanding international student enrolments in Melbourne's universities. Certainly, APS services and employment based in the city centre grew considerably and (in keeping with Sassen's thesis of APS growth) stimulated growth in other lower skilled, services-style industries. However, in keeping with the findings of Parnreiter et al. (2013) in their study of Johannesburg and Mexico City, and also Grant and Nijman in their earlier (2002) study of Accra and Mumbai, central city area economic change in Melbourne can also be attributed to a series of local state level policies, many of which, in Melbourne's case, were initially instigated in the 1980s. Thus, while the picture presented in Chapter Five of Melbourne's urban form change throughout the 2000s was a picture of the Melbourne economy integrating further and further into a globalising economy, it was also a result of local contextual factors.

Part Two contained four chapters examining the nature of APS in Australia, its growing importance of services to the national economy and GDP, its location primarily within Australia's capital cities,

and (in the Greater Melbourne context), within the city centre. Chapters Six, Seven and Eight examined the key sub industries that comprise Australian APS in greater detail, including: an analysis of their respective histories; state and national policies impacting on the jobs and location growth of these sub industries in the Australian context; the national employment patterns between 2001 and 2011; and the spatial and location change experienced by these sub industries in terms of employment and business establishments within the city of Melbourne over the period 2001-2011.

For the Financial and insurance services industry, the analysis demonstrated that while Financial and insurance services have increasingly contributed to Australian GDP, the employment growth in the industry has been less consistent over the decade. Overall, employment gains and falls throughout Australia in the Financial and insurance services sub industries were subject to specific national level events that occurred over the period such as: the HIH collapse; the continuing restructuring of Australian banks that began in the 1990s; the growth of the superannuation and financial advice industries; and policy changes made to the Australian health insurance system.

Throughout the 2000s, Victoria (and more specifically Melbourne) experienced a consolidation of employment in certain Financial and insurance services sub industries such as Health insurance, Superannuation and Banking. As the Australian 'capital' for the finance and insurance sector, New South Wales (and more specifically Sydney) bore the brunt of the impact of the GFC, although overall the Australian finance and insurance industry was not as badly affected by the GFC as other Trans-Atlantic countries. This was attributed to a variety of factors, including Australia's sound prudential regulatory environment, the existence of the country's compulsory superannuation scheme and the then Labor government's response to the crisis.

Chapter Eight on employment and business establishment growth in Professional, scientific and technical services by state and sub divisions found varying levels of employment growth from state to state – New South Wales, and by association Sydney, suffered a slump in employment between 2001 and 2006 across a number of Professional services sub industries, such as legal services and management consultancies; Victorian employment was less affected during that time and Queensland showed high levels of growth. While New South Wales employment numbers rebounded between 2006 and 2011, Victorian employment numbers were also often better than New South Wales' over the latter half of the decade period.

In terms of Professional services sub industries within Greater Melbourne, data on employment location together with business establishments demonstrated a clear migration towards the city centre. Certain sub industries such as Accounting and Legal services, always predominantly based

in the central city area, intensified their job density within the CBD. However, other Professional, scientific and technical services sub industries such as Engineering and design services and Computers design services, as well as smaller sub industries such as Management advice and related consulting services, Advertising services and Market research and statistical services, also displayed a spatial drift into the city centre. As these sub industries increasingly rely on contract and project work from other industries and sectors, the data suggests the increasing shift into the city centre was a result of the need to be closer to clients and other services industries.

The final chapter of Part Two, Chapter Nine, was a closer examination of one of these Professional services sub industries, the 'Big 4' Accounting services firms based in Melbourne, to further test some of the theories behind APS business growth, their networks, and the reasons behind their recent spatial change within the city of Melbourne outlined in this chapter. The interviews conducted with partners based in the 'Big 4' firms located within Melbourne found the Australian 'Big 4' have been able to take advantage of largely more globally-connected clients, moving into new markets and establishing new clients in an era of increased competition. At the same time, the local (e.g. Australian) operation of these firms has been nimble enough (while still increasing their size) to take advantage of local conditions provided by such players as state and federal governments that are increasingly disposed to contract out services such as economic and policy analysis and advice.

The interviews confirmed that these firms operated within an increasingly globalised economy, as elements of such an economic and regulatory environment – including decreasing international regulation and greater transnational business activity – offered greater business opportunities for the 'Big 4', and they seek to meet this greater demand for expertise and services through the composition of work teams from across offices around the world, reflecting Manuel Castells famous 'new geography' observation: that cities in a globalised world increasingly operate as networks of spaces across time as opposed to networks of places (Castells 2002).

Nevertheless, the interview findings demonstrated that one of the main current measures of this global interconnectedness and networks – the location of company head offices in WCN research – is something of a blunt instrument. It transpired that the actual arrangements of where the command and control of such companies occurs can be quite loose, and in the Australian context it is based around the very established corporate governance function of the professional partnership.

Thus this finding concurs with the hitherto relatively small amount of research that critiques the WCN research and the direction it has taken over the last ten years in particular, aligning with the

research undertaken by Jones (2002) on the then ten year anniversary of WCN research, that the emphasis on head office location unduly emphasises the physical location of these global command and control centres, at the expense of ‘a relational network of ..scattered social and non-human actors’ (Jones 2002, p.348).

The final section, Part Three, was an examination of another key element of a city’s economy; its workers. More specifically, Chapter Ten in Part Three examined the growth and location of Melbourne’s knowledge workers, and their place in the city of Melbourne, which was increasingly marketed and presented as a premier knowledge city. As part of this analysis it was necessary to examine the skilled migration and higher education (and particularly international education provision) policies set at the state and federal level, as it was the combination of Australia’s ‘two step’ migration policy, as well as Victoria’s burgeoning international education export trade that drove many of the knowledge worker, or professional occupation, employment growth throughout the 2000s, particularly in the case of accountants, engineers and ICT workers.

This analysis found that elements of Melbourne during the 2000s did indeed align with features of the knowledge city as espoused by Carrillo (2004) and Ergazakis et al. (2006), such as the vibrant university sector and student population which act to attract international students and, following this, a globally mobile workforce in which knowledge workers figure prominently. However, the discussion found that the number of international students increased in conjunction with policy changes to the national skilled migration system and higher education funding regimes, as opposed to an urban and economic development based knowledge city promotion and place marketing campaign. The greatest growth in the knowledge worker occupations in Melbourne was in the occupations that featured on the various skilled migrant lists throughout the 2000s, where the supply of local university students into the labour market could not reach demand, and where the national and state level skilled migration and international education systems combined to take advantage of the global ‘race for talent’ that many western economies, particularly global and world cities, increasingly operated within.

11.2 Summary of key findings: the impact of globalisation on Melbourne throughout the 2000s

This thesis has considered a key geography related theory regarding the impact of globalisation on cities, the World City Network (WCN), in relation to the changes experienced within Melbourne. Analysis undertaken as part of this study has determined that there has indeed been growth in APS related employment and businesses in Melbourne over the period 2001-2011, a key feature of other

WCN metropolises according to the theorists. However, Melbourne's standing in WCN lists, compiled via a methodology that ranks cities according to the number of headquarters of global companies located in each city, is more a result of path dependent factors. These include: the development of the Collins House group of companies associated with the mining industry in the nineteenth century; the associated headquarters of half of Australia's 'Big 4' banks in the city, that were similarly established before and immediately after the turn of the twentieth century; and the establishment of now successfully privatised former key government agencies such as Commonwealth Serum Laboratories (CSL) and Telecom/Telstra. While these companies may have enjoyed financial success throughout much of the 2000s due to buoyant economic conditions, and thus increased their respective rankings in WCN lists, the series of economic events that led to their headquarter location, pre-dates the current era of globalisation and is a consequence of history.

Further to this, interviews with representatives of major Professional services firms found that the WCN ranking system of multinational firm headquarters according to regional and local offices, does not sufficiently take into account nuances such as the partnership system that exists in many APS sub industries such as management consultancies, accountancy practices and law firms. This is not to say that other APS industries have stricter lines of control from global headquarters to regional and local outposts so that ranking them using the method applied by WCN theorists is relatively representative, but to suggest that the WCN methodology is something of a 'blunt instrument' that does not take into account nuances that exist across various APS sub industries. In this respect my research findings and interpretation accord with a small group of geographers such as Parnreiter (2013) and Jones (2002), who question whether the current prevalent tendency in WCN related research towards positivistic regression analysis based on lists derived from international company headquarter data, actually serves to answer key questions posed by Saskia Sasson, Friedmann or van Kempen, on the nature of networks and relationships that drive growth and development across the world's major cities in the current era of globalisation.

The economic growth and subsequent spatial change taking place in the city of Melbourne over the 2000s does, however, appear more consistent with theories related to globalisation's impact on the movement of workers and migration, espoused in texts regarding globalisation and its impact on professional workers by Appardurai (1996), Iredale (2001) and Shachar (2006). The evolution of Australia's migration system towards the skilled migration scheme in place from the late 1990s to the present day, with its integration of a higher education system that over the same time became increasingly characterised by high levels of international students undertaking studies in Australia,

has been a key factor central to Melbourne's economic and population growth, labour supply, changing industry mix and the spatial densities of workplace locations.

11.3 Wider implications of this study

While the focus of this study was the city of Melbourne, the findings of this study have wider implications at the local level in terms of planning and policy research, as well as more broadly in terms of the body of research currently focused on the impact of globalisation on cities across the world.

Throughout this study of Melbourne, it has been necessary to detail the existing planning and economic development policy environment, even though (as noted in Chapter Four) the state planning system under which decisions are made for Melbourne has been mostly concerned with residential land use activity, while industrial activity and places of employment based across the city have been largely left to develop and grow according to the economic market demands of the time.

Nevertheless, the implications of the impact of the skilled migration program and the international higher education sector, which firstly boosted residential population and services activity and spending in the city centre by increases in the number of international students, followed by increases of professional workers based in the central business district (a proportion of whom were skilled migrants) demonstrates policies set at the national level have an impact at the local, spatial level. This demonstrates there is a greater need for state and national level policies to work in tandem when it comes to urban planning – although this observation on the planning system in Australia is far from new (McLoughlin, J 1992).

Less successful for planning policies relating to Melbourne's economic development were attempts to alter the city's form through the planning system or state government interventions. This can be seen in the early unsuccessful attempts to develop the Docklands area of the city centre beginning in the 1980s, when city planners copied dock and waterfront development projects occurring across other major cities, as a response to increasing deindustrialisation. While the Southbank Docklands area of the city of Melbourne today is certainly no failure, it has taken decades of development and promotion to become a substantial residential and employment zone, after a series of false starts.

Furthermore, one of the key findings of this study, that the city centre was instrumental in driving the economic development of the wider Greater Melbourne area, demonstrates that in trying to

reorganise cities via the planning system and metropolitan strategy into a different urban form e.g. from a radial, centre based city to a polycentric metropolis, policy makers are likely to fail. The Melbourne story demonstrates that in terms of morphology, the die is already largely cast due to historical settlement pattern.

Beyond local and state planning policies, the findings of this study also have wider implications for the study of the impact of globalisation on cities. One of the key finding of this study – that the WCN and Global City research with its emphasis on the location of headquartered companies and associated lists is a blunt instrument in which to assess the economic development of a city – has implications for the direction of future research in this field. The current preoccupation on the part of the world's eminent academic economic geographers with the WCN and IWCN and associated lists sells research into the world's cities short, as it does not take into account such factors as the history, local factors, interventions in the form of policies that may on a city, and its industry growth and spatial development and change.

The contribution to knowledge that this study of Melbourne has made is to demonstrate that there is a rich field of research methods and sources such as face to face interviews, or data analysis using diverse sources such as official statistical agencies or databases from other state government agencies (in this case, the WorkSafe Authority) that tell the story of a city's economic development. Using this approach leads to a more nuanced understanding of the factors that contribute to a city's development, away from the currently prominent system of deriving scores from headquarter location and associated lists.

Globalisation is a complicated abstract concept, and the economy of cities is similarly intricate, but I would argue the current predisposition of researching cities, their networks and the impact of globalisation on them via scores, ratings and lists, which is a body of research largely promulgated by the GaWC network, is increasingly one dimensional. Even though Jones critique of WCN related research was made in 2002, there appears to be less and less qualitative style research into the impact of globalisation on cities over the subsequent years.

11.4 A return to the purpose of this thesis

As proposed in Chapter One, this thesis began life as a series of pieces of research undertaken to inform state government policy workers on the changing economy of metropolitan Melbourne, the planning system and employment locations. Research undertaken for a doctoral thesis differs considerably from government reports. This exercise offered an opportunity to examine issues of concern to policy makers under the microscope of established, sophisticated theoretical

frameworks, and to give key data sources a more thorough and rigorous analysis. In doing so this study has found that, with some notable exceptions, there has not been a great deal of research examination into the changing nature of Melbourne's workplace locations, or the growth of its burgeoning services sector, and more specifically the APS industries, that increasingly serve as key drivers of the city's and State's economies. Hopefully this piece of research redresses this imbalance somewhat, and will lead to further work that informs both policy makers and academics of the impact of economic and spatial change in the city of Melbourne.

Bibliography

- Abbott, A 1988, *The system of professions: an essay on the division of expert labor*, University of Chicago Press, Chicago.
- Acuto, M & Steele, W (eds) 2013, *Global City challenges: debating a concept, improving the practice*, Palgrave Macmillan, Basingstoke.
- Adams, D & Wiseman, J 2003, 'Navigating the future: a case study of Growing Victoria Together', *Australian Journal of Public Administration*, vol. 62, no. 2, pp. 11-23.
- Adams, R 'From Industrial Cities to Eco-urbanity: The Melbourne Case Study' *Planning News*, Vol. 34, No. 1, Feb 2008: 6-11.
- Allan, G 2006, 'The HIH collapse: a costly catalyst for reform', *Deakin Law Review*, vol. 11, no. 2, pp.137-160.
- Amin, A & Thrift, N 1992, 'Neo-Marshallian nodes in global networks', *International Journal of Urban and Regional Research*, vol. 16, no. 4, pp. 571-87.
- Appadurai, A 1996, *Modernity at large: cultural dimensions of globalization*, vol. 1, University of Minnesota Press, Minneapolis.
- Argent, N 2005, 'The neoliberal seduction: governing-at-a-distance, community development and the battle over financial services provision in Australia', *Geographical Research*, vol. 43, no. 1 pp. 29-39.
- Arts Victoria 1994, *Arts 21: the Victorian government's strategy for the arts into the twenty-first century*, by Arts Victoria, State of Victoria, Melbourne.
- Austin P, Moncrief M & Rood, D 2008, 'Put brakes on runaway population, says Brumby', *The Age*, 31 July, viewed 15 January 2015, <<http://www.theage.com.au/national/put-brakes-on-runaway-population-says-brumby-20080731-3nzh.html>>.
- Australian Bureau of Statistics 1993, *Australian and New Zealand Standard Industrial Classification (ANZSIC) 1993*, cat. no. 1292.0, Australian Bureau of Statistics, Canberra.
- 2006, *Australian and New Zealand Standard Classification of Occupation (ANZSCO) 2006*, cat. no. 1220.0, Australian Bureau of Statistics, Canberra.
- 2006a, *Australian and New Zealand Standard Industrial Classification (ANZSIC) 2006*, cat. no. 1292.0, Australian Bureau of Statistics, Canberra.
- 2012, *Australian National Accounts: State Accounts*, cat. no. 5220.0, Australian Bureau of Statistics, Canberra.
- 2013, *Australian Demographic Statistics*, cat. no. 3101.0, Australian Bureau of Statistics, Canberra.
- 2013a, *International Trade in Services by Country, by State and by Detailed Services Category, Financial Year, 2011-12*, cat. no. 5368.0.55.003, Australian Bureau of Statistics, Canberra.

- 2014, *Building Approvals, Australia*, cat. no. 8731.0, Australian Bureau of Statistics, Canberra.
- 2014a, *Labour Force, Australia, Detailed*, cat. no. 6291.0.55.001, Australian Bureau of Statistics, Canberra.
- 2014b, *Regional Population Growth, Australia, 2012-13*, cat. no. 3218.0, Australian Bureau of Statistics, Canberra.
- Australian Computer Society 2012, *2012 Australian ICT statistical compendium*, Centre for Innovative Industries Economic Research Inc, Sydney.
- Australian Workforce Productivity Agency (AWPA) 2013, *Information and communications technology workforce study*, AWPA, Canberra.
- Baethge, M, Kitay, J & Regalia, I 1999, 'Managerial strategies, human resource practices, and labor relations in banks: a comparative view', in M Regini, J Kitay & M Baethge (eds), *From tellers to sellers: Changing employment relations in banks*, The MIT Press, Cambridge, Massachusetts, pp. 3-30.
- Baker, R & McKenzie, N 2013, 'Conflict fear over access to Victorian government business data', *The Age*, 15 December, viewed 20 July 2014, <<http://www.theage.com.au/victoria/conflict-fear-over-access-to-victorian-government-business-data-20131214-2ze7f.html>>.
- Bakir, C 2005, 'The exoteric politics of bank mergers in Australia', *Australian Journal of Politics & History*, vol. 51, no. 2, pp. 235-256.
- Barnes, K, Waitt, G, Gill, N & Gibson, C 2006, 'Community and nostalgia in urban revitalisation: a critique of urban village and creative class strategies as remedies for social 'problems'', *Australian Geographer*, vol. 37, no. 3, pp. 335-54.
- Batten, DF, Newton, PW & Roy, JR 1985, 'Metropolitan processes and policies in the Melbourne agglomeration', *Scandinavian Housing and Planning Research*, vol. 2, no. 3-4, pp. 231-238.
- Beaverstock, JV 2004, 'Managing across borders': knowledge management and expatriation in professional service legal firms', *Journal of Economic Geography*, vol. 4, no. 2, pp. 157-179.
- Beer, A 2012, 'The economic geography of Australia and its analysis: from industrial to post-industrial regions', *Geographical Research*, vol. 50, no. 3, pp. 269-281.
- Beer, C 2011, 'Centres that never sleep? Planning for the night-time economy within the commercial centres of Australian cities', *Australian Planner*, vol. 48, no. 3, pp. 141-147.
- Beer, S 2005a, 'EDS workers unite', *Sydney Morning Herald*, 7 November, viewed 1 August 2014, <<http://www.smh.com.au/news/next/eds-workers-unite/2005/07/11/1120934156809.html>>.
- 2005b, 'Survey finds little change at EDS', *Sydney Morning Herald*, 28 November, viewed 1 August 2014, <<http://www.smh.com.au/articles/2005/11/28/1133026374230.html>>.
- Bell, D 1973, 'The coming of post-industrial society', *Business & Society Review/Innovation*, no. 5.

- Berry, M 2005, 'Melbourne - is there life after Florida?', *Urban Policy and Research*, vol. 23, no. 4, pp. 381-392.
- Berry, M & Fleming, D 2003, *Innovation by design: the economic drivers of dynamic regions*, RMIT University, Carlton.
- Bianchini, F 1995, 'Night cultures, night economies', *Planning Practice and Research*, vol. 10, no. 2, pp. 121-126.
- Birrell, B 2003, 'Immigration policy and the Australian labour market', *Economic Papers*, vol. 22, no. 1, pp. 36-45.
- Birrell, B & Edwards, D 2009, 'The Bradley Review and access to higher education in Australia', *The Australian Universities' Review*, vol. 51, no. 1, pp. 4-13.
- Birrell, B & Healy, E 2010, 'Melbourne: a parasite city?', *People and Place*, vol. 18, no. 3, pp. 52-67.
- Birrell, B, Healy, E, Edwards, D & Dobson, I 2008, *Higher education in Australia: demand and supply issues*, Centre for Population and Urban Research, Monash University, Melbourne.
- Birrell, B, Healy, E & Kinnaird, B 2007, 'Cooks galore and hairdressers aplenty', *People and Place*, vol. 15, no. 1, p. 30-44.
- Birrell, B, Healy, E, Rapson, V & O'Connor, K 2005, *Melbourne 2030: planning rhetoric versus urban reality*, Monash University ePress, Melbourne.
- Birrell, B, Healy, E & Smith, FT 2006, *Melbourne's second speed economy*, Centre for Population and Urban Research, Monash University, Melbourne.
- Birrell, R & Rapson, V 2005, *Migration and the accounting profession in Australia*, CPA Australia, Melbourne.
- Blainey, G 1993, *The rush that never ended: a history of Australian mining*, Fourth edn, Melbourne University Press, Melbourne.
- Borel-Saladin, J & Crankshaw, O 2009, 'Social polarisation or professionalisation? Another look at theory and evidence on deindustrialisation and the rise of the service sector', *Urban Studies*, vol. 46, no. 3, pp. 645-664.
- Boxsell, A 2013, 'ACIL and Allen join forces', *Business Review Weekly*, 15 February, viewed 20 July 2014, <http://www.brw.com.au/p/professions/acil_and_allen_join_forces_gnuqm5orBCh0F35aJuQwpJ>.
- Brian 2013a, *457 visas: below the rhetoric*, Larvatus Prodeo, viewed May 6, 2013, <<http://larvatusprodeo.net/archives/2013/05/457-visas-below-the-rhetoric/>>.
- 2013b, *457 workers in the IT industry*, Larvatus Prodeo, viewed June 21 2013, <<http://larvatusprodeo.net/archives/2013/06/457-workers-in-the-it-industry/>>.
- Brisbane City Council 2014, *Our new world city*, viewed December 2014, <<http://www.brisbane.qld.gov.au/about-council/governance-strategy/vision-strategy/brisbane-vision/our-new-world-city>>.

- British Broadcasting Corporation (BBC) 2011, *European Commission financial tax opposed by UK*, viewed 11 October 2011, <<http://www.bbc.co.uk/news/business-15090761>>.
- Brock, DM 2006, 'The changing professional organization: A review of competing archetypes', *International Journal of Management Reviews*, vol. 8, no. 3, pp. 157-174.
- Buckley, PJ & Ghauri, PN 2004, 'Globalisation, economic geography and the strategy of multinational enterprises', *Journal of International Business Studies*, vol. 35, no. 2, pp. 81-98.
- Bunker, R 2012, 'Reviewing the path dependency in Australian metropolitan planning', *Urban Policy and Research*, vol. 30, no. 4, pp. 443-452.
- Carrillo, FJ 2004, 'Capital cities: a taxonomy of capital accounts for knowledge cities', *Journal of Knowledge Management*, vol. 8, no. 5, pp. 28-46.
- Carroll, D 2010, *Beyond Graduation 2009: the report of the Beyond Graduation survey*, Graduate Careers Australia, Melbourne, <<http://www.graduatecareers.com.au/wp-content/uploads/2012/01/gca001227.pdf>>.
- 2014, *Beyond Graduation 2013: the report of the Beyond Graduation survey*, Graduate Careers Australia, Melbourne, <http://graduatecareers.com.au/wp-content/uploads/2014/05/Beyond_Graduation_2013_%28final%29.pdf>.
- Casanova, F 2004, 'The interconnection between globalisation and local development', in *Local development, productive networks and training: alternative approaches to training and work for young people*, International Labour Office, Montevideo.
- Castells, M 2002, 'Local and global: cities in the network society', *Tijdschrift voor economische en sociale geografie*, vol. 93, no. 5, pp. 548-558.
- Chambers, D & Mayne, A 2004, 'An ill defined suburb: colonial times', in P Yule (ed.), *Carlton: a history*, Melbourne University Publishing, Melbourne, pp. 13-37.
- Chia, S 2013, *Health Insurance in Australia: IBISWorld Industry Report K6321*, IBISWorld, Melbourne.
- 2014, *Engineering Consulting in Australia: IBISWorld Industry Report M6923*, IBISWorld, Melbourne.
- Chin, E & Dobrjanski, J 2012, *An obituary for the term 'Big 6' law firms in Australia* Beaton Capital, viewed 15 September, 2013, <<http://www.beatoncapital.com/2012/11/an-obituary-to-the-term-big-6-law-firms-in-australia/>>.
- City of Melbourne 2014, *About Knowledge Melbourne*, viewed 12 December 2014, <<https://www.melbourne.vic.gov.au/AboutMelbourne/KnowledgeMelbourne/About/Pages/About.aspx>>.
- 2015, *Knowledge Melbourne*, City of Melbourne, viewed 1 March 2015, <<http://www.melbourne.vic.gov.au/AboutMelbourne/KnowledgeMelbourne/Pages/KnowledgeMelbourne.aspx>>.
- Clark, C 1940, *The conditions of economic progress*, Macmillan, London.

- Collins, J 2006, 'The changing political economy of Australian immigration', *Tijdschrift voor economische en sociale geografie*, vol. 97, no. 1, pp. 7-16.
- Conlon, RM 1994, 'An overview of protection of Australian manufacturing: past, present and future', *The Economic and Labour Relations Review*, vol. 5, pp. 137-153.
- Cooper, H 2013, *457 visa rorting: workers accuse Indian IT giant Tata Consultancy Services of visa abuse*, Australian Broadcasting Corporation, 20 June, viewed 15 March 2014, <<http://www.abc.net.au/news/2013-06-20/workers-accuse-indian-it-giant-of-457-visa-abuse/4769482>>.
- Costar, B 2007, 'The 2006 Victorian state election: maintaining Labor', *Australian Journal of Political Science*, vol. 42, no. 4, pp. 683-691.
- Costar, B & Economou, N (eds) 1999, *The Kennett revolution: Victorian politics in the 1990s*, University of New South Wales Press, Sydney.
- Costar, B & Hayward, D 2007, 'Steve Bracks: Victoria's 'nice guy' who won against the odds', in J Wanna & PD Williams (eds), *Yes, Premier: Labor leadership in Australia's states and territories*, University of New South Wales, Sydney.
- Costar, BJ & Considine, M (eds) 1992, *Trials in power: Cain, Kirner, and Victoria, 1982-1992*, Melbourne University Press, Melbourne.
- Costello, L 2005, 'From prisons to penthouses: the changing images of high-rise living in Melbourne', *Housing studies*, vol. 20, no. 1, pp. 49-62.
- Creative Class Group 2011, viewed 2 September 2011, <<http://www.creativeclass.com/>>.
- Cull, M 2009, 'The rise of the financial planning industry', *Australasian Accounting Business and Finance Journal*, vol. 3, no. 1, p. 26-37.
- Daly, A 2012, 'What is the recent evidence on an excess supply of legal qualifications in Australia?', *Australian Economic Review*, vol. 45, no. 4, pp. 441-454.
- Daly, M & Pritchard, B 2000, 'Sydney: Australia's financial and corporate capital', in J Connell (ed.), *Sydney: the emergence of a world city*, Oxford University Press, Oxford, pp. 167-188.
- Daniels, P & Langdale, J 1995, 'Geographical perspectives on producer service industry research in Australia', *Australian Geographical Studies*, vol. 33, no. 2, pp. 167-179.
- Dave, B, Tombesi, P, Gardiner, B & Scriver, PC 2006, 'Digital outsourcing in architecture: sifting through promises, problems and myths', *INCITE-ITCSED*, pp. 257-270.
- Davidson, J 1986, *The Sydney-Melbourne book*, Allen & Unwin, Sydney.
- Davis, K 2011, 'The Australian financial system in the 2000s: dodging the bullet', in *RBA Annual Conference Volume 2011*, Sydney.
- Davison, G 2004, *The rise and fall of marvellous Melbourne* Revised edn, Melbourne University Press, Melbourne.
- 2006, *From the market to the mall: a short history of shopping in Melbourne*, Department of Sustainability and Environment, Melbourne.

- Department of Education, Employment and Workplace Relations 2008, *Review of Australian higher education: final report* by Bradley, D, Noonan, P, Scales, B & Nugent, H, Commonwealth of Australia, Canberra.
- Department of Education and Training 2014, *Student Data: Selected Higher Education Statistics – Time Series Data and Publications*, Australian Government, viewed 5 May 2014, <<http://www.education.gov.au/selected-higher-education-statistics-time-series-data-and-publications>>.
- Department of Industry, Innovation and Regional Development 2002, *Victorians. Bright Ideas. Brilliant Future*, Department of Industry, Innovation and Regional Development, State of Victoria, Melbourne.
- 2009a, *A great place to do business: growing Victoria's financial services sector*, Department of Industry, Innovation and Regional Development, State of Victoria, Melbourne.
- 2009b, *Investing in Victoria's future : the Victorian government's action plan for the financial services industry*, Department of Industry, Innovation and Regional Development, State of Victoria, Melbourne.
- Department of Infrastructure 2008, *The Victorian Transport Plan*, Department of Infrastructure, State of Victoria, Melbourne.
- Department of Planning and Community Development 2006, *Melbourne Atlas*, Department of Planning and Community Development, Victorian Government, Melbourne.
- 2008a, *Melbourne 2030: a planning update: Melbourne @ 5 million*, Department of Planning and Community Development, Victorian Government, Melbourne.
- 2008b, *Victoria in future 2008*, Department of Planning and Community Development, State of Victoria, Melbourne.
- Department of Planning and Development 1995, *Living suburbs: a policy for metropolitan Melbourne into the 21st century*, by Department of Planning and Development, Government of Victoria, Melbourne.
- Department of Premier and Cabinet 2001, *Growing Victoria together: innovative State, caring communities*, Department of Premier and Cabinet, State of Victoria, Melbourne.
- 2004, *Victoria: leading the way*, Department of Premier and Cabinet, State of Victoria, Melbourne.
- Department of Sustainability and Environment 2002, *Melbourne 2030 : planning for sustainable growth*, Department of Sustainability and Environment, State of Victoria, Melbourne.
- Department of Transport, Planning and Local Infrastructure 2014, *Plan Melbourne: metropolitan planning strategy*, State of Victoria, Melbourne.
- Derudder, B, Hoyler, M & Taylor, P 2011, 'Goodbye Reykjavik: international banking centres and the global financial crisis', *Area*, vol. 43, no. 2, pp. 173-182.

- Derudder, B, Hoyler, M & Taylor, P 2013, 'The network dimension', in M Acuto & W Steele (eds), *Global city challenges : debating a concept, improving the practice*, Palgrave Macmillan, Basingstoke.
- Dingle, T & O'Hanlon, S 2009, 'From manufactruing zone to lifestyle precinct: economic restructuring and social change in inner Melbourne, 1971–2001', *Australian Economic History Review*, vol. 49, no. 1, pp. 52-69.
- Dodson, J 2009, 'The 'infrastructure turn' in Australian metropolitan spatial planning', *International Planning Studies*, vol. 14, no. 2, pp. 109-123.
- Dovey, K 1997, 'Fast cars, slow cities: Melbourne is being remade in the image of its leaders', *Arena Magazine*, vol. 28, pp. 32-37.
- Dunn, K, Neave, C & Niven, D 2000, 'Banking on the future: from central banking to deregulation', in S Smith (ed.), *In the consumer interest: a selected history of consumer affairs in Australia 1945-2000*, Society of Consumer Affairs Professional in Business (Australia), Melbourne, pp. 49-61.
- Dunstan, W & Young, J 2011, 'The 'most undemocratic municipality in Australia': changes to the franchise and electoral arrangements of the Melbourne City Council 1938-2011', in *5th State of Australian Cities Conference 2011* pp. 1-22.
- Dusevic, T 2009, 'Labor losing war on bureaucratic waste as consultants' bill hits \$450m' *The Australian*, 10 November, viewed 20 July 2014, <<http://www.theaustralian.com.au/news/labor-losing-war-on-bureaucratic-waste-as-consultants-bill-hits-450m/story-e6frg6n6-1225795930232>>.
- The Economist* 2010, 'The government's new guru: bring me sunshine', 11 November, available at <<http://www.economist.com/node/17468554>>.
- Economou, N 2006, 'Jeff Kennett: the larrikin metropolitan', in P Strangio & BJ Costar (eds), *The Victorian Premiers, 1856-2006*, The Federation Press, Sydney, pp. 363-381.
- Edgington, DW 1982, 'Organisational and technological change and the future role of the central business district: an Australian example', *Urban Studies*, vol. 19, no. 3, pp. 281-292.
- Edirisuriya, P & O'Brien, G 2001, 'Financial deregulation and economies of scale and scope: evidence from the major Australian banks', *Asia-Pacific Financial Markets*, vol. 8, no. 3, pp. 197-214.
- Edvinsson, L 2006, 'Aspects on the city as a knowledge tool', *Journal of Knowledge Management*, vol. 10, no. 5, pp. 6-13.
- Engels, B 2000, 'City make-overs: The place marketing of Melbourne during the Kennett years, 1992–99', *Urban Policy and Research*, vol. 18, no. 4, pp. 469-494.
- English, LM 2006, 'Public private partnerships in Australia: An overview of their nature, purpose, incidence and oversight', *University of New South Wales Law Journal*, vol. 29, pp. 250-262.
- Ergazakis, K, Metaxiotis, K, Psarras, J & Askounis, D 2006, 'A unified methodological approach for the development of knowledge cities', *Journal of Knowledge Management*, vol. 10, no. 5, pp. 65-78.

- Ernst and Young Australia, 2014, *Economics, Regulation and Policy Advice*, viewed 15 March 2014, [http://www.ey.com/Publication/vwLUAssets/Economics_regulation_and_policy_advice/\\$FILE/Economic_Advisory_Cap_Statement.pdf](http://www.ey.com/Publication/vwLUAssets/Economics_regulation_and_policy_advice/$FILE/Economic_Advisory_Cap_Statement.pdf).
- Fagan, R 2000, 'Industrial change in the global city: Sydney's new spaces of production', in J Connell (ed.), *Sydney: the evolution of a world city*, Oxford University Press Melbourne, pp. 144-166.
- Fagan, RH & Webber, MJ 1999, *Global restructuring: the Australian experience*, Oxford University Press, Melbourne.
- Faulconbridge, J & Jones, A 2012, 'The geographies of management consultancy firms', in M Kipping & T Clark (eds), *The Oxford handbook of management consulting*, Oxford University Press, Oxford, pp. 225-246.
- Fisher, AG 1939, 'Primary, secondary and tertiary production', *Economic Record*, vol. 15, no. 1, pp. 24-38.
- Forbes 2013, *Global 2000 list*, <http://www.forbes.com/global2000/list/>.
- Flores, N 2015, *Computer System Design Services in Australia*, *IBISWorld Industry Report M7000* IBISWorld, Melbourne.
- Florida, R 2002, *The rise of the creative class: and how its's transforming work, leisure, community and everyday life*, Basic Books, New York.
- 2004, *Cities and the creative class*, Routledge, New York.
- Freedman, C & Stonecash, R 1997, 'A survey of manufacturing industry policy: From the tariff board to the productivity commission', *Economic Record*, vol. 73, no. 221, pp. 169-183.
- French, S, Leyshon, A & Thrift, N 2009, 'A very geographical crisis: the making and breaking of the 2007–2008 financial crisis', *Cambridge Journal of Regions, Economy and Society*, vol. 2, no. 2, pp. 287-302.
- Friedmann, J 1986, 'The world city hypothesis', *Development and Change*, vol. 17, no. 1, pp. 69-83.
- Frost, W, Laing, J, Wheeler, F & Reeves, K 2010, 'Coffee culture, heritage and destination image: Melbourne and the Italian model', in L Jolliffe (ed.), *Coffee culture, destinations and tourism*, Channel View Publications, Bristol, pp. 99-110.
- Fujita, M & Thisse, J-F 1996, 'Economics of agglomeration', *Journal of the Japanese and International Economies*, vol. 10, no. 4, pp. 339-378.
- Glaeser, E 2011, *Triumph of the city: how our greatest invention makes us richer, smarter, greener, healthier, and happier*, Macmillan, London.
- Glow, H & Johanson, K 2007, 'Turning Victoria into cultural capital: Victorian arts policy 1992-1999', *Journal of Australian Studies*, vol. 31, no. 90, pp. 123-132.
- Glückler, J 2007, 'Geography of reputation: the city as the locus of business opportunity', *Regional Studies*, vol. 41, no. 7, pp. 949-961.

- Goodman, R & Moloney, S 2011, 'Melbourne's activity centre policy: a post mortem', in *Fifth State of Australian Cities National Conference 2011*, Melbourne, pp. 1-11.
- Goss, J & Lindquist, B 1995, 'Conceptualizing international labor migration: a structuration perspective', *International Migration Review*, pp. 317-351.
- Gottlieb, R 2012, 'Super funds great delusions', *Business Spectator*, viewed 15 June 2014, <<http://www.businessspectator.com.au/article/2012/10/9/financial-services/super-funds-great-delusions>>.
- Gough, D 2014, 'Plan Melbourne blueprint reveals huge population prediction for city', *The Age*, 19 May, viewed May 19 2014, <<http://www.theage.com.au/victoria/plan-melbourne-blueprint-reveals-huge-population-prediction-for-city-20140519-38j9n.html>>.
- Grant, R & Nijman, J 2002, 'Globalization and the corporate geography of cities in the less-developed world', *Annals of the Association of American Geographers*, vol. 92, no. 2, pp. 320-340.
- Greenwood, R & Empson, L 2003, 'The professional partnership: relic or exemplary form of governance?', *Organization Studies*, vol. 24, no. 6, pp. 909-93.
- Greenwood, R, Hinings, CR & Brown, J 1990, "P2-form" strategic management: corporate practices in professional partnerships', *Academy of Management Journal*, vol. 33, no. 4, pp. 725-755.
- Haines, F 2007, 'Crime? What crime? Tales of the collapse of HIH', in H Pontell & G Geis (eds), *International handbook of white-collar and corporate crime*, Springer, New York, pp. 523-539.
- Hall, J, de Abreu Lourenco, R & Viney, R 1999, 'Carrots and sticks—the fall and fall of private health insurance in Australia', *Health Economics*, vol. 8, no. 8, pp. 653-660.
- Harden, M 2009, *Melbourne: The making of a drinking and eating capital*, Hardie Grant Publishing, Prahran.
- Hawthorne, L 2008, 'The growing global demand for students as skilled migrants', paper presented to Transatlantic Council on Migration's Second Plenary Meeting, New York.
- 2010, 'Demography, migration and demand for international students', in C Findlay & WG Tierney (eds), *Globalisation and tertiary education in the Asia-Pacific: the changing nature of a dynamic market*, World Scientific Publishing, New Jersey, pp. 93-120.
- Hayward, D 2006, 'Steve Bracks: The quiet achiever', in P Strangio & B Costar (eds), *The Victorian Premiers, 1856-2006*, The Federation Press, Sydney, pp. 382-403.
- Healy, E & O'Connor, K 2002, *The links between labour markets and housing markets in Melbourne*, Swinburne-Monash Research Centre, Melbourne.
- Holding, T 2004, 'Investing in Victoria's future', *B+FS*, vol. 118, no. 5, pp. 18-19.
- Hopkins, P 2012, 'City's tasty new frontier', *Sydney Morning Herald*, 22 May, viewed May 23 2012, <<http://www.smh.com.au/business/property/citys-tasty-new-frontier-20120522-1z376.html>>.

- Houghton, J & Sheehan, P 2000, *A primer on the knowledge economy*, Victoria University, Melbourne.
- Hu, R 2010, 'Measuring the concentration of the knowledge-based economy in central Sydney in 1996-2006', paper presented to Knowledge Cities World Summit, Melbourne, November 2010.
- 2013, 'Measuring the changing face of global Sydney', paper presented to State of Australian Cities Conference 2013, Sydney.
- Hugo, G 2008, 'Immigrant settlement outside of Australia's capital cities', *Population, Space and Place*, vol. 14, no. 6, pp. 553-571.
- Hugo, G, Harris, K, Bell, M, Spoehr, J & Coffee, N 2000, '*Bringing them back home*': factors influencing interstate migration to and from South Australia, The National Key Centre for Social Applications of Geographical Information Systems, Adelaide.
- Hunkar, D 2009, *The world's 50 safest banks in 2009*, viewed 1 May 2012, <<http://seekingalpha.com/article/124086-the-worlds-50-safest-banks-in-2009>>.
- Iredale, R 2001, 'The migration of professionals: theories and typologies', *International Migration*, vol. 39, no. 5, pp. 7-26.
- Jackling, B 2007, 'The lure of permanent residency and the aspirations and expectations of international students studying accounting in Australia', *People and Place*, vol. 15, no. 3, pp. 31-41.
- Jacobs, J 1969, *The economy of cities*, Vintage Books, New York.
- 1984, *Cities and the wealth of nations: principles of economic life*, Random House, New York.
- John, A, Stewart, B & McDonald, B 2013, 'Mixed doubles: political hegemony, urban entrepreneurialism and the Australian Open Tennis Championships', *The International Journal of the History of Sport*, vol. 30, no. 2, pp. 162-178.
- Jones, A 2002, 'The 'global city' misconceived: the myth of 'global management' in transnational service firms', *Geoforum*, vol. 33, no. 3, pp. 335-350.
- 2012, 'Globalization, cities and the rise of global work', paper presented to GaWC Annual Lecture 2012, Loughborough University.
- Jureidini, R & Healy, E 1998, 'A decade of change in industry employment: Melbourne and Sydney compared', *People and Place*, vol. 6, no. 3, pp. 54-69.
- Kaspura, A 2013, *The engineering profession: a statistical overview*, Institution of Engineers Australia, Canberra.
- Kavaratzis, M & Ashworth, G 2008, 'Place marketing: how did we get here and where are we going?', *Journal of Place Management and Development*, vol. 1, no. 2, pp. 150-165.
- Kayrooz, C & Parker, S 2010, 'The education revolutionary road: paved with good intentions', in C Aulich & M Evans (eds), *The Rudd Government*, ANU E Press, Canberra, pp. 161-180.

- Keeling, DJ 1995, 'Transport and the world city paradigm', in P Knox & P Taylor (eds), *World Cities in a World-system*, Cambridge University Press, London, pp. 115–131.
- Keneley, M 2004, 'Adaptation and change in the Australian life insurance industry: an historical perspective', *Accounting, Business & Financial History*, vol. 14, no. 1, pp. 91-109.
- King, C & James, R 2013, 'Creating a demand-driven system ', in S Marginson (ed.), *Tertiary policy in Australia*, Centre for the Study of Higher Education, University of Melbourne, Melbourne, pp. 11-20.
- King, R 2008, *Engineers for the future: addressing the supply and quality of Australian engineering graduates for the 21st century*, Australian Council of Engineering Deans, Epping.
- Kipping, M & Wright, C 2012, 'Consultants in context: global dominance, societal effect, and the capitalist system', in M Kipping & T Clarke (eds), *The Oxford handbook of management consulting*, Oxford University Press, Oxford, pp. 165-186.
- Kitay, J 1999, 'Change in tandem: employment relations in Australian retail banks ', in M Regini, J Kitay & M Baethge (eds), *From tellers to sellers: Changing employment relations in banks*, The MIT Press, Cambridge, Massachusetts, pp. 63-94.
- Kitay, J & Wright, C 2003, 'Expertise and organizational boundaries: the varying roles of Australian management consultants', *Asia Pacific Business Review*, vol. 9, no. 3, pp. 21-40.
- Knox, PL & Taylor, PJ 2005, 'Toward a geography of the globalization of architecture office networks', *Journal of Architectural Education*, vol. 58, no. 3, pp. 23-32.
- Kohler, A 2003, 'Socialists beat capitalists - by about \$100bn', *Sydney Morning Herald*, 15 August, viewed August 16 2013, <http://www.smh.com.au/articles/2003/08/15/1060936057198.html>.
- Koeth, E 2010, *Overseas students: immigration policy changes 1997–May 2010*, Department of Parliamentary Services, Canberra.
- Kosky, L 2002a, *Knowledge and skills for the innovation economy: future directions for Victoria's Vocational Education and Training system*, Department of Education and Training, Melbourne.
- 2002b, *Knowledge and skills for the innovation economy: future directions for Victorian Higher Education*, Department of Education and Training, Melbourne.
- KPMG Australia, 2014, *Economics*, viewed 15 March 2014, <http://www.kpmg.com/AU/en/services/Advisory/management-consulting/strategy-operations/economics/Pages/default.aspx>.
- 2015, *Performance*, viewed 20 May 2015, <http://www.kpmg.com/AU/en/about/Performance/Pages/default.aspx>.
- Krugman, PR 1991, *Geography and trade*, The MIT Press, Cambridge.
- Lee, R, Clark, GL, Pollard, J & Leyshon, A 2009, 'The remit of financial geography—before and after the crisis', *Journal of Economic Geography*, vol. 9, no. 5, p. 723-747.

- Leicht, KT & Fennell, ML 2001, *Professional work: a sociological approach*, Wiley-Blackwell, London.
- Lewis, M 1995, *Melbourne: the city's history and development*, 2nd edn, City of Melbourne Melbourne.
- Lloyd, B, Rice, M, Ferguson, C & Palmer, S 2001, *Engineering the future: preparing professional engineers for the 21st century*, Association of Professional Engineers, Scientists and Managers, Australia, Melbourne.
- Logan, M 1966, 'Capital city manufacturing in Australia', *Economic Geography*, pp. 139-151.
- Logan, T 1986, 'A critical examination of Melbourne's district centre policy', *Urban Policy and Research*, vol. 4, no. 2, pp. 2-14.
- Logan, W 1982, 'Gentrification in inner Melbourne: problems of analysis', *Australian Geographical Studies*, vol. 20, no. 1, pp. 65-95.
- Lovatt, A & O'Connor, J 1995, 'Cities and the night-time economy', *Planning Practice and Research*, vol. 10, no. 2, pp. 127-134.
- Lucas, C & Dowling, J 2009, 'Bursting at the seams', *The Age*, 10 November, viewed 15 January 2015, <<http://www.theage.com.au/national/bursting-at-the-seams-20091110-i7oj.html>>.
- Macdonald, KM 1995, *The sociology of the professions*, Sage, London.
- Macgillis, A 2010, 'The ruse of the creative class', *The American Prospect*, vol. 4, pp. 12-18.
- Madanipour, A 2011, *Knowledge economy and the city: spaces of knowledge*, vol. 47, Routledge, Abingdon.
- Maginn, PJ & Steinmetz, C 2014, 'Cosmo-sexual Sydney: global city status, urban cosmopolitanism and the (sub)urban sexscape', in PJ Maginn & C Steinmetz (eds), *(Sub)urban sexscapes: geographies and regulation of the sex industry*, Routledge, New York.
- Maguire, G & Malinovitch, A 2004, 'Development of PPPs in Victoria', *Australian Accounting Review*, vol. 14, no. 33, pp. 27-33.
- Malhotra, N & Morris, T 2009, 'Heterogeneity in professional service firms', *Journal of Management Studies*, vol. 46, no. 6, pp. 895-922.
- Malmberg, A & Maskell, P 1997, 'Towards an explanation of regional specialization and industry agglomeration', *European Planning Studies*, vol. 5, no. 1, pp. 25-41.
- Marginson, S 2013a, 'Labor's failure to ground public funding', in S Marginson (ed.), *Tertiary education in Australia*, University of Melbourne, Melbourne, pp. 59-72.
- (ed.) 2013b, *Tertiary education policy in Australia*, Centre for the Study of Higher Education, Melbourne.
- Marshall, A 1895, 'Principles of economics'.
- Marshall, JN & Wood, PA 1995, *Services and space: key aspects of urban and regional development*, Longman Scientific & Technical, Harlow.

- Matthiessen, CW, Schwarz, AW & Find, S 2006, 'World cities of knowledge: research strength, networks and nodality', *Journal of Knowledge Management*, vol. 10, no. 5, pp. 14-25.
- McCann, P & Acs, ZJ 2011, 'Globalization: countries, cities and multinationals', *Regional Studies*, vol. 45, no. 1, pp. 17-32.
- McDougald, MS & Greenwood, R 2012, 'Cuckoo in the nest? The rise of management consulting in large accounting firms', in M Kipping & T Clark (eds), *The Oxford handbook of management consulting*, Oxford University Press, Oxford, pp. 93-116.
- McLoughlin, JB 1992, *Shaping Melbourne's future?: town planning, the state and civil society*, Cambridge University Press, Melbourne.
- McLoughlin, JB & Huxley, M (eds) 1986, *Urban planning in Australia: critical readings*, Longman Cheshire, Melbourne.
- Mees, P 1993, 'The report of my death is an exaggeration': central city retailing in Melbourne since 1900', *Urban Policy and Research*, vol. 11, no. 1, pp. 22-30.
- 2011, 'Who killed Melbourne 2030?', in *State of Australian Cities National Conference 2011*, Melbourne.
- Mees, P, O'Connell, G & Stone, J 2008, 'Travel to work in Australian capital cities, 1976–2006', *Urban Policy and Research*, vol. 26, no. 3, pp. 363-378.
- Melbourne City Council 1993, *Postcode 3000 Program : action plan for city living 1992 - 1995*, Melbourne City Council, Melbourne.
- 1994, *Creating prosperity: Victoria's capital city policy*, Melbourne City Council, Melbourne.
- Ministry for Planning and Environment 1987, *Shaping Melbourne's future : the government's metropolitan policy*, Ministry for Planning and Environment, Melbourne.
- Mould, O 2013, 'The cultural dimension', in M Acuto & W Steele (eds), *Global city challenges : debating a concept, improving the practice*, Palgrave Macmillan, Basingstoke.
- Mumford, L 1961, *The city in history: Its origins, its transformations, and its prospects*, Houghton Mifflin Harcourt, Toronto.
- National Institute of Economic and Industry Research 2009, *Melbourne's north: a knowledge economy*, Northlink, Melbourne.
- Neal, Z 2011, 'Differentiating centrality and power in the world city network', *Urban Studies*, vol. 48, no. 13, pp. 2733-2748.
- Novakowski, N 2010, 'Ottawa: the knowledge city and a labyrinth of obstacles', *GeoJournal*, pp. 1-13.
- O'Connor, K 1998, 'Understanding metropolitan Melbourne... without being confused by coffee and doughnuts', *Urban Policy and Research*, vol. 16, no. 2, pp. 139-15.
- 2003, 'Global air travel: toward concentration or dispersal?', *Journal of Transport Geography*, vol. 11, no. 2, pp. 83-92.

- 2006, *The location of employment in metropolitan areas: international perspectives, Melbourne context and research directions*, Department of Sustainability and Environment, Melbourne.
- 2010, 'Global city regions and the location of logistics activity', *Journal of Transport Geography*, vol. 18, no. 3, pp. 354-362.
- O'Connor, K & Edgington, D 1991, 'Producer services and metropolitan development in Australia', in PW Daniels (ed.), *Services and metropolitan development: international perspectives*, Routledge, London, pp. 204-225.
- O'Connor, K & Rapson, V 2003, 'Employment in city and suburban Melbourne: the changing relationship', *People and Place*, vol. 11, no. 4, pp. 41-52.
- O'Hanlon, S 2009, 'The events city: sport, culture, and the transformation of inner Melbourne, 1977–2006', *Urban History Review / Revue d'histoire urbaine*, vol. 37, no. 2, pp. p. 30-9.
- O'Hanlon, S & Hamnett, C 2009, 'Deindustrialisation, gentrification and the re-invention of the inner city: London and Melbourne, c.1960–2008', *Urban Policy and Research*, vol. 27, no. 3, pp. 211-216.
- O'Neill, P & Fagan, B 2006, 'Geographical takes on three decades of economic reform in Australia', *Geographical Research*, vol. 44, no. 2, pp. 204-219.
- O'Neill, R 2005, 'Union meetings start at EDS', *Sydney Morning Herald*, 25 July, viewed 20 August 2014, <<http://www.smh.com.au/news/next/union-meetings-start-at-eds/2005/07/25/1122143759263.html?from=moreStories>>.
- Organization of Economic Cooperation and Development (OECD) 2003, *OECD Territorial Reviews: The Metropolitan Region of Melbourne, Australia, 2003*, OECD Publishing, Paris.
- Parnreiter, C 2010, 'Global cities in Global Commodity Chains: exploring the role of Mexico City in the geography of global economic governance', *Global Networks*, vol. 10, no. 1, pp. 35-53.
- 2013, 'The Global City tradition', in M Acuto & W Steele (eds), *Global City challenges: debating a concept, improving the practice*, Palgrave Macmillan, Basingstoke.
- Parnreiter, C, Oßenbrügge, J & Haferburg, C 2013, 'Shifting corporate geographies in global cities of the South: Mexico City and Johannesburg as case studies', *DIE ERDE—Journal of the Geographical Society of Berlin*, vol. 144, no. 1, pp. 1-16.
- Peck, J 2005, 'Struggling with the creative class', *International Journal of Urban and Regional Research*, vol. 29, no. 4, pp. 740-770.
- Perera, HB, Rahman, AR & Cahan, SF 2003, 'Globalisation and the major accounting firms', *Australian Accounting Review*, vol. 13, no. 29, pp. 27-37.
- Perrons, D 2004, 'Understanding social and spatial divisions in the new economy: new media clusters and the digital divide', *Economic Geography*, vol. 80, no. 1, pp. 45-61.
- Phillips, B, Li, J & Taylor, M 2012, *Prices these days: the cost of living in Australia*, National Centre for Social and Economic Modelling, University of Canberra, Canberra,

[http://www.natsem.canberra.edu.au/storage/AMP NATSEM 31 Prices these days The cost of living in Australia.pdf](http://www.natsem.canberra.edu.au/storage/AMP_NATSEM_31_Prices_these_days_The_cost_of_living_in_Australia.pdf).

Phillips, J & Spinks, H 2012, *Skilled migration: temporary and permanent flows to Australia*, Parliamentary Library, Parliament of Australia, Australian Capital Territory.

Porter, ME 1998, *The competitive advantage of nations* Macmillan Press Ltd, Basingstoke.

Private Health Insurance Administration Council (PHIA) 2014, *Membership and coverage*, Private Health Insurance Administration Council, viewed 1 July 2013, <<http://phiac.gov.au/wp-content/uploads/2015/02/MembCoverage-Dec14.pdf>>.

PricewaterhouseCoopers 2013, *2013 Annual Review*, <<http://www.pwc.com.au/about-us/annual-review/assets/Annual-Review-13.pdf>>.

—— 2014, *Consulting - Economics and Policy*, viewed 15 March 2014, <<http://www.pwc.com.au/consulting/economics-policy/index.htm>>.

Public Transport Users Association, 2010, *Common urban myths about transport*, viewed 19 December 2014 <<http://www.ptua.org.au/myths/suburbs.shtml>>.

Pyke, J 2009, 'Perspectives from below the ceiling: academic women and the transition from Senior Lecturer to the Professoriate - a case study', PhD thesis, Victoria University.

Rasmussen, B, Sheehan, P, Welsh, A, Maharaj, N, Hulten, AV, Weller, S & Hurley, K 2010, *Updating Melbourne's west*, Victoria University, Melbourne.

Rawnsley, T & Szafrancic, J 2010, 'Agglomeration and labour productivity in Australian cities', *Knowledge Cities World Summit 2010*, Melbourne.

Reich, RB 1992, *The work of nations: preparing ourselves for 21st century capitalism*, Simon & Schuster Ltd, London.

Rich, DC 1987, *The industrial geography of Australia*, Croom Helm, London.

Roberts, M 2006, 'From 'creative city' to 'no-go areas'—the expansion of the night-time economy in British town and city centres', *Cities*, vol. 23, no. 5, pp. 331-338.

Robinson, J 2006, *Ordinary cities: between modernity and development*, Routledge, London.

Rood, D & Leung, C 2006, 'Students bring life — and doubts — to city', *The Age*, 17 March, viewed 15 January 2015, <<http://www.theage.com.au/news/national/students-bring-life-8212-and-doubts-8212-to-city/2006/03/17/1142582526993.html?page=fullpage%23contentSwap2>>.

Roy, A 2009, 'The 21st-century metropolis: new geographies of theory', *Regional Studies*, vol. 43, no. 6, pp. 819-830.

Sassen, S 2001, *The Global City: New York, London, Tokyo*, 2nd edn, Princeton University Press, Princeton.

Schwab, A 2009, 'Melbourne muddle: elite students turning away from law in droves', *Crikey*, 13 November, viewed 1 August 2014, <<http://www.crikey.com.au/2009/11/13/melbourne-muddle-elite-students-turning-away-from-law-in-droves/>>.

- Scott, P 1959, 'The Australian CBD', *Economic Geography*, pp. 290-314.
- Searle, G 2009, 'The spatial division of labour in the Sydney and Melbourne information technology industries', *Australasian Journal of Regional Studies*, The, vol. 15, no. 1, pp. 115-129.
- Searle, G, Dodson, J & Steele, W 2011, 'How different are Australian cities?', *State of Australian Cities Conference 2011*, Melbourne.
- Searle, G & O'Connor, K 2013, 'Why has Melbourne closed the gap on Sydney since 2000?', paper presented to 6th State of Australian Cities Conference, Sydney.
- Shachar, A 2006, 'The race for talent: highly skilled migrants and competitive immigration regimes', *New York University Law Review*, vol. 81, pp. 143-202.
- Shaw, K 2013, 'Docklands dreamings: illusions of sustainability in the Melbourne docks redevelopment', *Urban Studies*, vol. on line edition 15 March 2013.
- Sheehan, P & Wiseman, J 2004, *Investing in Melbourne's west: a region in transition*, Victoria University, Melbourne.
- Simmie, J & Strambach, S 2006, 'The contribution of KIBS to innovation in cities: an evolutionary and institutional perspective', *Journal of Knowledge Management*, vol. 10, no. 5, pp. 26-40.
- Simon, D 1995, 'The world city hypothesis: reflections from the periphery', in P Knox & P Taylor (eds), *World cities in a world system*, Cambridge University Press, London, pp. 132-155.
- Smith, S 2000, 'General insurance: the unfurling of the umbrella of protection', in S Smith (ed.), *In the consumer interest: a selected history of consumer affairs in Australia 1945-2000*, Society of Consumer Affairs Professional in Business (Australia), Melbourne, pp. 63-78.
- Snooks, G 1987, 'Manufacturing', in W Vamplew (ed.), *Australian historical statistics*, Fairfax, Syme and Weldon Associates, Broadway, vol. 10, pp. 286-303.
- St Anne, C 2012, *A super history: how Australia's \$1 trillion+ superannuation industry was made*, Major Street Publishing, Melbourne.
- Stilwell, F 1998, 'Globalization and cities: an Australian perspective', *Review of Radical Political Economics*, vol. 30, no. 4, pp. 139-167.
- Stimson, RJ 2011, 'Australia's changing economic geography revisited', *The Australasian Journal of Regional Studies*, vol. 17, no. 1, pp. 22-45.
- Storper, M & Dunning, J 1999, 'Globalization and knowledge flows', in *Globalization, Regions and the Knowledge-based Economy*, Oxford University Press, Oxford.
- Sykes, T 1998, *Australia's banking history*, Australian Broadcasting Corporation, viewed 1 December 2014, <<http://www.abc.net.au/money/currency/features/feat3.htm>>.
- 2010, *Six months of panic: how the global financial crisis hit Australia*, Allen & Unwin, Sydney.
- Tadros, E 2014a, 'Law degree the new arts degree, students warned', *Australian Financial Review*, 14 February, viewed 20 August 2014, <<http://www.afr.com/news/policy/education/law-degree-the-new-arts-degree-students-warned-20140214-jgegs>>.

- 2014b, 'Oversupply leaves law students without jobs', *Australian Financial Review*, 21 February, viewed 20 August 2014, <<http://www.afr.com/news/policy/industrial-relations/oversupply-leaves-law-students-without-jobs-20140221-jgec6>>.
- Tadros, E & King, A 2014, 'Australian students turn away from accounting', *Australian Financial Review*, 19 February, viewed 20 August 2014, <<http://www.afr.com/business/accounting/australian-students-turn-away-from-accounting-20140219-ixtfr>>.
- Tadros, E & Mannheim, M 2012, 'Government consultants reap \$500m a year', *The Age*, 19 March, viewed 20 July 2014, <<http://www.theage.com.au/federal-politics/political-news/government-consultants-reap-500m-a-year-20120319-1vftb.html>>.
- Taylor, MJ & Thrift, N 1980, 'Large corporations and concentrations of capital in Australia: a geographical analysis', *Economic Geography*, vol. 56, no. 4, pp. 261-280.
- Taylor, P, Derudder, B, Hoyler, M & Ni, P 2011, *New regional geographies of the world as practised by leading advanced producer service firms in 2010*, Globalization and World Cities Research Network, viewed 21 March 2012 at <http://www.lboro.ac.uk/gawc/>.
- Taylor, PJ 2004, 'Regionality in the world city network', *International Social Science Journal*, vol. 56, no. 181, pp. 361-372.
- Taylor, PJ, Hoyler, M, Walker, DRF & Szegner, MJ 2001, 'A new mapping of the world for the new millennium', *Geographical Journal*, vol. 167, no. 3, pp. 213-222.
- Taylor, PJ, Ni, P, Derudder, B, Hoyler, M, Huang, J, Lu, F, Pain, K, Witlox, F, Yang, X, Bassens, D & Shen, W 2009, 'The way we were: command-and-control centres in the global space-economy on the eve of the 2008 geo-economic transition', *Environment and Planning A*, vol. 41, no. 1, pp. 7-12.
- Taylor, PJ, Ni, P, Derudder, B, Hoyler, M, Huang, J & Witlox, F 2010, *Global urban analysis: a survey of cities in globalization*, Earthscan, London.
- Tombesi, P 2001, 'A true south for design? The new international division of labour in architecture', *Architectural Research Quarterly*, vol. 5, no. 2, pp. 171-180.
- Tombesi, P, Dave, B & Scriver, P 2003, 'Routine production or symbolic analysis? India and the globalisation of architectural services', *The Journal of Architecture*, vol. 8, no. 1, pp. 63-94.
- Tonts, M & Taylor, M 2010, 'Corporate location, concentration and performance: large company headquarters in the Australian urban system', *Urban Studies*, vol. 47, no. 12, pp. 2641-2664.
- 2013, 'The shifting geography of corporate headquarters in Australia: a longitudinal analysis', *Regional Studies*, vol. 47, no. 9, pp. 1507-1522.
- Townsend, L 2012, *Managing Melbourne: Review of Melbourne metropolitan strategic planning*, Department of Planning and Community Development, State of Victoria, Melbourne.
- Tran, N, Roos, L & Giesecke, J 2012, *DIAC-TERM: A multi-regional model of the Australian economy with migration detail*, Victoria University, Centre of Policy Studies/IMPACT Centre, Melbourne.

- Trubka, R 2009, *Productivity and the density of economic activity: preliminary estimates of agglomeration benefits in Australian cities*, Sustainability Policy Institute, Curtin University Perth.
- Tsutsumi, J & O'Connor, K 2006, 'Time series analysis of the skyline and employment changes in the CBD of Melbourne', *Applied GIS*, vol. 2, no. 2, pp. 1-8.
- Vamplew, W 1987, *Australians: historical statistics*, vol. 10, Fairfax, Syme & Weldon, Broadway.
- van Kempen, R 2007, 'Divided cities in the 21st century: challenging the importance of globalisation', *Journal of Housing and the Built Environment*, vol. 22, no. 1, pp. 13-31.
- Wallace, R & Ferguson, J 2014, 'Toyota to stop making cars in Australia, follows Ford and Holden', *The Australian*, 10 February 2014, viewed 10 February 2014, <<http://www.theaustralian.com.au/business/news/toyota-to-stop-making-cars-in-australia-follows-ford-and-holden/story-e6frg906-1226822823246>>.
- Ward, PM 1995, 'The successful management and administration of world cities: mission impossible?', in P Knox & P Taylor (eds), *World Cities in a World-system*, Cambridge University Press, London.
- Watkins, AR 2009, 'The dynamics of urban economies: Melbourne 1971 to 2006', *Urban Studies*, vol. 46, no. 8, pp. 1553-1576.
- Webber, MJ & Weller, S 2001, *Refashioning the rag trade: internationalising Australia's textiles, clothing and footwear industries*, University of New South Wales Press, Sydney.
- Weller, S & van Hulten, A 2012, 'Gentrification and displacement: the effects of a housing crisis on Melbourne's low-income residents', *Urban Policy and Research*, vol. 30, no. 1, pp. 25-42.
- Wilkinson, J 2010, *Sydney and Melbourne: an economic overview*, NSW Parliamentary Library Research Service, Sydney.
- Wiseman, J 2006, 'Local heroes? Learning from recent community strengthening initiatives in Victoria', *Australian Journal of Public Administration*, vol. 65, no. 2, pp. 95-107.
- Wojcik, D 2011, 'The dark side of NY-LON: financial centres and the global financial crisis', *SSRN eLibrary*.
- Wright, C 2000, 'From shop floor to boardroom: The historical evolution of Australian management consulting, 1940s to 1980s', *Business History*, vol. 42, no. 1, pp. 85-106.
- Wright, C & Kipping, M 2012, 'The engineering origins of the consulting industry and its long shadow', in M Kipping & T Clark (eds), *The Oxford handbook of management consulting*, Oxford University Press, Oxford, pp. 29-49.
- Wright, CF 2006, 'The social dimension of the integration of Australian automotive manufacturing into global supply chains', *Employment Relations Record*, vol. 6, no. 2, pp. 47-59.
- Yeung, HW-C 2002, 'The limits to globalization theory: a geographic perspective on global economic change', *Economic Geography*, vol. 78, no. 3, pp. 285-305.
- Yigitcanlar, T, O'Connor, K & Westerman, C 2008, 'The making of knowledge cities: Melbourne's knowledge-based urban development experience', *Cities*, vol. 25, no. 2, pp. 63-72.

Zajdow, G 2011, 'Producing the market for alcohol: the Victorian example', *Journal of Australian studies*, vol. 35, no. 1, pp. 83-98.

Appendices

Appendix One: Information and consent form for interview participants

You are invited to participate in a research project entitled 'To what extent is Melbourne's transformation an outcome of globalisation?' This project is being conducted by Kathleen Hurley as part of a PhD study under the supervision of Professor Peter Sheehan and Professor Bruce Rasmussen from Victoria University's Centre for Strategic Economic Studies (CSES).

The broad aim of the research is to examine the nature of the substantial spatial change across Melbourne's urban industrial landscape over the last ten years. The research will examine the key economic drivers of this change and test the relevance of geography-related theories on how globalisation has changed the world's major cities. One particular theory in question, the World City Network (WCN), suggests that in an increasingly globalised world, cities within the developed world form an interconnected network based on the flow of Advanced producer services, such as Legal, Accounting and Management consulting services. Academic geographers have attempted to rank cities in the WCN using data on company headquarter location, so cities that have a greater number of global or regional headquarters in the legal, banking, finance and management consultancy sectors have an elevated place in the network hierarchy (e.g. New York and London always rank first and second in these lists). To date there has been little research in this area based on primary source information derived from an actual firm as to why a particular location was chosen as the headquarters, and the location (local, regional or international) of the firm's major clients.

The proposed interview will examine to what extent your (Advanced producer services) company deals with locally-based firms (e.g. Melbourne and Victoria), Australian firms based in other capital cities, and/or internationally based companies and the cities where their headquarters are located. It is hoped that the material gained from these interviews will form the basis of the qualitative analysis component of the research. That is, the results of these interviews will further illuminate research and analysis already undertaken on secondary data sources such as the ABS Census that indicate Professional and Financial services firms are increasing their share of employment in the Melbourne and Victorian economy, and that these places of employment are increasingly located in Melbourne's city centre.

Interviews will take approximately 45 minutes and be arranged to take place at a time and place that is convenient for your firm/staff. Prior to the interview the researcher will ask permission to tape record the interview and will only record if permission has been given. The participation of your firm and its staff is, of course, entirely voluntary. The interview is not intended to seek any commercial-in-confidence information about your company or its clients. Interview responses will be strictly confidential and will be used for research purposes only. It will not be possible to identify any particular company in any of the papers or publications that are produced out of the research. Before conducting the interview, it will be necessary to receive a signed consent form from the interviewee.

Any queries about your firm and its staff members participation in this project may be directed to Kathleen Hurley on 0438 821 198 or Professor Bruce Rasmussen on 9919 1342.

If you have any queries or complaints about the way you have been treated, you may contact the Research Ethics and Biosafety Manager, Victoria University Human Research Ethics Committee, Victoria University, PO Box 14428, Melbourne, VIC, 8001 or phone (03) 9919 4148.

Appendix Two: Interview questions

Topic 1 Location of interviewee

Is this the headquarters, or regional headquarters of your firm? (If not, where are the headquarters?)

How long has your firm been based at this location?

Why did your company choose to locate here? What are the benefits?

- Proximity for staff
- Proximity to clients

Topic 2 Location of interviewee's clients

Are you able to estimate the amount of work you personally, and your firm more generally, undertakes is generated by clients based in

1. Melbourne and Victoria,
2. other Australian capital cities
3. overseas based companies?

(If work is generated by clients based overseas)

What cities are these clients based in?

(If the firm is part of a multinational company, but is not the headquarters or regional headquarters)

Are the overseas-based clients part of your company?

Is there much work generated for you at this location by the company headquarters or regional headquarters of the firm?

Topic 3 Services sector of the interviewee

What services sector do you work in (e.g. legal, finance, management consultancy etc.)

What sectors do your clients work in? Is there a difference between the local clients and overseas ones?

Appendix Three: List of interviewees/participating companies and organisations

CPA Australia

Deloitte

Ernst and Young

KPMG

The Mitchell Institute, Victoria University

Price Waterhouse Coopers

Worley Parsons