



**CYCLING TO WORK  
IN MELBOURNE  
1976 - 2011**

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## 1. INTRODUCTION

Cycling to Work in Melbourne 1976 to 2011 is the latest update to the ongoing analysis of commuter cycling trips to work in Melbourne conducted by the VicRoads Bicycle Project Team.

The data used in this review has been compiled from the Australian Bureau of Statistics (ABS) Census of Population and Housing for the eight consecutive census years between 1976 and 2011. The key census data which has been analysed in this report relates to peoples Method of Travel to Work (MTWP) on the day of the census.

The purpose of this report is to describe the cycling population in Melbourne while also providing an overview of cycling in regional Victoria and throughout Australia.

Specifically this report provides an updated on:

- The number of cycling trips to work in metropolitan Melbourne for the period between 1976 and 2011;
- The cycling trips to work for each region of metropolitan Melbourne for the period between 1976 and 2011;
- The number of cycling trips to work in the City of Melbourne for the period between 1976 and 2011;
- The mode share contributions of people riding bicycles to work;
- The cycling trips to work undertaken in Regional Victoria and Australia.

## 2. BACKGROUND

The data used in this report has been obtained from the Australian Bureau of Statistics (ABS) Census of Population and Housing for the eight census years between 1976 to 2011.

The 2011 Census was undertaken on Tuesday, 9th August 2011, which is in the middle of winter. The weather conditions in Melbourne during the winter are generally not ideal for cycling. On the day of the Census the temperature, as measured in Melbourne (BOM Station Number 86071), was quite cold with a maximum recorded temperature of 12.6C and a minimum temperature of 7.0C. On the Census day the sun rose in Melbourne at 7:14am and set at 5:40pm. This means that many of the bicycle trips to work would have been undertaken in the dark or at dawn.

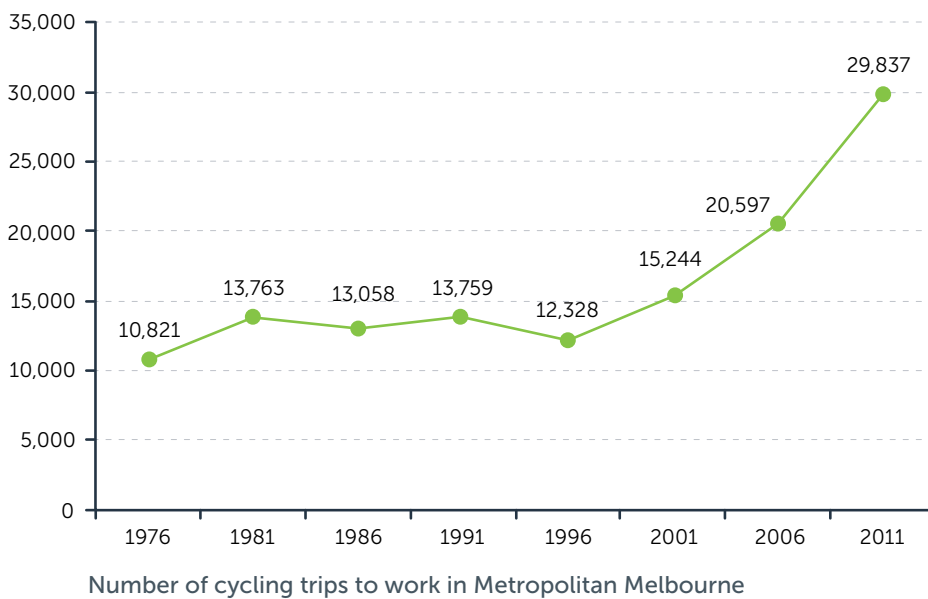
On the day of the 2011 census 1.6 million trips to work were undertaken in metropolitan Melbourne. Of those trips 29,837 people incorporated cycling into their journey to work. This data set represents the most comprehensive single day of cycling to work data currently available in Melbourne.

Since 1976 the population of Metropolitan Melbourne has increased from 2.7 million to approximately 4.0 million people in 2011. Over that time period the workforce in Melbourne has increased from 1.2 million people to 1.9 million people while the number of trips to work has increased from 1.1 million in 1976 to 1.6 million in 2011.

For the purpose of this analysis the following assumptions have been made when analysing the data set:

- The analysis has only considered persons who travelled on the day of the census. It has not accounted for those who worked from home, did not travel to work on the day of the census, or did not respond to the census questions relating to MTWP.
- The place of usual residence has been used to define the location of journey origins
- Metropolitan Melbourne and Greater Capital City Areas have been classified as per the Australian Bureau of Statistics

The total number of cycling trips to work in metropolitan Melbourne has again increased in 2011. Over the past ten years the number of trips to work undertaken using a bicycle has steadily increased by 6.9% per annum or approximately 95%.



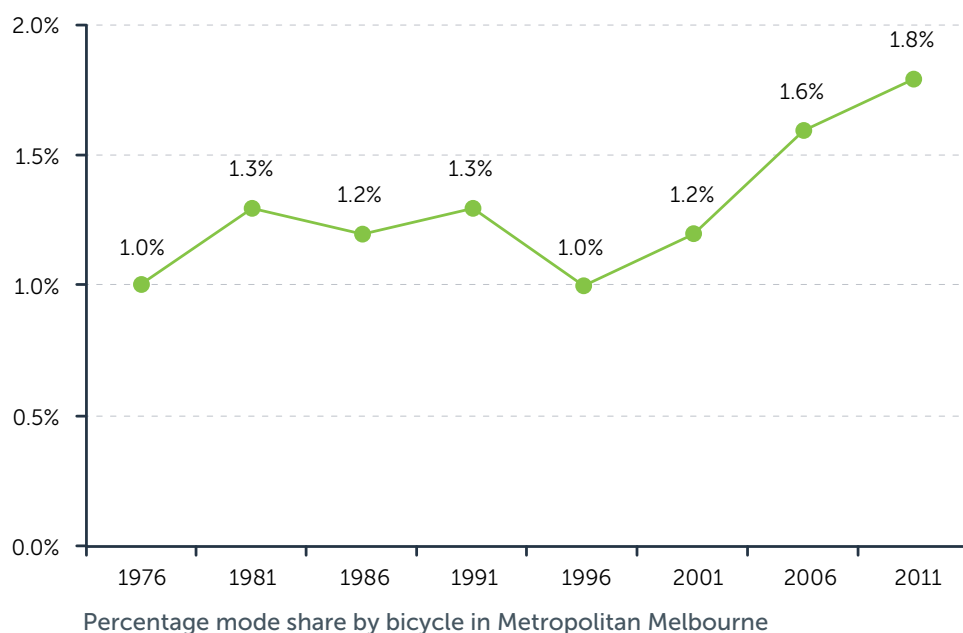
### 3. ASSUMPTIONS

### 4. KEY STATISTICS

**Total number of cycling trips to work in Metropolitan Melbourne, 1976 to 2011**

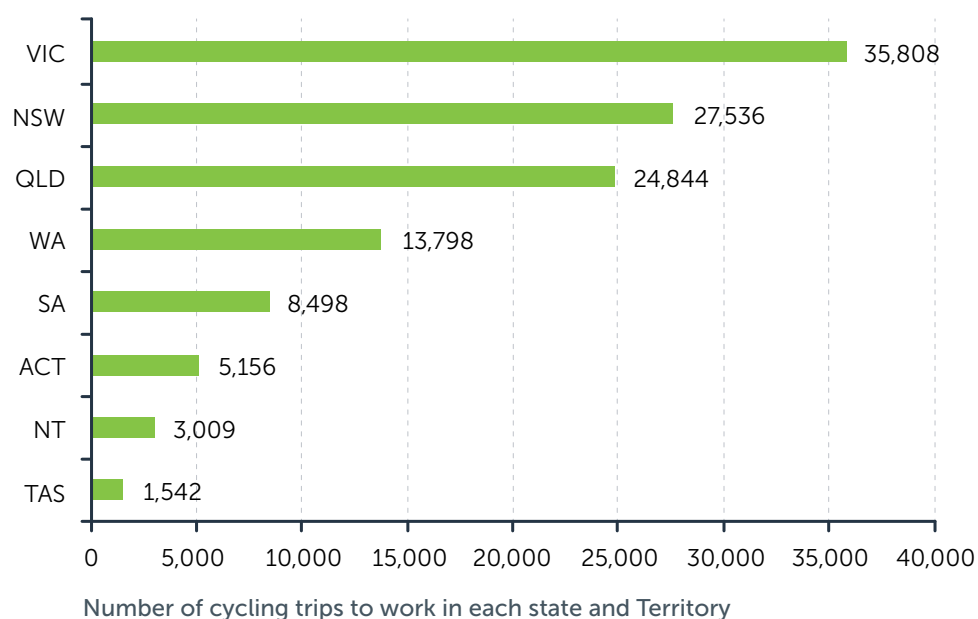
### Mode share for cycling to work in Metropolitan Melbourne, 1976 to 2011

The proportion of trips to work that were undertaken by bicycle continued to increase in 2011. Bicycle trips now represent 1.8% of all work based trips in metropolitan Melbourne. Over ten years Melbourne has shown a continued growth in the proportion of bicycle trips to work being made.

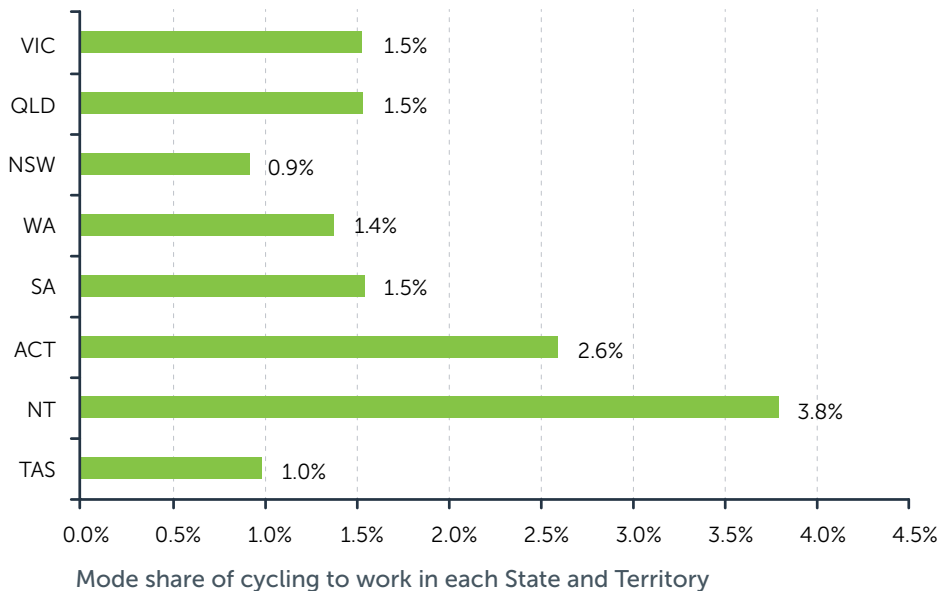


### Number of cycling trips to work in each State and Territory in 2011

In 2011, Victoria continues to have the highest number of cycling trips to work compared to all the other states and territories.

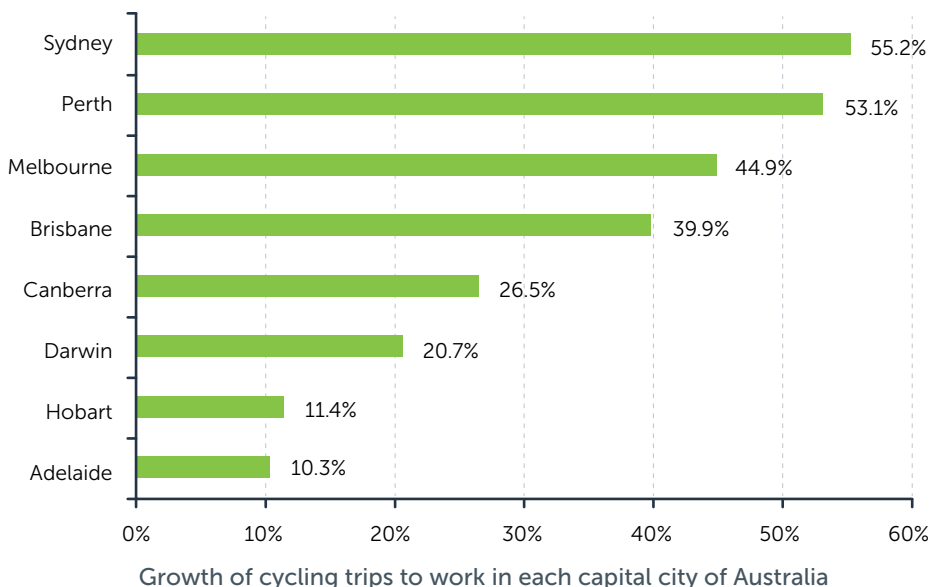


While Victoria has the highest total number of trips, the mode share in Victoria trails behind the ACT and the Northern Territory. Factors that could explain this include an extensive off-road path network in Canberra that extends into the surrounding suburbs, while the Northern Territory has more favourable weather conditions which would result in a higher cycling mode share in August. Both territories also have smaller populations, less dispersed urban areas and lower vehicle traffic volumes which would all encourage increased cycling.



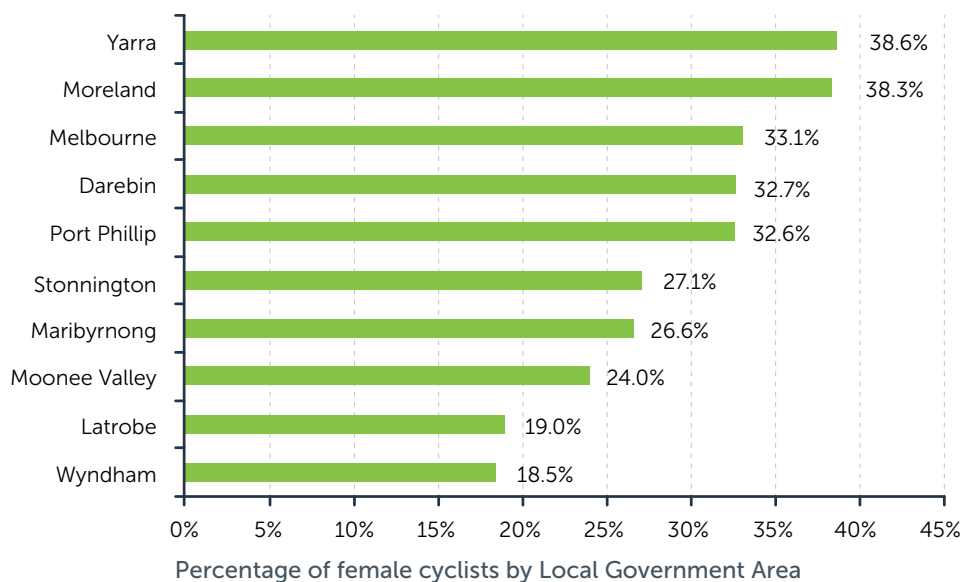
Between 2006 and 2011 the number of work based trips in metropolitan Melbourne has increased by 44.9%. The number of bicycle trips increased in all capital cities. Perth and Sydney had the highest growth rates of 55.2% and 53.1% respectively of the five year period

**Percentage of growth of cycling trips to work in each capital city in Australia, 2006 to 2011.**



## Cycling levels among males and females in 2011

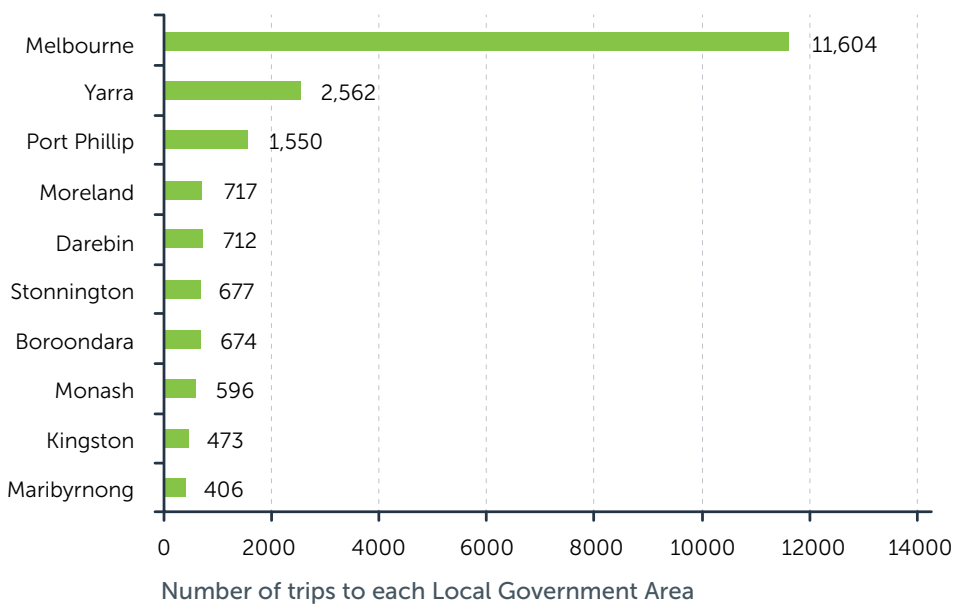
Across Melbourne 55% of all trips to work by all modes were made by males in 2011. Amongst those who cycled to work the proportion of males was higher at 73%. There is strong evidence to suggest that as cycling becomes more viable as a mode of transportation the percentage of females who cycle also increases. This can be achieved through increased infrastructure investment and provision of improving facilities. The Cities of Yarra, Moreland, Melbourne, Darebin and Port Phillip all have female cycling rates above 30% for trips to work in 2011.



As expected the City of Melbourne is the most popular cycling destination for work based trips within metropolitan Melbourne. In 2011, almost half of all trips by bicycle in metropolitan Melbourne were made to the City of Melbourne. The next most popular destinations were the City of Yarra and the City of Port Phillip.

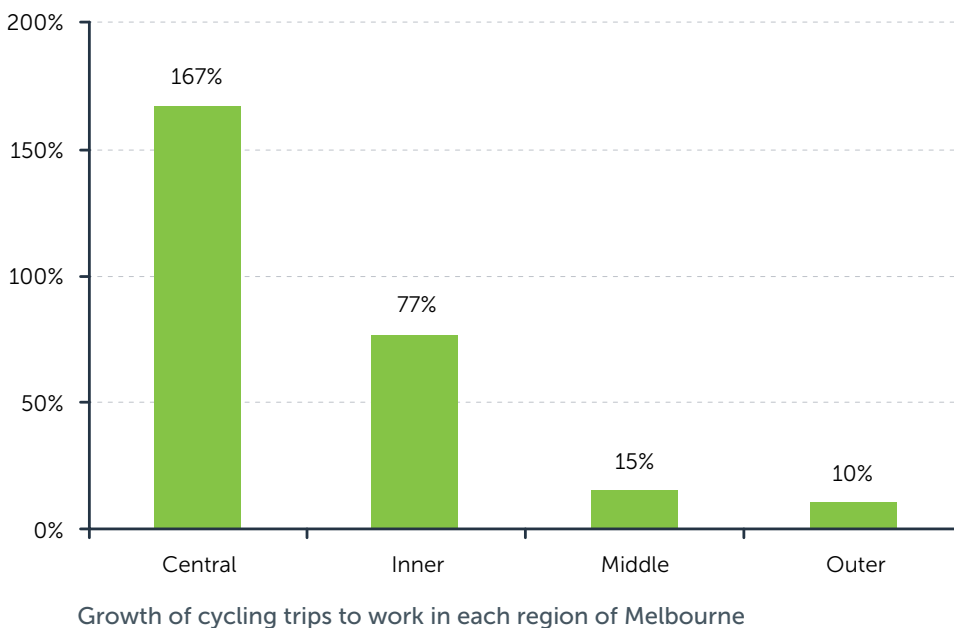
## 5. CYCLING DESTINATIONS IN 2011

Most popular cycling destinations for cycling to work in 2011



Over the ten year period between 2001 and 2011 the number of bicycle trips to the Central area of Melbourne has increased by 167%, while an increase of 77% has been seen for trips to the Inner regions of Melbourne.

Growth of cycling trips to work in each region of Melbourne, 2001 to 2011



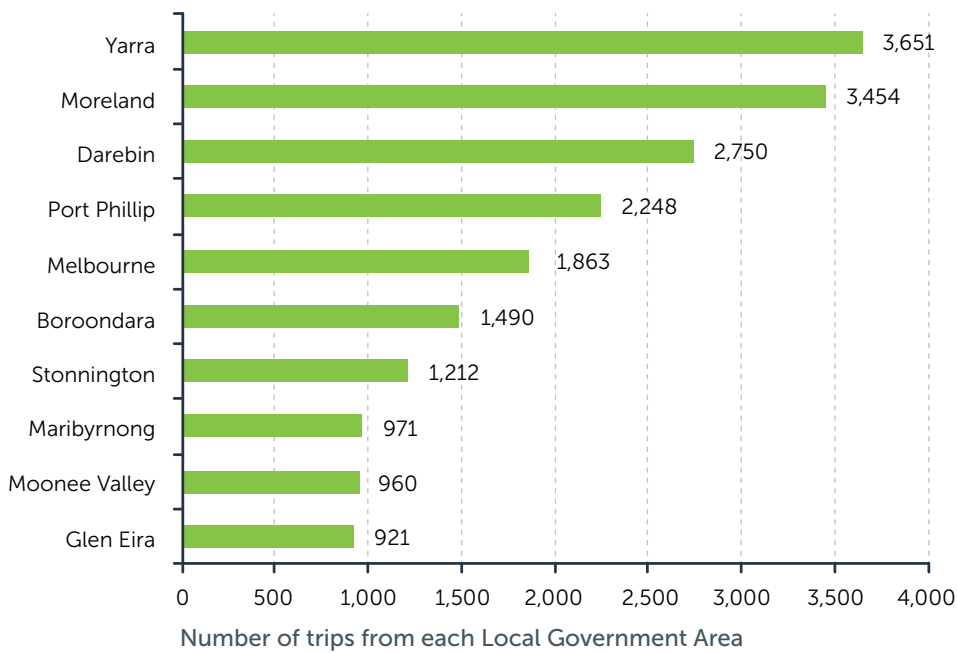


## Summary Table of Cycling Trip Destinations

The following table provides a summary of the number of bicycle trips to work by Local Government Area for the destination of each trip. Metropolitan Regions have been classified in Appendix A.

LOCAL GOVERNMENT AREA	REGION	1976	1981	1986	1991	1996	2001	2006	2011
Melbourne	Central	885	1,413	1,461	1,753	2,565	4,100	7,174	11,604
Yarra	Central	283	426	395	465	626	1,007	1,672	2,562
Port Phillip	Central	418	520	467	617	543	778	1,331	1,550
Moreland	Inner	591	667	532	457	287	351	467	717
Darebin	Inner	150	252	293	162	360	336	526	712
Stonnington	Inner	215	275	261	332	284	379	537	677
Boroondara	Inner	188	307	306	314	381	377	529	674
Monash	Middle	740	931	757	571	573	458	619	596
Kingston	Middle	670	955	957	774	605	522	521	473
Maribyrnong	Inner	360	217	172	135	173	227	304	406
Glen Eira	Inner	209	286	333	238	282	268	303	373
Whitehorse	Middle	289	414	378	300	301	268	350	356
Banyule	Middle	160	215	249	203	218	196	287	323
Bayside	Middle	245	279	264	193	223	222	258	271
Hobsons Bay	Middle	674	520	406	300	265	203	248	263
Knox	Middle	190	351	264	304	317	281	330	245
Greater Dandenong	Middle	487	663	499	478	284	259	285	244
Moonee Valley	Inner	252	278	308	232	188	208	267	238
Hume	Outer	24	49	22	41	180	155	215	218
Wyndham	Outer	174	220	275	199	152	150	197	211
Mornington Peninsula	Outer	175	267	257	224	215	205	213	206
Brimbank	Middle	490	464	311	243	103	140	182	203
Frankston	Outer	393	453	336	352	189	182	198	167
Whittlesea	Outer	93	181	133	216	144	135	152	153
Maroondah	Middle	116	199	255	218	186	173	197	150
Yarra Ranges	Outer	86	184	154	106	92	110	138	100
Casey	Outer	106	157	152	178	126	101	130	94
Manningham	Middle	50	83	84	40	54	51	78	61
Melton	Outer	14	32	59	45	41	31	47	52
Nillumbik	Outer	44	71	73	46	43	24	39	36
Cardinia	Outer	14	32	-	30	48	62	51	35

Again in 2011 the highest number of cycling trips to work originated from the City of Yarra. Over 75% of all cycling trips to work originated from Inner and Central Local Government Areas.

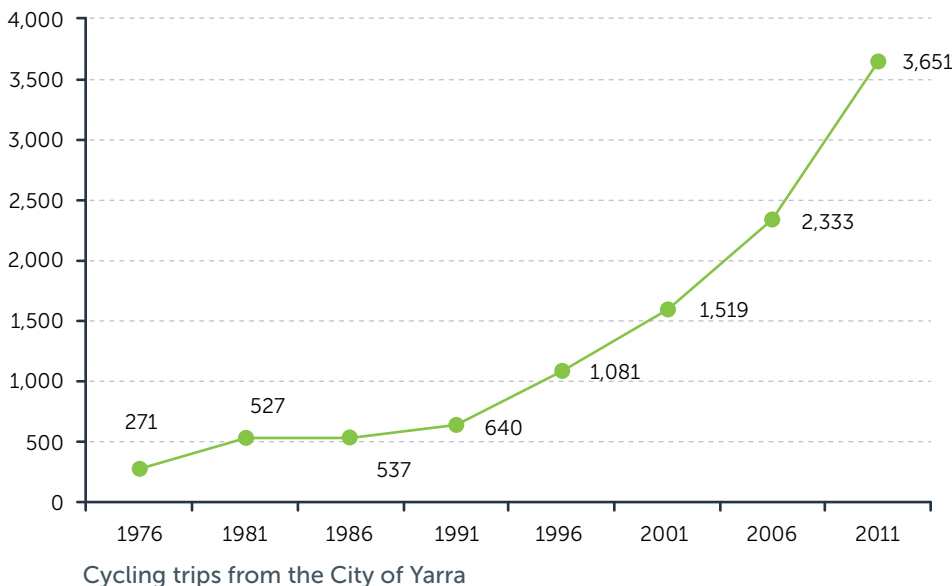


## 6. CYCLING ORIGINS IN 2011

Most popular cycling origins for cycling to work in 2011

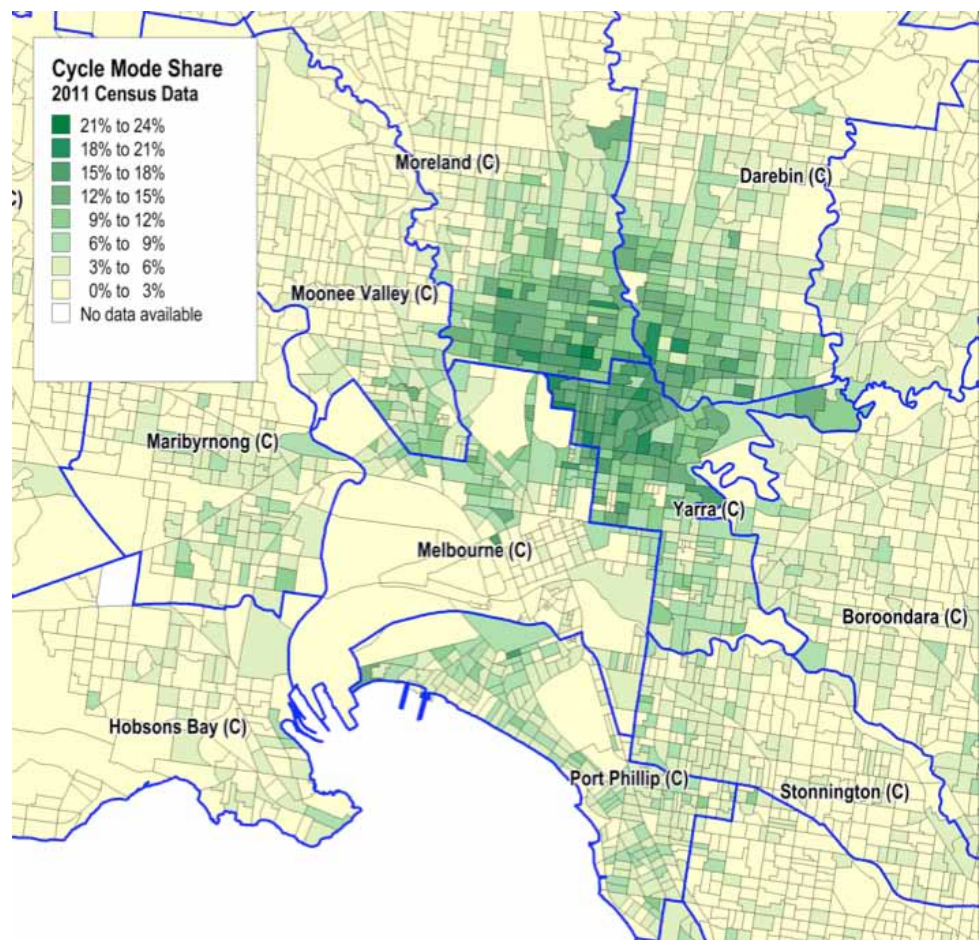
The number of cycling trips originating from the City of Yarra continued to increase in 2011. Over the ten year period between 2001 and 2011 the number of cycling trips originating in the City of Yarra has increased by almost 130%. Over half of all trips originating in the City of Yarra were to the City of Melbourne

Cycling trips to work from the City of Yarra, 1976 to 2011



### Most popular cycling origins by Statistical Area 1 (SA1) for cycling to work in 2011

In 2011, the highest proportion of cycling trips has been generated in the City of Yarra, City of Moreland and City of Darebin. It can be seen that the majority of these work trips originate from the inner north. This may be explained by the demographic factors in these areas as well as the higher quality bicycle infrastructure.



Cycling mode share by Statistical Area 1

## Summary Table of Cycling Trip Origins

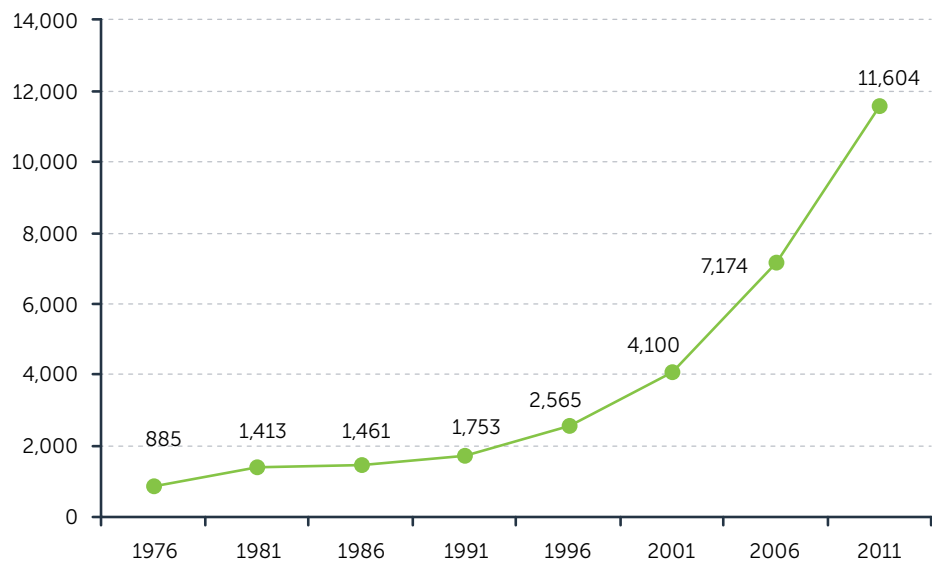
The following table provides details of the number of bicycle trips to work originating in each Local Government area within metropolitan Melbourne.

LOCAL GOVERNMENT AREA	REGION	1976	1981	1986	1991	1996	2001	2006	2011
Yarra	Central	271	527	537	640	1,081	1,591	2,333	3,651
Moreland	Inner	690	872	731	786	730	1,135	2,052	3,454
Darebin	Inner	420	518	471	608	650	925	1,658	2,750
Port Phillip	Central	364	504	634	613	656	988	1,519	2,248
Melbourne	Central	392	561	547	482	342	566	1,050	1,863
Boroondara	Inner	228	410	402	435	515	744	1,095	1,490
Stonnington	Inner	265	371	346	358	476	577	825	1,212
Maribyrnong	Inner	405	264	181	152	217	247	557	971
Moonee Valley	Inner	342	414	399	349	344	477	700	960
Glen Eira	Inner	543	699	577	531	435	486	702	921
Bayside	Middle	273	317	153	194	366	351	516	713
Banyule	Middle	194	271	291	258	317	335	498	606
Monash	Middle	658	797	677	572	509	419	540	593
Kingston	Middle	746	1076	873	844	486	454	488	555
Hobsons Bay	Middle	691	546	424	298	303	384	372	517
Whitehorse	Middle	297	464	389	340	312	336	459	515
Knox	Middle	160	240	337	308	330	281	347	275
Wyndham	Outer	170	207	277	209	146	130	157	246
Mornington Peninsula	Outer	179	261	260	238	215	210	225	240
Maroondah	Middle	140	193	181	152	175	196	240	225
Brimbank	Middle	458	403	274	239	148	138	159	213
Greater Dandenong	Middle	162	241	233	126	296	229	207	204
Frankston	Outer	219	289	330	228	205	188	206	201
Yarra Ranges	Outer	112	186	301	145	150	134	175	175
Casey	Outer	108	166	215	178	171	141	203	156
Hume	Outer	18	24	32	33	145	134	144	148
Manningham	Middle	86	119	116	73	66	84	116	147
Whittlesea	Outer	100	154	126	138	124	115	129	146
Nillumbik	Outer	57	101	104	114	46	37	65	115
Melton	Outer	17	32	64	54	47	37	50	77
Cardinia	Outer	20	35	13	33	45	62	58	52

## 7. CYCLING TO WORK IN THE CITY OF MELBOURNE IN 2011

### Cycling trips to work to the City of Melbourne, 1976 to 2011

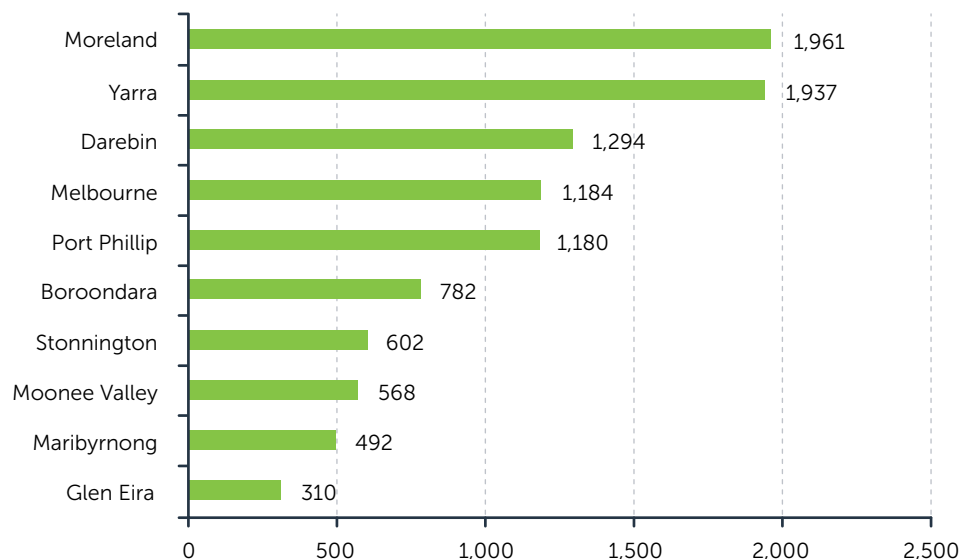
Over the past 35 years the number of cyclists riding to the City of Melbourne for work has shown a considerable increase from 885 work trips in 1976 to 11,604 trips in 2011. The number of cycling trips to work in the City of Melbourne has increased by over 183% in the ten years between 2001 and 2011, or approximately 10% per annum.



Number of bicycle trips to the City of Melbourne

### Origins of cycling trips to work to the City of Melbourne in 2011

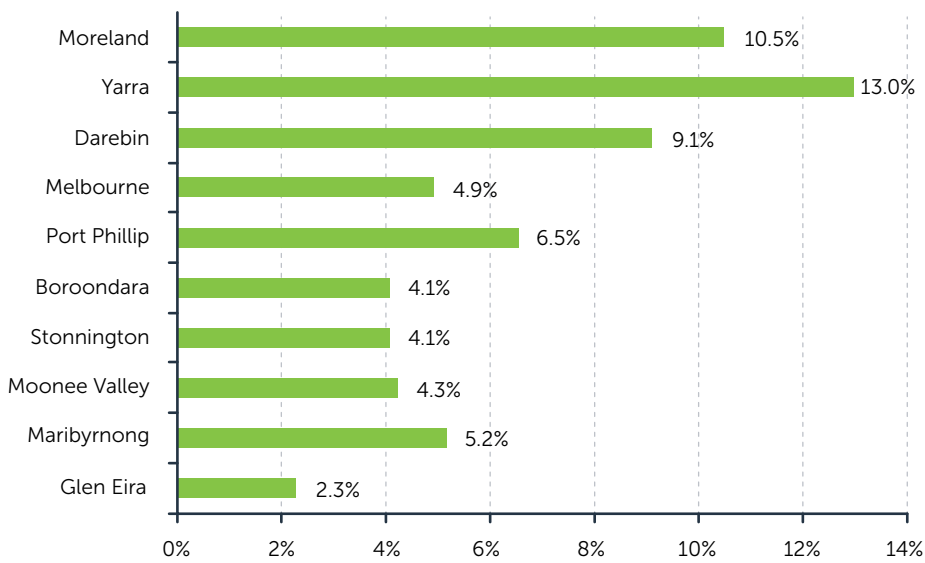
According to the 2011 Census 11,604 cycling trips were recorded with a destination in the City of Melbourne. The highest number of cycling trips originated from within the City of Moreland and the City of Yarra, while approximately 10% of trips to work originated within the City of Melbourne itself.



Total number of trips to the City of Melbourne (11,604)

In 2011, over 10% of work based trips from the City of Moreland and 13% of work based trips from the City of Yarra to the City of Melbourne were made via bicycle. Cycling trips also contributed to a significant proportion of trips to the City of Melbourne from the City of Darebin and the City of Port Phillip.

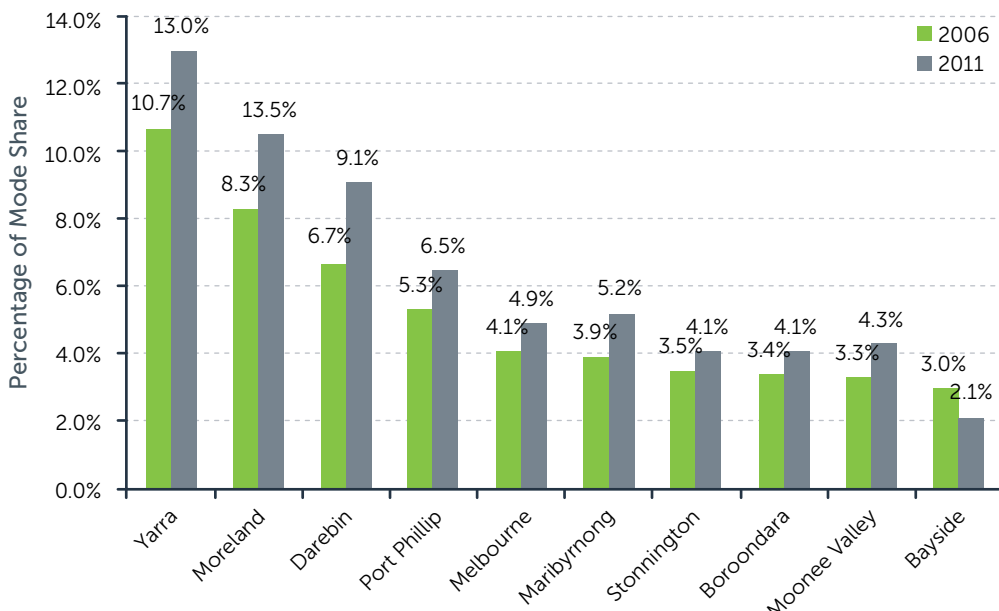
### Mode share of cycling to work to the City of Melbourne in 2011



Cycling mode share to the City of Melbourne by Local Government Area

The cycling mode share for trips to the City of Melbourne has increased across the majority of Local Government Areas in the ten year period between 2001 and 2011. The most significant increases in cycling mode share have been seen in the City of Yarra, City of Moreland and City of Darebin.

### Comparison of cycling mode share for cycling trips to the City of Melbourne, 2001 to 2011



Cycling mode share to the City of Melbourne

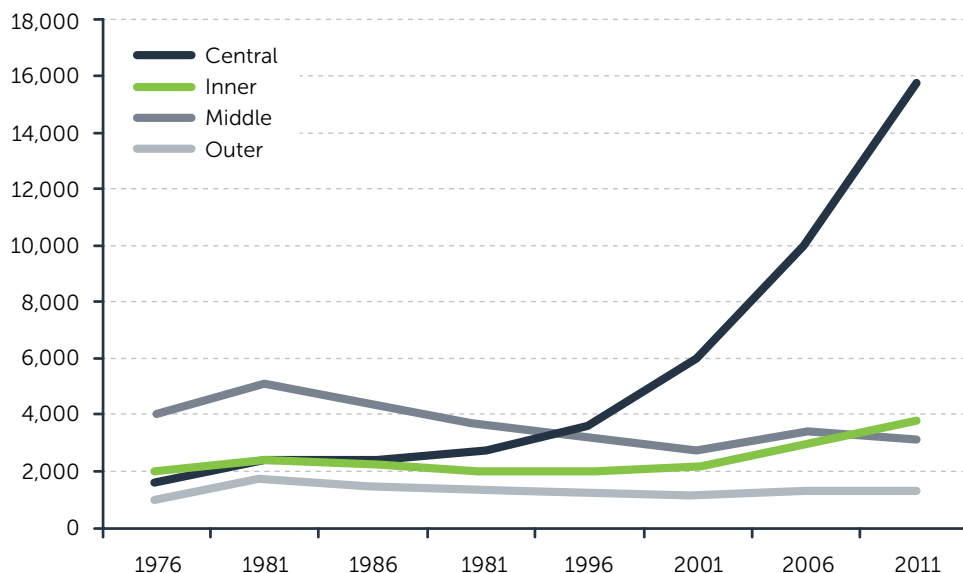
The number of bicycle trips made within the central region of metropolitan Melbourne continues to grow at a considerable rate having increased at a rate of over 10% per annum for the past 10 years.

The numbers of cyclists travelling to work in the Inner regions of Melbourne are also seeing a continued trend of growth, however at a much slower rate than the Central Local Government Areas.

Over 65% of all people who rode to work in metropolitan Melbourne had a destination in either the City of Melbourne, City of Yarra or the City of Port Phillip.

## 8. CYCLING TO WORK IN VICTORIA IN 2011

Cycling trips to work to regions of Melbourne, 1976 to 2011

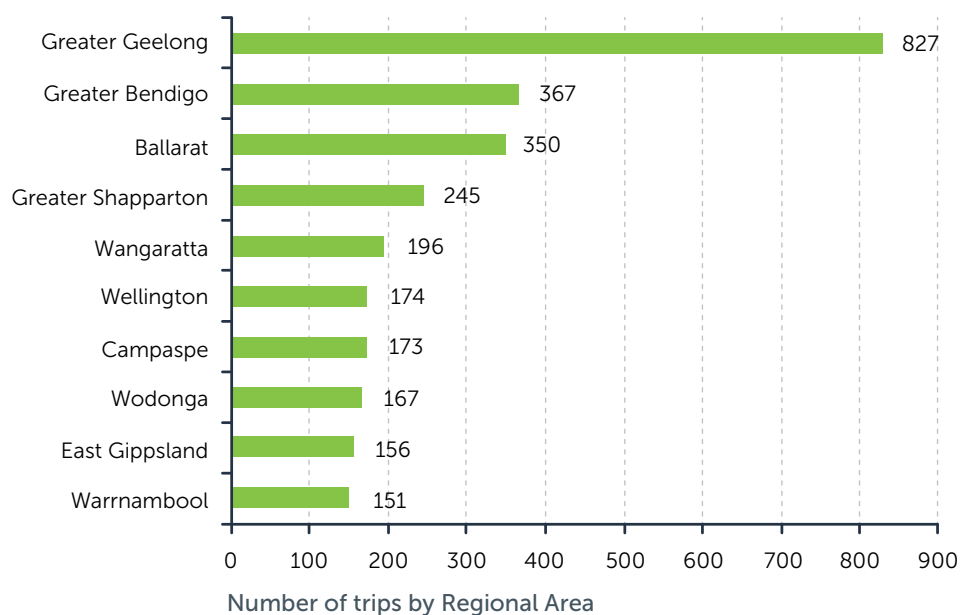


Cycling trips to work to the regions of Melbourne

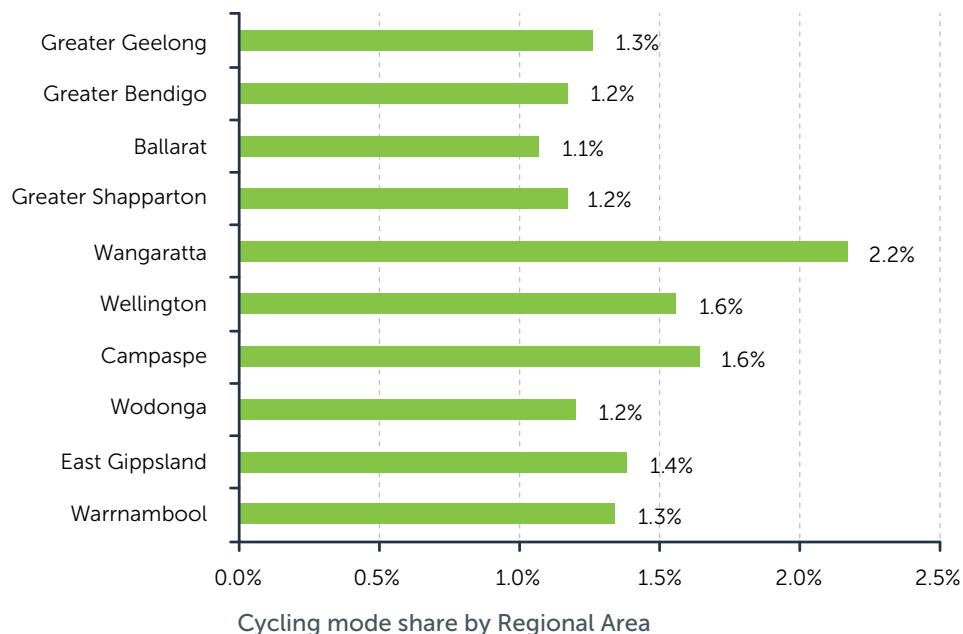
REGION	1976	1981	1986	1991	1996	2001	2006	2011
Central	1586	2359	2323	2835	3734	5885	10177	15716
Inner	1965	2282	2205	1870	1955	2146	2933	3797
Middle	4111	5074	4424	3624	3129	2773	3355	3185
Outer	1123	1646	1461	1437	1230	1155	1380	1272

## Number of cycling trips to work in Regional Victoria in 2011

In 2011 cycling again was a popular mode of transport in the cities and towns of regional Victoria. The largest numbers of cycling trips to work in regional Victoria were recorded in the City of Greater Geelong, followed by the City of Greater Bendigo, the City of Ballarat, and the City of Greater Shepparton. The number of cycling trips originating in The Greater City of Geelong recorded is comparable to many inner and middle Local Government Areas in metropolitan Melbourne.



In terms of mode share the City of Wangaratta had the highest proportion of cycling trips out of all the regional centres. The mode share in Wangaratta is above the mode share for metropolitan Melbourne. The Shire of Wellington and Shire of Campaspe also recorded significant cycling mode shares for journeys to work.





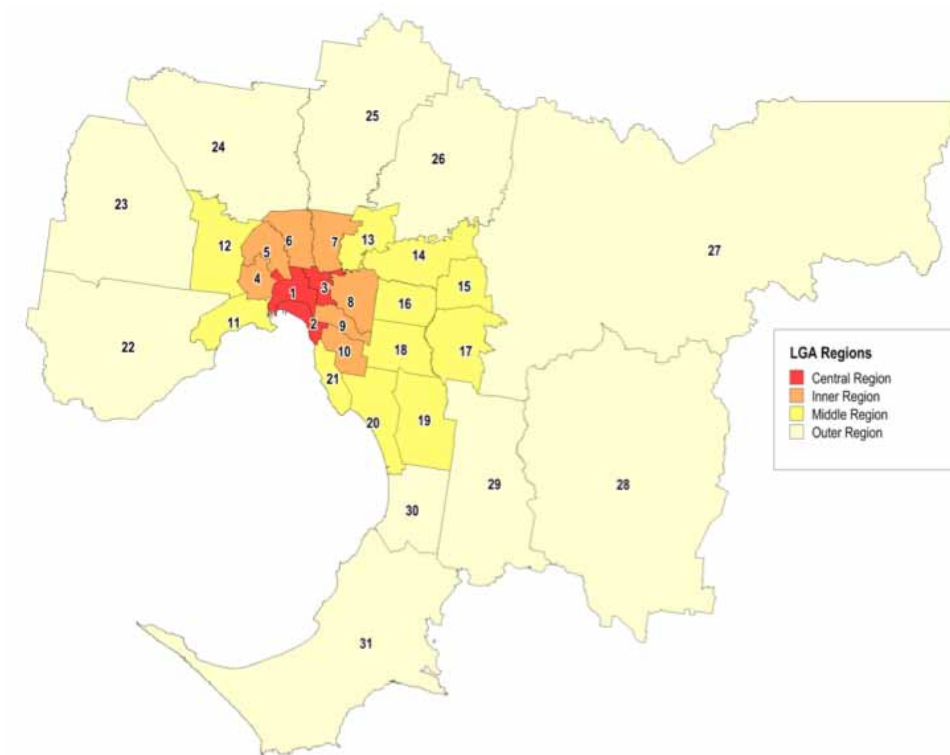
## Summary Table of Regional Cycling Trips

The number of cycling trips to work in regional centres throughout Victoria in 2006 and 2011 has been presented in the table below.

DESTINATION	2006	2011	DESTINATION	2006	2011	DESTINATION	2006	2011
Greater Geelong	833	827	Mount Alexander	65	79	Mansfield	39	35
Greater Bendigo	477	367	Baw Baw	42	56	Strathbogie	51	34
Ballarat	422	350	Benalla	102	56	Ararat	46	32
Greater Shepparton	363	245	Surf Coast	35	56	Moorabool	21	32
Wangaratta	228	196	Glenelg	72	55	Macedon Ranges	39	31
Wellington	235	174	Moyne	36	54	Murrindindi	22	30
Campaspe	278	173	Alpine	72	52	Buloke	44	29
Wodonga	208	167	Swan Hill	73	49	Yarriambiack	40	28
East Gippsland	159	156	Indigo	34	44	Queenscliffe	39	21
Warrnambool	181	151	Mitchell	89	44	Hepburn	6	17
Mildura	182	138	Southern Grampians	52	44	Hindmarsh	26	17
Horsham	172	125	Central Goldfields	54	43	Loddon	16	16
Colac-Otway	162	112	Gannawarra	42	42	Golden Plains	11	12
Latrobe	155	105	South Gippsland	70	41	West Wimmera	11	11
Bass Coast	81	102	Corangamite	65	40	Pyrenees	11	7
Moira	143	102	Northern Grampians	72	40	Towong	7	4

## APPENDIX A – METROPOLITAN REGIONS

Cycling to Work in Melbourne 1976 – 2011 classifies metropolitan Melbourne into four regions to compare cycling trips based on distance from the CBD. These regions are based on Local Government boundaries and have been defined as central, inner, middle and outer regions.



CENTRAL REGION	INNER REGION	MIDDLE REGION	OUTER REGION
1) Melbourne	4) Maribyrnong	11) Hobsons Bay	22) Wyndham
2) Port Phillip	5) Moonee Valley	12) Brimbank	23) Melton
3) Yarra	6) Moreland	13) Banyule	24) Hume
	7) Darebin	14) Manningham	25) Whittlesea
	8) Boroondara	15) Maroondah	26) Nillumbuk
	9) Stonnington	16) Whitehorse	27) Yarra Ranges
	10) Glen Eira	17) Knox	28) Cardinia
		18) Monash	29) Casey
		19) Dandenong	30) Frankston
		20) Kingston	31) Mornington Peninsula
		21) Bayside	