Future Sport Facility Provision in Victoria

2012-2031

Research Report

July 2015

Future Sport Facility Need/Demand
X Research Report
2015

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Executive Summary

This report provides an analysis and summary of the need for X courts in Victoria for the years 2021 and 2031, based on projected populations and population profiles of local government areas, and benchmarked against actual provision of courts in 2012.

It is noted that the level of provision in 2012 differs markedly between LGAs, but benchmarking against some fixed standard or target level rather the status quo for each LGA is beyond the scope of this report, as are issues such as characteristics and capacity of different facilities, levels of usage and the and the extent to which players travel across LGA boundaries.

A X facility is defined as a facility that is associated with X Victoria. Some designated facilities have multiple courts. Counts of courts have been used in preparing this report.

Projections for 2021 based on total population

- Across the state, the total projected number of extra courts required to maintain the status quo in each LGA is 208 (112 metropolitan, 96 non-metropolitan).

- In four non-metropolitan LGAs (Buloke, Corangamite, West Wimmera and Yarriambiack) the required number of courts is projected to decline.

- In four metropolitan LGAs and 13 non-metropolitan LGAs, the required number of courts is projected to be unchanged.

- In the LGAs requiring extra courts, the projected extra number of courts per LGA ranges from 1-19 (27 metropolitan LGAs) and 1-11 (31 non-metropolitan LGAs).

- LGAs with the greatest projected need (more than five extra courts) are (in ascending order of need) Hume, Melbourne, Melton, Casey, Wyndham and Cardinia (metropolitan), and Greater Shepparton, Greater Bendigo, Baw Baw, Greater Geelong and Mitchell (non-metropolitan).

Projections for 2031 based on total population

- Across the state, the total projected number of extra courts required to maintain the status quo in each LGA is 479 (238 metropolitan, 241 non-metropolitan).

As expected with population growth predominantly within metropolitan regions rather than non-metropolitan regions, there is a greater need for X courts in metropolitan Melbourne than regional Victoria. In many metropolitan situations the projected requirements of additional courts and facilities will not be feasible due to restricted space. Therefore within metropolitan Melbourne it is recommended that capacity of courts and clubs is further investigated, with this to include not only number of participants but also number of teams and playing frequency, with consideration of court lighting which may impact on court usage capacity. With respect to non-metropolitan Melbourne in particular, it is recommended that oval and facility development strategies are directed to those areas of greatest need, as highlighted in this report. Furthermore considerations to distance travelled for players to play could assist in the understanding of additional court and facility requirements.

Future Sport Facility Provision

Access to sports facilities is an important factor with regard to participation in sport[1]. The presence of and proximity to facilities for physical activity and sport has been found to be positively associated with participation levels[2,3]. This report provides an analysis and summary of the need for X courts in Victoria for the years 2021 and 2031, based on projected populations and population profiles of local government areas, and benchmarked against actual provision of courts in 2012.

A X facility is defined as a facility that is associated with X Victoria. The data sources are: an audit of sport facilities conducted during 2011-2012 by Sport and Recreation Victoria, Department of Transport, Planning and Local Infrastructure (SRV), and validated by local government authorities; player registration data provided by X Victoria; and 2012 estimated resident population (ERP) figures for each local government area (LGA) from the Australian Bureau of Statistics.

Some designated facilities have multiple courts. Counts of courts have been used in preparing this report.

Rates of facility provision can be expressed in two ways:

1) as a **supply rate**: the number of courts per 1,000 persons in the population (or in relevant population segments).

2) as an **inverse supply rate**: the number of persons in the population (or in relevant population segments) per court.

The supply rate and inverse supply rate carry the same information – mathematically each is the reciprocal of the other. In accordance with common usage by sports, LGAs and SRV, this report is framed in terms of inverse supply rates. Throughout the remainder of this report the term 'rate' refers to 'inverse supply rate'.

With regard to population segments, the rates in this report are based on 1) total population and 2) population aged 0-29 years.

Method

The following steps have been implemented.

1. Calculate the **actual rate of court provision** for each LGA as at 2012, using actual court counts and 2012 estimated resident population (ERP).

$$\text{rate}_{2012} = \text{population}_{2012}/n_{2012}$$

2. For 2021 and 2031, calculate **projected rates of court provision if no further courts were built**, using actual court counts for 2012 and projected resident population (PRP) for 2021 and 2031.

$$\text{rate}_{projected} = \text{population}_{projected}/n_{2012}$$

3. For 2021 and 2031, calculate the number of **extra courts required to maintain the 2012 rate for each LGA (status quo)**. This is calculated as follows:

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The future number of courts and the future rate are related as follows:

$$\text{rate}_{future} = \text{population}_{projected}/\text{n}_{future}$$

or

$$\text{n}_{future} = \text{population}_{projected}/\text{rate}_{future}$$

The extra number of courts in the future is:

$$\text{n}_{extra} = \text{n}_{future} - \text{n}_{2012} = \text{population}_{projected}/\text{rate}_{future} - \text{n}_{2012}$$

To maintain the status quo, the future "target" rate is the 2012 rate

$$\text{rate}_{future} = \text{rate}_{2012}$$

and so

$$\text{n}_{extra} = \text{n}_{future} - \text{n}_{2012} = \text{population}_{projected}/\text{rate}_{2012} - \text{n}_{2012}$$

rounded to a whole number.

Tables 1 to 4 and Figures 1-4 show the outcomes of step 3 i.e. the projected numbers of extra courts required in 2021 and 2031 in each of the 79 LGAs in order to maintain the status quo, on the basis of total population and population aged 0-29 years.

LGAs are ranked within each region, in ascending order of the projected number of courts required. Rounding the extra number of courts required to the nearest whole number results in many cases of tied ranks (i.e. groups of LGAs with equal numbers of extra courts required). The way tied ranks are presented is explained in a note under each graph and table.

Negative numbers of extra courts represent "oversupply" indicating a relative lack of need for extra courts where populations are projected to fall.

Key Points

Projections for 2021 based on total population (Figure 1 and Table 1)

· Across the state, the total projected number of extra courts required to maintain the status quo in each LGA is 208 (112 metropolitan, 96 non-metropolitan).

· In four non-metropolitan LGAs (Buloke, Corangamite, West Wimmera and Yarriambiack) the required number of courts is projected to decline.

· In four metropolitan LGAs and 13 non-metropolitan LGAs, the required number of courts is projected to be unchanged.

· In the LGAs requiring extra courts, the projected extra number of courts per LGA ranges from 1-19 (27 metropolitan LGAs) and 1-11 (31 non-metropolitan LGAs).

· LGAs with the greatest projected need (more than five extra courts) are (in ascending order of need) Hume, Melbourne, Melton, Casey, Wyndham and Cardinia (metropolitan), and Greater Shepparton, Greater Bendigo, Baw Baw, Greater Geelong and Mitchell (non-metropolitan).

Projections for 2021 based on population aged 0-29 years (Figure 2 and Table 2)
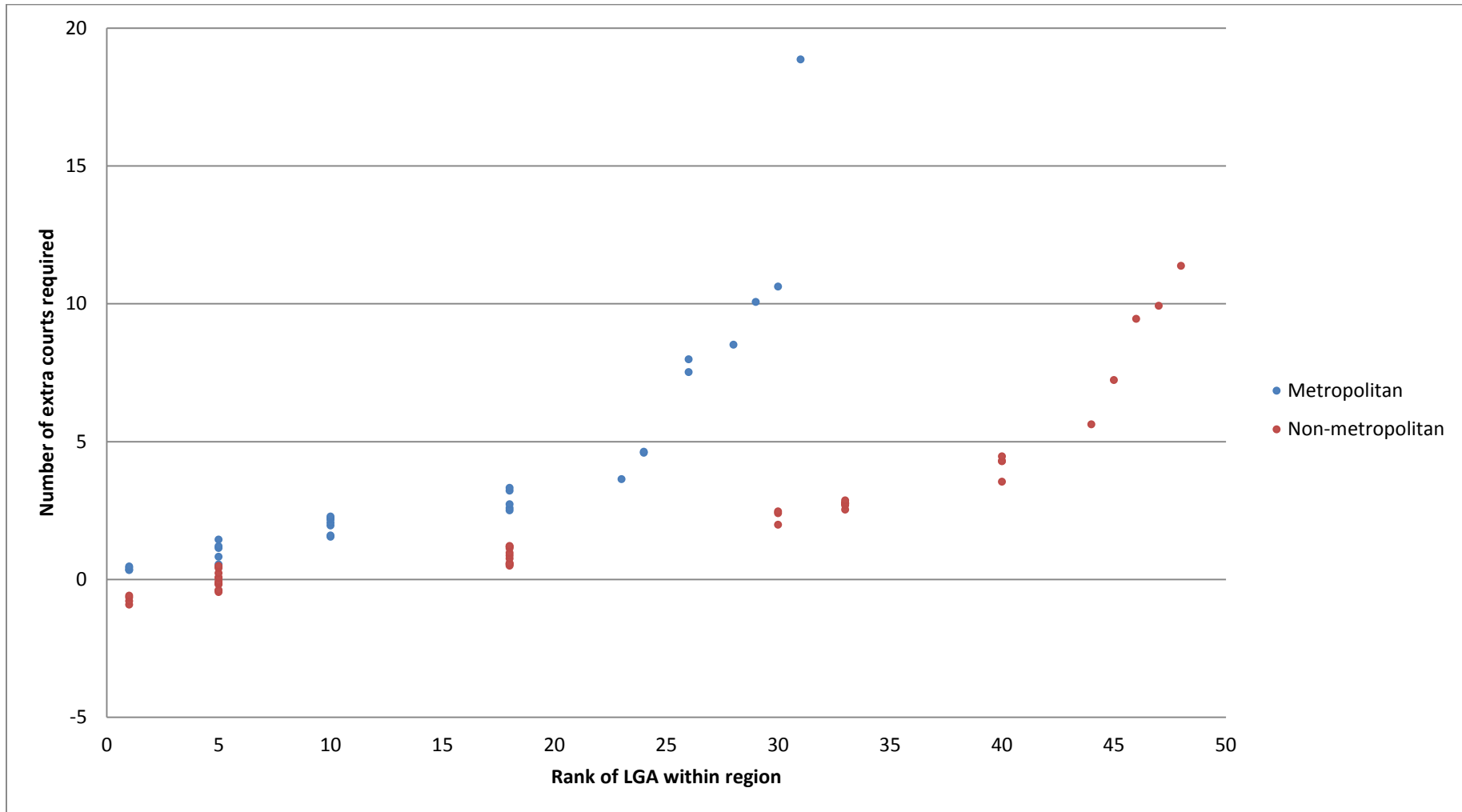
- Across the state, the total projected number of extra courts required to maintain the status quo in each LGA is 143 (79 metropolitan, 64 non-metropolitan).

- While the general pattern of variation displayed on Figure 2 is similar to that of Figure 1, the required numbers of extra courts are generally lower, and in particular more LGAs are "oversupplied" (negative numbers of extra courts). This is indicative of an ageing population profile, with populations aged 0-29 projected to increase less than overall population.

Projections for 2031 based on total population (Figure 3 and Table 3)

- Across the state, the total projected number of extra courts required to maintain the status quo in each LGA is 479 (238 metropolitan, 241 non-metropolitan).

- While the general pattern of variation displayed on Figure 3 is similar to that of Figure 1, the required numbers of extra courts are generally higher, particularly in LGAs where the projected growth in demand is highest. This reflects the fact that over the longer timeframe to 2031, the difference in population growth between old established centres of population and newly developing areas is accentuated.

Projections for 2031 based on population aged 0-29 years (Figure 4 and Table 4)

- Across the state, the total projected number of extra courts required to maintain the status quo in each LGA is 343 (172 metropolitan, 171 non-metropolitan).

- While the general pattern of variation displayed on Figure 4 is similar to that of Figure 3, the required numbers of extra courts are generally lower, and in particular more LGAs are "oversupplied" (negative numbers of extra courts). This is indicative of an ageing population profile, with populations aged 0-29 projected to increase less than overall population.

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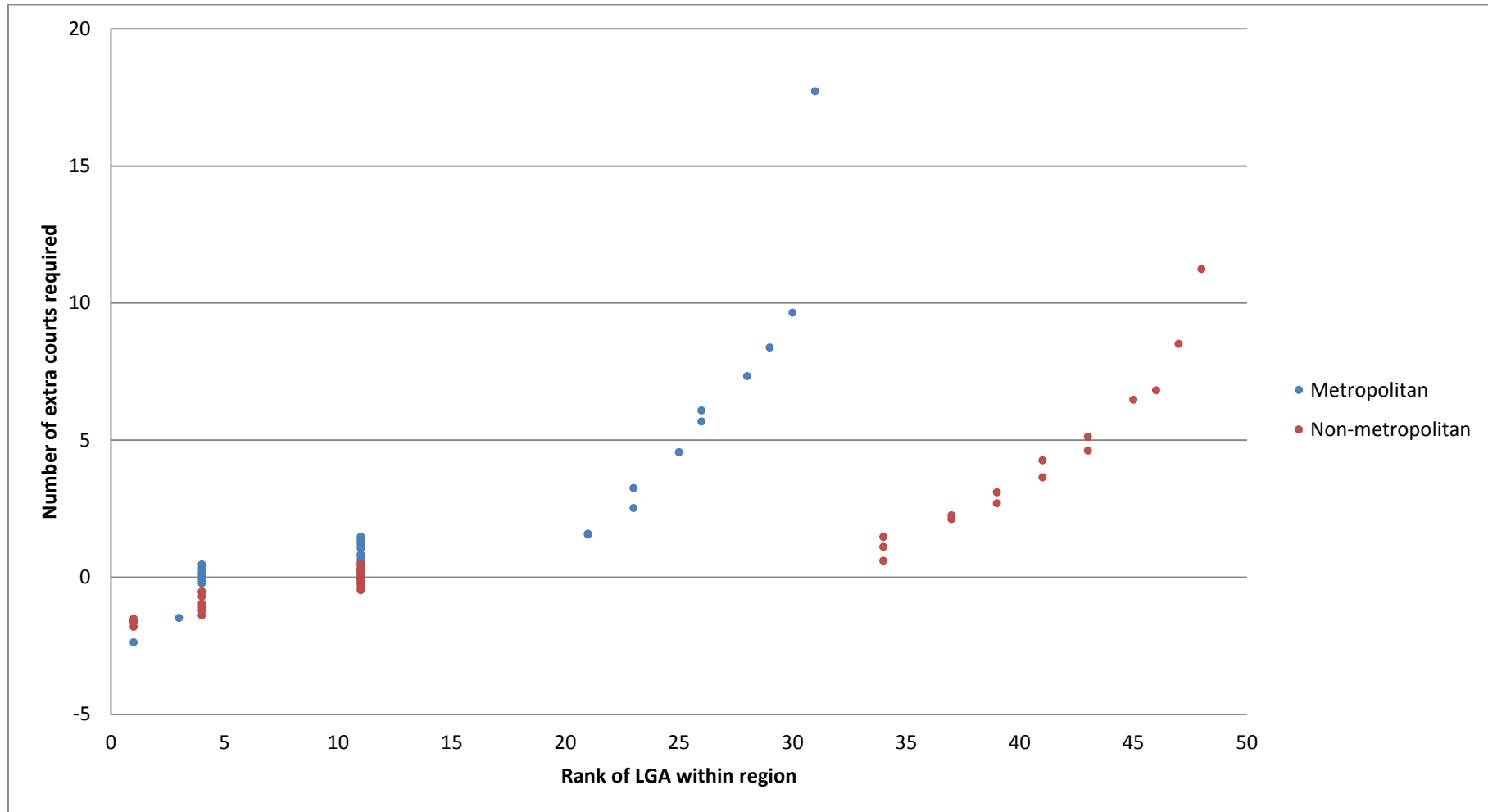*2015*

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Note: Ranks are in ascending order within each region, so a rank of 1 represents the lowest required number of extra courts. The rankings are based on rounded whole number estimates of extra courts required, resulting in many ties (i.e. groups of LGAs with equal numbers of extra courts required). If a group of LGAs is tied, each LGA in the group is given the same rank, equal to the lowest of the range of ranks. e.g. If three tied LGAs share ranks 23-25, they are each assigned a rank of 23, and the next ranked LGA is assigned a rank of 26. However, the exact calculated (unrounded) number of courts is displayed on the graph, resulting in vertical groups of points which indicate how many LGAs are tied. Negative numbers of extra courts represent "oversupply" where populations are projected to fall.

Figure 1. Projected requirement for extra courts in 2021 to maintain the 2012 status quo (based on total population): by LGA

Table 1. Projected requirement for extra courts in 2021 to maintain the 2012 status quo (based on total population): by LGA

LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]
Metropolitan			Whitehorse (C)	2	10	Indigo (S)	0	5
Banyule (C)	0	1	Whittlesea (C)	4	23	Latrobe (C)	3	33
Bayside (C)	1	5	Wyndham (C)	11	30	Loddon (S)	0	5
Boroondara (C)	1	5	Yarra (C)	3	18	Macedon Ranges (S)	1	18
Brimbank (C)	0	1	Yarra Ranges (S)	2	10	Mansfield (S)	0	5
Cardinia (S)	19	31	**Non-metropolitan**			Mildura (RC)	3	33
Casey (C)	10	29	Alpine (S)	0	5	Mitchell (S)	11	48
Darebin (C)	2	10	Ararat (RC)	0	5	Moira (S)	3	33
Frankston (C)	2	10	Ballarat (C)	4	40	Moorabool (S)	3	33
Glen Eira (C)	1	5	Bass Coast (S)	4	40	Mount Alexander (S)	1	18
Greater Dandenong (C)	3	18	Baw Baw (S)	9	46	Moyne (S)	1	18
Hobsons Bay (C)	1	5	Benalla (RC)	1	18	Murrindindi (S)	1	18
Hume (C)	8	26	Buloke (S)	-1	1	Northern Grampians (S)	0	5
Kingston (C)	3	18	Campaspe (S)	2	30	Pyrenees (S)	1	18
Knox (C)	3	18	Central Goldfields (S)	1	18	Queenscliffe (B)	0	5
Manningham (C)	2	10	Colac-Otway (S)	0	5	South Gippsland (S)	2	30
Maribyrnong (C)	5	24	Corangamite (S)	-1	1	Southern Grampians (S)	0	5
Maroondah (C)	2	10	East Gippsland (S)	3	33	Strathbogie (S)	1	18
Melbourne (C)	8	26	Gannawarra (S)	0	5	Surf Coast (S)	2	30
Melton (S)	9	28	Glenelg (S)	0	5	Swan Hill (RC)	1	18
Monash (C)	3	18	Golden Plains (S)	4	40	Towong (S)	0	5
Moonee Valley (C)	2	10	Greater Bendigo (C)	7	45	Wangaratta (RC)	1	18
Moreland (C)	1	5	Greater Geelong (C)	10	47	Warrnambool (C)	3	33
Mornington Peninsula (S)	5	24	Greater Shepparton (C)	6	44	Wellington (S)	3	33
Nillumbik (S)	0	1	Hepburn (S)	1	18	West Wimmera (S)	-1	1
Port Phillip (C)	0	1	Hindmarsh (S)	0	5	Wodonga (RC)	4	40
Stonnington (C)	2	10	Horsham (RC)	1	18	Yarriambiack (S)	-1	1

[1] Ranking within region (metropolitan and non-metropolitan). Ranks are in ascending order within each region, so a rank of 1 represents the lowest required number of extra courts. The rankings are based on rounded whole number estimates of extra courts required, resulting in many ties (i.e. groups of LGAs with equal numbers of extra courts required). If a group of LGAs is tied, each LGA in the group is given the same rank, equal to the lowest of the range of ranks. e.g. If three tied LGAs share ranks 23-25, they are each assigned a rank of 23, and the next ranked LGA is assigned a rank of 26. Negative numbers of extra courts represent "oversupply" where populations are projected to fall.

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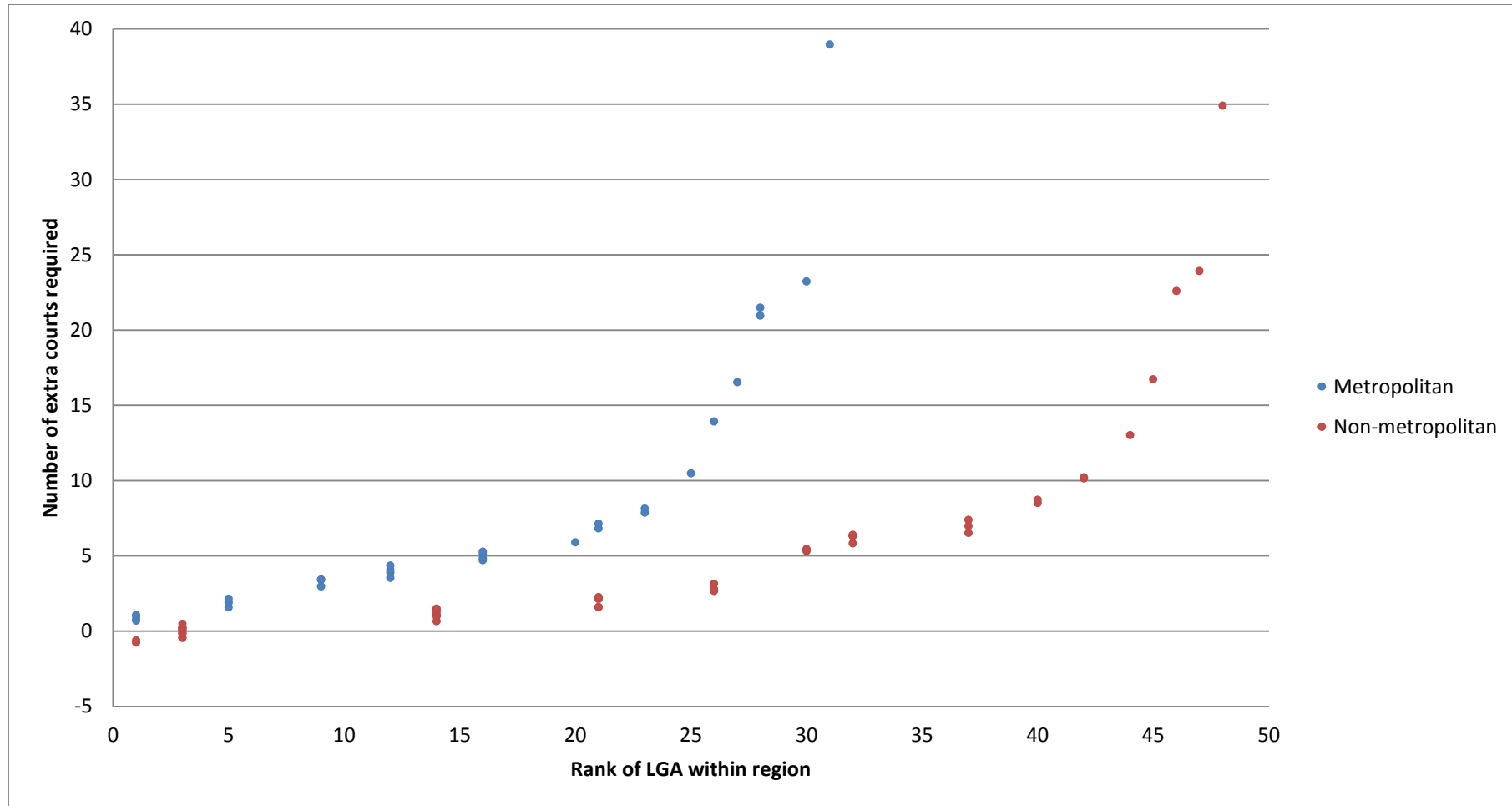*2015*

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Figure 2. Projected requirement for extra courts in 2021 to maintain the 2012 status quo, (based on population aged 0-29 years): by LGA

Table 2. Projected requirement for extra courts in 2021 to maintain the 2012 status quo, (based on population aged 0-29 years): by LGA

LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]
Metropolitan			Whitehorse (C)	2	21	Indigo (S)	0	11
Banyule (C)	0	4	Whittlesea (C)	3	23	Latrobe (C)	0	11
Bayside (C)	0	4	Wyndham (C)	10	30	Loddon (S)	0	11
Boroondara (C)	0	4	Yarra (C)	1	11	Macedon Ranges (S)	0	11
Brimbank (C)	0	4	Yarra Ranges (S)	-1	3	Mansfield (S)	0	11
Cardinia (S)	18	31	**Non-metropolitan**			Mildura (RC)	1	34
Casey (C)	8	29	Alpine (S)	0	11	Mitchell (S)	11	48
Darebin (C)	1	11	Ararat (RC)	0	11	Moira (S)	-1	4
Frankston (C)	0	4	Ballarat (C)	4	41	Moorabool (S)	2	37
Glen Eira (C)	1	11	Bass Coast (S)	5	43	Mount Alexander (S)	-1	4
Greater Dandenong (C)	1	11	Baw Baw (S)	9	47	Moyne (S)	0	11
Hobsons Bay (C)	1	11	Benalla (RC)	0	11	Murrindindi (S)	0	11
Hume (C)	6	26	Buloke (S)	-2	1	Northern Grampians (S)	-1	4
Kingston (C)	1	11	Campaspe (S)	-1	4	Pyrenees (S)	0	11
Knox (C)	-2	1	Central Goldfields (S)	0	11	Queenscliffe (B)	0	11
Manningham (C)	1	11	Colac-Otway (S)	0	11	South Gippsland (S)	0	11
Maribyrnong (C)	5	25	Corangamite (S)	-2	1	Southern Grampians (S)	-1	4
Maroondah (C)	0	4	East Gippsland (S)	2	37	Strathbogie (S)	0	11
Melbourne (C)	6	26	Gannawarra (S)	1	34	Surf Coast (S)	3	39
Melton (S)	7	28	Glenelg (S)	-2	1	Swan Hill (RC)	0	11
Monash (C)	1	11	Golden Plains (S)	5	43	Towong (S)	0	11
Moonee Valley (C)	2	21	Greater Bendigo (C)	6	45	Wangaratta (RC)	0	11
Moreland (C)	1	11	Greater Geelong (C)	7	46	Warrnambool (C)	1	34
Mornington Peninsula (S)	3	23	Greater Shepparton (C)	4	41	Wellington (S)	0	11
Nillumbik (S)	-2	1	Hepburn (S)	0	11	West Wimmera (S)	-1	4
Port Phillip (C)	0	4	Hindmarsh (S)	0	11	Wodonga (RC)	3	39
Stonnington (C)	1	11	Horsham (RC)	0	11	Yarriambiack (S)	-1	4

[1] Ranking within region (metropolitan and non-metropolitan). Ranks are in ascending order within each region, so a rank of 1 represents the lowest required number of extra courts. The rankings are based on rounded whole number estimates of extra courts required, resulting in many ties (i.e. groups of LGAs with equal numbers of extra courts required). If a group of LGAs is tied, each LGA in the group is given the same rank, equal to the lowest of the range of ranks. e.g. If three tied LGAs share ranks 23-25, they are each assigned a rank of 23, and the next ranked LGA is assigned a rank of 26. Negative numbers of extra courts represent "oversupply" where populations are projected to fall.

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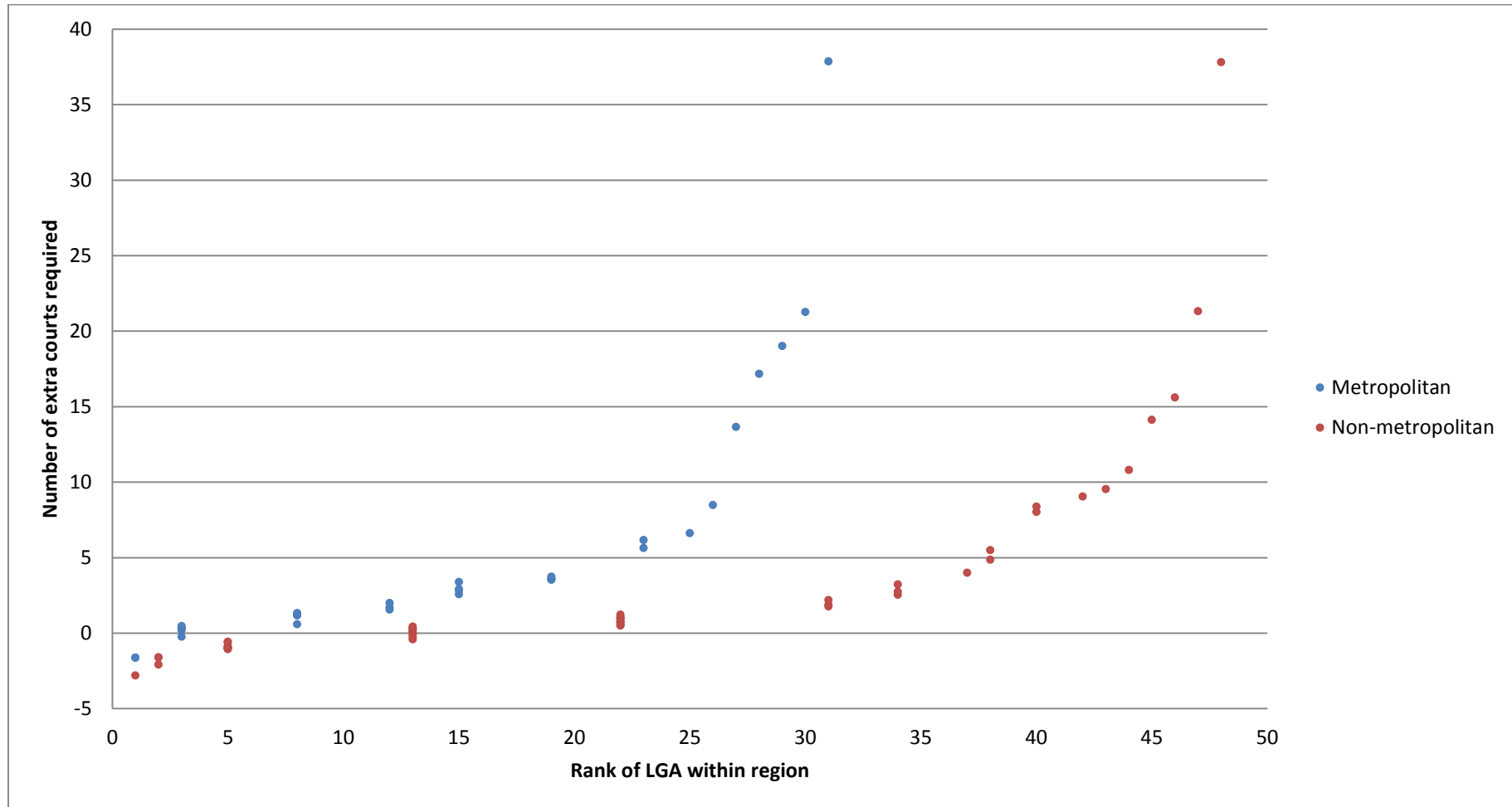*2015*

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Figure 3. Projected requirement for extra courts in 2031 to maintain the 2012 status quo (based on total population): by LGA

Table 3. Projected requirement for extra courts in 2031 to maintain the 2012 status quo (based on total population): by LGA

LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]
Metropolitan			Whitehorse (C)	4	12	Indigo (S)	1	14
Banyule (C)	1	1	Whittlesea (C)	7	21	Latrobe (C)	7	37
Bayside (C)	1	1	Wyndham (C)	21	28	Loddon (S)	0	3
Boroondara (C)	2	5	Yarra (C)	5	16	Macedon Ranges (S)	3	26
Brimbank (C)	1	1	Yarra Ranges (S)	6	20	Mansfield (S)	0	3
Cardinia (S)	39	31	**Non-metropolitan**			Mildura (RC)	6	32
Casey (C)	21	28	Alpine (S)	0	3	Mitchell (S)	35	48
Darebin (C)	5	16	Ararat (RC)	1	14	Moira (S)	6	32
Frankston (C)	3	9	Ballarat (C)	10	42	Moorabool (S)	6	32
Glen Eira (C)	2	5	Bass Coast (S)	10	42	Mount Alexander (S)	2	21
Greater Dandenong (C)	5	16	Baw Baw (S)	24	47	Moyne (S)	3	26
Hobsons Bay (C)	3	9	Benalla (RC)	1	14	Murrindindi (S)	2	21
Hume (C)	17	27	Buloke (S)	-1	1	Northern Grampians (S)	0	3
Kingston (C)	7	21	Campaspe (S)	6	32	Pyrenees (S)	1	14
Knox (C)	8	23	Central Goldfields (S)	1	14	Queenscliffe (B)	0	3
Manningham (C)	4	12	Colac-Otway (S)	2	21	South Gippsland (S)	5	30
Maribyrnong (C)	8	23	Corangamite (S)	0	3	Southern Grampians (S)	0	3
Maroondah (C)	4	12	East Gippsland (S)	6	32	Strathbogie (S)	2	21
Melbourne (C)	14	26	Gannawarra (S)	0	3	Surf Coast (S)	5	30
Melton (S)	23	30	Glenelg (S)	1	14	Swan Hill (RC)	2	21
Monash (C)	5	16	Golden Plains (S)	9	40	Towong (S)	0	3
Moonee Valley (C)	4	12	Greater Bendigo (C)	17	45	Wangaratta (RC)	3	26
Moreland (C)	2	5	Greater Geelong (C)	23	46	Warrnambool (C)	7	37
Mornington Peninsula (S)	10	25	Greater Shepparton (C)	13	44	Wellington (S)	7	37
Nillumbik (S)	2	5	Hepburn (S)	3	26	West Wimmera (S)	-1	1
Port Phillip (C)	1	1	Hindmarsh (S)	0	3	Wodonga (RC)	9	40
Stonnington (C)	3	9	Horsham (RC)	1	14	Yarriambiack (S)	0	3

[1] Ranking within region (metropolitan and non-metropolitan). Ranks are in ascending order within each region, so a rank of 1 represents the lowest required number of extra courts. The rankings are based on rounded whole number estimates of extra courts required, resulting in many ties (i.e. groups of LGAs with equal numbers of extra courts required). If a group of LGAs is tied, each LGA in the group is given the same rank, equal to the lowest of the range of ranks. e.g. If three tied LGAs share ranks 23-25, they are each assigned a rank of 23, and the next ranked LGA is assigned a rank of 26. Negative numbers of extra courts represent "oversupply" where populations are projected to fall.

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Figure 4. Projected requirement for extra courts in 2031 to maintain the 2012 status quo (based on population aged 0-29 years): by LGA

Table 4. Projected requirement for extra courts in 2031 to maintain the 2012 status quo (based on population aged 0-29 years): by LGA

LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]	LGA name	Extra courts required	Rank[1]
Metropolitan			Whitehorse (C)	3	15	Indigo (S)	1	22
Banyule (C)	0	3	Whittlesea (C)	7	25	Latrobe (C)	3	34
Bayside (C)	0	3	Wyndham (C)	19	29	Loddon (S)	-1	5
Boroondara (C)	1	8	Yarra (C)	4	19	Macedon Ranges (S)	1	22
Brimbank (C)	0	3	Yarra Ranges (S)	0	3	Mansfield (S)	1	22
Cardinia (S)	38	31	**Non-metropolitan**			Mildura (RC)	3	34
Casey (C)	17	28	Alpine (S)	0	13	Mitchell (S)	38	48
Darebin (C)	4	19	Ararat (RC)	0	13	Moira (S)	0	13
Frankston (C)	0	3	Ballarat (C)	9	42	Moorabool (S)	5	38
Glen Eira (C)	1	8	Bass Coast (S)	11	44	Mount Alexander (S)	-1	5
Greater Dandenong (C)	4	19	Baw Baw (S)	21	47	Moyne (S)	1	22
Hobsons Bay (C)	2	12	Benalla (RC)	0	13	Murrindindi (S)	1	22
Hume (C)	14	27	Buloke (S)	-2	2	Northern Grampians (S)	-1	5
Kingston (C)	4	19	Campaspe (S)	-1	5	Pyrenees (S)	0	13
Knox (C)	-2	1	Central Goldfields (S)	-1	5	Queenscliffe (B)	0	13
Manningham (C)	3	15	Colac-Otway (S)	1	22	South Gippsland (S)	2	31
Maribyrnong (C)	6	23	Corangamite (S)	-3	1	Southern Grampians (S)	-2	2
Maroondah (C)	2	12	East Gippsland (S)	4	37	Strathbogie (S)	0	13
Melbourne (C)	6	23	Gannawarra (S)	1	22	Surf Coast (S)	5	38
Melton (S)	21	30	Glenelg (S)	-2	2	Swan Hill (RC)	2	31
Monash (C)	3	15	Golden Plains (S)	10	43	Towong (S)	-1	5
Moonee Valley (C)	3	15	Greater Bendigo (C)	14	45	Wangaratta (RC)	0	13
Moreland (C)	1	8	Greater Geelong (C)	16	46	Warrnambool (C)	3	34
Mornington Peninsula (S)	8	26	Greater Shepparton (C)	8	40	Wellington (S)	2	31
Nillumbik (S)	-2	1	Hepburn (S)	1	22	West Wimmera (S)	-1	5
Port Phillip (C)	1	8	Hindmarsh (S)	0	13	Wodonga (RC)	8	40
Stonnington (C)	2	12	Horsham (RC)	1	22	Yarriambiack (S)	-1	5

[1] Ranking within region (metropolitan and non-metropolitan). Ranks are in ascending order within each region, so a rank of 1 represents the lowest required number of extra courts. The rankings are based on rounded whole number estimates of extra courts required, resulting in many ties (i.e. groups of LGAs with equal numbers of extra courts required). If a group of LGAs is tied, each LGA in the group is given the same rank, equal to the lowest of the range of ranks. e.g. If three tied LGAs share ranks 23-25, they are each assigned a rank of 23, and the next ranked LGA is assigned a rank of 26. Negative numbers of extra courts represent "oversupply" where populations are projected to fall.

References

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Data accuracy

This report is based on: facility data collected during 2011-2012 by Sport and Recreation Victoria, Department of Transport, Planning and Local Infrastructure, and validated by local government authorities; 2012 Estimated Resident Population, Australian Bureau of Statistics; and population projections for 2021 and 2031 produced in 2014 by the Department of Transport, Planning and Local Infrastructure. The results in this report are based on the datasets as they stand at the date of publication.

Limitations

The authors acknowledge that the analysis in this report, while extensive and detailed, is limited in depth since it takes no account of issues such as the quality or condition of facilities, geographical concentration of facilities or travel across LGA boundaries, for which data are either not available at all or limited in quality and scope. Nor are the issues of land requirements, land availability or development costs addressed. Nevertheless, the report represents a first level of objective analysis using the most readily accessible data to support evidence-based decision making regarding the disposition of resources for the future provision of sports infrastructure.