

# City of Maribyrnong: social needs, gaps in transit

Dr James Reynolds

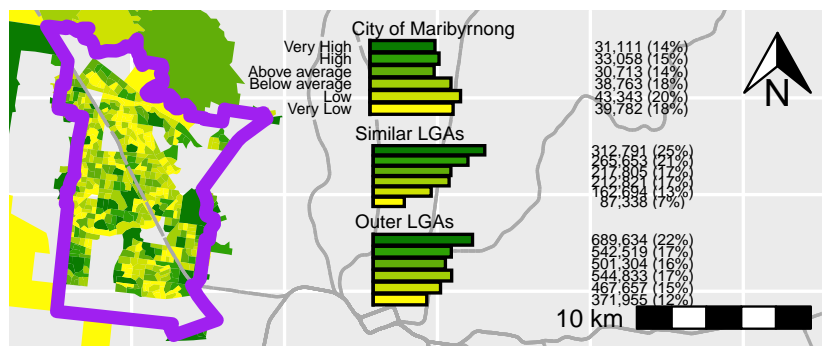
2024-11-01

This note explores social needs for transport, and transit provision in the City of Maribyrnong, using the Currie and Sendbergs (2007) methodology<sup>1</sup>. In Victoria, public transport is managed by the state government, although Local Government Authorities (LGAs) may have influence through planning processes, advocacy etc. However, it is unclear how much transit is supplied or how well social needs are met for each LGA. This note examines the City of Maribyrnong in 2021 and 2023, and is part of a series on LGAs in Greater Melbourne<sup>2</sup>.

## METHODS:

Scores for transit supply and transport needs were calculated based on the Victorian GTFS feed<sup>3</sup> and Australian Bureau of Statistics (ABS) data using the *gtfssupplyindex* R package<sup>4</sup> as per Reynolds, Currie and Qu (in drafting)<sup>5</sup>. Results are shown for the ABS' Statistical Area 1s (SA1s), categorized based on averages across the Melbourne Greater Capital City Statistical Area (GCCSA).

RESULTS: Social needs for transport Figure 1 compares social needs for LGAs similarly located in the middle suburbs<sup>6</sup> and the outer parts of Greater Melbourne, beyond the inner and middle suburbs, with those for the City of Maribyrnong.



<sup>1</sup> Graham Currie and Zed Senbergs, "Identifying Spatial Gaps in Public Transport Provision for Socially Disadvantaged Australians: The Melbourne 'Needs Gap' Study," 2007; Graham Currie, "Quantifying Spatial Gaps in Public Transport Supply Based on Social Needs," *Journal of Transport Geography* 18, no. 1 (2010): 31-41.

<sup>2</sup> See [https://github.com/James-Reynolds/gtfssupplyindex\\_melbounre\\_LGA\\_2024](https://github.com/James-Reynolds/gtfssupplyindex_melbounre_LGA_2024) but lookout, I misspelled "Melbourne"

<sup>3</sup> Results are based on GTFS feeds for August 2021 and 2023, so may not match services run.

<sup>4</sup> See <https://github.com/James-Reynolds/gtfssupplyindex>

<sup>5</sup> James Reynolds, Graham Currie, and Yanda Qu, "Social Needs for Transport and Gaps in Transit Service: New GTFS Tools," *In Drafting*, 2024.

<sup>6</sup> LGAs: Hobsons Bay, Brimbank, Moonee Valley, Merri-Bek, Darebin, Banyule, Boroondara, Stonnington, Glen Eira and Bayside.

Figure 1: Needs in 2021 by population

Needs were higher than the Melbourne average for 43.8% of the City of Maribyrnong's population, which is a lower proportion than for the other similar middle-suburban LGAs (63.2%)<sup>7</sup> or the outer parts of Greater Melbourne (55.6%)<sup>8</sup>.

Figure 2 shows the distribution of transit service in 2021 and 2023.

<sup>7</sup> Differences were statistically significant ( $\chi^2(5) = 133.06$ ,  $p < .001$ )

<sup>8</sup> Differences were statistically significant ( $\chi^2(5) = 37.68$ ,  $p < .001$ ).

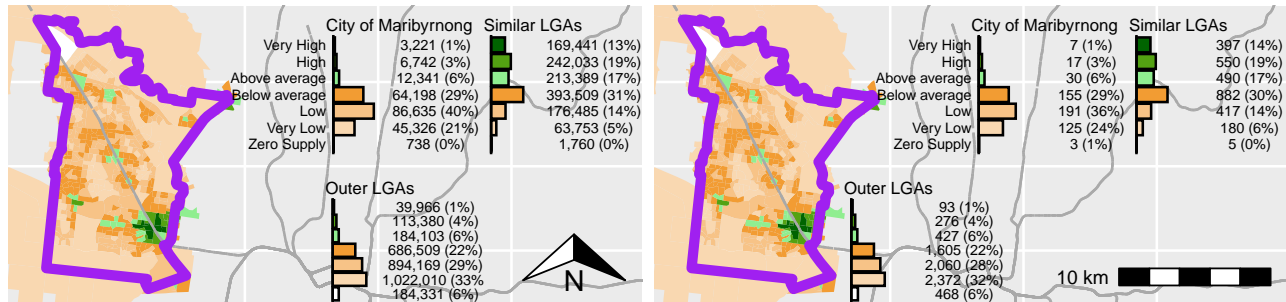


Figure 2: Transport Supply 2021 (left, by population) and 2023 (right, by SA1)

Transit service levels were below the Melbourne average for 89.8% of City of Maribyrnong residents in 2021, which is more than for the other middle suburban LGAs (50.4%)<sup>9</sup>, but similar to outer parts of Melbourne (89.2%)<sup>10</sup>. Distribution of transit supply, categorised with respect to Melbourne's average, appears similar in 2023 (Figure 2, right). Figure 3 directly compares 2021 and 2023 service levels.

<sup>9</sup> Differences were statistically significant ( $\chi^2(6) = 440.07, p < .001$ ).

<sup>10</sup> Differences were statistically significant ( $\chi^2(6) = 80.84, p < .001$ ).

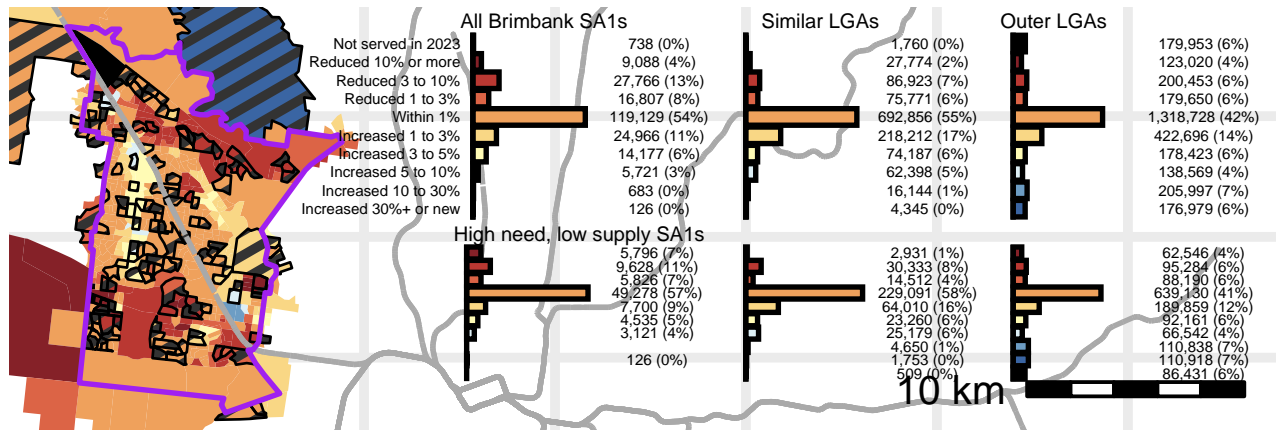


Figure 3: Transit service change 2021 to 2023. SA1s with needs above, but supply below, average highlighted in black.

Transit levels increased by 1% or more by 2023 in SA1s that were home to 20.8% of City of Maribyrnong residents in 2021, which is a lower proportion than for those in the similar middle suburban LGAs (29.8%)<sup>11</sup> or more outer parts of Greater Melbourne (35.9%)<sup>12</sup>. 39.2% of the City of Maribyrnong population lived in SA1s with *needs above, but supply below* the Melbourne averages in 2021<sup>13</sup>. However, for 18.0% of this cohort service levels increased 1% or more, a lower proportion than for the similar cohorts in the other middle suburban LGAs (30.0%) or outer parts of Melbourne (37.0%)<sup>14</sup>.

Overall, Maribyrnong residents appear less likely than those in similarly located, middle suburban, LGAs to have had transit service levels higher than the Melbourne average or to have seen transit increase by 2023.

<sup>11</sup> Differences were statistically significant ( $\chi^2(9) = 56.16, p < .001$ ).

<sup>12</sup> Differences were statistically significant ( $\chi^2(9) = 143.33, p < .001$ ).

<sup>13</sup> Shown with black in Figure 3. This compares to 31.4% of residents in the rest of the middle suburban LGAs and 49.3% of those in more outer parts of Melbourne.

<sup>14</sup> Differences with the similar LGAs were statistically significant (Fisher test  $p = 5e-04$ ), as were differences with more outer parts of Melbourne ( $\chi^2(9) = 44.30, p < .001$ ).