

City of Brimbank: social needs, gaps in transit

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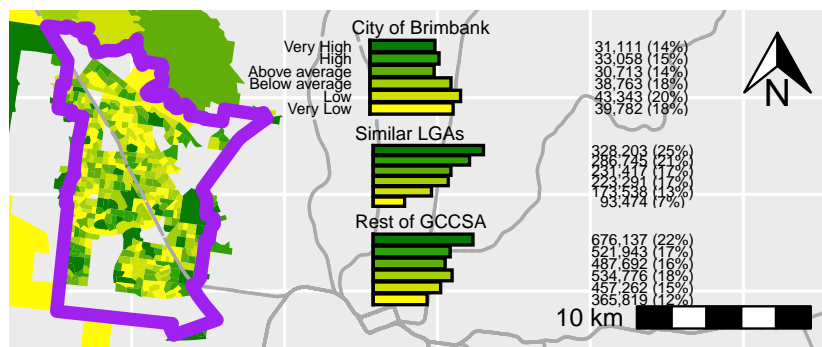
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This note explores social needs for transport, and transit provision in the City of Brimbank, using the Currie and Sendbergs (2007) methodology¹. In Victoria, public transport is managed by the state government, although Local Government Authorities (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 Brimbank in 2021 and 2023, and is part of a series on LGAs in Greater Melbourne².

METHODS:

Scores for transit supply and transport needs were calculated based on the Victorian GTFS feed³ and Australian Bureau of Statistics (ABS) data using the *gtfssupplyindex* R package⁴ as per Reynolds, Currie and Qu (in drafting)⁵. 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 suburbs⁶ and the outer parts of Greater Melbourne, beyond the inner and middle suburbs, with those for the City of Brimbank.



¹ 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.

² See https://github.com/James-Reynolds/gtfssupplyindex_melbounre_LGA_2024 but lookout, I misspelled "Melbourne"

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

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

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

⁶ LGAs: Hobsons Bay, Maribyrnong, 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 Brimbank's population, which is a lower proportion than for the other similar middle-suburban LGAs (63.3%)⁷ or the outer parts of Greater Melbourne (55.4%)⁸.

Figure 2 shows the distribution of transit service in 2021 and 2023. Transit service levels were below the Melbourne average for 89.8%

⁷ Differences were statistically significant ($\chi^2(5) = 133.52, p < .001$)

⁸ Differences were statistically significant ($\chi^2(5) = 36.57, p < .001$).

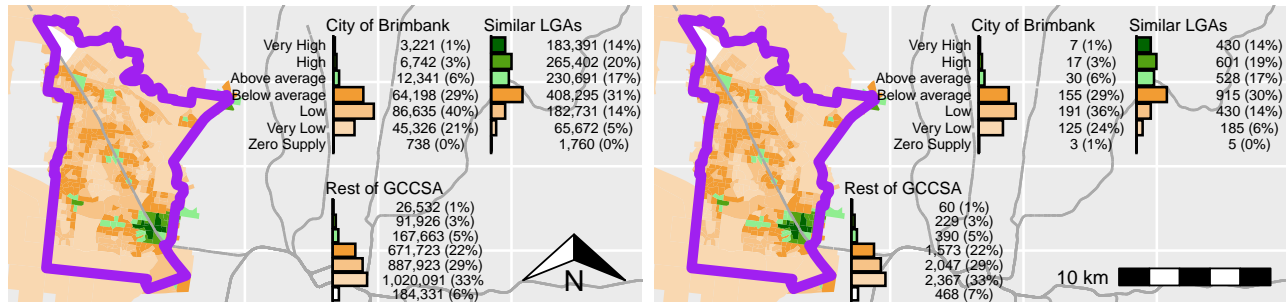


Figure 2: Transport Supply 2021 (left, by population) and 2023 (right, by SA1)

of City of Brimbank residents in 2021, which is more than for the other middle suburban LGAs (49.2%)⁹, but less than for outer parts of Melbourne (90.6%)¹⁰. 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.

⁹ Differences were statistically significant ($\chi^2(6) = 465.37, p < .001$).

¹⁰ Differences were statistically significant ($\chi^2(6) = 83.31, p < .001$).

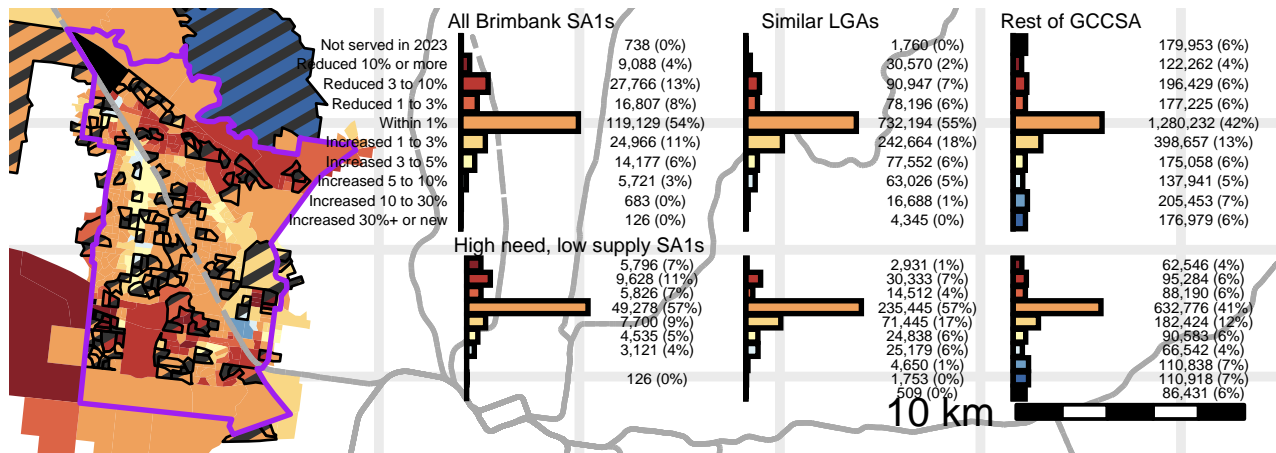


Figure 3: Transit service change 2021 to 2023. SA1s with needs above, but supply below, average highlighted in black.

Transit levels increased by 1% or more by 2023 in SA1s that were home to 20.8% of City of Brimbank residents in 2021, which is a lower proportion than for those in the similar middle suburban LGAs (30.2%)¹¹ or the or more outer parts of Greater Melbourne (35.9%)¹². 39.2% of the City of Brimbank population lived in SA1s with *needs above, but supply below* the Melbourne averages in 2021¹³. However, for 75.3% of this cohort service levels increased 1% or more, a higher proportion than for the similar cohorts in the other middle suburban LGAs (13.7%) or outer parts of Melbourne (24.8%)¹⁴.

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

¹¹ Differences were statistically significant ($\chi^2(9) = 59.47, p < .001$).

¹² Differences were statistically significant ($\chi^2(9) = 144.91, p < .001$).

¹³ Shown with black in Figure 3. This compares to 30.8% of residents in the rest of the middle suburban LGAs and 50.0% of those in more outer parts of Melbourne.

¹⁴ Differences with the similar LGAs were statistically significant (Fisher test $p = 5e-04$), as were differences with more outer parts of Melbourne ($\chi^2(9) = 43.98, p < .001$).