Visualizing Trends in Public Transport Ridership in Singapore

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I. Introduction

Public transport is essential for urban mobility in Singapore, serving millions daily. Understanding ridership trends is crucial for urban planning and policy making. Current visualizations highlight broad trends but lack context, interactivity, and data granularity. This project aims to enhance an existing ridership visualization by incorporating better color differentiation, trend indicators, and interactive elements to provide deeper insights into usage patterns.

II. Original Visualization

A stacked bar chart published by The Straits Times (2025) presents annual ridership trends for MRT, LRT, and buses. While effectively conveys general trends, it lacks annotations, detailed breakdowns, and interactive features, making it harder to analyze fluctuations in riderships.
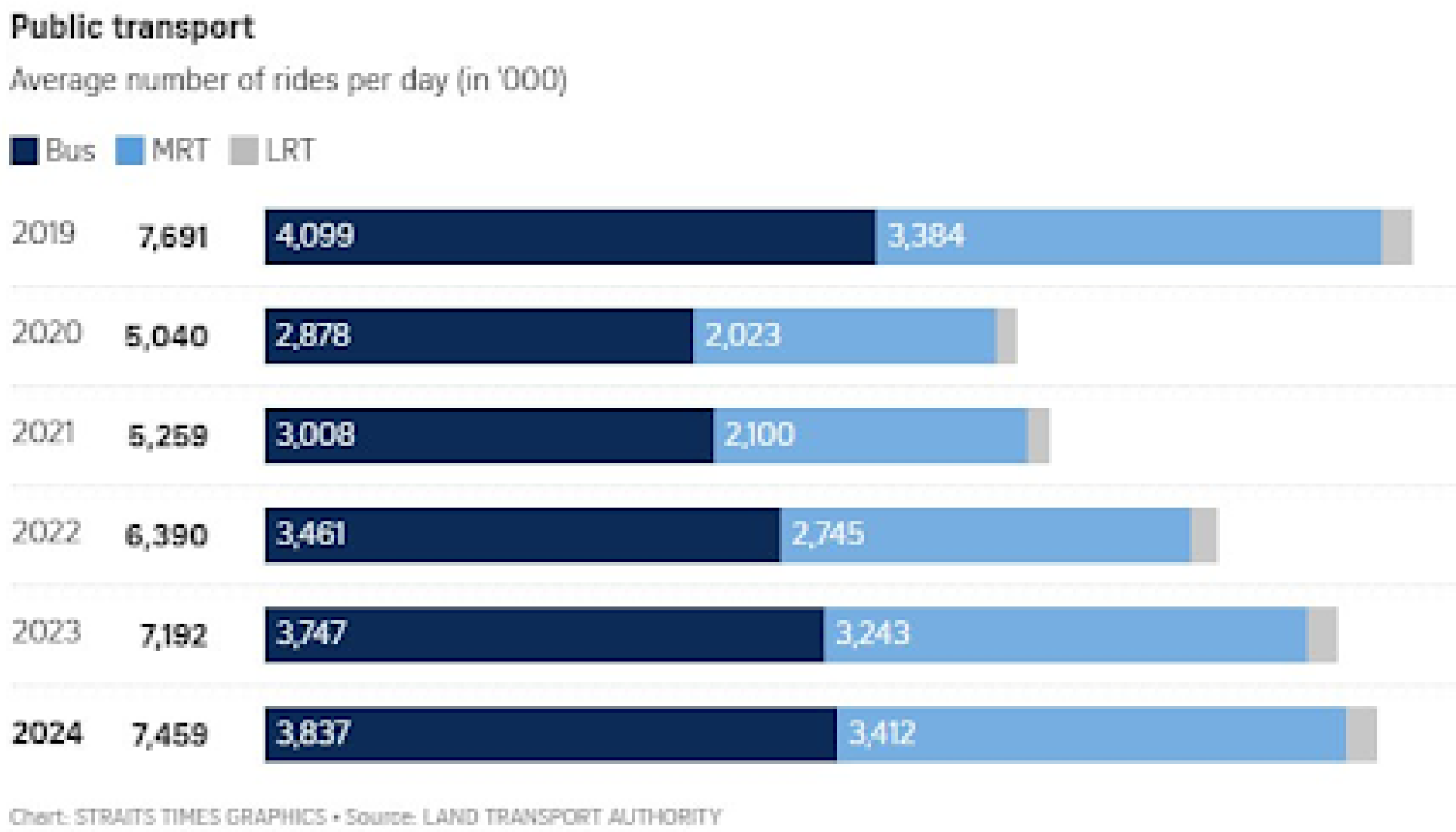

Figure 1: Original Visualization from the Straits Times (2025) .

III. Critical Assessment of the Original Visualization

1. **Lack of Contextual Annotatio**-No annotations to explain major events affecting riderships, such as the COVID-19 pandemic.
2. **Minimal Color Differentiation** - MRT, LRT, and bus ridership segments are not distinct enough, making it difficult to differentiate between them.
3. **No percentage Change Indicators** - The chart displays raw numbers but lacks insights into year-over-year growth or decline.
4. **Limited Data Granularity** - Only annual data is presented, missing seasonal patterns or short-term ridership fluctuations.
5. **Restricted Interactivity** - Users cannot filter data by transport mode or zoom into specific years for deeper analysis.

IV. Suggested Improvement

1. **Add Contextual Annotations** - Highlight key events impact,(e.g., COVID-19 impact, fare adjustments) to explain ridership shifts.
2. **Improve Color Differentiation** - Use distinct, high-contrast colors for each transport mode to enhance readability.
3. **Include Percentage Change** - Show year-over-year ridership variations for clearer trend analysis.
4. **Increase Data Granularity** - Incorporate monthly or quarterly breakdowns to reveal seasonal patterns.
5. **Enhance Interactivity** - Enable filtering by transport mode and zooming into specific years for detailed insights.
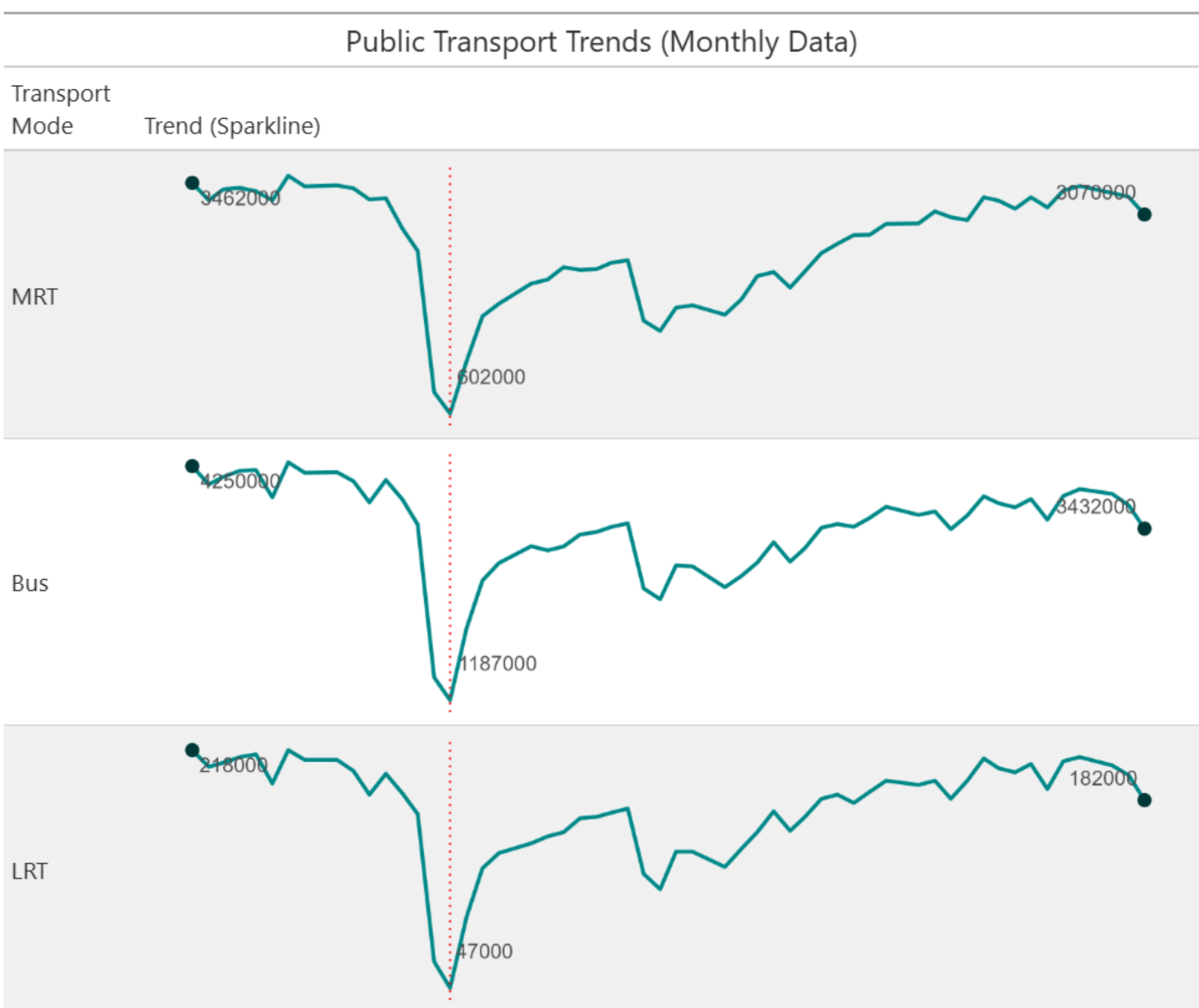
V. Improved Visualization

Figure 2: Improved Visualization

VI. Data Analysis

1. First dip due to first circut breaker (April 2020 to June 2020)
2. Second dip due to reverted back to phase 2 alert due to Delta variant (May 2021 to July 2021)

VII. Further Improvements

1. Rachel suggest this.
2. Lionel suggest this too.
3. Shaidah suggest that.
4. Cholo suggest that too.
5. Edmund suggest what.

VIII. Conclusion

This is our amazing conclusion.

IX. References

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