

# Recommendations Report

## Brief Project Overview

This project analyzed recreation and program offerings across multiple Greater Toronto Area (GTA) municipalities, including Ajax, Aurora, Brampton, and others. Program data was collected from publicly available municipal spreadsheets containing details such as category, age range, schedule, fees, and session.

Working as a team of four, we combined all city-level datasets into a single standardized **GTA Master Dataset**, analyzed the data to identify trends and gaps across cities, age groups, categories, and pricing, and developed evidence-based recommendations to guide future program design. The analysis was completed using Google Drive, Google Sheets, and Google Looker Studio.

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## Methods: Data Collection, Cleaning, and Analysis

### Data Collection & Organization

All municipal program spreadsheets were stored in a shared Google Drive using a structured folder system. Original city files were preserved as read-only “Raw Data,” while cleaned and standardized versions were created separately to ensure data integrity. A central Google Sheet, **GTA\_Master\_Programs**, served as the master working file.

### Data Standardization

A common data schema was designed to ensure consistency across cities. Standardized fields included city, program name, category, age range (minimum and maximum), schedule, total program time, fee, number of sessions, cost per hour, and availability status. A **Data Dictionary** documented column definitions, data types, and calculation rules.

Each city’s dataset was cleaned individually by an assigned team member. This included standardizing time formats, converting age ranges to numeric values where possible, calculating cost per hour when missing, and documenting assumptions (e.g., setting availability to “Unknown” when not provided). Cleaned data was then appended to the Master Dataset with clear source tracking.

### Quality Control

The combined dataset underwent quality checks to identify missing values, duplicates, or implausible entries (e.g., negative ages or extreme pricing). Filters and conditional formatting were used to flag potential issues, which were corrected or annotated as needed. Once validated, the structure of the Master Dataset was finalized.

## Exploratory Analysis

Using the finalized Master Dataset, four analysis tabs were created in Google Sheets:

- **Summary\_By\_City:** Program counts and average pricing metrics by municipality
- **Summary\_By\_AgeRange:** Program availability, average fees, and cost per hour across defined age bands
- **Summary\_By\_Category:** Program distribution and pricing by general category
- **Time\_Slot\_Analysis:** Program counts by time of day (morning, afternoon, evening) and category patterns

Pivot tables and charts were used to identify trends, concentrations, and gaps across cities, age groups, categories, and time slots.

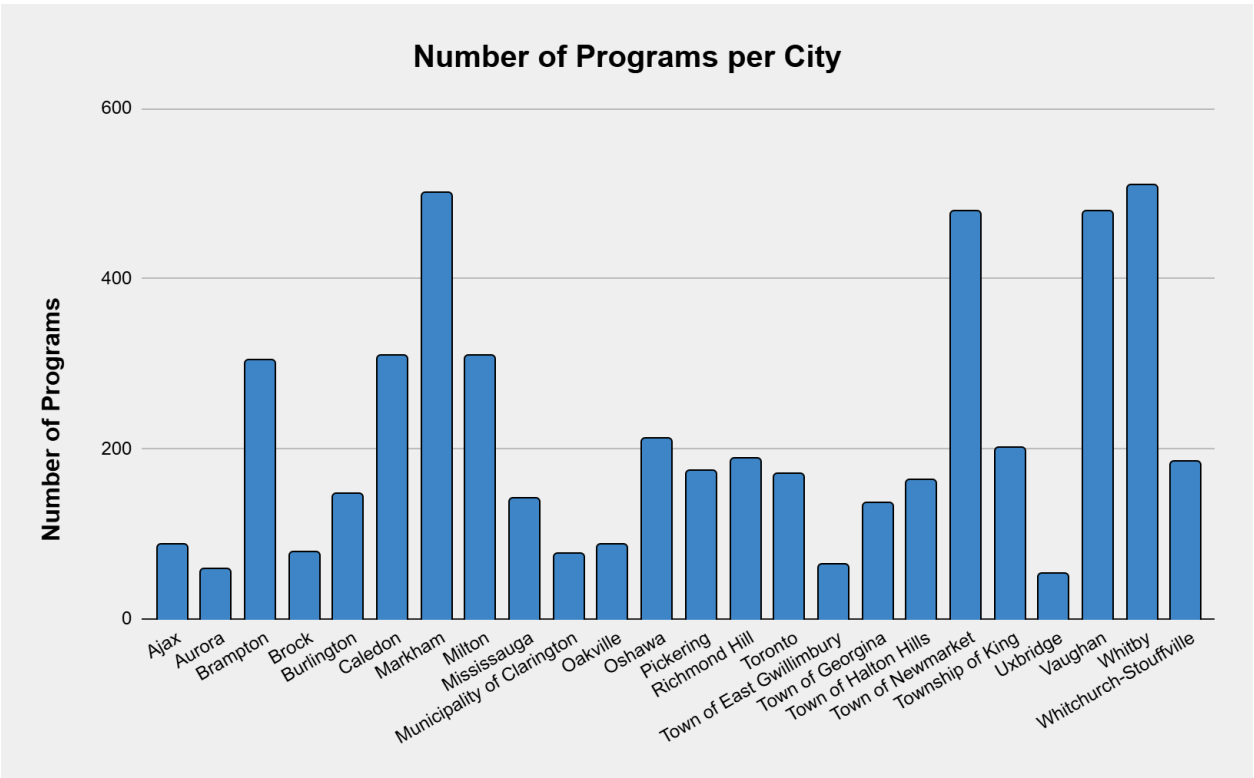
## Dashboard Creation

Exploratory analysis was conducted in Google Sheets using pivot tables and charts to summarize programs by city, age group, category, time of day, and pricing. These insights were then visualized in an interactive **Google Looker Studio dashboard**, allowing users to filter by city, category, age range, and time period. The dashboard served as a tool for identifying market trends, gaps, and opportunities.

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## Key Charts and Tables

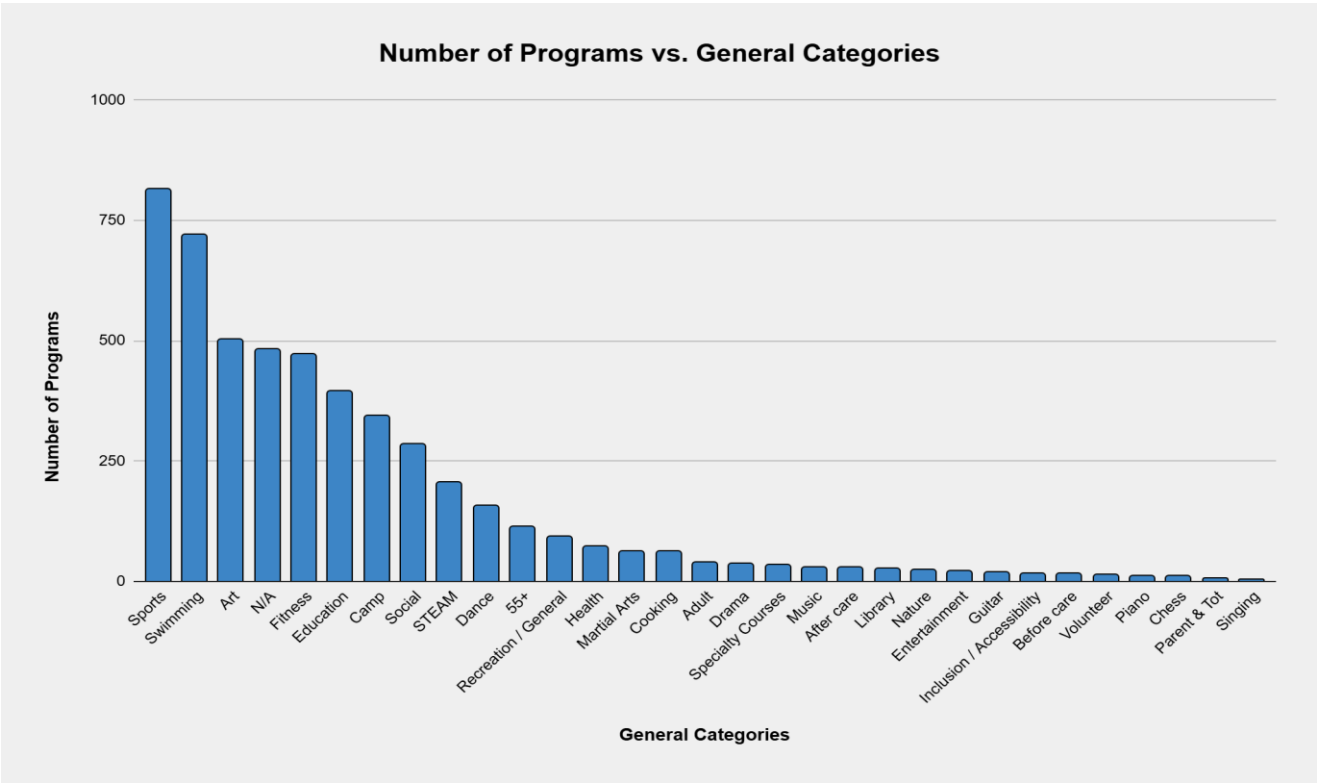
**Chart:** Bar chart – Number of programs by city



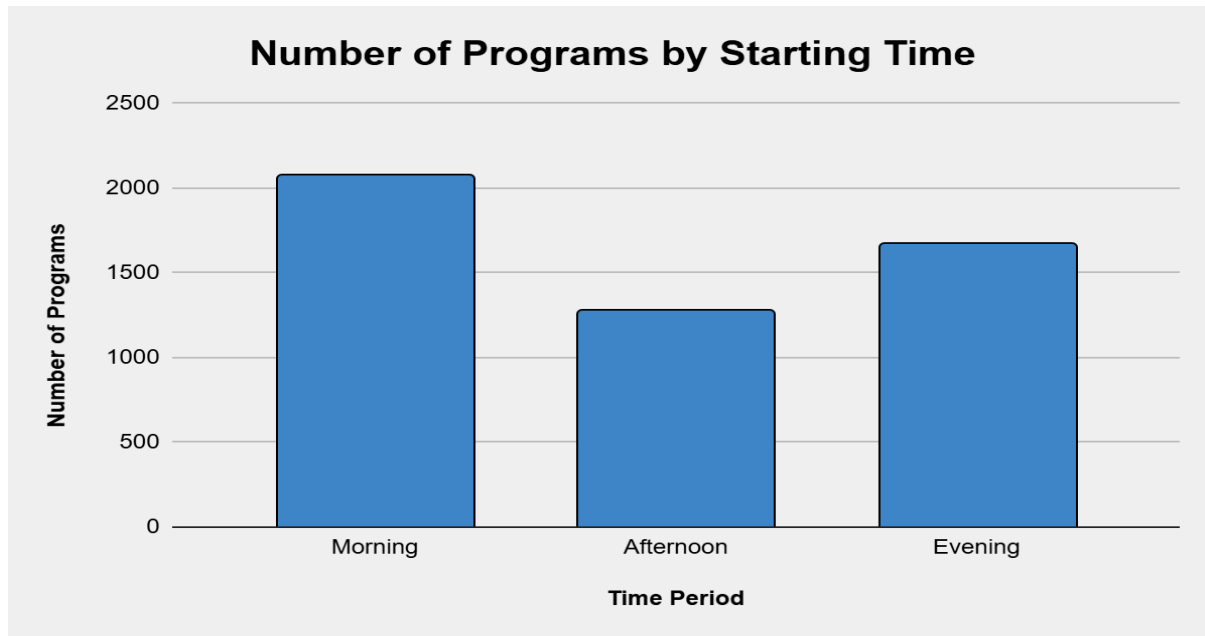
**Table:** Average fee and cost per hour by age band

Program Summary By Age Band				
Age Band	Number of Programs	Percentage of Programs	Average Fee/Cost	Average Cost per Hour
0-3	602	11.76%	\$79.14	\$12.40
4-6	1831	35.76%	\$108.99	\$13.38
7-9	2112	41.25%	\$123.12	\$14.10
10-12	2270	44.34%	\$119.65	\$13.19
13-15	2092	40.86%	\$103.95	\$11.59
16-24	1888	36.88%	\$89.60	\$9.32
25-39	1519	29.67%	\$83.45	\$8.55
40-54	1525	29.78%	\$87.31	\$8.71
55+	2017	39.39%	\$74.13	\$7.68

**Chart:** Bar chart – Number of programs by general category



**Chart:** Bar chart – Program count by time slot (morning, afternoon, evening)



## Insights/Key Trends

- Which cities have the **most** and **fewest** programs?
  - Top 5 cities with the most number of programs in order are: Whitby (510), Markham (500), Vaughan (479), Town of Newmarket (479), and Milton (310).
  - Top 5 cities with the fewest number of programs in order are: Uxbridge (53), Aurora (58), Town of East Gwillimbury (65), Municipality of Clarington (77), and Brock (78).
- Which **age groups** have the most options? Which are underserved?
  - The top 3 age groups with the most programs from a grand total of 5120 (in order) were 10-12 (44.33%), 7-9 (41.25%), and 13-15 (40.86%)
  - The most underserved age group was 0-3 with only 11.76% of programs falling within the age band
- Which Categories are **very common** and which ones are **rare**?
  - The top 5 most common general categories were: Sports, Swimming, Art, Fitness, and Education
  - Top 5 most rare general categories were: Singing, Parent & Tot, Chess, Piano, and Volunteer
- What is the **Average Program Fee** across cities?
  - The Top 5 cities with the highest average fee per program are: Aurora (\$224.88), Vaughan (\$187.30), Brampton (\$173.74), Markham (\$166.63), and Town of Newmarket (\$148.48)
  - The Top 5 cities with the lowest average fee per program are: Town of Georgina (\$20.45), Milton (\$53.94), Brock (\$59.19), Oshawa (\$73.80), and Burlington (\$74.52).
  - The GTA grand total average fee per program is \$115.88
- What is the **Average Cost per Hour** across Cities
  - The Top 5 cities with the highest program average cost per hour are: Oakville (\$49.79), Ajax (\$49.79), Aurora (\$23.78), Town of Newmarket (\$18.24), and Town of Halton Hills (\$18.18)
  - The Top 5 cities with the lowest program average cost per hour are: Town of Georgina (\$4.04), Town of East Gwillimbury (\$4.68), Whitchurch-Stouffville (\$4.78), Brock (\$5.10), and Uxbridge (\$5.88)
  - The GTA grand total average cost per hour is \$13.30

- Time slots that are the **most utilized** and **underutilized** for programs and categories
    - Program offerings are concentrated in the morning (40.45%) and evening (32.72%), with the afternoon being the least served time period (24.86%)
    - Program scheduling varies by general category, with camps, swimming, and fitness concentrated in the morning, while sports and martial arts are more heavily offered in the evening
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## Recommendations

1. Focus near-term program expansion in municipalities with the lowest number of existing programs, particularly Uxbridge, Aurora, East Gwillimbury, Clarington, and Brock. These cities show significantly lower program saturation compared to high-supply markets such as Whitby, Markham, and Vaughan. These cities show significantly lower program availability compared to other GTA municipalities, suggesting opportunities to increase access while facing less competition
2. Develop and pilot early childhood programs, such as Parent & Tot, movement-based play, and early learning programs, to address the significant gap in offerings for ages 0–3.
3. Introduce programs in rare or niche categories (like Singing, Chess, Piano, and Volunteer-based programs), particularly in cities where sports and swimming dominate existing offerings. These programs should be positioned as specialty or enrichment options.
4. Use the GTA average fee per program (\$115.88) as the primary pricing anchor when designing new programs. Programs launched in higher-cost markets (e.g., Aurora, Vaughan, Brampton, Markham) can be priced modestly above the GTA average, while programs in lower-cost markets (e.g., Georgina, Milton, Brock, Oshawa) should be priced at or below the GTA average to remain competitive and accessible. Anchoring fees to a GTA-wide benchmark supports consistent competitive pricing while allowing flexibility across municipalities.
5. Use the GTA average cost per hour (\$13.30) as a general guideline when designing new programs. Programs should aim to remain close to this benchmark, with flexibility to offer slightly higher-priced programs in markets that already support higher costs per hour and more affordable options in lower-cost markets. Cost per hour provides a consistent measure of value and helps ensure programs stay competitive and accessible.
6. Increase the number of programs offered during the afternoon, particularly by introducing or expanding categories that are currently concentrated in the morning or evening, such as camps, swimming, fitness, sports, and martial arts. Afternoon programs represent the least utilized time period across the GTA, yet align well with after-school availability. Rebalancing program schedules can reduce competition in saturated time slots and better meet participant demand.

### Concrete Program Recommendations:

- The first program will be called “**After-School Chess Club**”. Its general category is Chess and it is located in the township of Uxbridge. Its target group age range is 8-12. Its start time is 4:00 PM with an end time of 5:30 PM, thus having a total time of 1.5 hours. Its fee will be \$110.00, with 8 sessions available, thus making the cost per hour \$9.08.
- The second program will be called “**Tiny Tots Learning**”. Its general category is Parent & Tot and it is located in the town of Aurora. Its target group age is 1-3. Its start time is 9:30 AM with an end time of 11:00 AM, thus having a total time of 1.5 hours. Its fee will be \$90.00, with 8 sessions available, thus making the cost per hour be \$7.50.