American Baby Names: A Century of Popularity Trends

Executive Summary

This project explores how **American baby name popularity** has changed from 1920 to 2020, using United States Social Security Administration data. By analyzing the most common first names and comparing classic versus trendy naming patterns, the report identifies enduring favorites, generational shifts, and broader cultural trends in naming.

Project Objectives

- Investigate name popularity over 100+ years in the U.S.
- Identify names with long-term ('classic') vs. recent ('trendy') popularity.
- Compare most popular baby names across different eras.
- Summarize trends for use by parents, marketers, and cultural researchers.

Technologies & Tools Used

- **Database:** PostgreSQL (SSA baby name data)
- **Analysis Platform:** Jupyter Notebook (`notebook.ipynb`)
- **Skills:** SQL aggregation, ranking, grouping, filtering, summary tables

Dataset Description

Table: `baby_names`

Column	Description
`year`	Year of birth (1920–2020)
`first_name`	Baby's first name

`sex`	Gender ('F' or 'M')
`num`	Number of babies given that name in that year

Scope:

- Only first names given to more than 5,000 babies in a year are included.
- Data includes millions of babies across a century.

Approach & Methodology

1. **Name Aggregation:**
    - Summed the total count (`num`) for each name across all years.
    - Ranked names by their overall frequency since 1920.
2. **Classic vs. Trendy Names:**
    - Segregated names with enduring popularity ("classic") from those that peaked only in recent decades ("trendy").
    - Compared occurrence totals and longevity.
3. **Gender and Era Analysis:**
    - Evaluated top male and female names.
    - Identified names with consistent multi-generational use vs. short-term surges.

Key SQL Snippets

Total popularity by first name:

```
SELECT first_name, SUM(num) AS total_occurrences
FROM baby_names
GROUP BY first_name
ORDER BY total_occurrences DESC
LIMIT 20;
```

Trendy vs. classic classification sample:

first_name	sum	popularity_type
Aaliyah	15,870	Trendy
Aaron	530,592	Classic
Abigail	338,485	Trendy

Results & Findings

Top 20 U.S. Baby Names (1920–2020; Sample data)

Rank	Name	Total Born
1	James	4,748,138
2	John	4,510,721
3	Robert	4,495,199
4	Michael	4,278,824
5	William	3,614,424
6	David	3,571,498
...	...	...

Classic Names (Multi-generation, e.g., James, Mary, William) dominate the top ranks.

Trendy Names (Peaked recently, e.g., Addison, Nevaeh, Aaliyah) show high counts but less historical depth.

Long-Lived Girls' Names (Sample)

Name	Total Born	Classic/Trendy
Emma	20,818	Trendy
Evelyn	23,283	Classic

Elizabeth	23,125	Classic
Eleanor	14,832	Classic
Grace	12,741	Classic
Hazel	12,765	Trendy

Key Insights

- **Enduring favorites:** Names like James, Elizabeth, John, and Mary have remained consistently popular for more than a century.
- **Cultural shifts:** Names such as Aaliyah, Addison, and Nevaeh spiked in popularity since the 1990s, reflecting media and celebrity influence.
- **Gender variance:** Certain names (e.g., Taylor, Jordan) have shown gender fluidity in recent decades.
- **Parents seek a balance:** Many continue to choose classic names for tradition, while others lean into uniqueness and modernity.

Challenges & Solutions

Challenge	Solution
Massive dataset volume	Used SQL aggregation with indexes
Changing spelling over decades	Standardized names for proper comparison
Truncation to only 5,000+ samples	Focused analysis on most significant trends

Conclusion

The evolution of American baby names reflects broader cultural priorities—from tradition and continuity to novelty and social trends. This analysis demonstrates advanced SQL querying, clear trend storytelling, and actionable insights for any audience interested in naming, marketing, or U.S. cultural history.

Next Steps

- Analyze ethnic/regional trends in naming (requires more granular data).
- Visualize rise/fall of specific names over time via charts.
- Predict future name trends using machine learning.

For full SQL logic and interactive queries, see the attached Jupyter notebook (notebook.ipynb).