## Baby Names Persistence

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#### 1. Answer

#### 1.1. Part 1

To help the New York-based agency make a well-informed decision about naming its toy, I've included a Spearman correlation plot below. This shows how the top 25 baby names persist over a three-year span, offering insight into which names are likely to remain popular long enough for the agency to capitalize on current naming trends and make the most profits.

## Spearman Rank Correlation of Top 25 Baby Names Over Time

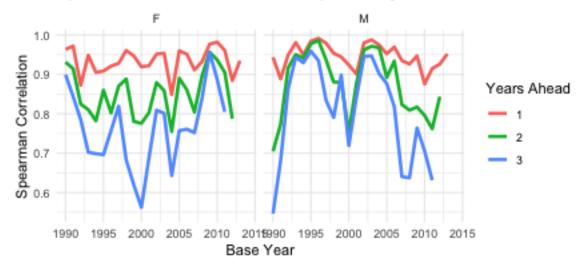


Figure 1.1: Correlation between each year's rankings and the next 3 years

The Spearman correlation results in 1.1 show that the strongest relationship is consistently between a given year and the year immediately following it. This indicates that the top baby names remain stable for at least one year. Further, as the years progress we see a gradual decline, indicating that naming

trends typically shift within a few years. However, we see period of peaks and troughs indicating that there are other reasons that affect the persistence of names. Lastly , the evidence indicates that male names tend to persist for a longer duration.

A colleague of mine noted that there was a spike for the name Katina in 1974, a character on the show 'Where The Heart Is'. To table below adds robustness to 1.1, testing whether the decay of trends is inevitable irrespective of the size of the name spike.

Year	Gender	Offset	Future_Year	Spearman
1974	F	1	1975	0.94
1974	F	2	1976	0.83
1974	$\mathbf{F}$	3	1977	0.63

Table 1.1: Persistence of Female Names

Table 1.1 supports the findings from the Spearman correlation analysis. Although there was a huge spike in the popularity of the name Katina in 1974, the overall trend mirrors that observed for male names, gradual decline over time. Nevertheless, there remains evidence of moderate persistence in certain names.

## 1.2. Part 2

# Trend in Top 5 Character-Inspired Baby Names Over Time

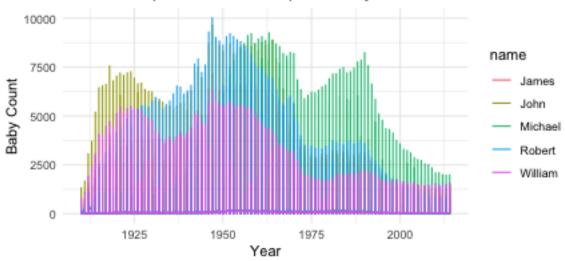


Figure 1.2: Name Trends

# Top 10 Character Names Used as Baby Names

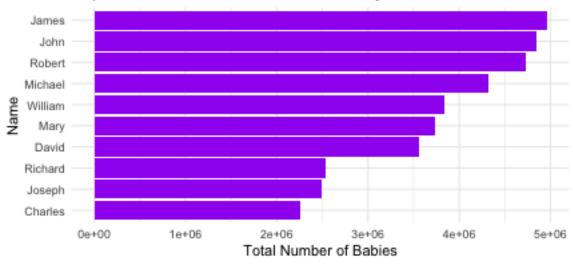


Figure 1.3: Popular Character Names

## References

Katzke, N.F. 2017. Texevier: Package to create elsevier templates for rmarkdown. Stellenbosch, South Africa: Bureau for Economic Research.

## Appendix

Appendix A

Some appendix information here

 $Appendix\ B$ 

Katzke (2017)