

# 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.

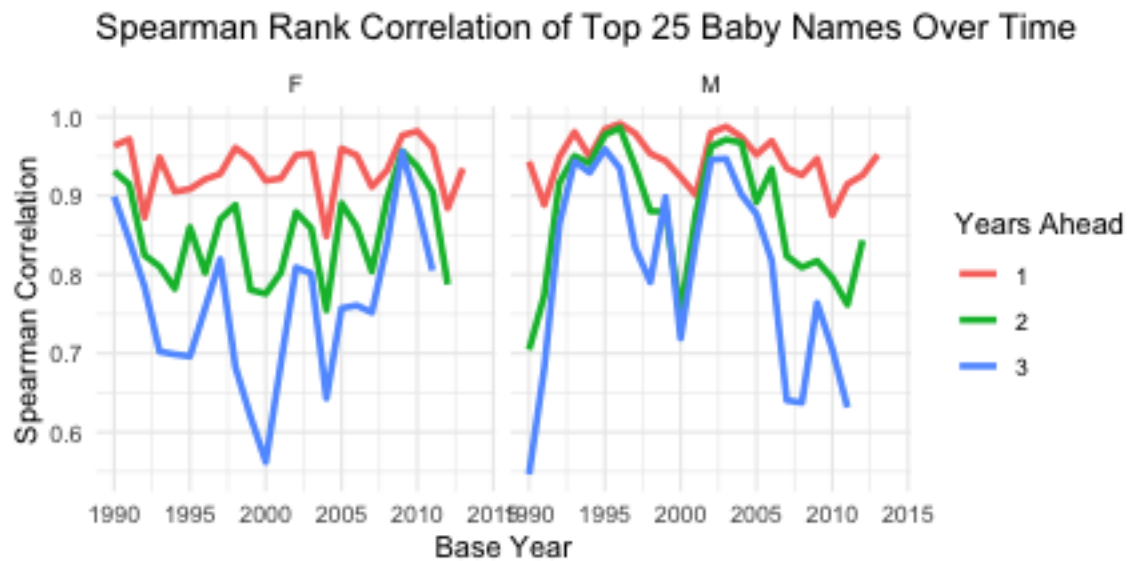


Figure 1.1: Correlation between each year's rankings and the next 3 years

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

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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	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.

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## 1.2. Part 2

While the findings in Part 1 are informative, this section highlights which character inspired names are most popular in the United States which will provide further insight.

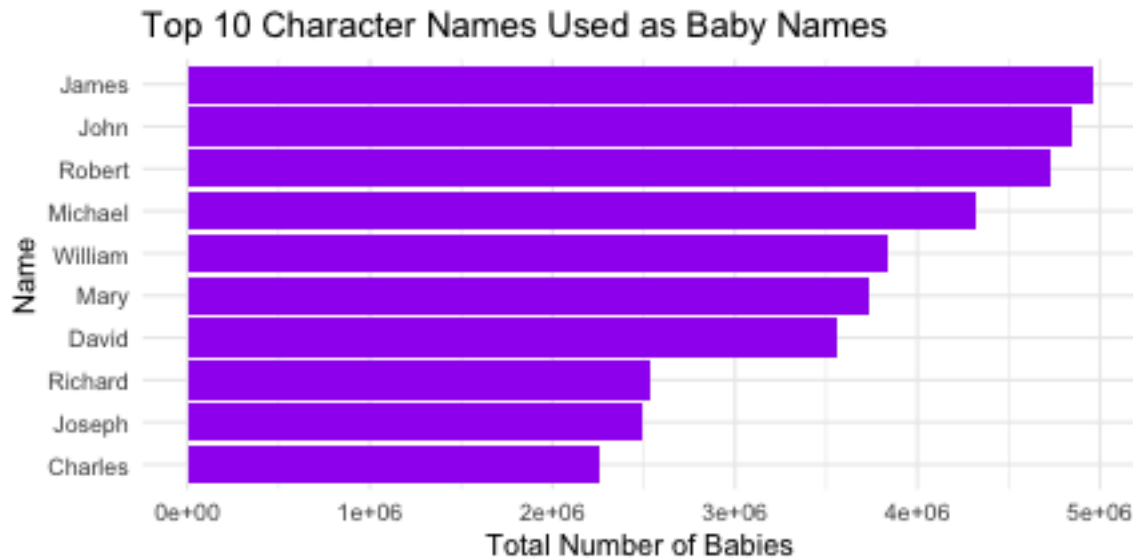


Figure 1.2: Popular Character Names

The most popular character inspired name in the US over the duration of the data is James , followed by John. What stands out to me immediately is that these two names are also Bible names , given the deep religious roots in America , perhaps we are overestimating the effect of the characters in the naming trends in the US. In fact, most of the names in the plot are bible names thus perhaps the agency ought to draw their attention to that data. However, naming conventions have evolved over time, with a noticeable shift toward more creative and unconventional names. This prompts a closer examination of how the most popular names have changed across different periods.

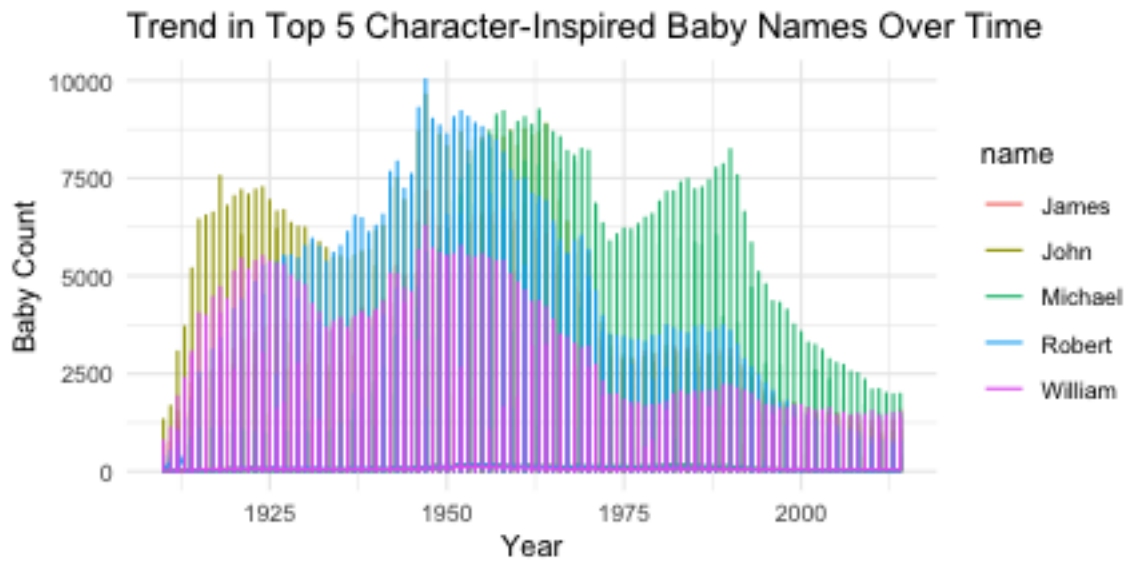


Figure 1.3: Name Trends

Figure 1.3 shows a gradual decline in the number of babies being named after these historically popular names. This trend coincides with a broader cultural shift in which uniqueness is increasingly valued, as reflected in modern naming conventions. Nevertheless, given the strong biblical roots in the United States, the agency should still consider drawing inspiration from traditional biblical names when naming their toy.

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## 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](#))