# The Effects of Months, Holidays, and the Birthdays of Presidents on Choice of Baby Names 

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The propensity to name babies after US presidents is well known. Less well known is the magnitude of the increased propensity to name babies after presidents when those babies are born on the president's birthday. In this article that propensity is evaluated and, in addition, the increased propensity to name children after various holidays and months is also assessed. The analysis makes use of the Social Security Death Index, which contains records of over 90 million deaths occurring between 1935 and 2014. Tens of thousands of individuals have been named after George Washington and also after some months of the year; smaller estimates of the number of babies named after selected other presidents on their birthday, as well as those named after several different holidays and months, are also provided.

KEYWORDS baby names, presidents, holidays, birthdays, months

## Introduction

For many newly elected US presidents, the president's first name increased in popularity following his election. For example, the name Woodrow became a more popular boy's name in the years following the election of Woodrow Wilson. However, it is difficult to control for the popularity of the name itself; it may be easier to discern increases in the rankings for "Woodrow" and "Franklin" than for, say, "John" and "George." Only a small fraction of boys with the latter names are likely to have been named after the president, compared to a much larger fraction for the former two names.

While the naming of boys after presidents is a widely known phenomenon, little if any investigation has been carried out to assess possible increases in the popularity of specific baby names when the child is born on a president's birthday. Houlbrooke (1984), in a study of English names for the period $1450-1700$, noted that the popularity of naming babies after saints increases when the birth day falls on the feast day for the saint (the tendency is strong for some saints, and weak to nonexistent for others; furthermore, it
is difficult to obtain accurate information for his period of interest since parish registers in England do not give the date of birth).

In this article, in addition to assessing the degree to which parents name their babies after selected presidents, when the baby is born on the president's birthday, we also investigate the question of how holidays and the month of birth can affect the choice of baby names. For example, it will not be surprising to know that April is a popular name for girls born in April, Valerie is a common choice for girls born on February 14, and so on, but quantitative estimates of the phenomenon's magnitude are lacking. This article makes use of the Social Security Death Index, a database containing over 94 million records, to provide estimates of the magnitude of the increase in the likelihood of having a name that is associated with a particular president, holiday, or month.

## Data and method

The Social Security Death Index, as of February 8, 2016, contained the names of 94,330 , 195 deceased individuals who had a social security number. The database covers deaths from 1935 to 20I4. The index is searchable by a number of criteria, including first name and date of birth. Thus it is possible to enter a first name and date of birth, and obtain a count of the number of deceased individuals with that name who were born on that specific day of the year. It is also possible to create subtotals by such variables as year of birth. In addition, it is possible to enter any date or month, to obtain a count of deaths that occurred on that day, or in that month.

With this data set, all names will appear to get less popular over time (as measured by absolute numbers) when year of birth is used, because among those with later birth dates, fewer people will be in the database (since they have not yet died). In general, this will not affect our analysis, since we are primarily interested in the total number of babies with particular names across all years of the database.

We next turn to our primary question of interest, namely, how does the prevalence of naming boys after presidents increase when the baby is born on the president's birthday?

## The effects of the birthdays of presidents on choice of baby names

As Smith-Bannister (1997, p. 6) notes: "attempts to link patterns of name choice with either famous personages or events have encountered great difficulty." One measure of the influence of a president's name on the subsequent popularity of boys' names avoids many of these difficulties, and is based upon the examination of whether and how the likelihood of naming a boy with a president's name increases when the baby is born on the president's birthday. For example, in the database there were $\mathrm{I}, \mathrm{I} 65, \mathrm{II} 2$ persons who were born, named George, received a social security number, and died. Spread out over the 365 days of the year, we would expect approximately $1,165,112 / 365=3$, 192 people named George in the database to be born on each day of the year. There were, however, 17,322 persons named George in the database who were born on George Washington's birthday (February 22). By using the ratio one sees that the rate at which boys are named George therefore increases by ( $\mathrm{I} 7,322 / 3,192-\mathrm{I}$ ) x $100 \%=443 \%$ on Washington's birthday. An alternative measure is to look at the excess or difference between the two numbers: over the period of time covered by the database, $17,322-3,192=14,130$ is an

TABLE 1
PRESIDENTS

| President | President's Birthday (Line 1) and July 4 (Line 2) | Expected Number to be Born with Name | Number Born with Name on Birthday (and July 4) | Increase (\%) | Increase (Difference) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Abraham Lincoln | February 12 | 126 | 410 | 225 \% | 284 |
|  | July 4 | 141 | 231 | 64 \% | 90 |
| Calvin Coolidge | July 4 | 199 | 283 | 42 \% | 84 |
| Dwight Eisenhower | October 14 | 61 | 78 | 28 \% | 17 |
| Franklin Roosevelt | January 30 | 170 | 442 | 150 \% | 272 |
| George Washington | February 22 | 3,804 | 17,322 | 355 \% | 13,518 |
|  | July 4 | 3,911 | 4,880 | 24.8 \% | 969 |
| Grover Cleveland | March 18 | 81 | 103 | 27 \% | 22 |
| Herbert Hoover | August 10 | 649 | 600 | -8\% | -49 |
| Thomas Jefferson | April 13 | 1,919 | 1,941 | $1 \%$ | 22 |
|  | April 2 | 2,077 | 1,959 | -6\% | -118 |
| Theodore Roosevelt | October 27 | 373 | 511 | 37 \% | 138 |
|  | July 4 | 476 | 509 | 7 \% | 33 |
| Woodrow Wilson | December 28 | 91 | 142 | 56 \% | 51 |
|  | July 4 | 112 | 143 | 28 \% | 31 |

estimate of the number of boys named after the president because they were born on his birthday.

It is better to factor out the effect of the birthday itself when calculating the base rate. Thus there were $\mathrm{I}, \mathrm{I}_{5} 5, \mathrm{II} 2-17,322=\mathrm{I}, 147,790$ babies named George born on days other than February 22. Then $1,147,790 / 364=3,153$ is the number of babies expected to be born on the president's birthday (if the birthday is like all other days of the year). This adjustment only makes a substantial change in expectations when the increase in naming propensity on the birthday is substantial (as it is in the present example).

A slightly more sophisticated analysis is required however to account for another factor, namely, the fact that births are not distributed uniformly throughout the year. In particular, expectations on any specific day of the year are adjusted here by multiplying by a ratio equal to the number of people in the database born on that specific day, divided by the average number of people born per day. The latter quantity is equal to the number of people in the database, divided by 365 (where leap years are ignored); this is equal to $94,330,195 / 365=258,439$. For the present example of George Washington, there were 3 II,76I people in the database born on February 22; thus the expected number of babies named George on February 22 is 3, 153 ( 3 III,76I $/ 258,439$ ) $=3,804$.

Table I shows how baby names are influenced by the names of selected presidents, when they are born on either the president's birthday or the national holiday of July 4 . The third column of the table refers to the expected number of people with that name born on that day, determined as described above.Similarly to the case discussed above for George Washington, the incidence of naming a boy Abraham or Franklin also more than doubles on the birthdates of Lincoln and Roosevelt, respectively. Approximately 410 - $126=284$ boys born on Lincoln's birthday (April I2) were named Abraham in honor of the former president; while approximately $442-170=272$ born on January 30 were named Franklin in honor of President Roosevelt (again, these figures represent the number of babies so-named, over and above the usual daily rate). Table i shows that

TABLE 2
NUMBER OF BABIES NAMED CALVIN BORN ON JULY 4, FOR SELECTED YEARS

| Year | Number |
| :--- | :---: |
| 1922 | 3 |
| 1923 | 6 |
| 1924 | 34 |
| 1925 | 28 |
| 1926 | 17 |
| 1927 | 16 |
| 1928 | 12 |
| 1929 | 8 |
| 1930 | 3 |
| 1931 | 4 |

the phenomenon of naming boys after presidents when they are born on the president's birthday is apparent for other presidents as well, but to a lesser degree. The table also shows the extent, if any, to which parents name their children after one of several distinctive first names of presidents on July 4 . Note that the incidence of Abraham increases by $64 \%$ on Independence Day (July 4). One can presume that some of the boys named Abraham born on this date were given the name in honor of Abraham Lincoln. Close to Ioo boys have been named in this way, and close to 1,000 boys have been named George in honor of the first president. Several of the presidents listed in the table do not have an entry for July 4 because there was no increase in naming propensity.

Of course, people may honor an historical figure simply by naming their child after that figure, whatever the date of birth. It seems likely that a sizable fraction of the 33,716 people in the data set named Woodrow were named by parents who had the ex-president in mind. But approximately 50 people apparently were named Woodrow specifically because they were born on his birthday.

Calvin Coolidge was born on July 4, 1872, and he took office in August 1923, following the death of Warren Harding. There were an estimated 84 boys named Calvin, over and above those expected, who were born on July 4 ( 283 were born on July 4, while 199 were expected, based on use of that name on other days of the year). Table 2 provides a breakdown of the people named Calvin who were born on the ex-president's birthday, by year of birth in the years during and close to Coolidge's presidency. Before and after the presidency, about four babies were named Calvin who were born on July 4 in each year. During the six-year period 1924-1929, there were 115 babies named Calvin born on July 4, which is 9I more than would have been expected (about 24 would have been expected during this period; about 4 per year, times 6 years). Thus virtually all of the 84 extra babies named Calvin born on July 4 were so named during the period of his presidency; this is not a phenomenon, at least in this case, that was prolonged over a long time period.

For the more recent presidents listed in Table 2, the estimated numbers of babies born on a president's birthday and named after that president is likely to grow further over time. Many individuals named Franklin and Dwight, after Presidents Roosevelt and Eisenhower, respectively, are still alive, and will only be added to the database in the future.

## Holidays and baby names

The reader will not be surprised to learn that there is an increased propensity for babies to be given particular names on particular holidays. Thus, relative to other days of the year, on Christmas Day, there are more sons named Chris; there are more daughters named Valerie who were born on Valentine's Day, and so on.

Table 3 provides quantitative estimates of this phenomenon for selected holidays. Names appearing in the table are representative of the phenomenon, and no attempt has been made to provide an exhaustive list of such names. The largest increases in naming propensity in percentage terms are for the male names "Valentine" on Valentine's Day and "Natividad" on Christmas Day. Over one-fifth of all males named Natividad were born on Christmas Day, and over one-sixth of all males named Valentine in the database were born on Valentine's Day. The largest increase in absolute terms is for Patrick, whereby over 3,000 boys were so-named on St Patrick's Day. The names Nicholas (on December 6, St Nicholas Day) and Jesus (on Christmas Day) each were given to babies in the order of a thousand times on their associated days of celebration, over and above the usual choice of that name. Valerie (Valentine's Day) and Christina and Chris (Christmas Day) also had large percentage increases.

Table 3 also shows the extent to which the propensity to name babies after a holiday extends to days near the holiday. Thus there were also increases in the inclination to name daughters Valerie, and sons Chris, on the days before and after the respective holidays.

## Months and baby names

To calculate the number of people with a given name expected to be born in a given month, the first step is to calculate how many people with that name were born in all other months. The result is first divided by the number of days in all other months, and then multiplied by the number of days in the month in question. For example, there were 92, I 54 entries with the name "June;" 4I,027 were born in June, leaving 5I,I27 born in the other months. Dividing $51, \mathrm{I} 27$ by $(365-30)$ gives the average number of "Junes" born on each day of the year (in months other than June), and this is finally multiplied by 30 to give 4,579: the number expected to be born in June, if June is similar to other months of the year.

In Table 4, rows are arranged in order of declining absolute numbers of babies named after a particular month. Over 50,000 babies have been named after the month they were born in, with "June" being by far the most popular. Ranked next, in order, are May, August, and April, each with over r,ooo individuals so named (over and above the rate at which those names were chosen in other months). March and July have high percentage increases (consistent with the notion that most people with those names were born in those months), but the number of people with these names was small. Perhaps most surprising here was the number of people named March and July who were not born in those months ( 183 and 62 , respectively).

Many of the babies named after a month who were not born in that month were born either right before the month started, or right after it ended. Table 5 shows this tendency for June. The entries in the table may be compared with the average number of babies named June born on days in months other than June ( $51,127 / 335=153$ ).

TABLE 3
HOLIDAYS

| Name | Date | Daily Rate <br> (Expected) | Number Named on Date | Increase (\%) | Increase (Difference) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Jesus | December 25 | 158 | 1,013 | 541 | 855 |
| Holly | December 25 | 17 | 111 | 553 | 94 |
| Carol | December 25 | 404 | 2,152 | 433 | 1,740 |
| Carole | December 25 | 59 | 163 | 176 | 104 |
| Natalie | December 25 | 62 | 401 | 547 | 339 |
| Natividad | December 25 | 16 | 917 | 5,631 | 901 |
| Merry | December 25 | 5 | 167 | 3,240 | 162 |
| Chris | December 25 | 71 | 404 | 469 | 333 |
|  | December 23 | 54 | 78 | 44 | 24 |
|  | December 24 | 56 | 129 | 130 | 73 |
|  | December 26 | 47 | 91 | 94 | 44 |
|  | December 27 | 49 | 58 | 18 | 9 |
| Christopher | December 25 | 37 | 80 | 116 | 43 |
| Christina | December 25 | 94 | 437 | 365 | 343 |
|  | December 23 | 71 | 109 | 54 | 38 |
|  | December 24 | 73 | 153 | 110 | 80 |
|  | December 26 | 63 | 107 | 70 | 44 |
|  | December 27 | 65 | 89 | 37 | 24 |
| Nicholas | December 6 | 197 | 1,218 | 518 | 1,021 |
|  | December 4 | 195 | 305 | 56 | 110 |
|  | December 5 | 199 | 364 | 83 | 165 |
|  | December 7 | 192 | 296 | 54 | 104 |
|  | December 8 | 204 | 285 | 40 | 81 |
|  | December 25 | 278 | 334 | 20 | 56 |
| Valerie | February 14 | 43 | 290 | 574 | 247 |
|  | February 12 | 40 | 44 | 10 | 4 |
|  | February 13 | 36 | 78 | 117 | 42 |
|  | February 15 | 41 | 53 | 29 | 12 |
|  | February 16 | 38 | 48 | 26 | 10 |
| Valentine | February 14 | 27 | 1,520 | 5,529 | 1,493 |
| Patrick | March 17 | 275 | 3,501 | 1,173 | 3,225 |
| Pearl | December 7 <br> (Pearl Harbor Day) | 453 | 469 | 3 | 16 |

TABLE 4
BABY NAMES AND MONTH OF YEAR

| Name | Month | No. of Births <br> Expected | Actual No. Named <br> in that Month | Increase (\%) | Increase <br> (Difference) |
| :--- | :--- | :---: | :---: | :---: | :---: |
| June | June | 4,579 | 41,027 | $796 \%$ | 36,448 |
| May | May | 4,907 | 16,906 | $245 \%$ | 11,999 |
| August | August | 3,571 | 7,881 | $121 \%$ | 4,310 |
| April | April | 218 | 1,436 | $559 \%$ | 1,218 |
| Janice | January | 4,108 | 4,416 | $7.5 \%$ | 308 |
| Octavia | October | 352 | 602 | $71 \%$ | 250 |
| Janet | January | 7,173 | 7,409 | $3.3 \%$ | 236 |
| Jan | January | 1,057 | 1,226 | $16 \%$ | 171 |
| March | March | 32 | 165 | $416 \%$ | 133 |
| July | July | 9 | 32 | $256 \%$ | 23 |
| Octavius | October | 23 | 31 | $35 \%$ | 8 |

TABLE 5
NUMBER OF BABIES NAMED "JUNE" BORN ON SPECIFIED DATES

| Date | Number |
| :--- | :---: |
| May 15 | 197 |
| May 28 | 270 |
| May 29 | 245 |
| May 30 | 249 |
| May 31 | 361 |
| July 1 | 349 |
| July 2 | 290 |
| July 3 | 261 |
| July 4 | 248 |
| July 15 | 185 |

Thus approximately 350 people were named June, over and above the usual naming rate, despite being born on either May 3I or July i.

## Summary/limitations/discussion

It is possible to estimate the number of children named after months, holidays, and presidents, when the latter are born on the president's birthday. Tens of thousands of children have been named in this way, and this article has provided both methodology and empirical estimates. As pointed out by one of the referees, it is possible that a boy could have been named after someone other than the president (e.g. a grandfather or uncle), despite being born on the president's birthday. In fact this happens frequently, and this study has confined attention to the number of babies named over and above the "usual" rate at which the name is assigned. Of course there is stochastic variation along this dimension, and the results reported here are simply estimates, but they are not biased with respect to this factor.

One limitation of this study is that a cursory glance at the social security data set reveals the reporting of birth dates is biased: there are many more entries than expected, for example, for the first of each month. That is, there is bias in the reporting of birth dates.

Other studies are possible using the data set, combining it with information from other data sets. For example, individual names subsequently can be searched for in decennial censuses, to find geographical information on state of residence and, by inference (if the person is young at the time of the census), their probable state of birth. The social security data set has information on the state in which the social security card was issued; in many cases this too can give suggestions regarding the state of birth, but it is relatively more likely that migration may have occurred between time of birth and time of issue, since cards were often not issued before time of first employment. A cursory look reveals that multiple "Calvins" were so-named on July 4 in the states of Minnesota, Pennsylvania, and Louisiana. The former two states are included in a broad swath of the northern parts of the country where Coolidge did well in the presidential election.

## Acknowledgements

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