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# Teen Birth Rates in the US

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# Our Data

- We got our data from the CDC website and is titled NCHS- U.S. and State Trends on Teen Births
- The link is:  
<https://data.cdc.gov/NCHS/NCHS-U-S-and-State-Trends-on-Teen-Births/y268-sna3>
- Our dataset contains information from 1990 to 2019 and contains the age groups: 15-17, 15-19, and 18-19.
- We downloaded our data as a CSV file from the website

# Our Project Components

- CSV file containing our data
- SQLite database to house our data
- Python Flask API
- HTML/CSS files
- JavaScript file

# SQLite/Database

- First we created our database.
- We created our SQLite and then created a path for our CSV file.
- We then read the CSV file and created our SQL table called teen\_births

Here is our table:

Out [29]:

	year	state	age_group	state_rate	state_births	us_births	us_birth_rate	unit
0	1990	Alabama	15-17 years	47.4	4,222	183,327	37.5	per 1,000
1	1990	Alaska	15-17 years	31.2	335	183,327	37.5	per 1,000
2	1990	Arizona	15-17 years	47.7	3,436	183,327	37.5	per 1,000
3	1990	Arkansas	15-17 years	50.4	2,549	183,327	37.5	per 1,000
4	1990	California	15-17 years	44.6	24,880	183,327	37.5	per 1,000
...	...	...	...	...	...	...	...	...
4675	2019	Virginia	18-19 years	25.1	2,800	130,593	31.1	per 1,000
4676	2019	Washington	18-19 years	25.4	2,189	130,593	31.1	per 1,000
4677	2019	West Virginia	18-19 years	49.3	1,009	130,593	31.1	per 1,000
4678	2019	Wisconsin	18-19 years	24.0	1,835	130,593	31.1	per 1,000
4679	2019	Wyoming	18-19 years	39.2	268	130,593	31.1	per 1,000

4680 rows x 8 columns

# Flask

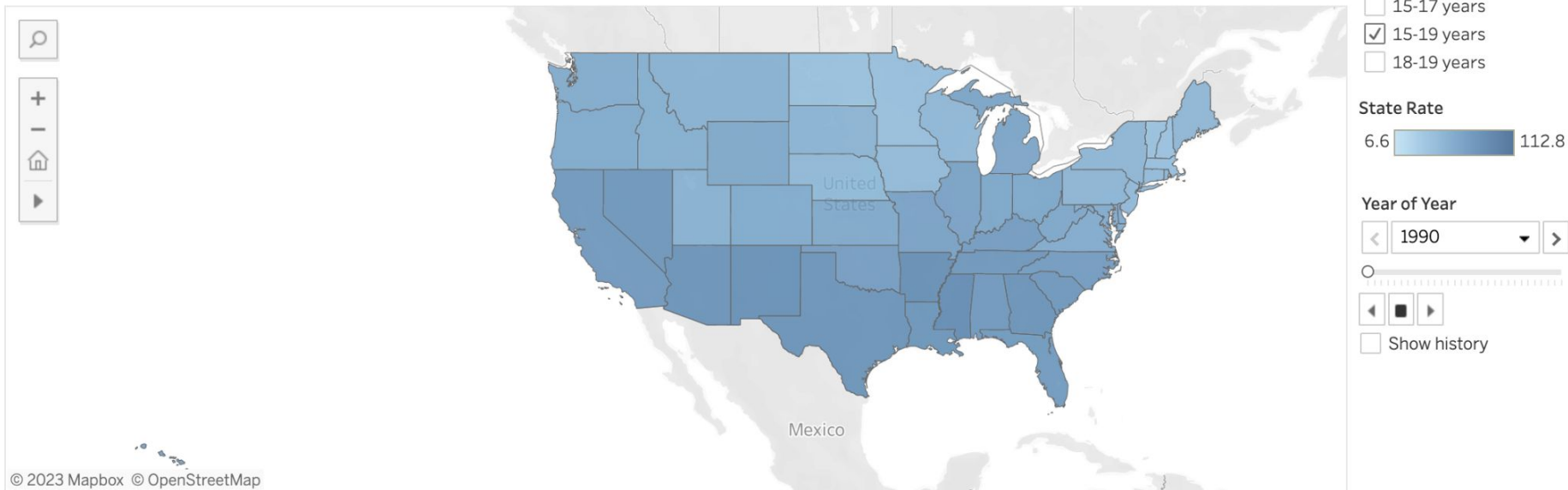
- We created our flask in python and created 3 different paths viewers can take:
  - State Rates per Year
  - Average State Births per Year Span
  - Minimum and Maximum State Births for a Given Year
- For the state rates per Year route:
  - Queried the state\_rate, the state, and the year then we filtered by the year
  - Created a for loop so that it would return all our values

## Flask pt. 2

- For the average state births per Year Span route:
  - Queried func.avg of state\_births, state and year then used groupby to group the result by year and state then filtered by the year  $\geq$  start\_year and  $\leq$  end\_year (given by the user)
  - Created a for loop so that it would return all our values
- For the min and max state births for a given year route:
  - Queried func.min of state\_births, func.max of state\_births, state, and year then used groupby to group the results by year and state then filtered by year  $\geq$  start\_year and  $\leq$  start\_year

# Map

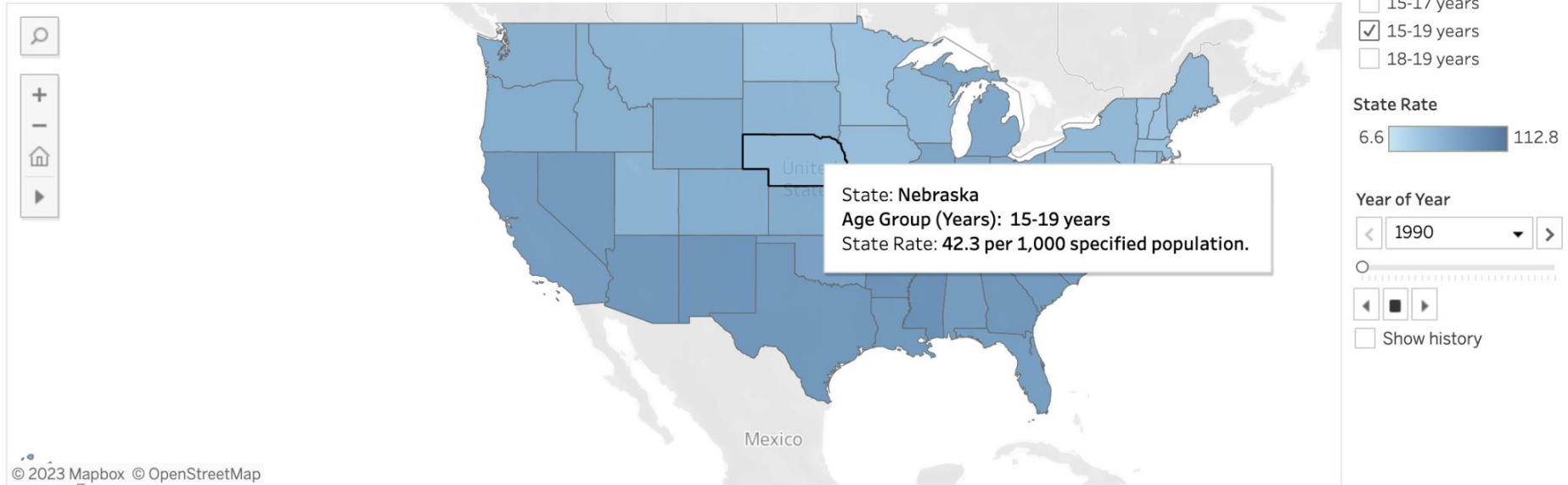
## State Rate by Year



Our map shows the state rate by year. Users can select which age group and year they would like to see. The lighter the blue the lower the rate and the darker the blue the greater the rate.

# Map pt.2

## State Rate by Year



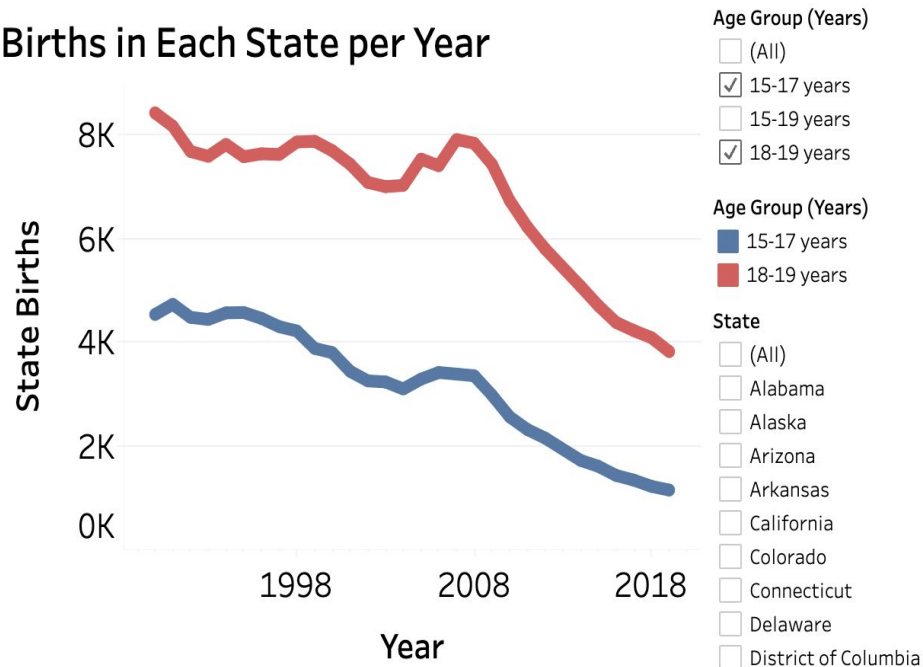
Additionally, users can hover over each state and see the state name, age group and the state rate for that specific state.



# Graph 1

In this graph users can see the births in each state per year. There is also a section menu to the right of the graph where users can select the age group they want to see. There is also a selection menu where users can select which state they want to see.

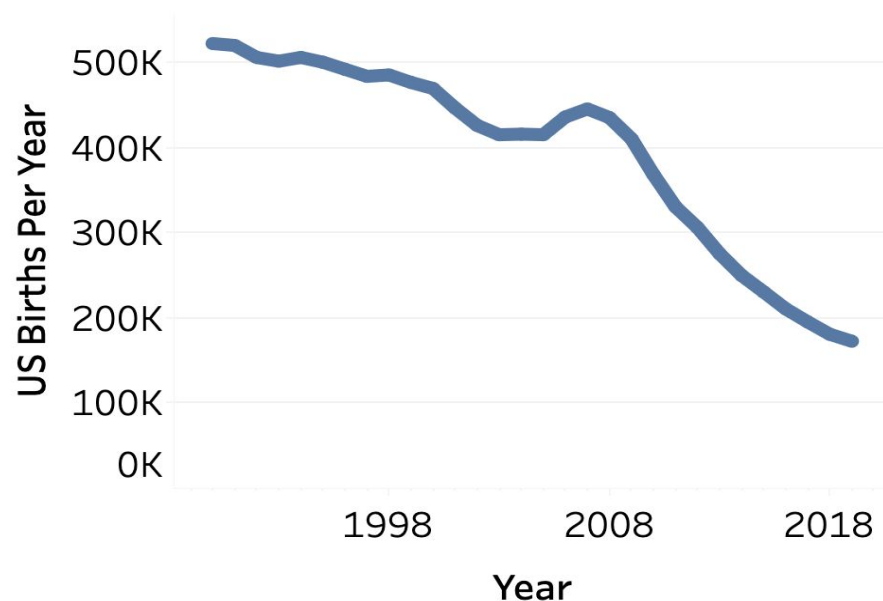
Births in Each State per Year



## Graph 2

In this graph users can see US Births/ Year in a line graph. This graph goes through 1990-2019. You can see that there has been a decrease in births since 1990. There was then an increase in births in 2007 and then another steady decrease in births since then.

US Births/Year Line Graph



# Closing Thoughts

- Increased Access to Contraception:
  - Planned Parenthood
    - Family planning clinics
  - The Affordable Care Act (ACA) implemented in 2010
    - Insurance coverage for contraception
- Public Health Initiatives:
  - Teen Pregnancy Prevention Program (TTP)
  - Title X Family Planning Program
    - Support pregnant and new parenting teens
    - Support responsible sexual behavior
- Increase Opportunities for Women:
  - Education
    - Expansion of opportunities for women in higher education
  - Careers
    - More support for women pursuing careers

# Sources

- [https://www.plannedparenthood.org/uploads/filer\\_public/56/25/5625151f-3aac-4fcb-a861-1ab8ddb64a48/pregnancychildbearing\\_070814.pdf](https://www.plannedparenthood.org/uploads/filer_public/56/25/5625151f-3aac-4fcb-a861-1ab8ddb64a48/pregnancychildbearing_070814.pdf)
- <https://opa.hhs.gov/adolescent-health/reproductive-health-and-teen-pregnancy/trends-teen-pregnancy-and-childbearing#:~:text=According%20to%20recent%20research%2C%20this,of%20effective%20contraceptives%20by%20adolescents.&text=The%20declines%20in%20national%20teen,as%20well%20as%20abortion%20rates>
- <https://opa.hhs.gov/grant-programs/teen-pregnancy-prevention-program/about-tpp>