



Whitney Alli

Predictive Analysis on Roe v. Wade



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Introduction



Devolution of Healthcare & Patient Rights

Concerning one's health should be between that individual and their physician. However, abortion rights and access were not a politically divisive topic until just a few election cycles ago. It is a fact that the medical and scientific consensus since the 70s was that abortion rights are health care, and that lack of access to safe abortion endangers the lives of birthing people. Abortion only became a political topic when religious sects aligned themselves with political parties, commandeering the political scene so that a whole party had to take a unified stance against abortion to keep that voter base — with no thought to the human lives that ideology trampled underfoot.

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History



History of Roe v. Wade

On June 24, 2022, the Supreme Court issued a ruling in *Dobbs v. Jackson Women's Health Organization* that overturned the constitutional right to abortion as well as the federal standards of abortion access, established by prior decisions in the cases *Roe v. Wade* and *Planned Parenthood v. Casey*. Prior to the *Dobbs* ruling, the federal standard was that abortions were permitted up to fetal viability. That federal standard has been eliminated, allowing states to set policies regarding the legality of abortions and establish limits. Access to and availability of abortions varies widely between states, with some states banning almost all abortions and some states protecting abortion access.



Analysis Objective



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Data & Abortion

The data for this presentation is a meta- analysis from the landmark case Roe v. Wade in 1973 to 2017. This data was gathered by the leading productive scientist Zimit and Kost. In harnessing such a robust a set of a data a great deal of myths concerning abortion care, access, and attitudes can be addressed. In preforming an unsupervised learning machine learning on this data, through various predictive models to guide and confirm the conclusions reached.

Explanation of Data



Working the Data

Cleaning the data to remove unwanted data, missing values, rows, and columns, duplicate values, data type conversion, etc. You might even have to restructure the dataset and change the rows and columns or index of rows and columns.

Points of Interest

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Miscarriages



Miscarriages are defined as unviable births per 1000 birthing able persons.



Population

This is an overall analysis of all birthed persons at the time a count was recorded in a given year.



Abortion

In this set of data abortions are measured per 1000 abortions that were performed before 20 weeks.



Births

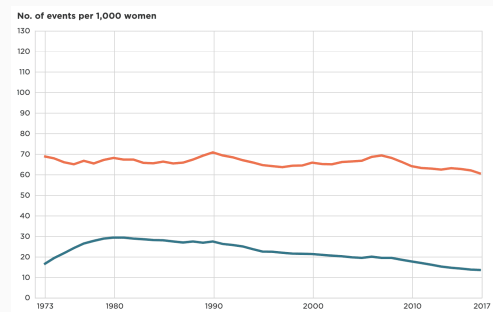
Births are recorded per 1000 persons as live and viable births.

CONTINUE

Data Visualization

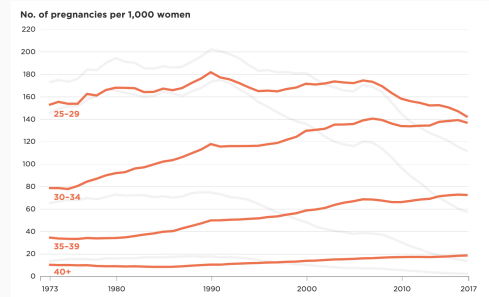


Trend of Abortion & Births 15 to 44 - Overall

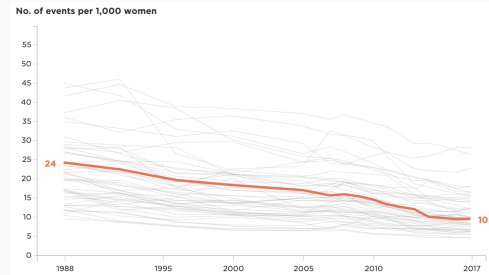


1 of 4

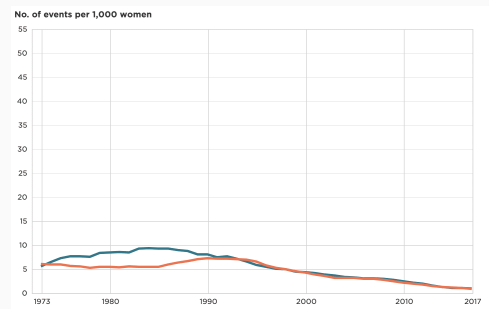
Trend of Pregnancy 25+ - Overall



Trend in Abortion 15 to 44 - Overall



Trend in Abortions & Births 15Less - Overall



Models



Performance Evaluation Metrics

Selection of what model is used to confirm data is very important. While there are many models, not all models will work on the given data set.

- 1 K-Means
- 2 Silhouette
- 3 Rand Index

Conclusion



Final Analysis

A number of analysis could have been made however the focus was kept on the overall trend that was presented in the data. Among women aged 15–44, the abortion rate has largely declined since its peak in 1980 and 1981 (of 29 abortions per 1,000 women) and reached a historic low in 2017 (of 14 abortions per 1,000 women). In contrast, the birth rate among women aged 15–44 has gone through alternating periods of decline and increase since 1973; in 2017, it reached its lowest level (with 60 births per 1,000 women). This statistic speaks volumes in denouncing myths of anti-abortion culture.



Getty Images 2003
