| Legalization and Drug Deaths | |
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| Organization | N/A |
| Organization Description | N/A |
| Project Type | Data Science |
| Project Description | To determine if cannabis legalization is the primary cause of drug deaths in the United States or if it decreases deaths from opening doors to more resources and moving people away from more dangerous drugs. |
| | We intend to find and merge more data over the course of the project to determine what other factors lead to drug deaths per 100 population across the different states in the US and if those factors hold more weight over legalization. |
| Data Sets | DATA DESCRIPTION: (Copied from kaggle!!!!) Data drug poisonings, measured as the number of drug related overdoses both unintentional and intentional and economic conditions per 50 U.S. states and the District of Columbia over a time span of 1999-2016 (1999 - 2018). https://www.kaggle.com/andrewgatchalian/drug-deaths-economic-conditions-19992016?select=drug_abuse_data.csv (2017 and 2018 by Data Scraping) https://www.cdc.gov/drugoverdose/data/statedeaths.html (US Bureau of Labor Stats -for unemployment, min wage) https://www.bls.gov/cps/ |
| | (Substance Abuse & Mental Health Services Administration website for datasets regarding mental health and drug use) https://healthdata.gov/agencies/substance-abuse-mental-health-services-administration?sort_by=changed&f%5B0%5D=field_tags%3A2501 |
| | Find reason for drug deaths (suicide, overdose, etc.) -By states and by year (preferably 1999-2018 at least) |
| | Attributes: - US States - Years: 1999 - 2018 |

| | - Drug classification - Legalization data (illegal, medical use, recreational for every state) - Drug accessibility (ties in with legalization) - COVID-19 data? - Poverty: average cost of living in each state or some other metric - Minimum wage - GDP Per capita - CPI - Mental health statistics by state - Suicide rates - Depression - Demographics - Population - Age - Gender - Income (tied to poverty) - Religion - Race |
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| Suggested Steps | - Find legalization information to add to our data for Colorado (to start with) - Add 2017 and 2018 to the data set (Data Scraping): https://www.cdc.gov/drugoverdose/data/statedeaths.html - Get minimum wage data - Get state demographics - Get state mental health data - Look at data for other states, those that have legalized it and those that have not Choose non-legalization state that aligns similarly to Colorado in terms of demographics - Add COVID-19 related data and predict if drug deaths will increase due to the pandemic (look at the trend) - Predict drug deaths in future years |
| Questions to be answered in Analysis | Is there a correlation between legalization of drugs and drug-related deaths? Are drug deaths by state positively correlated with unemployment/other socio-economic conditions in said state? Has/will the rate of drug-related deaths increased during the coronavirus pandemic? (either find a way to answer this or predict it) If there is a state that is an outlier (drug deaths have not increased, what may be reasons they are not following the trend and can other states mimic this?) Through analysis of previously collected data based on various attributes - predict rate of drug overdoses in future years (say 2021) |
| Additional Information | Project can be expanded in the future to look at how the Covid-19 crisis affected drug-related deaths and future legalization of drugs. Completion of the project could also point to potential ways to mitigate the drug crisis and pinpoint targetable attributes that will reduce drug-related deaths in the future. |

| Limitations | - Drug abuse statistics are underreported - But will this actually sway our data? |
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| | - Missing data from states that have legalized in recent years |
| | - Missing recent data on potentially confounding variables such as COVID |
| | - Not accurate mental health data from earlier years due to it only becoming a major topic |
| | of conversation recently |
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