Loans & Birth/Death Rate Data Warehouse Proposal

Finding the Correlation Between Loans and Birth/Death Rate

Group Members

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Project Description

Our intended project revolves around the effects loans may have on birth rates and mortality rate in New York. The economic environment over the past decade has forced many individuals and families to take out loans to either make ends meet or to invest in different opportunities. By analyzing annual birth rates with respect to continuous loan data, we hope to find trends that may help to paint an interesting narrative. In regards to the mortality rate, we want to specifically focus on deaths that occur in an unnatural manner, such as deaths relating to firearms, alcohol, and suicides. These unnatural occurrences, while morbid, may provide an insight on the effects loans can have on an individual's mental health.

Information Needs

Dataset source containing information on birth rates by age/race/gender spanning over years

Dataset source containing information on mortality rates by age/race/gender spanning over years

Continuous loan data over the span of multiple years containing data from multiple types of loans.

Fact Tables

Birth Fact Table

TimeDimensionID RaceEthnicityID GenderID

TotalBirths

Death Fact Table

TimeDimensionID

GenderID

DeathID

RaceEthnicityID

UnnaturalCauseID

TotalDeath

Age

Loan Fact Table

TimeDimensionID LoanTypeID

TotalDollarBalance

Dimensions

Time Dimension

TimeDimensionID

Year

Quarter

Month

RaceEthinicity

RaceEthinicityID

Hispanic

NonHispanicWhite

NonHispanicBlack

AsianPacificIslander

Other

NotStated

Unnatural Cause Dimension

UnnaturalCauseID

Firearm

Alcohol

Suicide

Gender Dimension

GenderID

Male

Female

Loan Type Dimension

LoanTypeID

HELOC

Auto

Student

CreditCard

Datasets Used

Debt data for years 04-14

https://data.world/finance/student-loan-debt

Percent Live Births by Infant Sex and Mother's Race/Ethnicity for New York City, 2007-2014 https://data.cityofnewyork.us/Health/Natality/wffy-3iyg

Vital_Statistics_Suicide_Deaths_by_Age-Group__Race_Ethnicity__Resident_County__Region_ and_Gender__Beginning_2003

 $\label{lem:https://healthdata.gov/dataset/vital-statistics-suicide-deaths-age-group-raceethnicity-resident-county-region-and-gender-13\#\{view-graph:\{graphOptions:\{hooks:\{processOffset:\{\},bindEvents:\{\}\}\}, graphOptions:\{hooks:\{processOffset:\{\},bindEvents:\{\}\}\}, view-grid:\{columnsWidth:[\{column:!Firearm++Deaths,width:268\},\{column:!Alcohol-Related++Deaths,width:250\},\{column:!Suicide++Deaths,width:225\}]\}\}$