1. **Datasets**:

**All datasets are for Indiana County**

* 1. **Covid Data:**

These datasets contain Covid Cases and the associated demographic and other data for those cases

* 1. **Covid-19 Case Surveillance file**:
     + *CDC\_COVID-19\_Case\_Surveillance\_Public\_Use\_Data\_with\_Geography.csv*

This file is at individual case level / daily level and the most detailed/granular file. It is obtained from CDC website.

<https://www.cdc.gov/coronavirus/2019-ncov/covid-data/covidview/past-reports/09172021.html>

* 1. **Covid\_report\_demographics:**
     + *hub\_mph\_covid\_report\_demo\_combined.xlsx*

This file is at County level. This file contains 4 tabs - Age, Race, Gender and Ethnicity. It contains Monthly data. This is fetched from hub\_mph site  
<https://hub.mph.in.gov/dataset/covid-19-case-data/resource/46b310b9-2f29-4a51-90dc-3886d9cf4ac1>

* 1. **Covid\_tracking\_Indiana\_combined\_Data:**
     + *Covid\_tracking\_Indiana\_Combined\_Data.xlsx*

This file is at State level (No county level data). Multiple Datasets have been merged to obtain this dataset. The site for getting this data is as below:  
<https://covidtracking.com/data/state/indiana>

* 1. **Covid\_Act\_Now:**
     + *counties.timeseries.csv*

This file is at County level and provides time series view.

The site for getting this data is as below:

<https://covidactnow.org/?s=25541467>

* 1. **Reference Data**
  2. **Stats\_Indiana\_Edu**
     + *Indiana County level demographic data.xls*

This is a Reference dataset that provides demographic information for the Counties in Indiana state.

This is sourced from below:

<https://www.stats.indiana.edu/topic/census.asp>

* 1. **Indiana Counties population 2020**
     + *Indiana Counties population 2020.xlsx*

This is a Reference dataset providing Area of the Counties in Indiana

* 1. **Stats\_America**
     + *Indiana County Metrics for development.xlsx*
     + *Indiana County Per Capita Income.xlsx*
     + *Indiana County\_Age\_Population.xlsx*
     + *Indiana County\_Employment.xlsx*

These are Reference datasets providing information at a County level on Age, Gender, Job Industry and Per Capita Income

<https://www.statsamerica.org/downloads/default.aspx>

1. **Visualizations**
   1. **Power BI files / PDF Files:**

The following PowerBI Visualizations have been created.

There are 2 files – a. County level analysis and b. State level analysis

* 1. **Covid County Level Visualization**

**PDF File - Covid - *County level Visualisations.pdf***

This File uses the following datasets

* + - Indiana County Metrics for development.xlsx
    - Indiana County Per Capita Income.xlsx
    - Indiana County\_Age\_Population.xlsx
    - Indiana County\_Employment.xlsx
    - Indiana Counties population 2020.xlsx
    - Indiana County level demographic data.xls

Data Description is as given on the link below:

<https://apidocs.covidactnow.org/data-definitions/>

Page 1 - Shows the Counties in descending order for – Average Case Density (The number of cases per 100k population calculated using a 7-day rolling average), Avg Infection Rate, Avg Infection IC90 Rate, Total No of Cases

Page 2 – We take top 10 counties from page 1 based on Highest Case densities and plot:

* + - 1. the timeline of their rise/fall in case density
      2. the timeline of their total no of cases

Page 3 – We take the top 10 counties with Highest case densities and plot

* + - distribution of race
    - distribution of housing occupied and vacant
    - distribution of Ethnicity (White Non-Hispanic, Minority)

Page 4 – We take the top 10 counties with Highest case densities and plot

* + - Distribution by Age Group
    - Distribution by Gender

Page 5 - We take the top 10 counties with Highest case densities and plot

* + - Distribution by Job Industry
    - Per Capita Income

Page 6 - We take the top 10 counties with Highest Infection Rate and plot

* + - 1. the timeline of their rise/fall in Infection Rate
      2. the timeline of their total no of cases

Page 7 - We take the top 10 counties with Highest Infection Rate and plot

* + - distribution of race
    - distribution of housing occupied and vacant
    - distribution of Ethnicity (White Non-Hispanic, Minority)

Page 8 – We take the top 10 counties with Highest Infection Rate and plot

* + - Scatter plot of ‘Full time work Index’ against ‘Literacy and Education Index’. The size of the bubble is proportional to the Case Density

Page 9 – We plot the top 20 counties by Population, Population Density and Total no of cases

Page 10 – We select top 20 counties bases on Total no of cases and plot

* + - Infection Rate vs Case density. The size of the bubble is proportional to the Population density

Page 11 - We select top 20 counties bases on Total no of cases and plot

* + - Infection Rate vs Case density. The size of the bubble is proportional to the Percentage of Minority Population

Page 12 - We select top 20 counties bases on Total no of cases and plot

* + - distribution of race
    - distribution of housing occupied and vacant
    - distribution of Ethnicity (White Non-Hispanic, Minority)
  1. **Covid State Level Visualization**

**PDF File – *Covid - State level Visualisations.pdf***

This File uses the following datasets

* + - CDC\_COVID-19\_Case\_Surveillance\_Public\_Use\_Data\_with\_Geography.csv
    - hub\_mph\_covid\_report\_demo\_combined.xlsx

This analysis shows the distribution of Covid Population across the whole of Indiana state by various demographic factors and also the timeline of the rise in cases