

## Background

In 2006, global concern was raised over the rapid decline in the honeybee population, an integral component of American honey agriculture. Large numbers of hives were lost to Colony Collapse Disorder, a phenomenon of disappearing worker bees that causes the remaining hive colonies to collapse. Speculation on the cause of this disorder points to hive diseases and pesticides harming the pollinators, though no overall consensus has been reached. The U.S. used to locally produce over half the honey it consumes per year. Nowadays, honey mostly comes from overseas, with 350 of the 400 million pounds of honey consumed every year originating from imports. This dataset provides insight into honey production supply and demand in America from 1998 to 2016.

## Objective:

To visualize how honey production has changed in the United States.

Key questions to be answered:

- How has honey production yield changed over the years from 1998 to 2016?
- Over time, what have been the major production trends across the states?
- Are there any pattern that can be observed between total honey production and the value of production every year? How has the value of production that could be tied to demand, changed every year?

## Dataset:

- **State:** Various states in the U.S.
- **year:** Year of production
- **stocks:** Refers to stocks held by producers. Unit is pounds
- **numcol:** Number of honey-producing colonies. Honey producing colonies are the maximum number of colonies from which honey was taken during the year. It is possible to take honey from colonies that did not survive the entire year
- **yieldpercol:** honey yield per colony. The unit is in pounds
- **totalprod:** Total production (numcol x yieldpercol). Unit is pounds
- **priceperlb:** Refers to average price per pound based on expanded sales. The unit is dollars.
- **prodvalue:** Value of production (totalprod x priceperlb). The unit is dollars.

## Deliverables and Expectations :

1. Use different type of visualizations to extract actionable insights which makes it easier to identify trends, patterns, and outliers within large data sets.

Our goal is to formulate a story that consists insights and business recommendations and can be used by any organization to take data driven decisions.

2. Submit the tested .py or .ipynb file that you have executed .
3. Rubric :

Activities	Point
Submitted in correct format (tested code file)	9
Used graphs/figures/observations to support the analysis	20
Written the correct observations that answers all the questions asked in objectives	– 10 points
Commented on other important insights	1

4. Due Date : 01-15-2023
5. Late submissions will be graded as 0 unless there is a genuine reason and is communicated.