

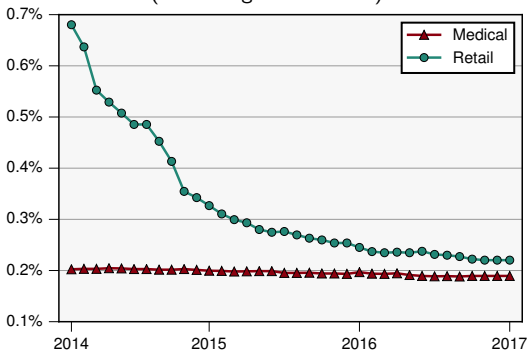


Cannabis Data Science

Meetup

March 24, 2021

Average Market Share per Distributor (Percentage of Revenue)



Data Source: Colorado Department of Revenue.

The concentration of firms in cannabis markets over time is of interest to participants in the cannabis industry, so, we will attempt to estimate a measure of market concentration and see if this measure changes over time.

The **Herfindahl–Hirschman Index** (HHI) is a commonly accepted measure of market concentration. The HHI is calculated by squaring the market share of each firm competing in the market and then summing the resulting numbers.

For example, for a market consisting of two firms with shares of 50 percent, the HHI is:

$$50^2 + 50^2 = 5,000.$$

About the HHI metric:

- The HHI takes into account the relative size distribution of the firms in a market.
- HHI approaches 0 when a market is occupied by a large number of firms of relatively equal size and reaches its maximum of 10,000 points when a market is controlled by a single firm.
- The HHI increases both as the number of firms in the market decreases and as the disparity in size between those firms increases.

Applications of the HHI in the legal system:

- The agencies generally consider markets in which the HHI is between 1,500 and 2,500 points to be moderately concentrated, and consider markets in which the HHI is in excess of 2,500 points to be highly concentrated.
- Transactions that increase the HHI by more than 200 points in highly concentrated markets are presumed likely to enhance market power.

Thank you for coming.