

## IBM NALIYA THIRAN

### ASSIGNMENT 1

#### Dataset Link:

[https://drive.google.com/file/d/100OUUpJFG8GQjhFztbfG5JP\\_jvzRgoihr/view](https://drive.google.com/file/d/100OUUpJFG8GQjhFztbfG5JP_jvzRgoihr/view)

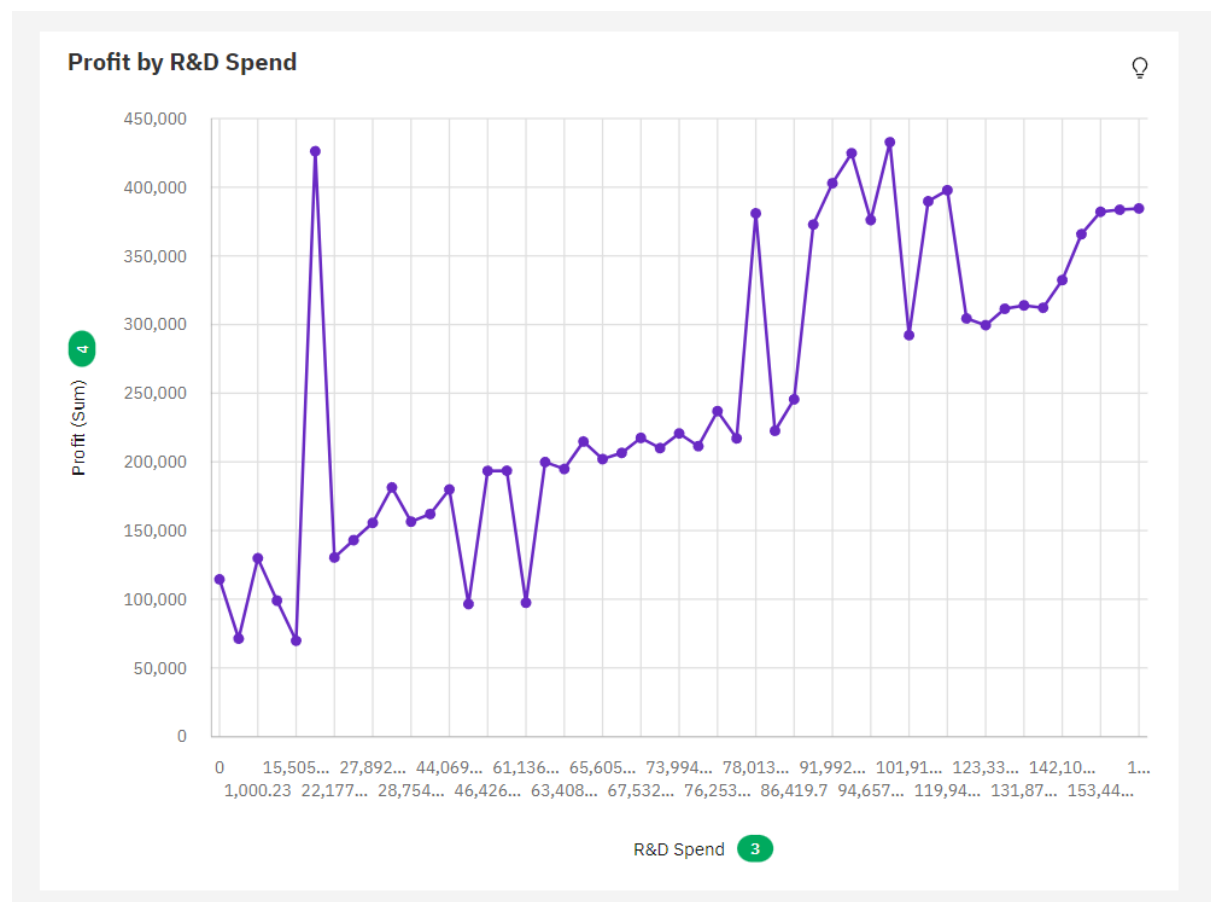
#### Challenge:

Upload the dataset to Cognos Analytics, explore and visualize the dataset.

#### Exploration of Dataset:

#### Visualization the Dataset:

##### 1. Profit by R&D Spend

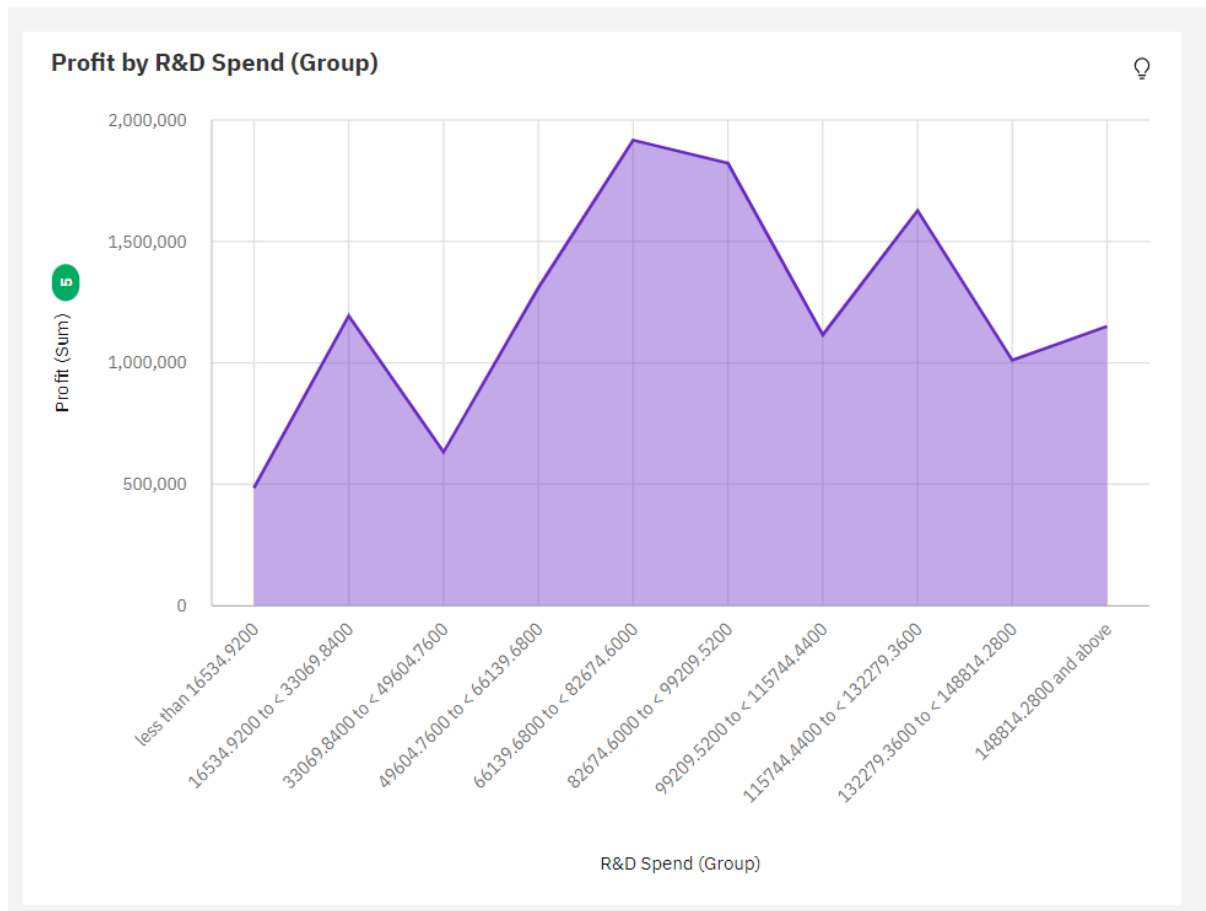


## INFERENCE

Across the **r&d spends**, the sum of **Profit** is over 12 million.

**Profit** ranges from almost 70 thousand, when R&D Spend is 15505.73, to nearly 433 thousand, when **R&D Spend** is 100671.96.

## 2. Profit by R&D Spend (Group)

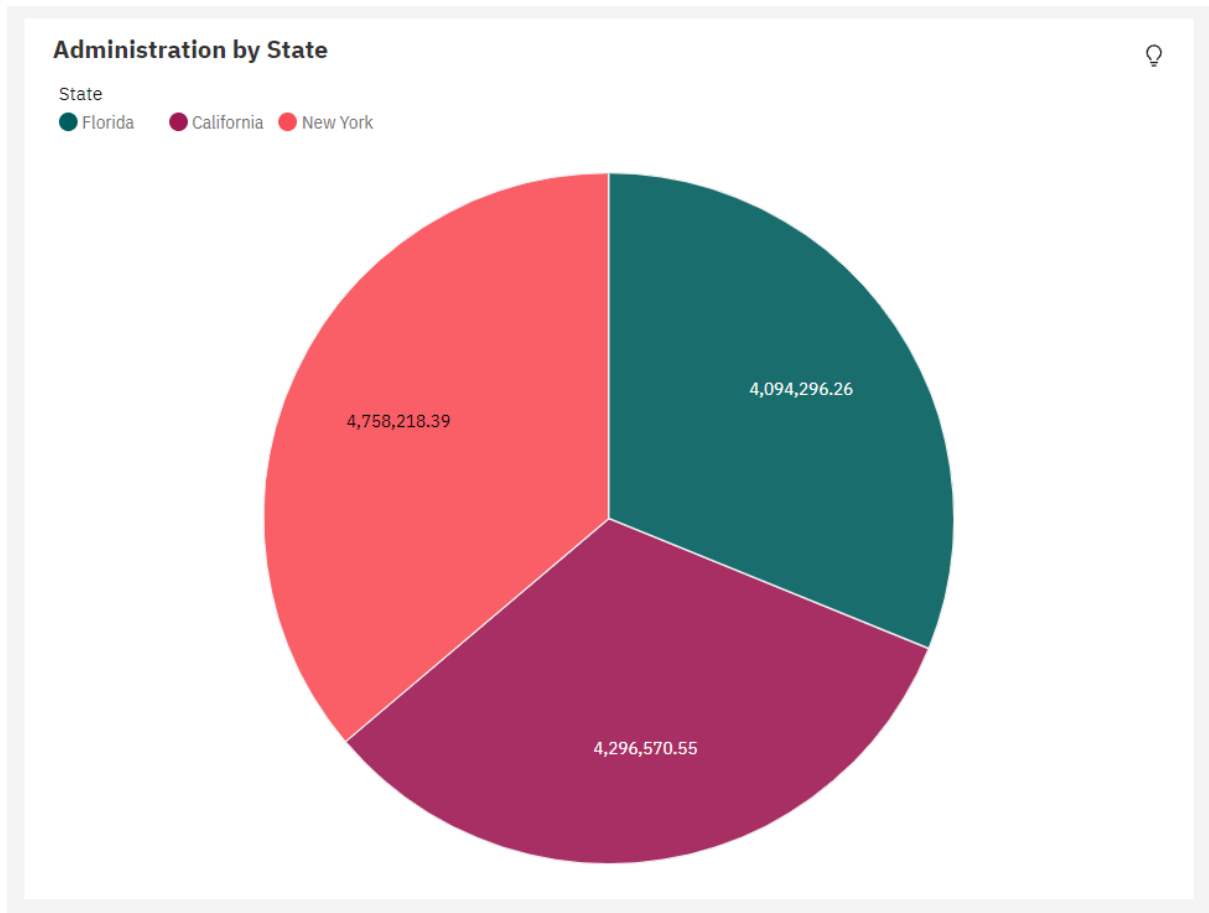


## INFERENCE

The values of **R&D Spend** (Group), the sum of **Profit** is over 12 million.

Profit ranges from over 484 thousand, when R&D Spend (Group) is less than 16534.9200, to over 1.9 million, when R&D Spend (Group) is 66139.6800 to < 82674.6000.

### 3. Administration by State

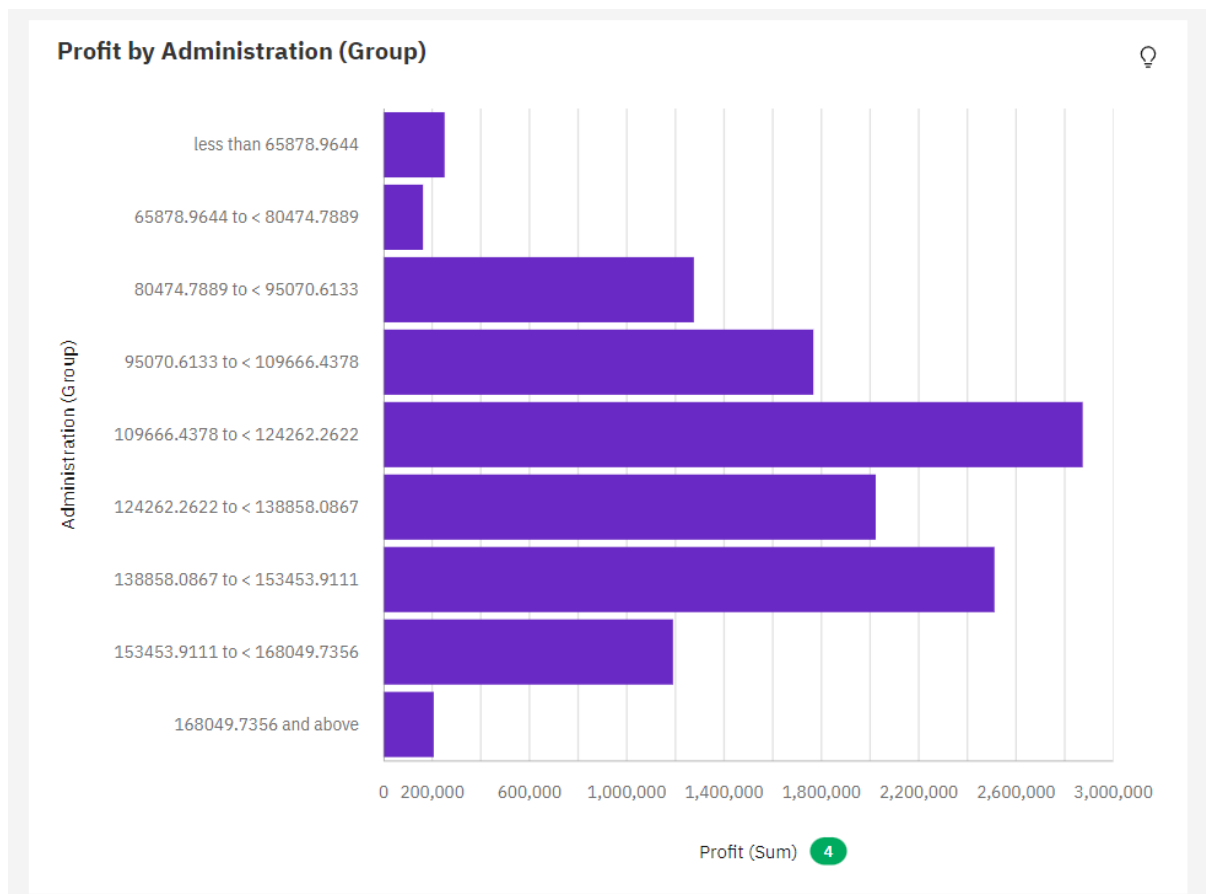


### INFERENCE

Across all **states**, the sum of **Administration** is over 13 million.

**Administration** ranges from nearly 4.1 million, in Florida, to almost 4.8 million, in New York.

#### 4. Profit by Administration (Group)

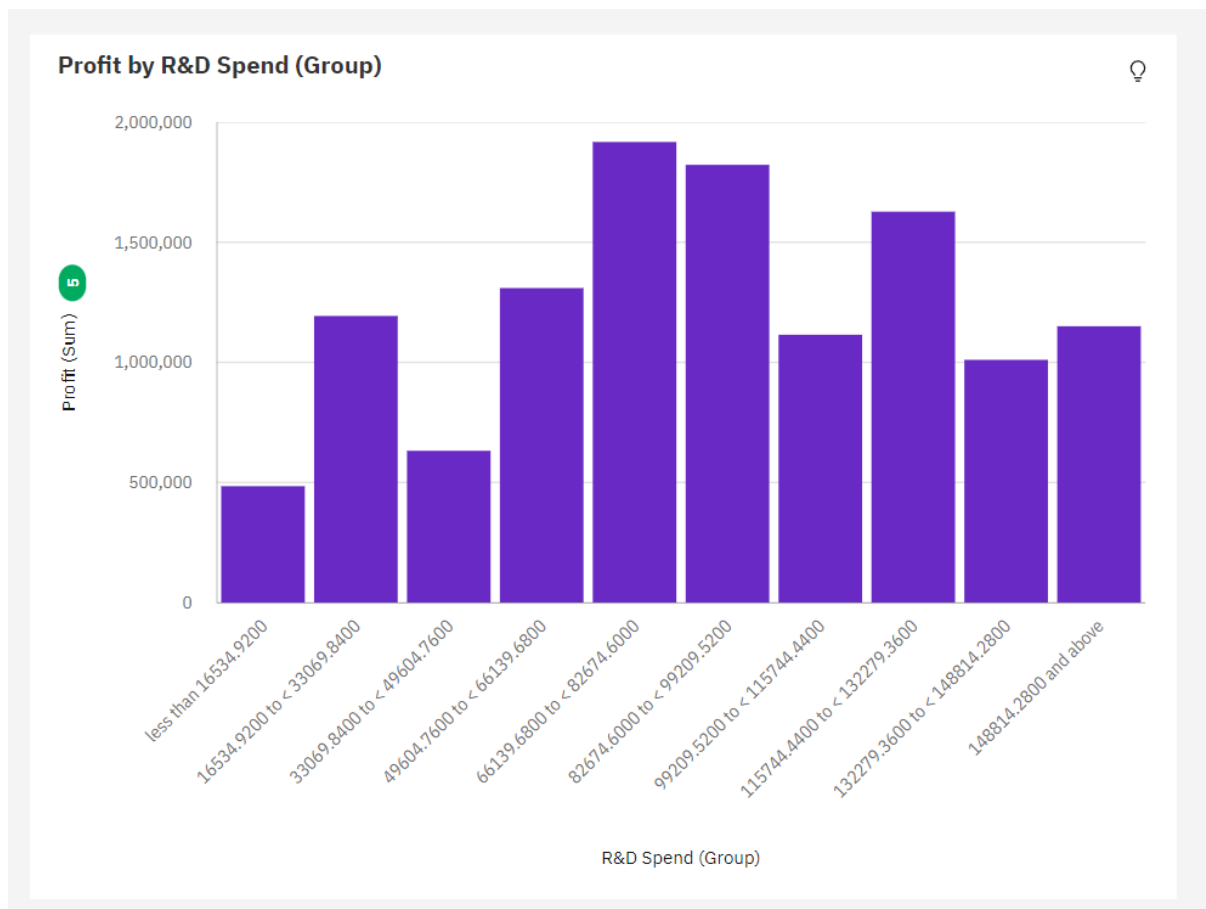


#### INFERENCE

Across all values of **Administration (Group)**, the sum of **Profit** is over 12 million.

**Profit** is unusually high when **Administration (Group)** is 109666.4378 to < 124262.2622.

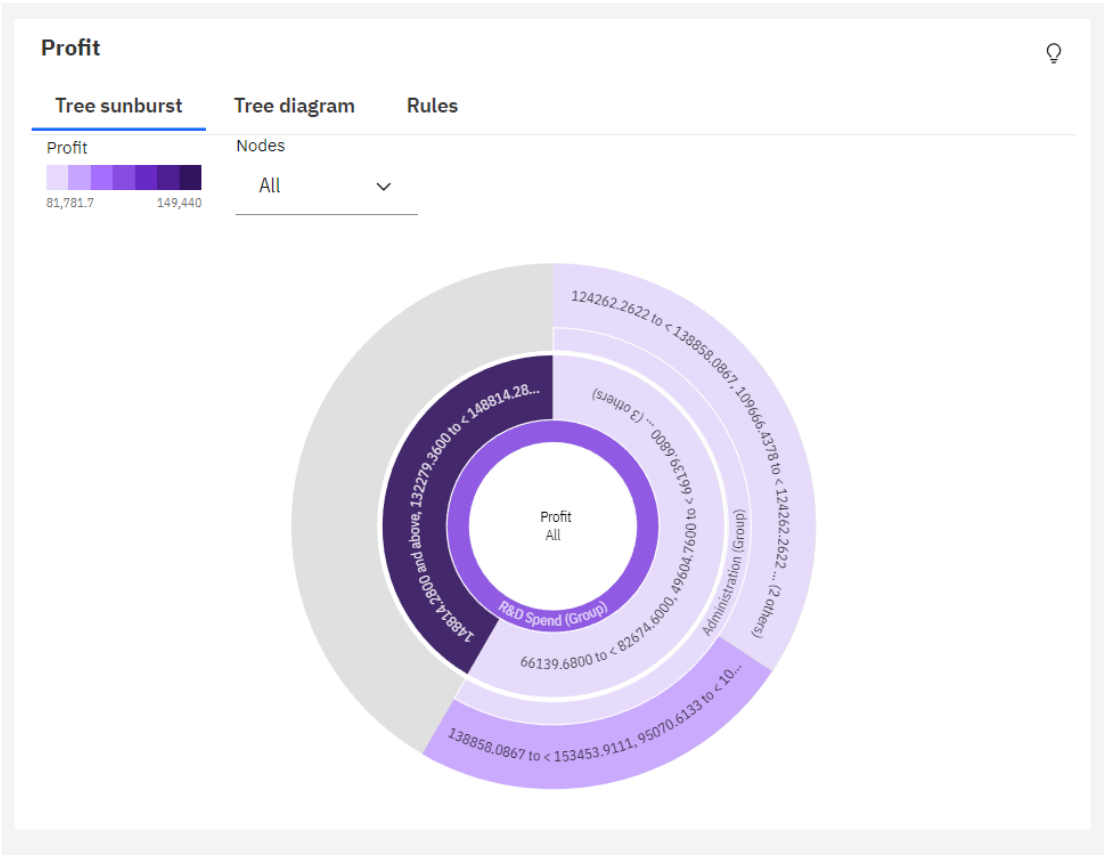
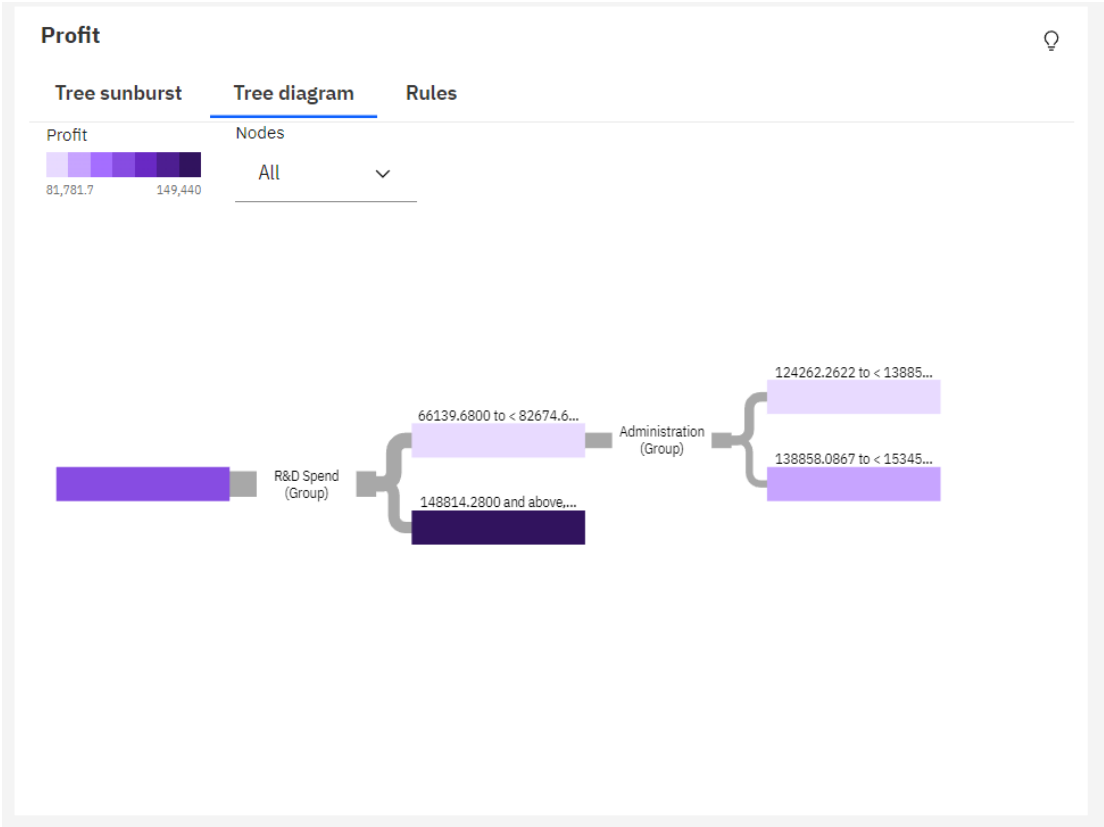
## 5. Profit by R&D Spend (Group)



## INFERENCE

For **Profit**, the most significant values of **R&D Spend (Group)** are 66139.6800, 82674.6000, and 115744.4400, whose respective **Profit** values add up to nearly 5.4 million, or 43.8 % of the total.

6. Profit

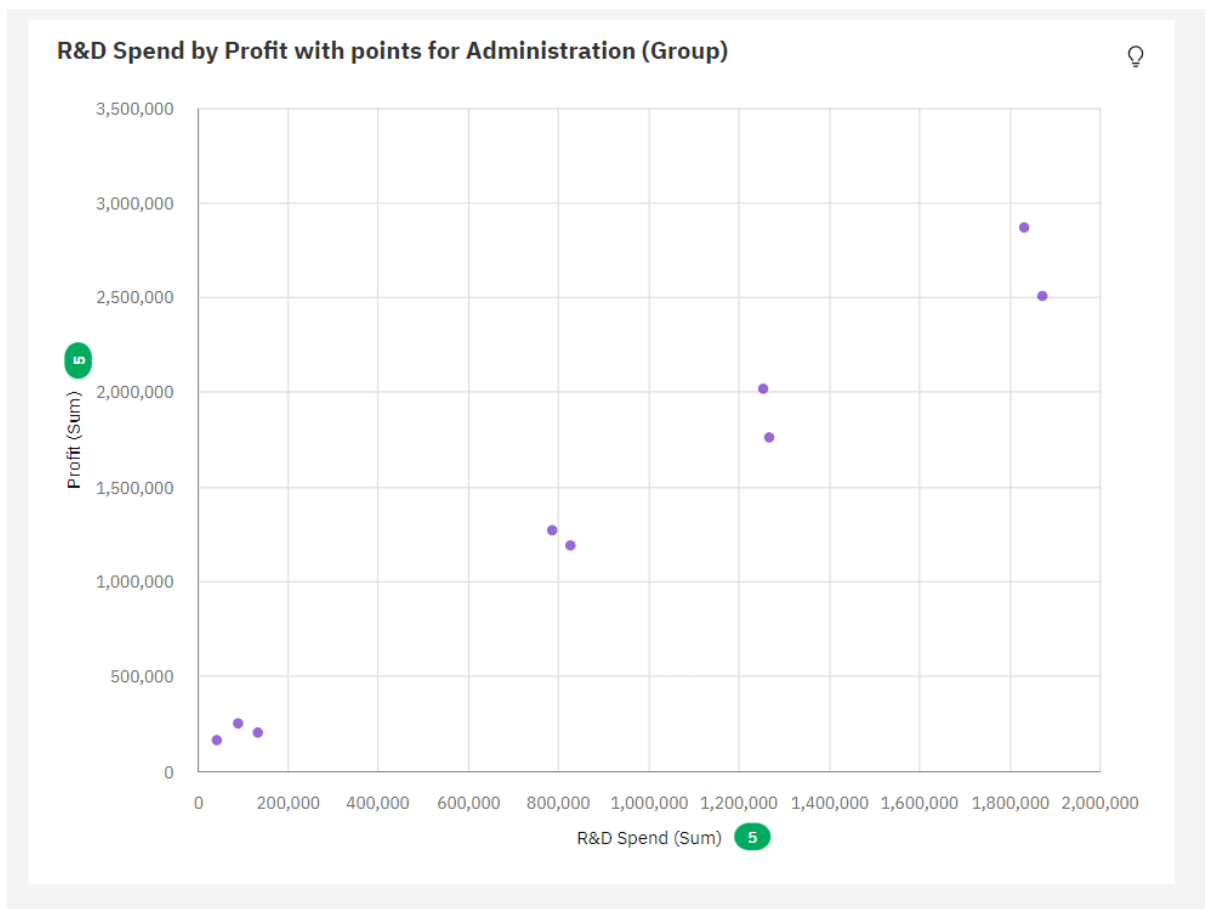


## INFERENCE

**R&D Spend** (Group) and **Administration** (Group) predict Profit with a strength of 63.2%.

R&D Spend (Group) is the **most significant predictor** of Profit being ten times better than any other field.

### 7. R&D Spend by Profit with points for Administration (Group)



## INFERENCE

The total of **Profit** is over 12 million.

**Profit and R&D Spend** have a strong positive linear association, being Profit =  $110123 + 1.415 * \text{R\&D Spend}$