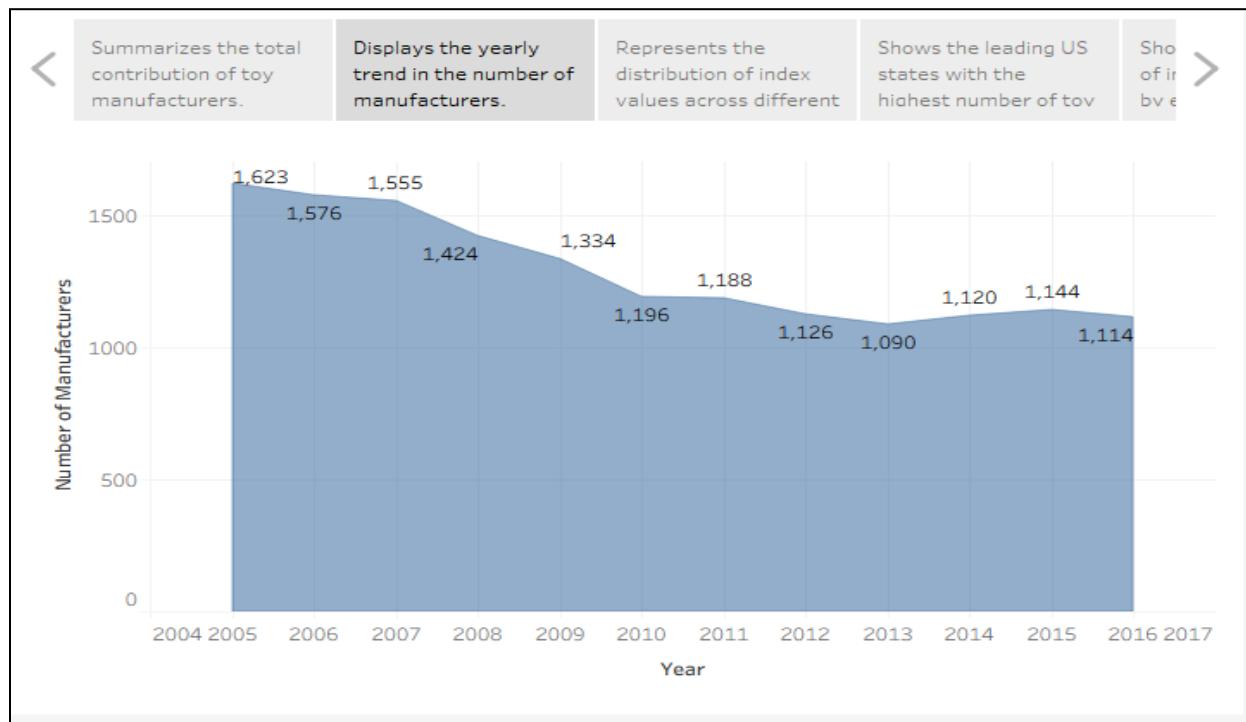
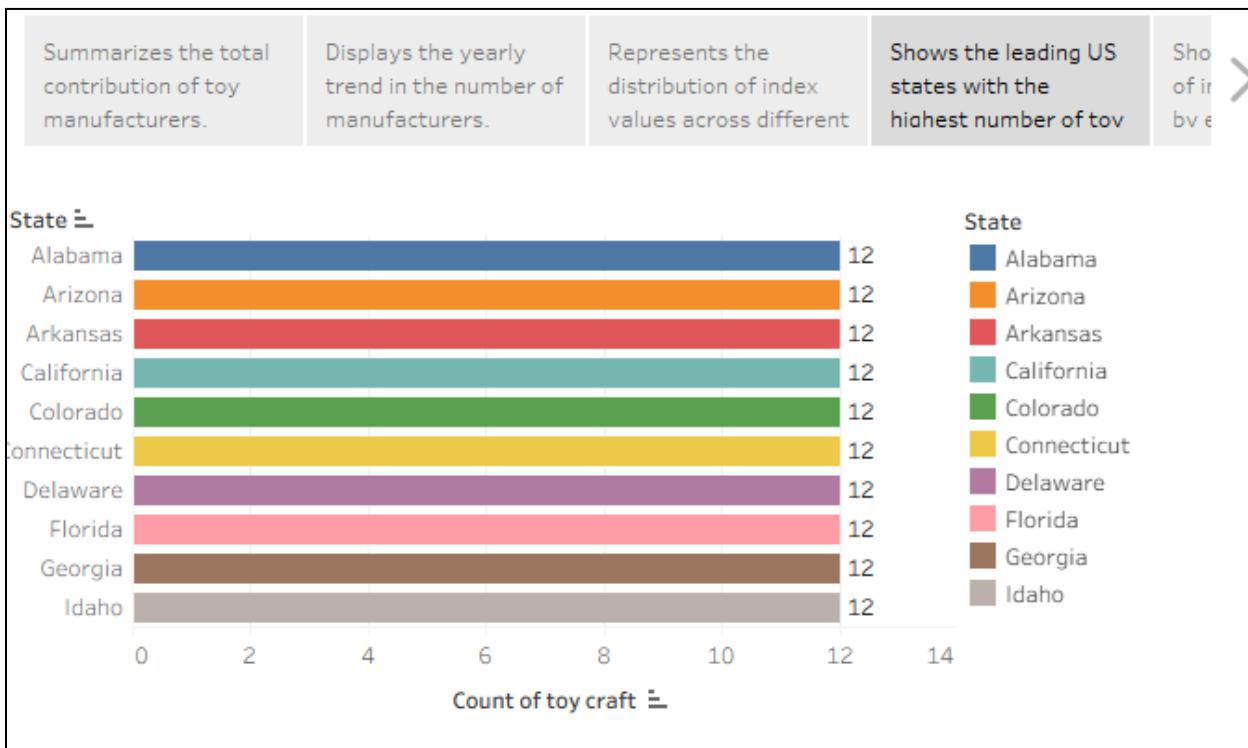
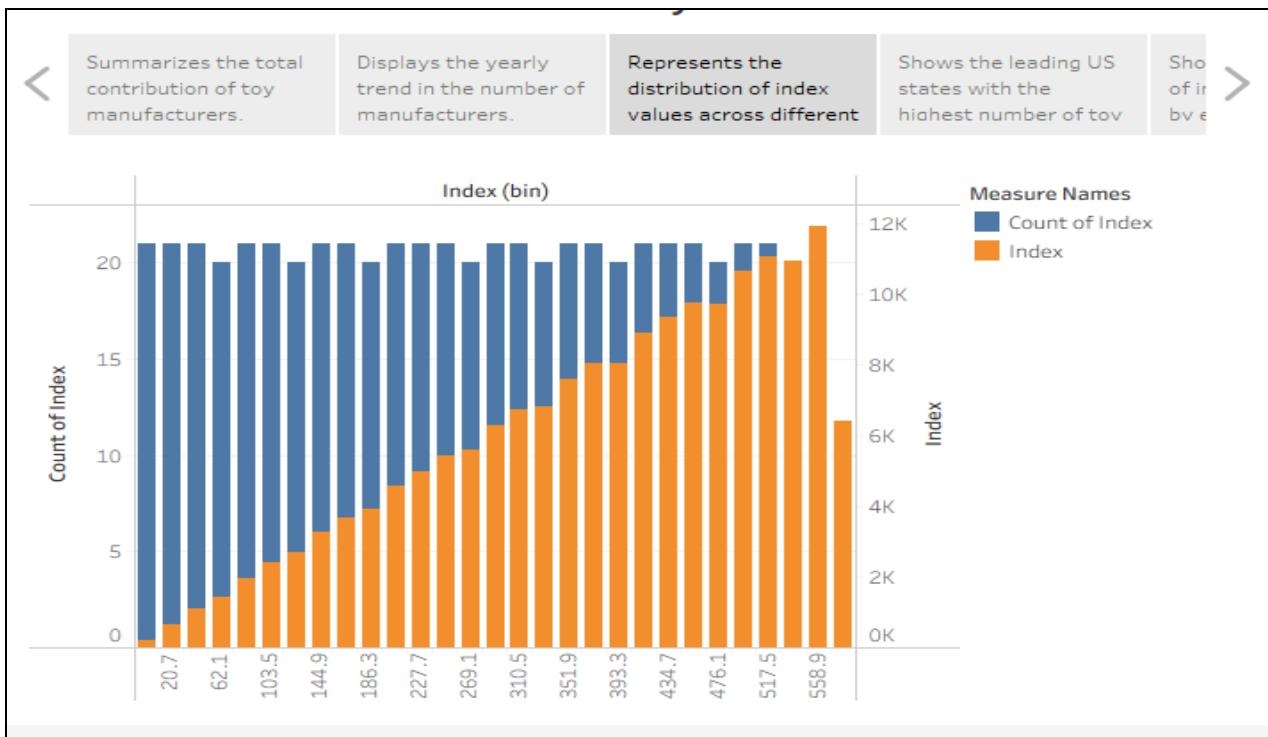
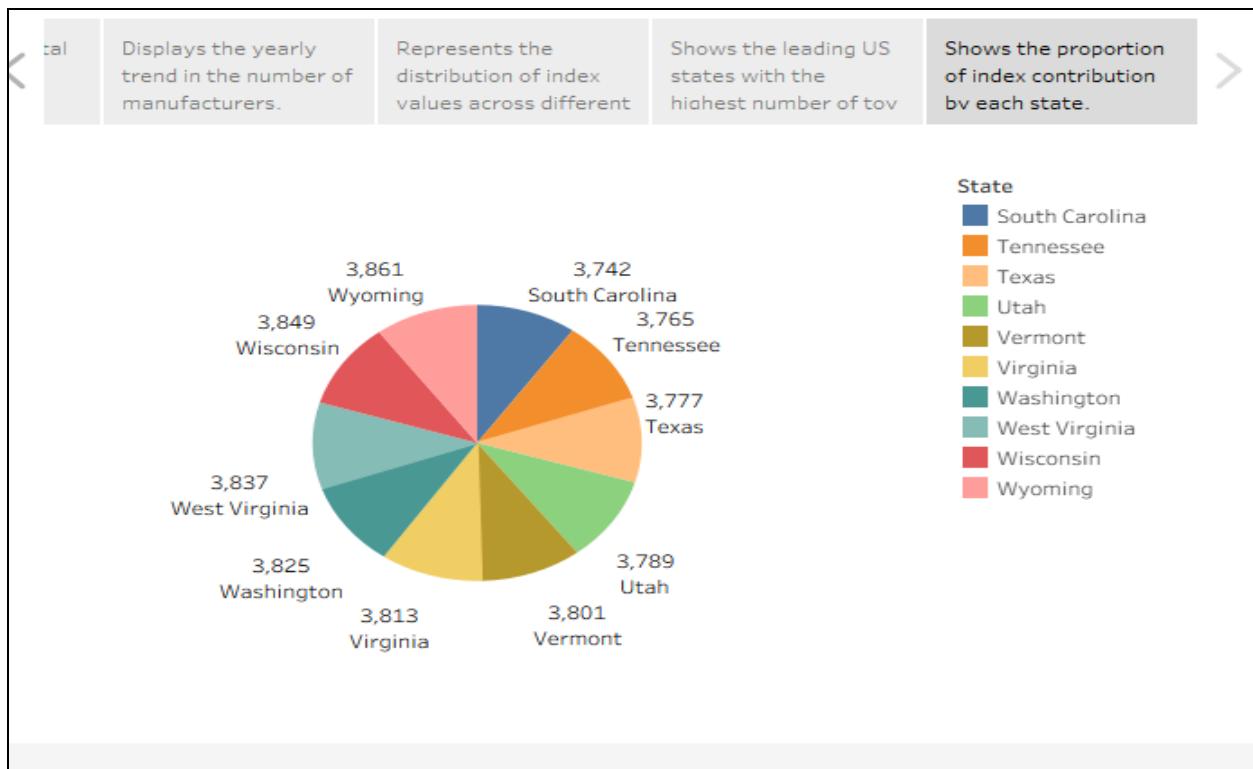


# Visualization

## ToyCraft Tales Tableau's Vision into Toy Manufacturer Data Story







## ◊ 1. Preprocessing Steps

Before creating visualizations in Tableau, the dataset was cleaned and prepared using the following steps:

### 1. Data Cleaning

- Removed duplicate records
- Handled missing/null values
- Corrected spelling errors in manufacturer names
- Standardized country and state names

### 2. Data Formatting

- Converted date fields into proper date format
- Changed revenue and sales columns into numeric format
- Ensured consistent currency format

### 3. Data Transformation

- Created calculated fields:
  - Profit = Revenue – Cost

- Profit Ratio
- Year-wise growth rate
- Grouped manufacturers by region
- Categorized toy types (Educational, Action, Dolls, etc.)

#### 4. Data Filtering

- Removed irrelevant columns
- Filtered out incomplete records
- Selected required years for analysis

#### 5. Data Validation

- Cross-checked totals
- Verified manufacturer counts
- Checked consistency of yearly data

## ◊ 2. Business Questions with Visualization

Here are strong business questions with matching Tableau visuals:

### 1. How many toy manufacturers are there year-wise?

**Visualization:** Line Chart

**Insight:** Shows trend growth or decline over years.

### 2. Which manufacturer generates the highest revenue?

**Visualization:** Bar Chart

**Insight:** Identifies top-performing companies.

### 3. Which country has the highest number of manufacturers?

**Visualization:** Map Chart

**Insight:** Geographic distribution of toy industry.

### 4. What is the revenue trend over time?

**Visualization:** Line Chart

**Insight:** Detects growth patterns and seasonal trends.

## 5. What is the market share of each toy category?

**Visualization:** Donut Chart / Pie Chart

**Insight:** Category-wise dominance.

## 6. Which state contributes the most manufacturers?

**Visualization:** Filled Map or Bar Chart

**Insight:** Regional contribution analysis.

## 7. What is the profit comparison among manufacturers?

**Visualization:** Tree Map

**Insight:** Size-based comparison of profits.

## 8. Top 10 manufacturers based on revenue?

**Visualization:** Sorted Bar Chart

**Insight:** Competitive ranking.