**United States Layoff Demographics**

**Introduction:** In a period marked by dynamic economic swings and changing labor market trends, it is essential to understand the complex layoff environment in the United States. This Tableau project explores the complex aspects of layoffs for a range of demographics, illuminating the underlying causes and patterns that influence the nature of work.

**Data Analysis:**

1. **Data Understanding:** After examining the dataset, I found that it included layoff information from several countries. Since I'm a student and have difficulties in the job market, I concentrated on the US because it was personally relevant. Nonetheless, I discovered abnormalities and inconsistencies that needed to be resolved to ensure reliable analysis.
2. **Data Cleaning:** 
   1. While working with the Excel file, I discovered multiple instances of null data in columns like total\_laid\_off and percentage\_laid\_off. Despite efforts to locate credible data to replace these gaps, none were successful. As such, I decided to remove these entries from the dataset completely.
   2. Even though there were other columns, such monies raised, my top priority was going deeper into the layoff information. This concentration made it possible to conduct a more thorough examination of the variables affecting layoffs within the dataset.
   3. I made a new column with the complete names of each state as well as the corresponding state codes for each location inside the US to better view the states in Tableau. This enhancement allowed for clearer and more precise geographical representations in the Tableau visuals.

**Visualizations:**

1. **State Wise Layoff Count (Map):** This map visualization showcases the total number of layoffs by state across the United States. Users can navigate state-specific layoff trends for each year using the Year filter, enabling easy comprehension of the layoff data through the map interface.
2. **Company Wise Layoffs (Bar Chart):** While not directly displayed on the dashboard or story, hovering over a state on the state-specific layoff count sheet, dashboard, or story reveals the top five companies with the most layoffs in that state. Users can still utilize this functionality in conjunction with the Year filter to identify the top 5 organizations that saw the greatest number of layoffs each year.
3. **Industry Tree map (Drill-down):** This tree map depicts US layoffs organized by industry. It provides information about the industry sectors most impacted by layoffs. Like other visualizations, this tree map works well with the year filter, enabling users to investigate industry-specific layoffs for specific years.
4. **Top 10 company layoff (Bar Chart):** While hovering over a state reveals the top 5 corporate layoffs by state, this graphic shows top 10 companies with the most layoffs nationwide. It gives a thorough picture of the most significant layoffs in the US and includes the company's location and the number of layoffs.
5. **Total Layoff Card (Text**): This text acts as a reference point for users navigating the dashboard and applying filters to understand the total number of layoffs. It ensures accuracy as well as simplicity in the analysis of layoff data by providing the precise count depending on the chosen criteria.

**Dashboard Usage:** The dashboard provides interactive features to explore in-depth information about layoffs by state, industry, or company. By interacting with these elements, users can learn more about the dynamics and patterns of layoffs within the parameters that suit them most. Below are the interactive features of the dashboard:

1. Hovering over a state displays the top 5 companies with the highest layoffs, while clicking on the state reveals all impacted industries within that state on the tree map.
2. Our tree map has a drill-down feature: after selecting a state, users may view all impacted industries, and then drill down by selecting a single industry to see affected companies. This feature allows you to explore industry and company data for the entire country without having to select a state.
3. The dashboard's Year filter allows users to thoroughly examine layoff data by year. It interacts perfectly with all charts, including the map bars on hover, allowing for a clear knowledge of layoff trends over time.

**Conclusion:** In this project, we used Tableau to thoroughly investigate layoff demographics across the United States. We gained a thorough grasp of layoff patterns based on state, industry, and company using interactive visuals and data-driven insights.

Our analysis yielded fascinating findings, including the top corporations with the most layoffs, the impact of layoffs across various industries, and year-by-year patterns. Users can examine data at finer points with interactive features like drill-down capabilities and hover-over details, which improves their comprehension of layoff dynamics.

Here are some major insights from the United States layoff demographics:

1. Layoffs have increased dramatically over time, rising from 80,000 in 2020 to 262,000 in 2023, a 227% rise in the United States.
2. California has the biggest number of layoffs, totaling 183,066. However, Amazon in Washington state saw the greatest number of layoffs over the years, totaling 27,410.
3. San Francisco emerges as the location with the most layoffs. This discovery highlights the concentrated impact of workforce reductions and reflects the distinct characteristics of the San Francisco job market.
4. Vermont, Wyoming, Kansas, Oklahoma, Arkansas, West Virginia, North Dakota, and North Dakota are the only states in the dataset that do not have any records of layoffs for any year.
5. There were no layoffs in the consumer sector in 2020 or 2021, however there were 6,806 and 1,043 in retail, respectively. Starting in 2022, both sectors had significant layoffs, peaking in 2023 with consumer at 27,240 and retail at 24,944. Retail and consumer layoffs together make up 18.59% of all layoffs.
6. According to the dataset, MAANG firms account for around 11.53% of all layoffs in the United States.

**References:**

1. **Dataset:** <https://www.kaggle.com/datasets/swaptr/layoffs-2022>
2. **Drill-down tutorial/practice:** <https://www.youtube.com/watch?v=cOATHf0608o&t=78s>
3. **Top-n within a category:** https://www.youtube.com/watch?v=z0R9OsDl-10