

THE TECH JOURNAL

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ANALYSIS OF MAJOR TECH COMPANIES' EMPLOYMENT AND PERFORMANCE IN AFTERMATH OF COVID AND RISE OF AI

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INTRODUCTION

In the aftermath of the COVID-19 pandemic and amid the growing influence of artificial intelligence, the global technology sector has witnessed significant changes in workforce dynamics and financial performance. This report introduces a comprehensive Tableau dashboard developed to analyze the intricate relationship between employment patterns, particularly H-1B visa approvals and denials and the stock behavior of leading tech companies.

Through interactive visualizations, the dashboard examines how hiring trends impact stock performance, with a focused case study on Meta Platforms Inc. It further explores cross-company patterns to understand the correlation between visa outcomes and stock price changes, the effects of workforce expansion or layoffs on financial metrics, and the relationship between visa approval trends and trading volume fluctuations.

By integrating these dimensions into a single analytical interface, the dashboard provides stakeholders with clear, data-driven insights into how employment policies and financial outcomes are intertwined in the tech industry.

DATA SOURCE:

Layoff Information: <https://tech.co/news/tech-companies-layoffs>

H1B Employer Data: <https://www.uscis.gov/tools/reports-and-studies/h-1b-employer-data-hub>

Stock pricing data: <https://www.investing.com/equities/google-inc-historical-data>

LAYOFF DASHBOARD

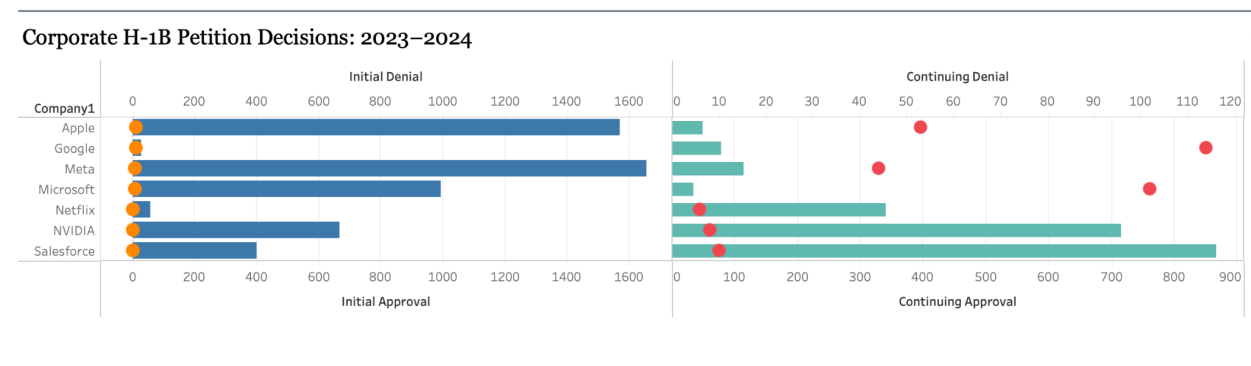
The layoffs dashboard explores the relationship between employee layoffs and the perceived market value of companies, as reflected by their stock prices. By visualizing key trends and patterns, the goal is to uncover how workforce reductions may influence investor confidence and company valuation over time.

VISA EFFECT DASHBOARD

This Tableau dashboard provides a detailed overview of H-1B visa petition activity across major tech companies such as Apple, Google, Meta, Microsoft, Netflix, NVIDIA, and Salesforce for the years 2023 and 2024. It presents three key metrics at the top: a total petition count of 7,943, an approval rate of 95.3%, and a denial rate of 4.7%, alongside a modest average stock price change of 3.4%, suggesting limited immediate market impact from visa decisions.

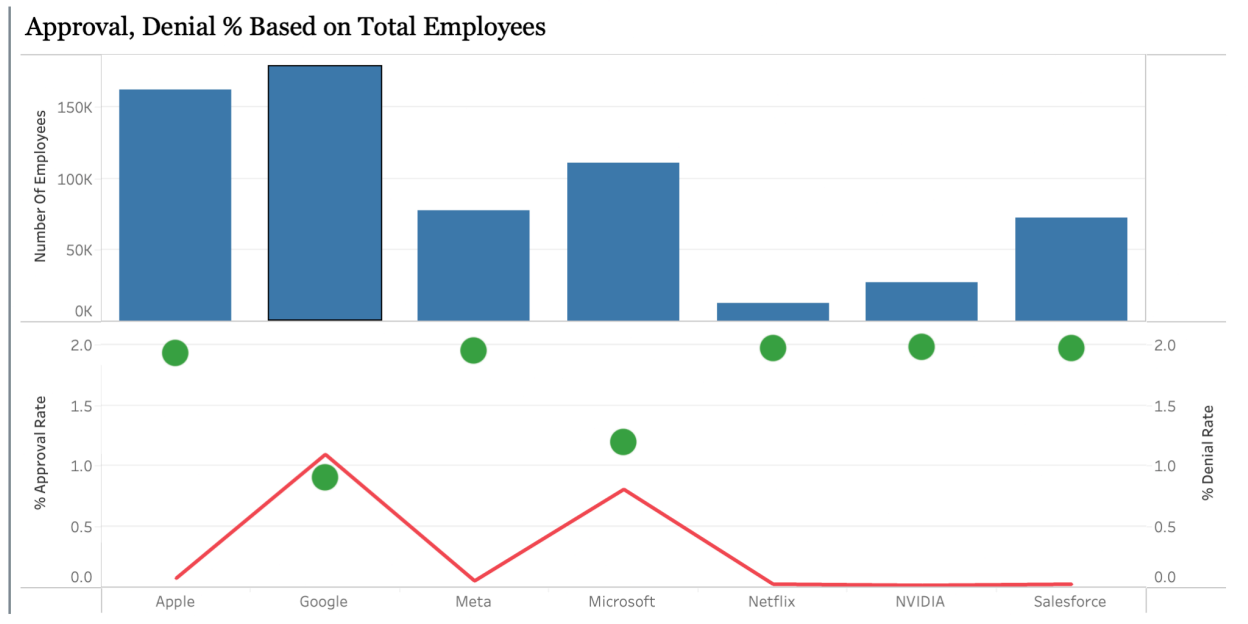
Approval Rate	Denial Rate	Total Petitions	Average Stock % Change
95.3%	4.7%	7,943	3.4%

The central horizontal bar charts distinguish between Initial and Continuing Approvals and Denials, with coloured bars for approvals and red dot markers for denials. Companies like Salesforce and NVIDIA show significantly high approval volumes, especially in continuing petitions, while denial counts are relatively low in the tech sector companies analysed.

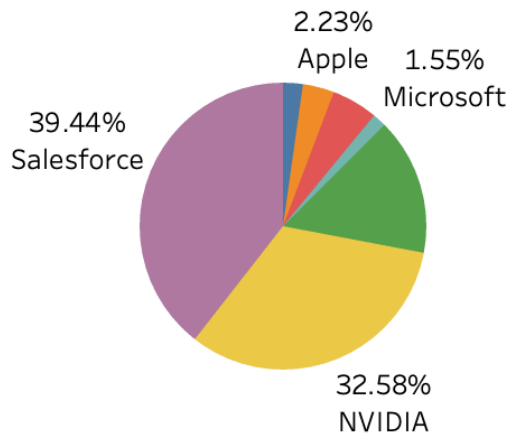


Another chart relates H-1B outcomes to employee headcount, showing that even companies with large workforces such as Apple, Google and Microsoft maintain strong

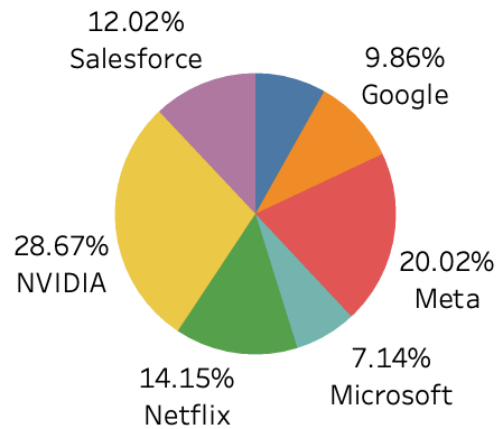
approval ratios, visualised using green and red markers for approval and denial percentages, respectively.



Lastly, pie charts at the bottom highlight the distribution of H-1B approvals by company, revealing that Salesforce and NVIDIA together account for the majority of approvals, suggesting a strategic emphasis on skilled foreign talent within the two companies and you can filter the data between the two years as well as get the data for specific companies you want to compare for the dashboard.



H1B Approvals



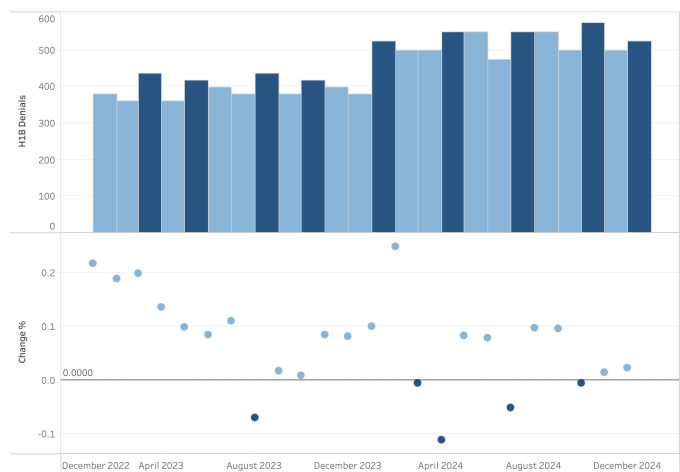
Change%

Overall, the dashboard delivers a multidimensional analysis of visa dynamics, tying together petition data, employment scale, and market behaviour to support deeper corporate workforce and immigration policy insights

META JOURNAL DASHBOARD:

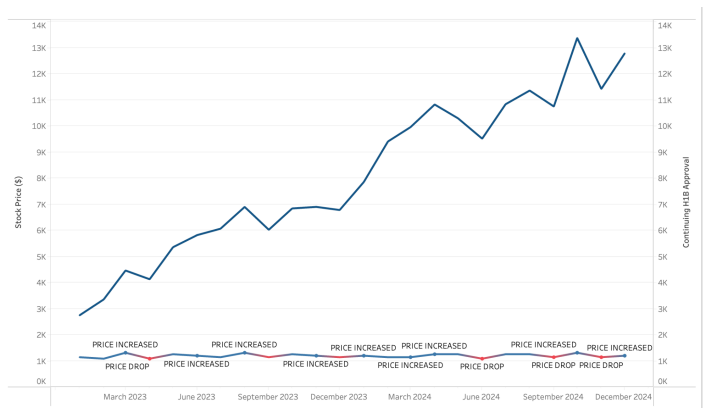
Overall "THE META JOURNAL" explores how Meta's stock performance relates to H1B approvals, denials, and workforce changes. While stock prices consistently rose, the rate of growth (% change) slowed as H1B denials increased. Despite large layoffs, Meta's valuation continued climbing—indicating investor confidence is driven more by strategic efficiency and long-term execution than by workforce size alone.

Let's look at details:

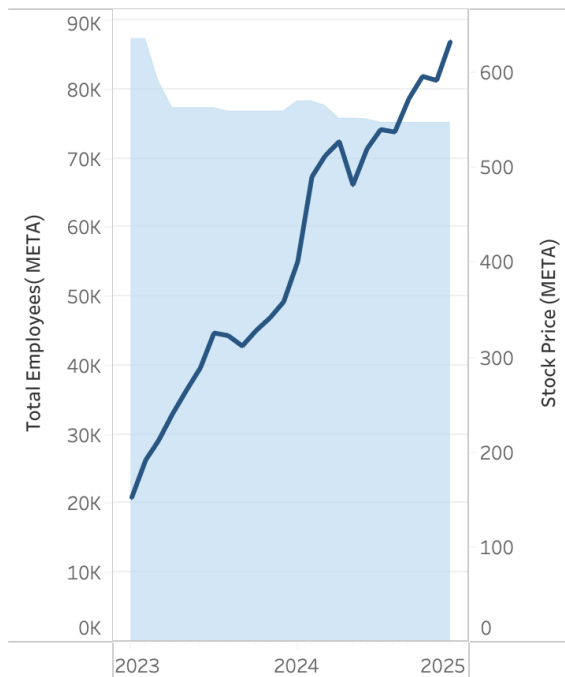


In this visualization, I compared Meta’s monthly H1B denial counts (top bar chart) with its stock price % change (bottom scatter plot). What stood out to me is that spikes in H1B denials often align with dips in stock performance, especially during mid to late 2023 and again in mid-2024.

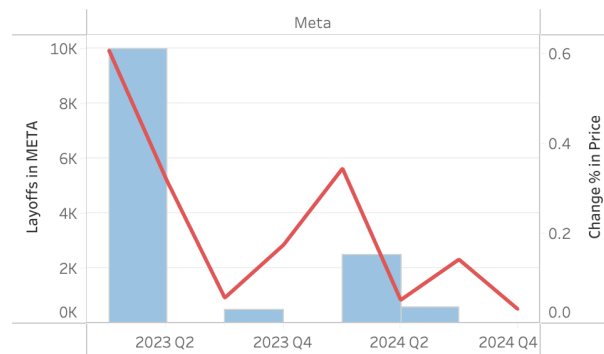
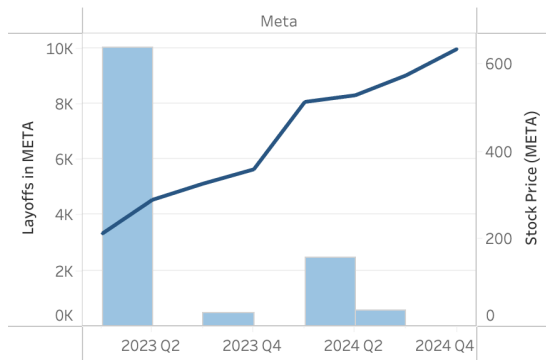
As denial counts gradually rise, we observe more frequent and deeper negative % change points in the stock below. This suggests that investor confidence may have been shaken in months where Meta faced higher immigration-related workforce constraints, possibly due to anticipated limitations on talent acquisition.



By overlaying these two metrics, you can easily identify months where the stock price decreased while observing a decrease in corresponding behavior in H1B approval counts. For example, a decline in price following stagnant or lower cumulative approvals may suggest investor concern tied to workforce planning.



What's interesting is that while the employee count saw some early dips in 2023, the trend stabilized and gradually increased throughout 2024. We can see employment growth is positively associated with stock performance in this case.



Although Meta's stock price steadily increased from 2023 to 2024, the rate of growth (% change in price) gradually declined over the same period. This suggests that while the company's valuation was climbing, the momentum behind that growth was slowing.

Interestingly, the highest layoff activity occurred in Q2 2023, followed by smaller rounds in later quarters. These layoffs may have contributed to the initial stock surge by signaling cost-efficiency measures, but as layoffs continued, the impact on market sentiment diminished, resulting in slower percentage gains despite higher absolute stock prices.

CONCLUSION

The analysis presented through this Tableau dashboard underscores the complex interplay between employment strategies and financial performance in the technology sector during a period marked by global disruption and rapid innovation. By correlating H-1B visa approvals and denials, workforce changes, and stock market trends, the dashboard provides a nuanced understanding of how human capital decisions can directly influence investor sentiment and trading activity.

Key findings highlight that fluctuations in hiring approvals, especially within companies like Meta often align with notable shifts in stock performance, suggesting that employment trends serve as valuable indicators of organizational health. Additionally, cross-company comparisons reveal that increases in H-1B denials may coincide with stock declines, while trading volume patterns further emphasize the market's responsiveness to workforce developments.

Overall, this dashboard serves as a strategic tool for decision-makers, enabling a data-informed approach to assessing the financial impact of HR policies in the ever-evolving tech landscape. Its interactivity and visual clarity make it a practical resource for both exploratory analysis and executive reporting.