Data Project Report:
World Layoff (2020 - 2025)

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1. Background

Context and Motivation

From 2020 to 2025, global layoffs rose sharply across industries, countries, and funding stages. However, stakeholders lacked a clear view of when and where these layoffs peaked. A concise, interactive summary was needed to highlight major patterns and the most affected areas.

2. Project Purpose & Business Objectives

To identify patterns and risk factors associated with mass layoffs across companies, using historical layoff data. The goal is to help decision-makers:

- Predict which companies or sectors are at higher risk of future layoffs
- Make more informed funding, hiring, or expansion decisions
- Design proactive strategies to reduce workforce instability

3. Target Users and Use Cases

Target Users	Use Cases
Investors (VCs, Private Equity, Angel Investors)	Spot high-risk companies and guide portfolio strategy
HR Leaders	Align hiring plans and avoid reactive layoffs
Startup Founders & Executives	Reflect on business model, funding, and workforce planning

4. Methodology

1/ Data Scope & Source

- Used layoff data from 2020 to 2025, including company, industry, stage, country, and layoff size
- Focused on trends by time, region, industry, and funding stage
- Data Source: https://www.kaggle.com/datasets/swaptr/layoffs-2022

2/ Data Cleaning & Preparation (SQL)

- Handled missing values, standardized formats, and cleaned text fields
- Converted data types (e.g. percentages, dates) and created new columns for deeper insights (e.g. funding range, country tag)

3/ Analysis (SQL)

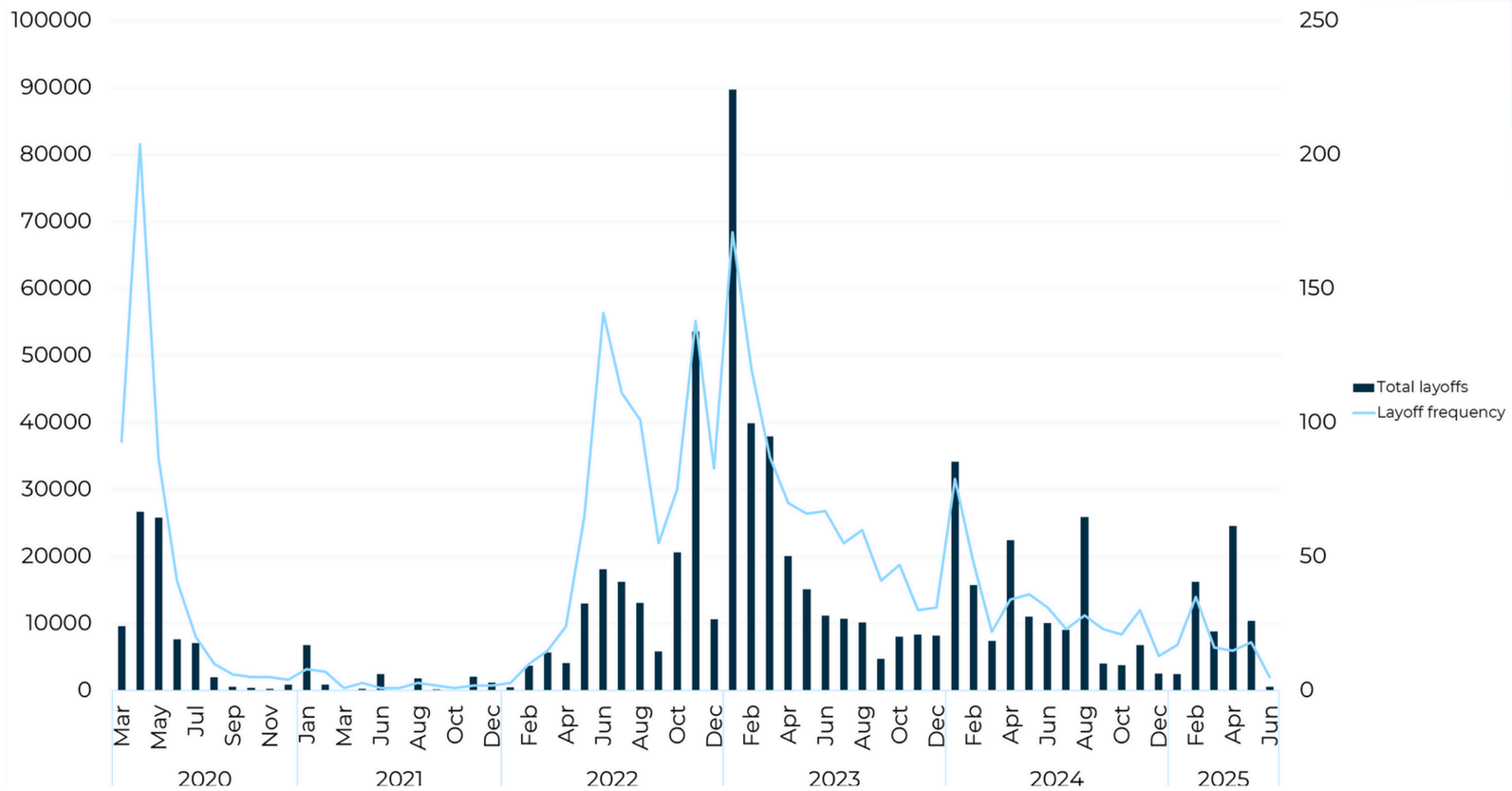
- Aggregated key metrics like total layoffs and layoff events
- Identified top affected sectors, funding stages, and peak periods

4/ Visualization (Excel)

- Built an interactive dashboard with pivot tables, slicers, and custom charts
- Included KPIs, filters, and visuals to support decision-making

5. Analysis

Timing Patterns: When did major layoff spikes occur between 2020–2025?



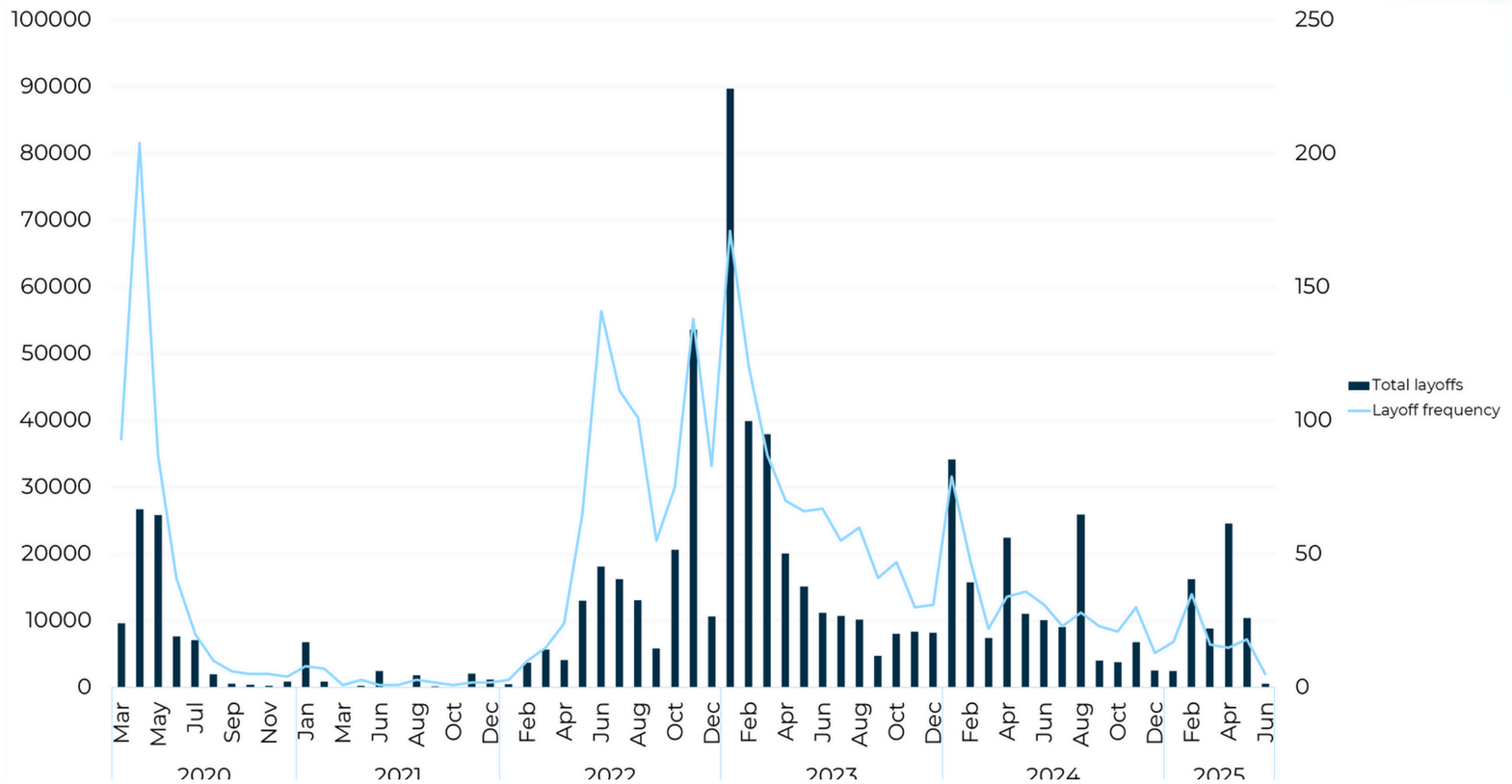
❌ No perfect seasonal repeat every year — but:
Layoff spikes between **January and April** make this **the riskiest period over 5 years.**

WHY? (It could be:)

- Annual budget resets
- New fiscal year strategies
- Cost-cutting after performance reviews or missed targets

5. Analysis

Timing Patterns: When did major layoff spikes occur between 2020–2025? (cont.)



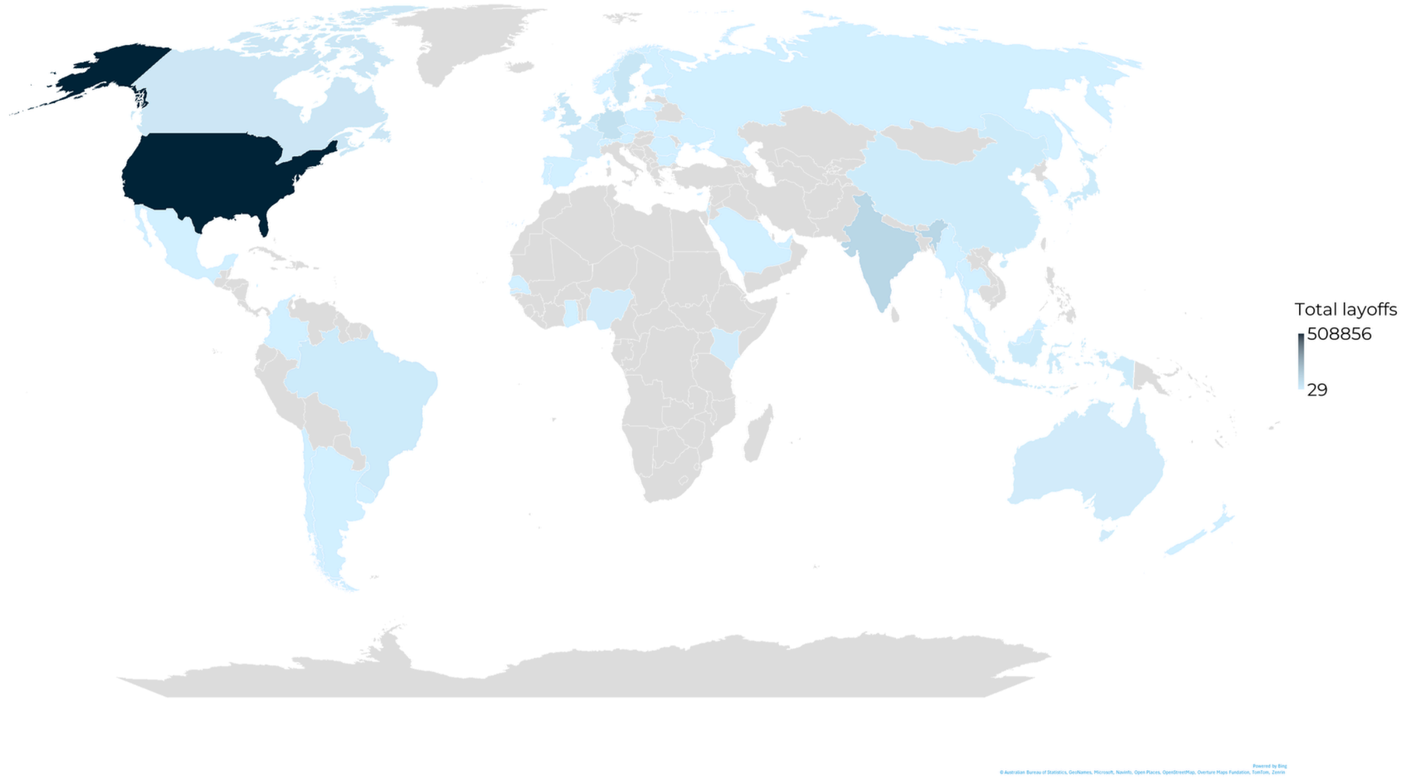
Year-end layoff activity (like **November–December**) shows **occasional spikes**

WHY? (It could be:)

- Possibly tied to budget closures, investor pressure, or end-of-year restructuring

5. Analysis

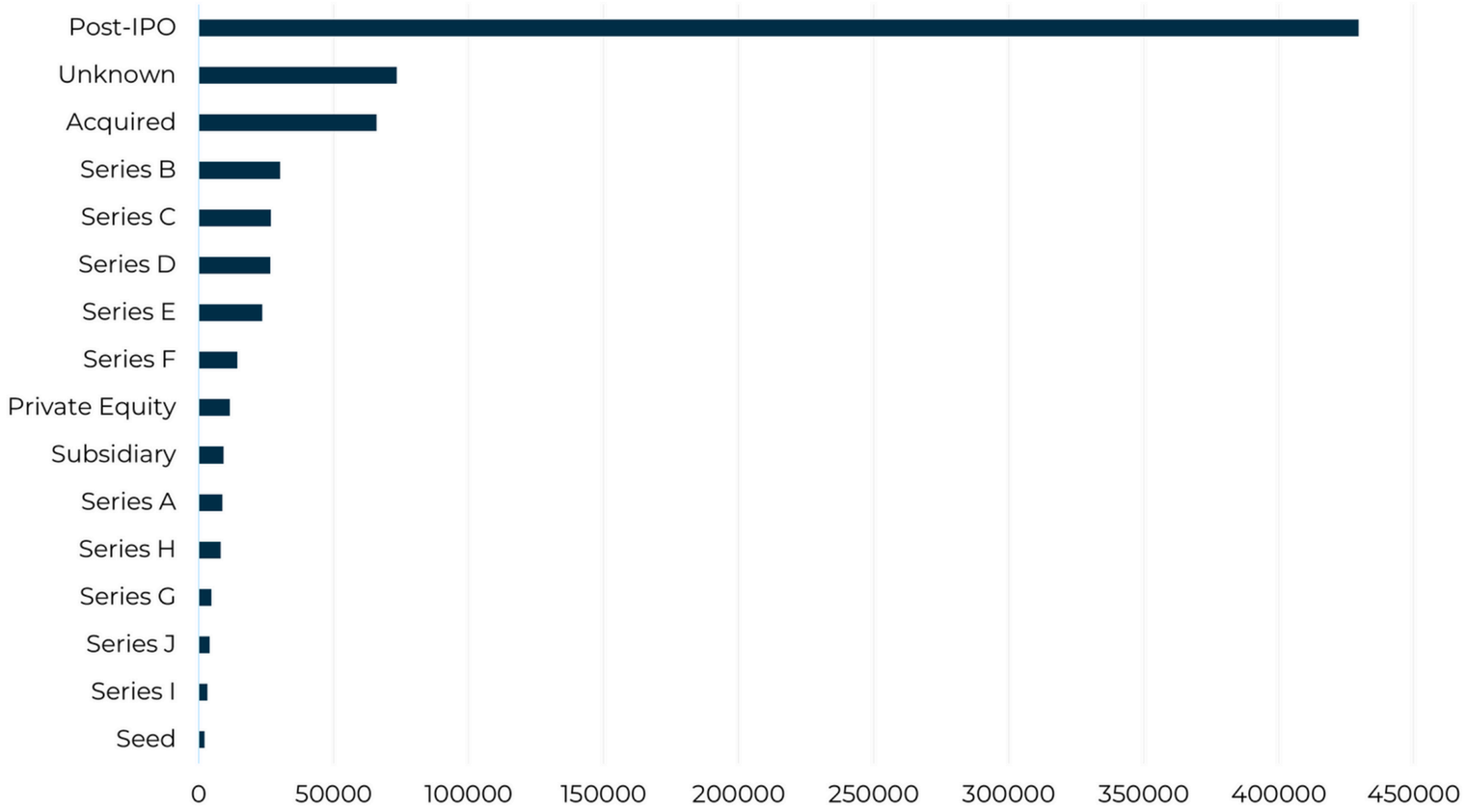
Geographic Concentration: Which countries experience the highest number of layoffs?



- The **U.S. leads globally** with over **500,000 reported layoffs.**
- India, the UK, Germany, and Canada follow with significantly lower volumes.
- Africa, Eastern Europe, and Southeast Asia show minimal activity, likely due to underreporting.

5. Analysis

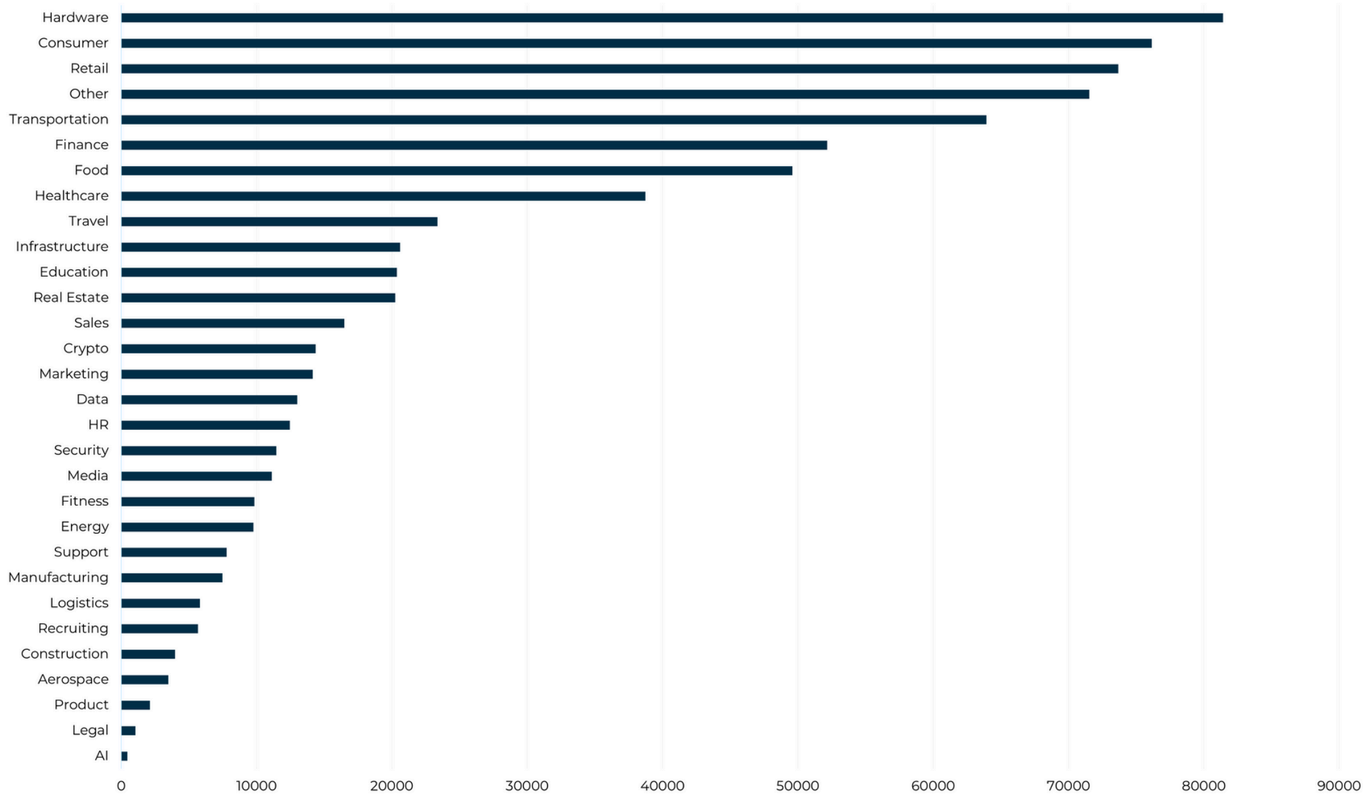
Company Stage: How do layoffs vary by company stage?



- **Post-IPO** companies account for the **highest number of layoffs.**
- **Acquired and unknown-stage** firms also show **notable layoff** volumes.
- **Early-stage startups** (Seed to Series C) have relatively **few layoffs**, **likely due to smaller teams and more agility.**

5. Analysis

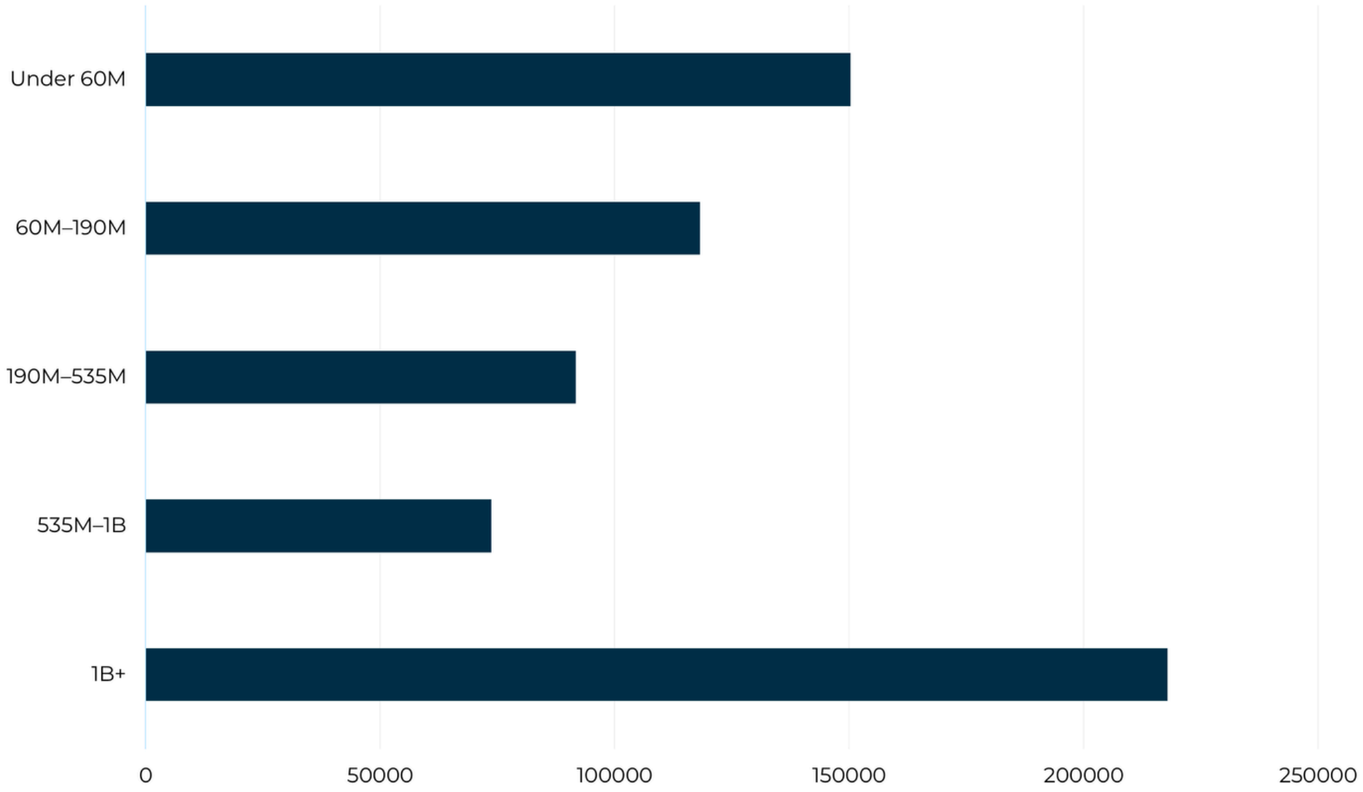
Industry Trends: Which industries are most affected by layoffs?



- **Hardware, Retail, & Transportation** had the **most layoffs**, likely due to supply chain issues, changing consumer demand, and pandemic-related challenges.
- **AI, Legal, & Product** saw **fewer layoffs**, possibly because they run leaner teams or are seen as more essential or future-focused.

5. Analysis

Funding Impact: Are companies with higher funding more likely to lay off?



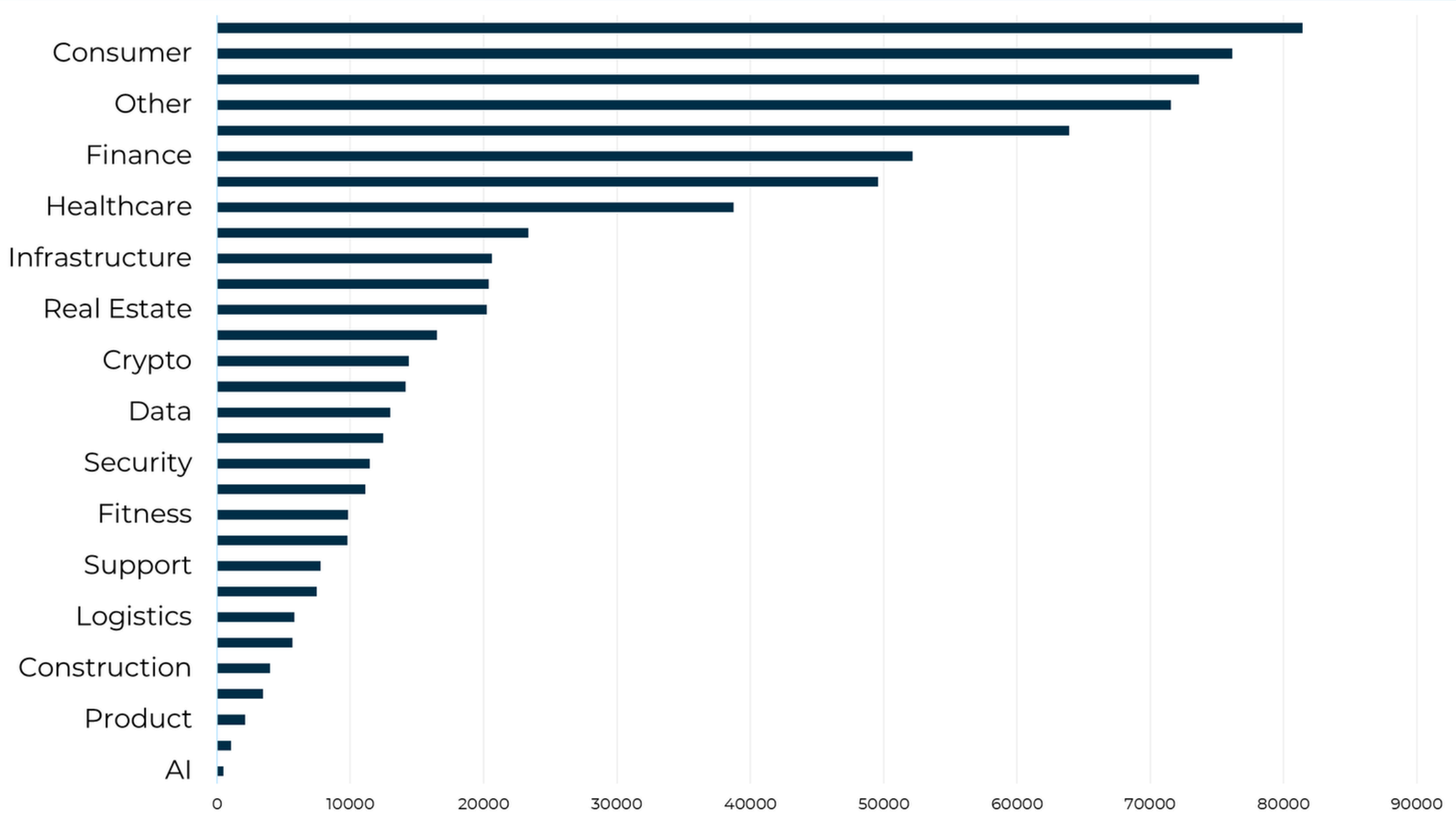
- **Not linear, but U-shaped (high at both ends)**

- **$1B+ funded** firms had the **most layoffs**, likely due to overhiring and market correction.
- **Under $60M** companies also faced **high layoffs,** possibly from cash constraints and early-stage risks.
- **$60M–$535M** ranges showed **no clear trend**, with layoffs varying case by case.

→ Funding doesn’t drive layoffs, but how capital is used does.

5. Analysis

Industry Trends: Which industries are most affected by layoffs?



Customers were experiencing long wait times for support and service, leading to frustration and potential churn. The company's outdated technology infrastructure was unable
to keep pace with the growing demands of its customer base.

6. Recommendations

Investors (VCs, Private Equity, Angel)

Monitor Late-Stage and Highly Funded Startups

- Companies with **$1B+ in funding** recorded the **highest total layoffs,** likely due to overexpansion and market correction.
- **Late-stage startups (Series F, G, Post-IPO, etc.) saw higher layoff volumes**, signaling risk at maturity stages.

Diversify Investment Porfolio Across Industries

- **Layoffs** were heavily **concentrated in Consumer, Retail, and Transportation** sectors, which may signal demand sensitivity and low capital efficiency.
- **Hardware** also showed a **high layoff burden**, possibly due to long development cycles and supply chain exposure.

Use Country-Level Trends for Risk Assessment

- **The U.S. leads with over 500,000 layoffs**, but this may reflect both real impact and dataset bias.
- India, UK, Germany, and Canada show significant layoff activity — monitor these for regional portfolio risks.

6. Recommendations

HR Leaders & Talent Strategists

Plan ahead in growth-stage firms and highly funded companies

- Layoffs spike in **growth and late-stage companies,** especially after large funding rounds.
- HR teams should **avoid overhiring right after funding** and **focus on scaling in stages.**

Align Talent Acquisition with Layoff Timelines

- Clear **seasonal trend:** Layoffs consistently **peak from January to April,** making early-year workforce reviews essential.
- Use this to **schedule hiring freezes, reviews, or retention checks** ahead of Q1 spikes.

HR Strategy varies across sectors

- Some sectors, like **Transportation and Consumer,** show **repeated vulnerability to layoffs,** which is possibly from demand shifts or tight margins.
- HR teams in these sectors should invest in **cross-skilling and flexible contracts.**

6. Recommendations

Startup Founders & Executives

Scale cautiously after funding

- High layoff counts in $1B+ funded firms suggest that **capital alone doesn't guarantee stability.**
- Founders should **scale cautiously and track ROI on headcount** — especially after major funding events.

Use Data to Benchmark and Plan Expansion

- The dashboard helps founders to **bechmark layoff risks by industry or region.**
- Before hiring or expanding, founders and executives **compare their situations to the industrial/regional bechmarks** and **be aware of industries and countries show high layoff volumes.**

Watch out for Timing Patterns in Risk

- Layoffs cluster in **early-year periods (Jan–Apr).** Therefore, founders and executives should **consider this in planning new hires, product launches, or organizational changes.**

7. Limitations

Data Coverage Bias: The dataset is **heavily skewed toward U.S.-based companies and tech/startup** industries, which may underrepresent other regions or sectors.

Incomplete Reporting: Not all layoffs are publicly disclosed, especially in smaller companies or in countries with less media coverage. This can lead to undercounting.

Inconsistent Fields: Some columns (like funding stage or percentage laid off) had **missing or unclear values,** which may affect the accuracy of aggregated insights.

No Context for Layoffs: The dataset **does not provide reasons for layoffs** (e.g., restructuring vs. poor performance), which limits deeper interpretation.

Static Snapshot: The analysis is based on historical data from 2020–2025 and may **not reflect future layoff trends or economic shifts.**

Thank you for reading.

Check out my data portfolio.