

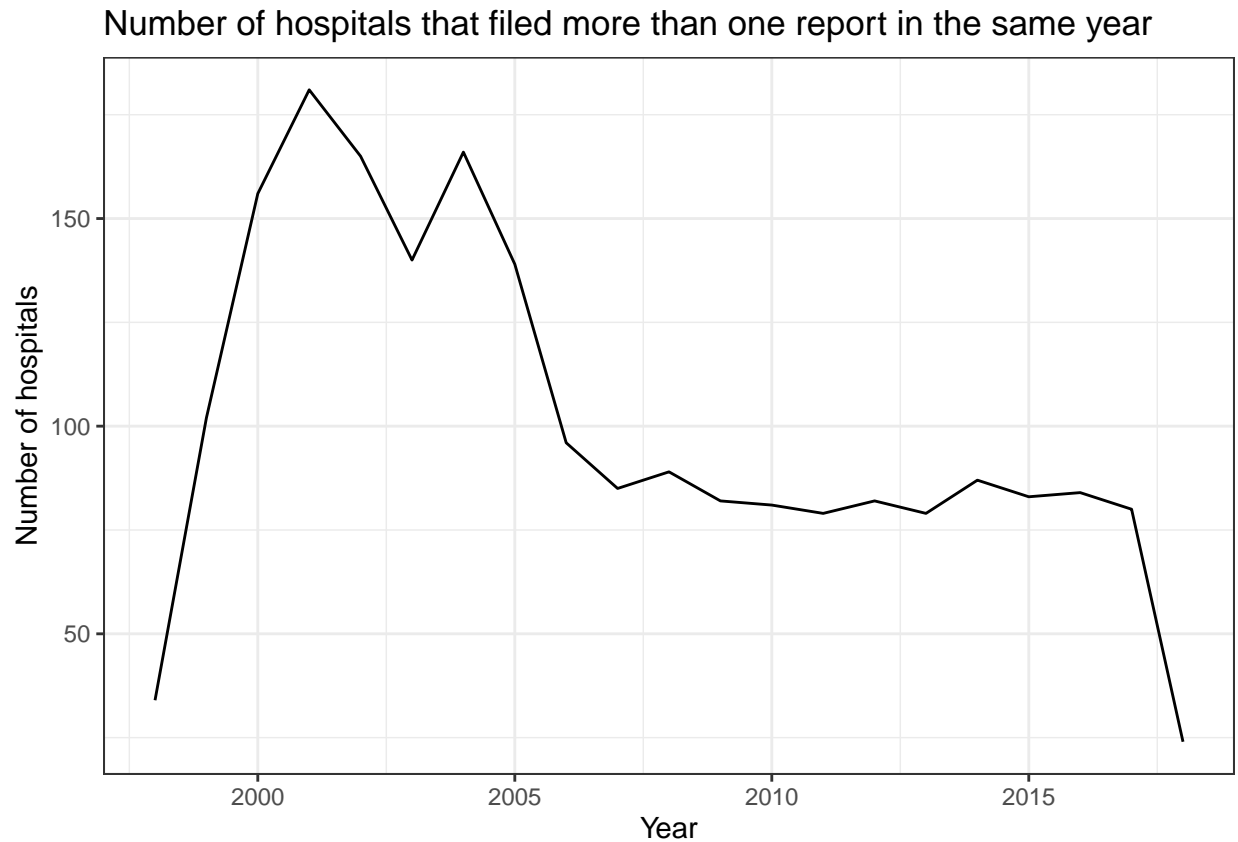
bae-j-hwk-2-1

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## Summarize the Data

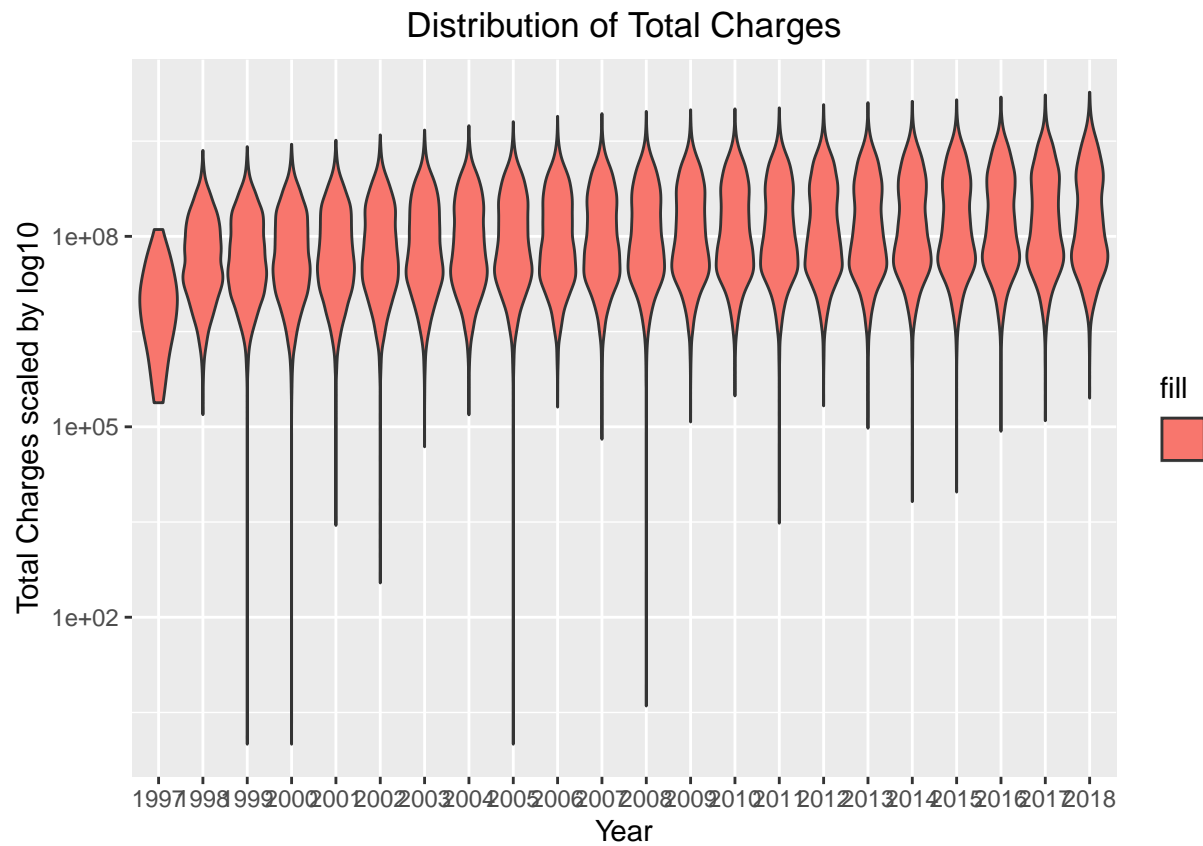
1. How many hospitals filed more than one report in the same year? Show your answer as a line graph of the number of hospitals over time.



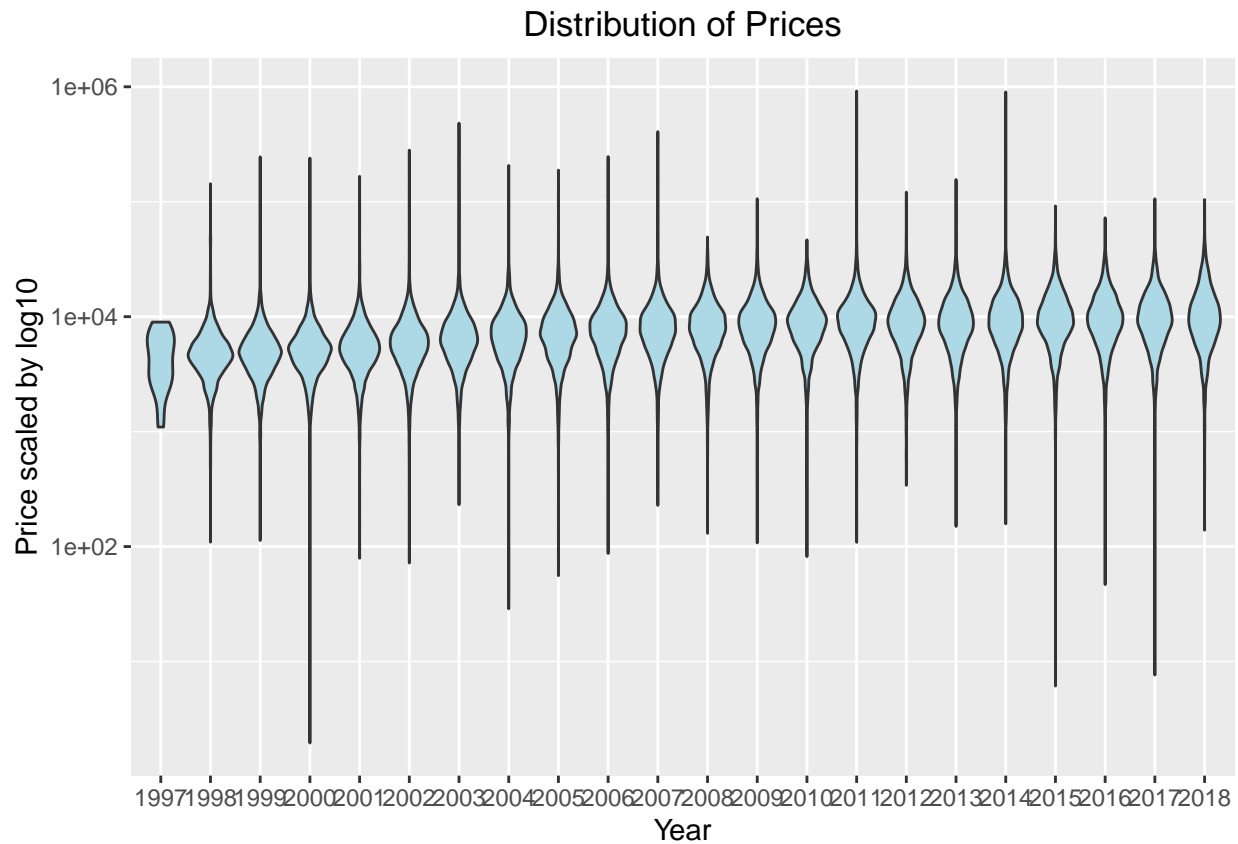
2. After removing/combining multiple reports, how many unique hospital IDs (Medicare provider numbers) exist in the data?

After removing/combining multiple reports, there are 9323 unique hospital IDs in the data.

3. What is the distribution of total charges (tot\_charges in the data) in each year? Show your results with a “violin” plot, with charges on the y-axis and years on the x-axis.



4. What is the distribution of estimated prices in each year? Present your results with a violin plot, and recall our formula for estimating prices from class.



## Estimate the ATEs

5. Calculate the average price among penalized versus non-penalized hospitals.

The average price for penalized hospitals = 9896.31 The average price for non-penalized hospitals = 9560.41