Exelon – Reelsense

By:
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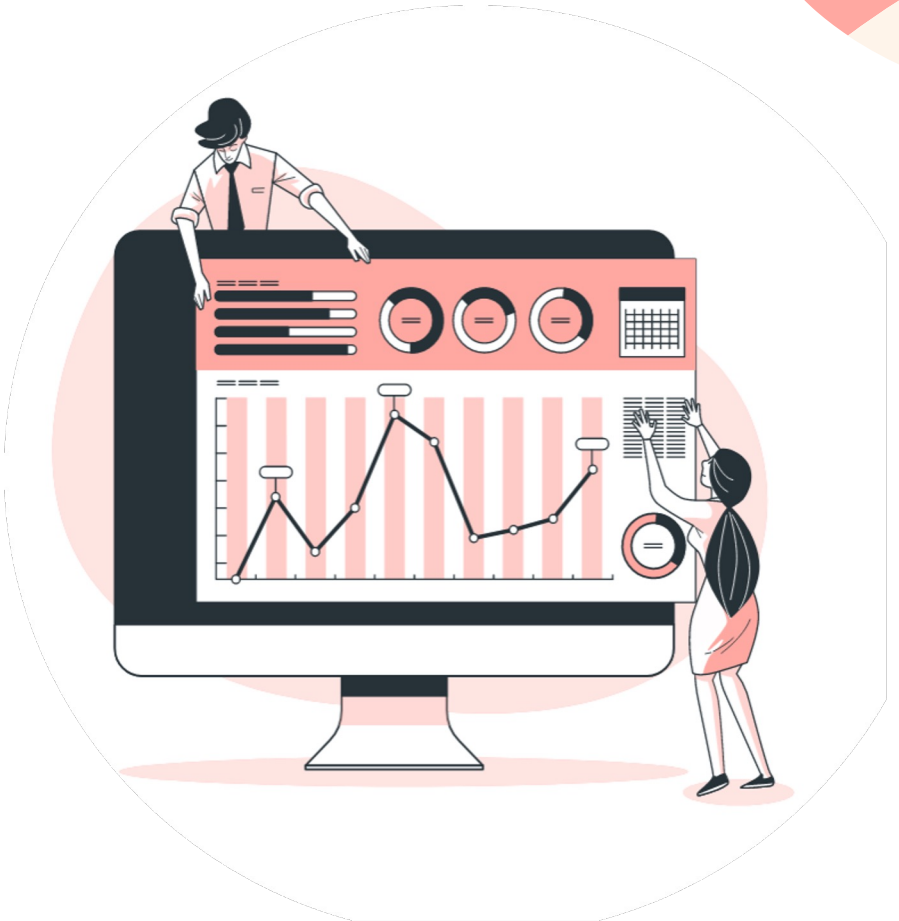

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Data overview

Data Overview

- Reel deposit data over 9 years, including reel dimension, reel location, days outstanding, amortization and damages charged
- 24 columns, 7108 rows → ['Include in Analysis'] == 'Y'], NA cleaning, calculations → 26 columns, 3938 rows
- We used the above dataset, python libraries (pandas, numpy, seaborn, etc.) to analyze and visualize the following findings.

Date range	2015/10/2 ~ 2023/12/19
Days Outstanding	Avg. 330 days Min. 5 days Max. 2,449 days
Deposit	Avg. $1,432.25 Min. $1,200 Max. $8,400
Deposit Lost	Avg. $229.97 Min. $0 Max. $2,400

– See “Exelon AN1 Release 1.ipynb” for details

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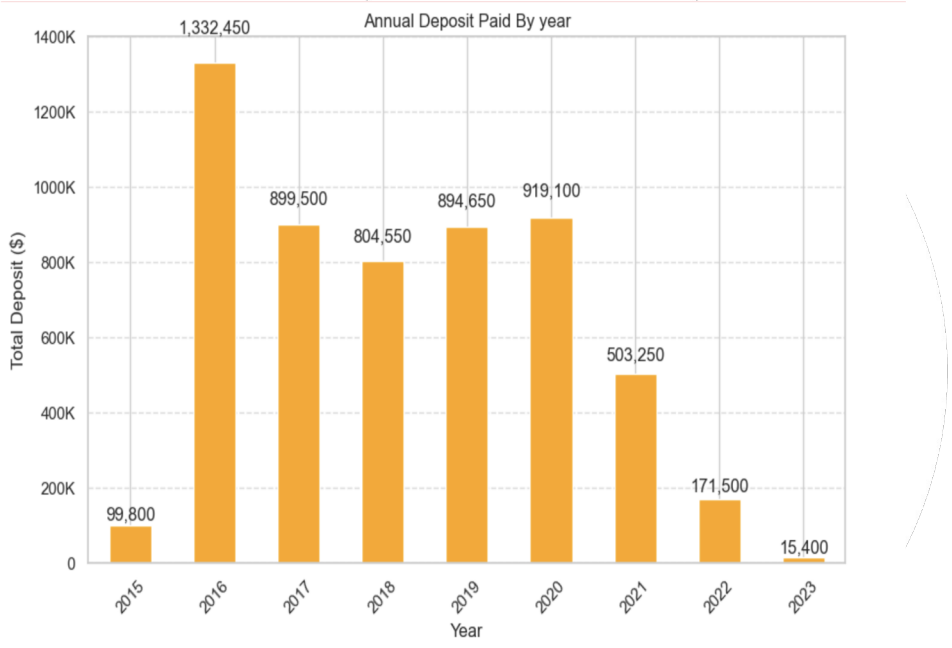
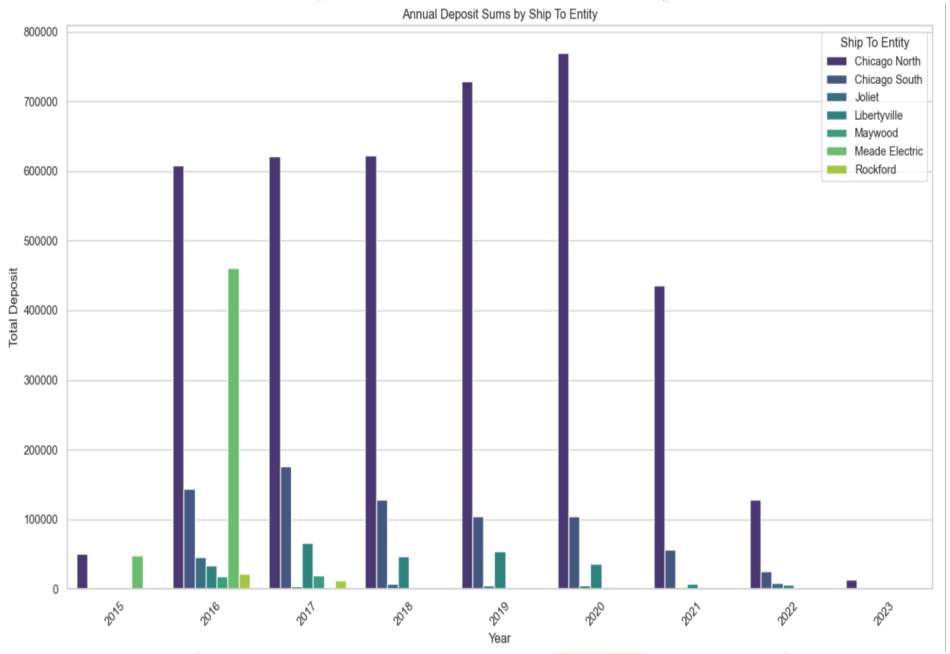
Annual total deposits paid each year

Annual total deposits paid each year



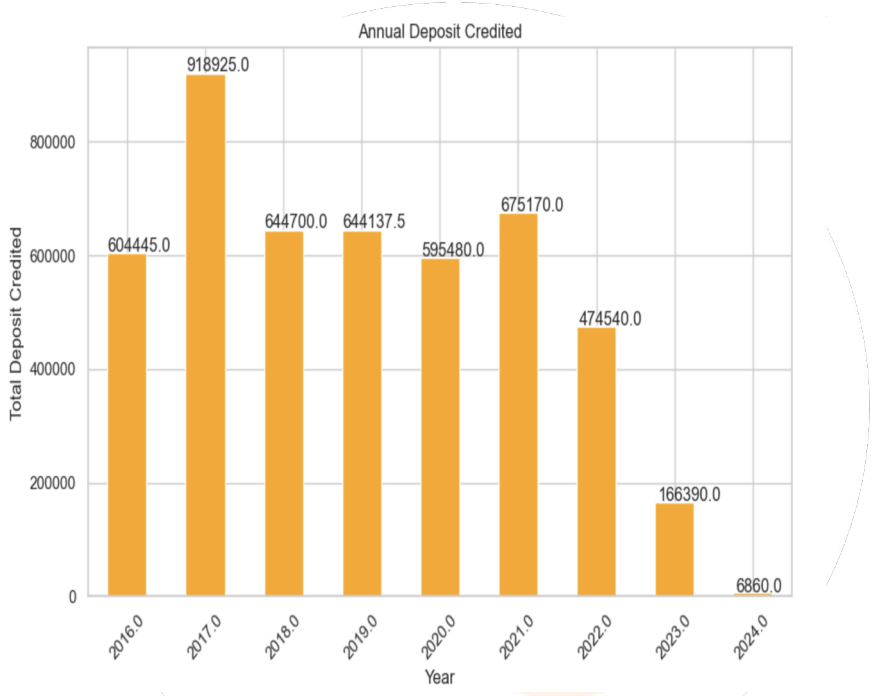
- 2016 had the highest deposit amount paid to acquire reels. More than $1.3 million spent during this year. A significant rise from 2015.
- The deposits post the pandemic year have sharply declined. Compared to a consistent trend of average $850k+ in prior years, it had failed to even reach that mark even if we combine the deposits in last 3 years.

Annual total deposits paid each year by region



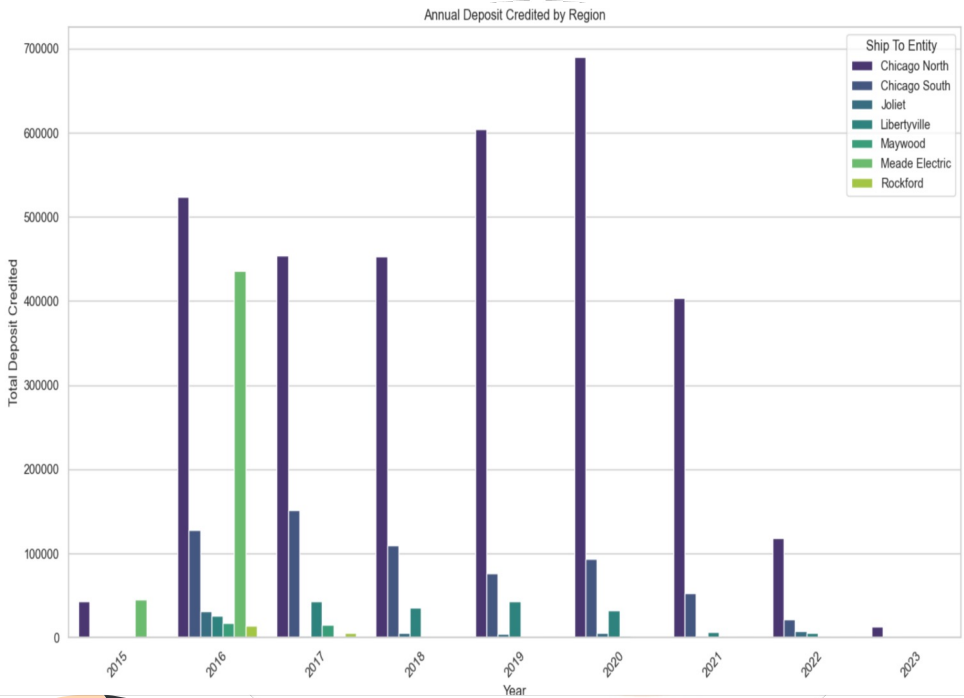
- Majority of the deposits are in the region of Chicago North and the is a continuous trend from 2016 onwards.
- In 2016 Meade Electric region also had a significant amount of deposits but since then there haven't been any deposits in the region suggesting they stopped operating in that region.
- There have been deposits made for the Chicago South region but have been significantly less to Chicago North.

Annual total deposits credited each year



- The deposit collection has been steady throughout the years from 2016-2022.
- There was a significant drop in deposit collected back in 2023. It maybe due to Supply constraints that Comed chose to hold on to the cables to meet the demand.

Annual total deposits credited each year by region



- Majority of the deposits credited are from Chicago North region which is understandable as Chicago North has the highest number of deposits.
- Post pandemic the deposit credited back have been on a sharp decline.
- This might be due to the fact that the demand/supply of the cables have been affected by the pandemic.

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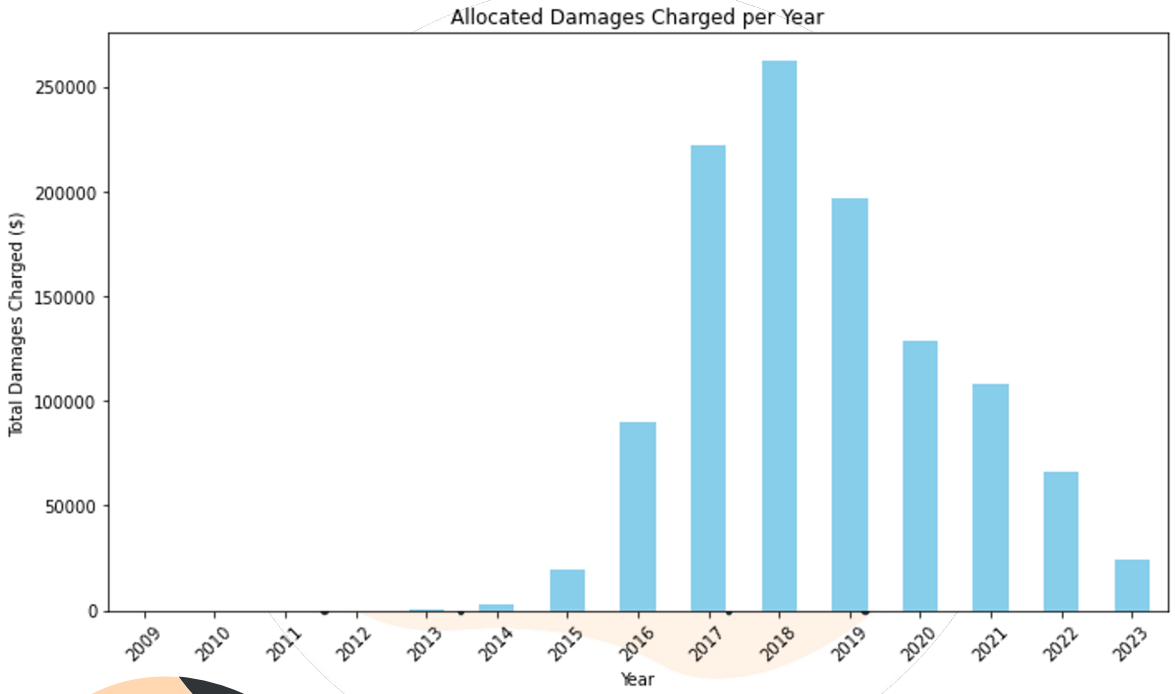
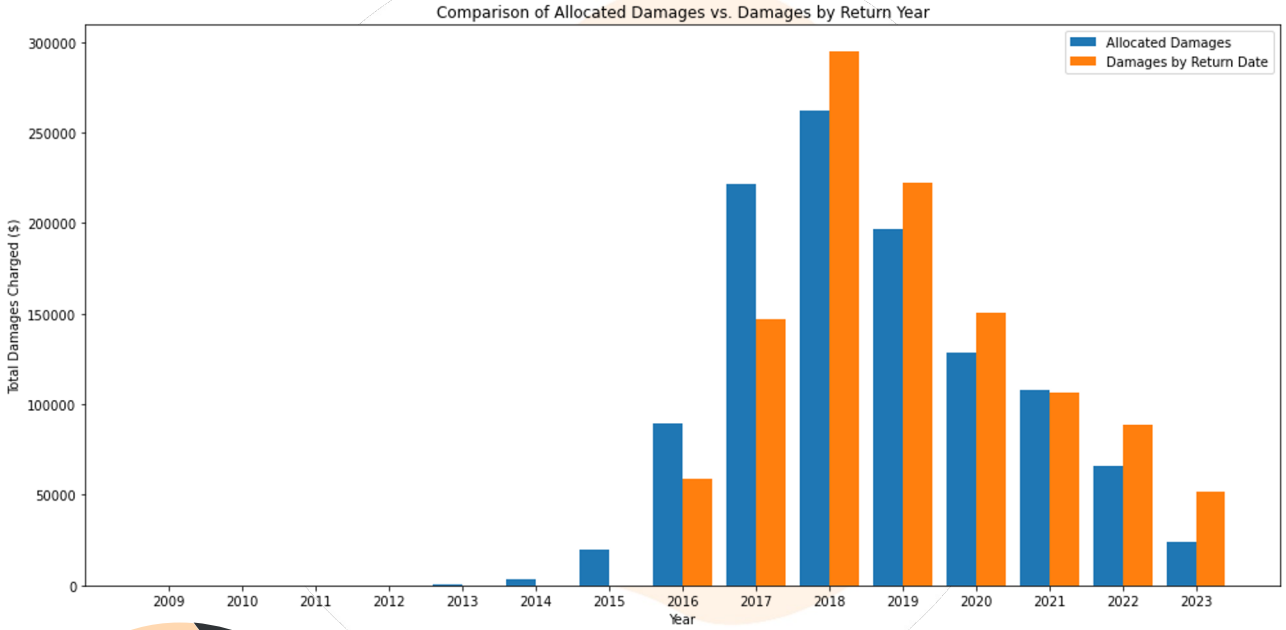
Lost deposits on an annual basis and accrued basis

Lost deposits on an annual basis and accrued basis



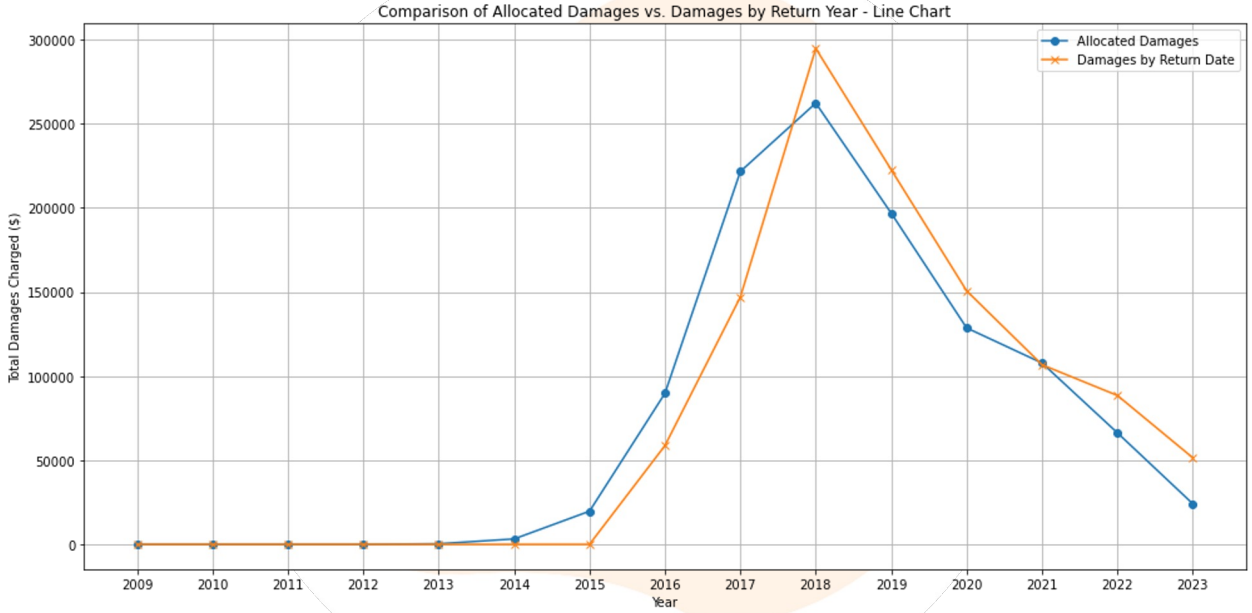
- In this analysis, we delve into the financial implications of damaged goods by examining the "Damages Charged" over a span of years.
- Our objective is to allocate these damages based on the time between "Ship Date" and "Return Date" and to compare these figures against the annual totals based on the "Return Date."

Lost deposits on an annual basis and accrued basis



- Our allocation method involved distributing the "Damages Charged" proportionally across the years that spanned between the "Ship Date" and "Return Date." This approach allowed us to understand the financial impact of damages within each calendar year, regardless of when the product was shipped or returned.
- We also calculated the total damages based on the year of return. This gave us another perspective on the data, showing us the actual yearly totals that were charged back for damages.

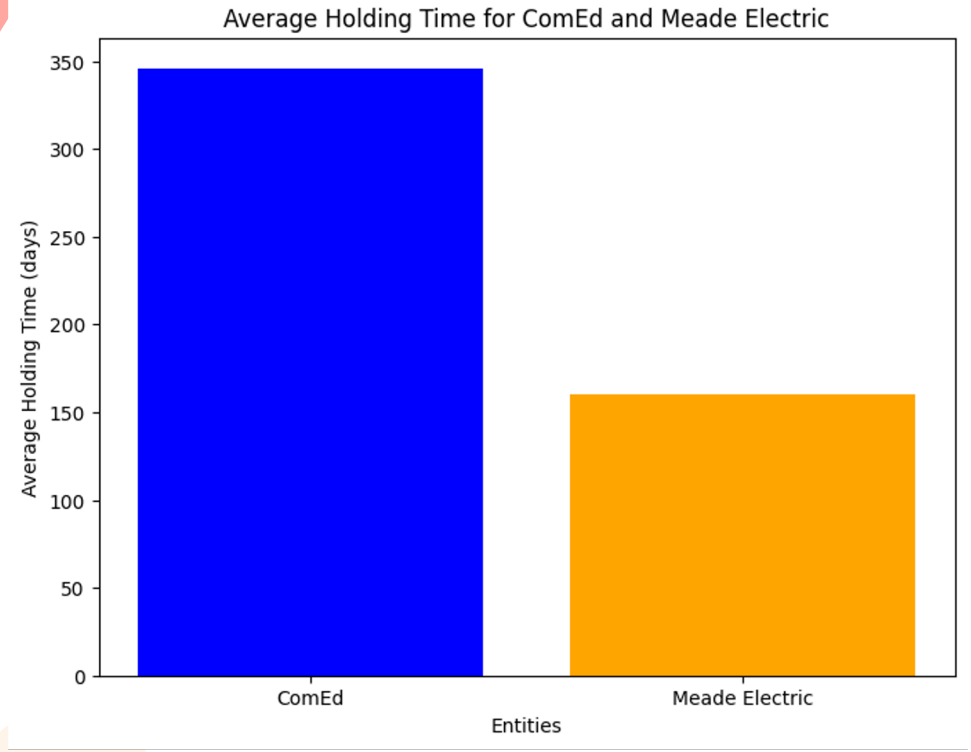
Lost deposits on an annual basis and accrued basis



- The visual comparisons and the analysis of the "Damages Charged" allocation offered us valuable insights into the financial impact of damages over time.
- This information is crucial for understanding the efficacy of product handling, shipping practices, and return policies.

04

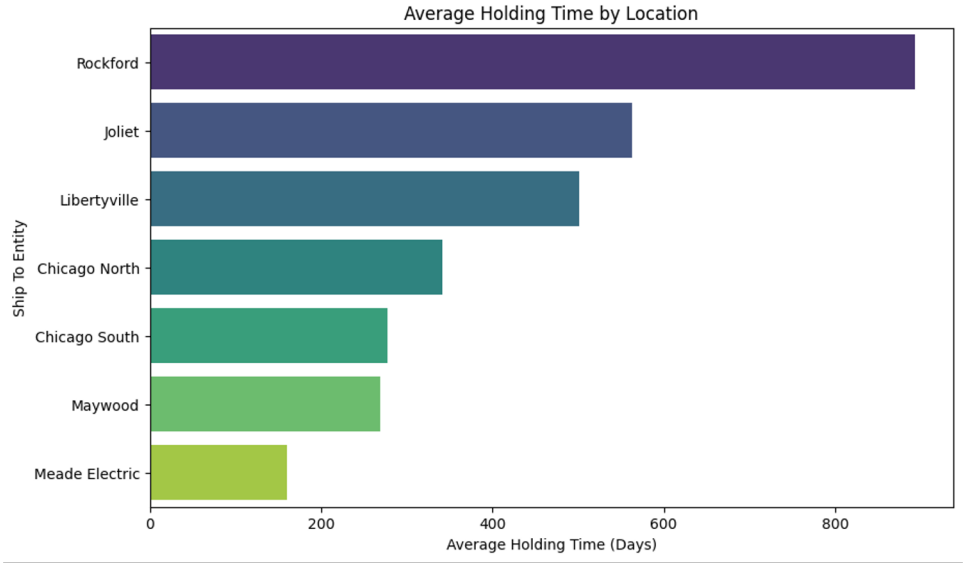
Average length of time reels held



Average holding time for ComEd:
346 days (0.95 years)

Average holding time for Meade:
160 days (0.44 years)

— Calculated by averaging Date Difference (Return Date - Ship Date)



Average holding time by location:

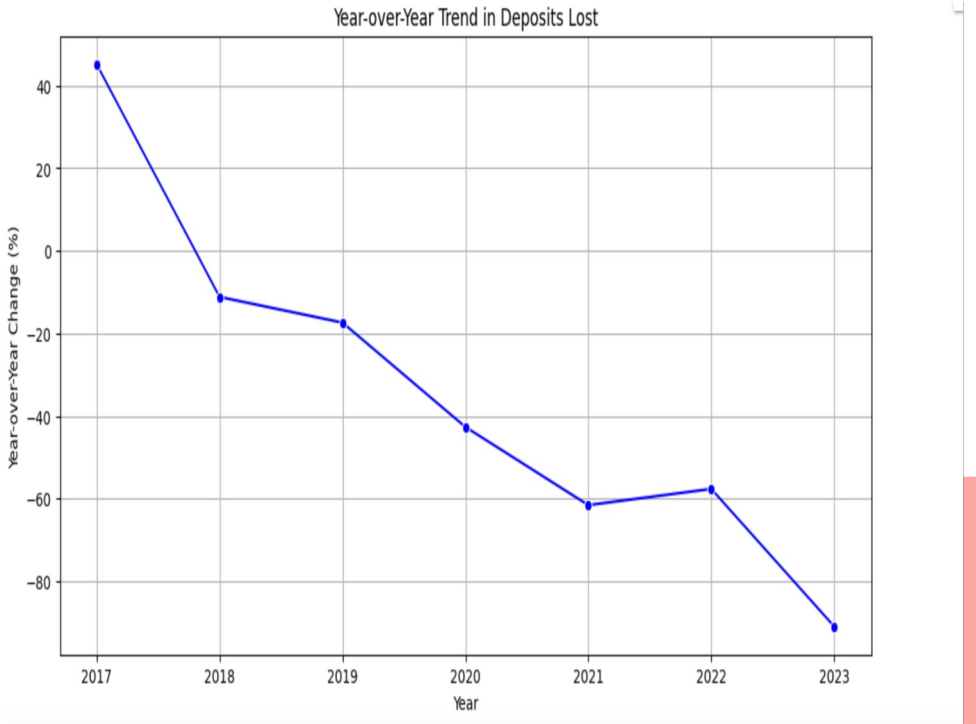
Rockford: 893 (2.44 years)
Joliet: 563 days (1.54 years)
Libertyville: 501 days (1.37 years)
Chicago North: 341 days (0.93 years)
Chicago South: 278 days (0.76 years)
Maywood: 269 days (0.74 years)
Meade Electric: 160 days (0.44 years)

05

Calculation of Year over Year(YoY) Trendline

Year-over-Year(YoY) Trendline

- There is a sharp decrease in the percentage change of 'Deposit Lost' from 2017 to 2018, suggesting a significant reduction in deposits lost from one year to the next.
- From 2018 onwards, the YoY change is negative, indicating that each year there was a loss in deposit amounts compared to the previous year.
- The trend from 2019 to 2022 shows a gradual decline, with the changes becoming less negative each year. This could indicate that while 'Deposit Lost' is decreasing each year, the rate of decrease is slowing down.
- However, there is a notable dip in 2023, where the YoY change decreases more steeply compared to the year 2022.



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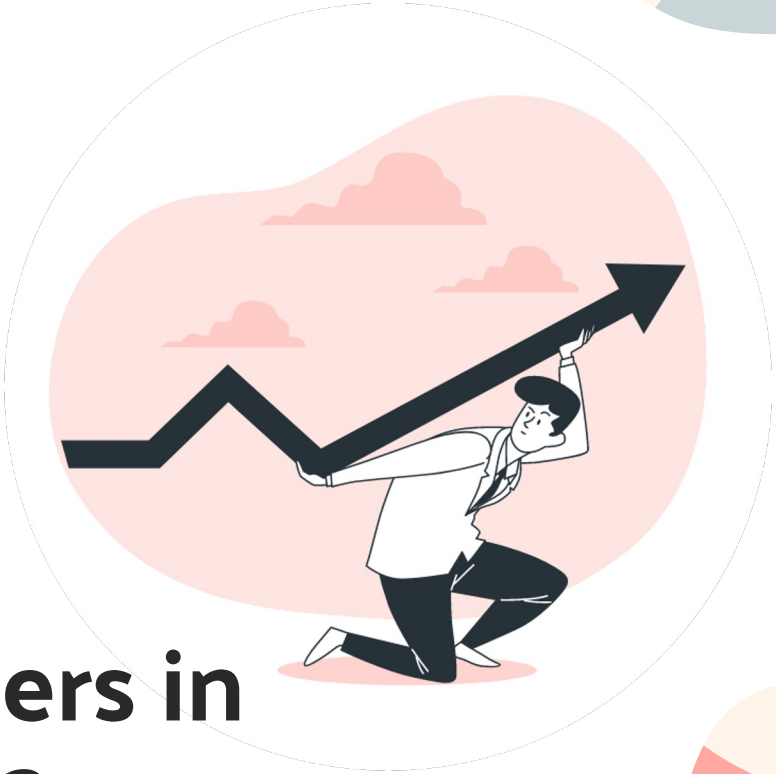
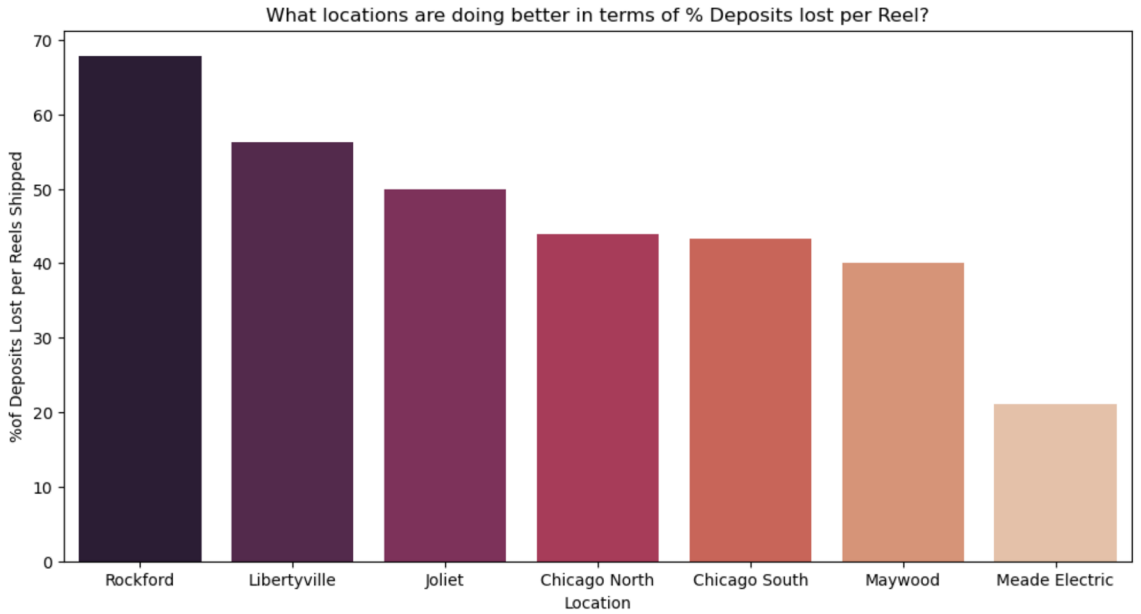
What locations are doing better than others in terms of deposits lost?





% of Deposits Lost by location:

Rockford: 67%
Libertyville: 56%
Joliet: 50%
Chicago North: 44%
Chicago South: 43%
Maywood: 40%
Meade Electric: 21%