



Fig. 1: 84 Lumber logo

3-Year Delivery Report: 2022 - 2025

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FELLOWSHIP

Introduction



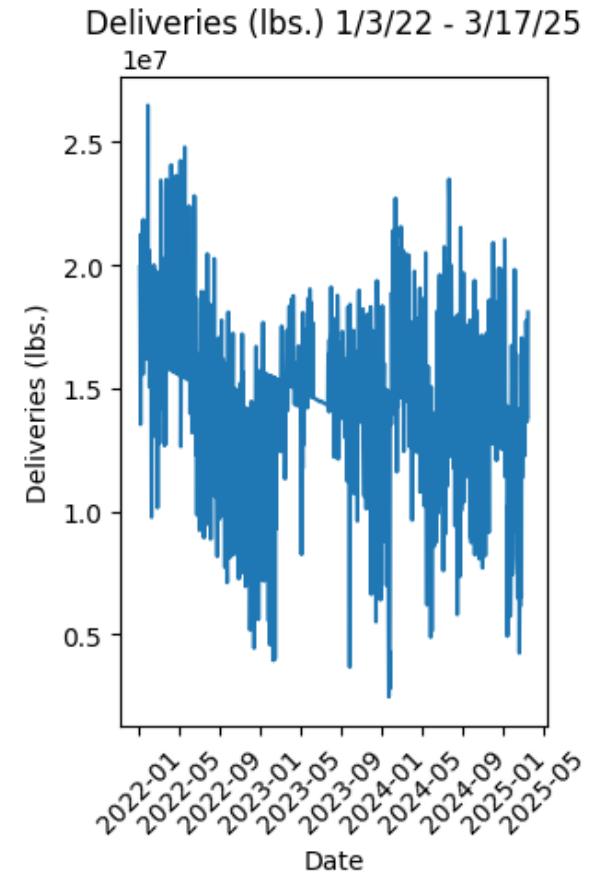
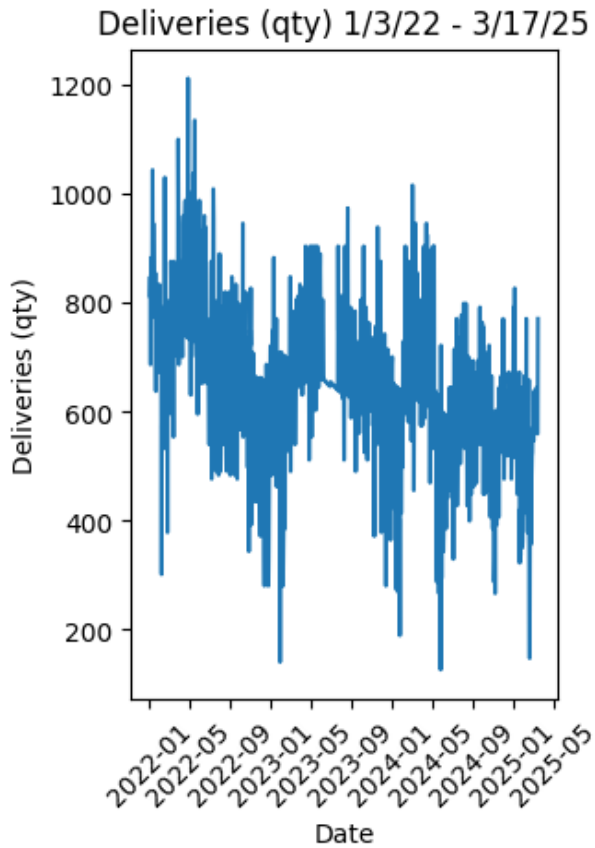
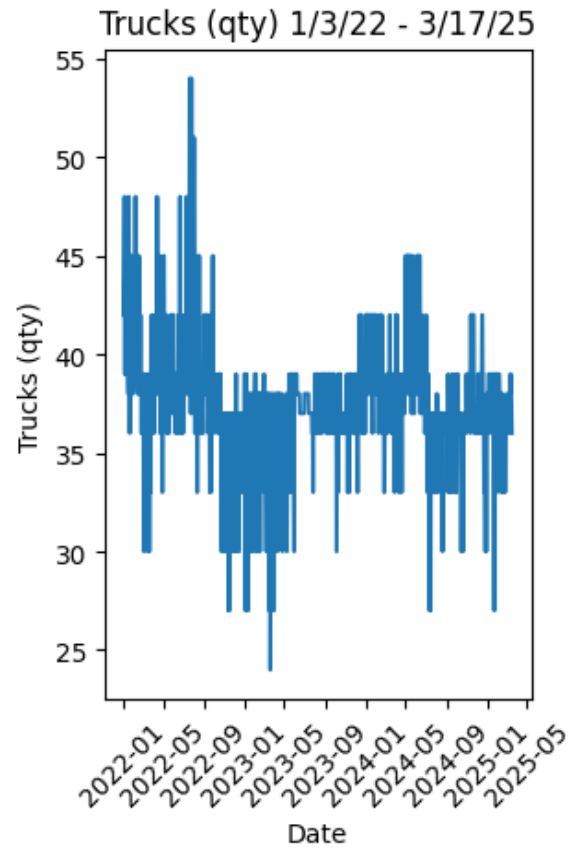
Fig. 2: 84 Lumber office in Denton, Texas

PREFACE

84 Lumber is a nationwide supply chain company that is responsible for using forklift trucks to deliver lumber.

For the past three years, their Denton, TX location has been logging deliveries in a spreadsheet containing daily information on the trucks, deliveries, and reschedules. We also gained access to relevant weather and lumber data for each day.

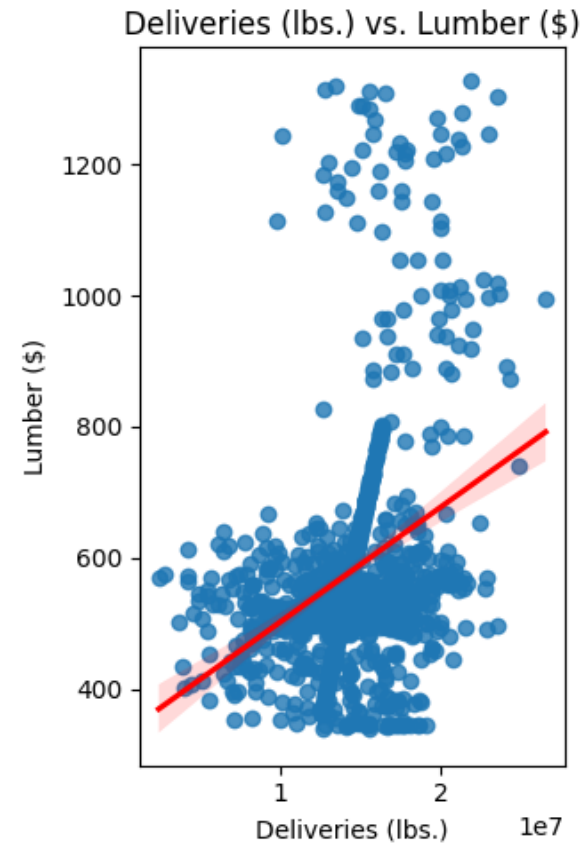
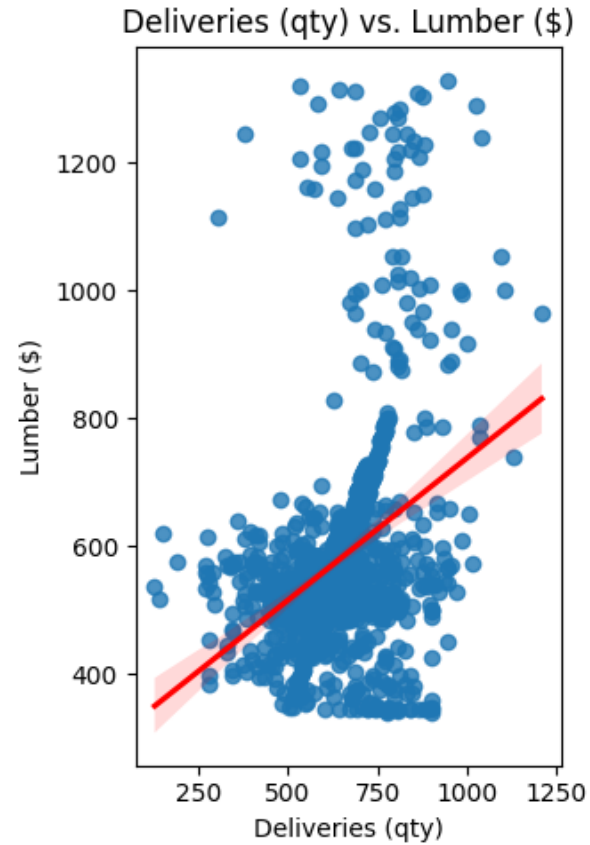
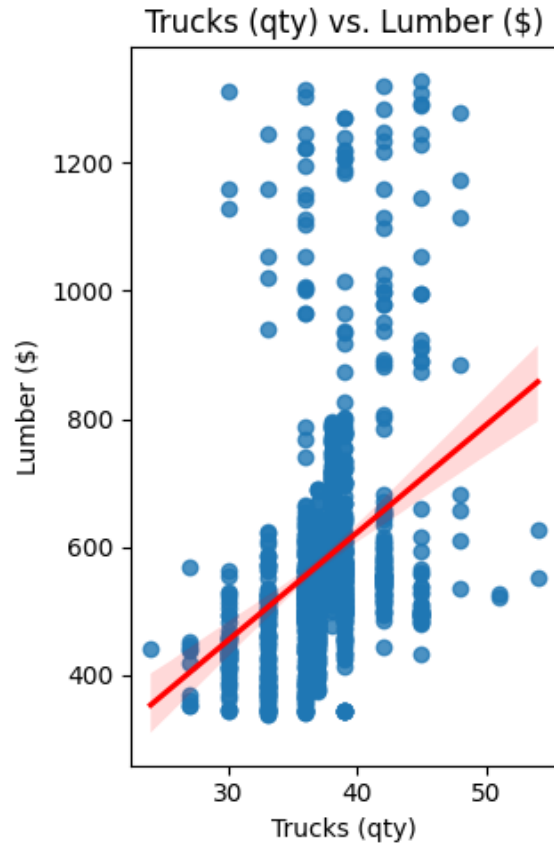
OBJECTIVE: Using truck delivery data from the past three years, how can we change 84 Lumber's deliveries to move up in the supply chain?



Quick peek at the trucks and deliveries

Since the highest trucks and deliveries in 2022, they dipped to their lowest by Sept. 2022.

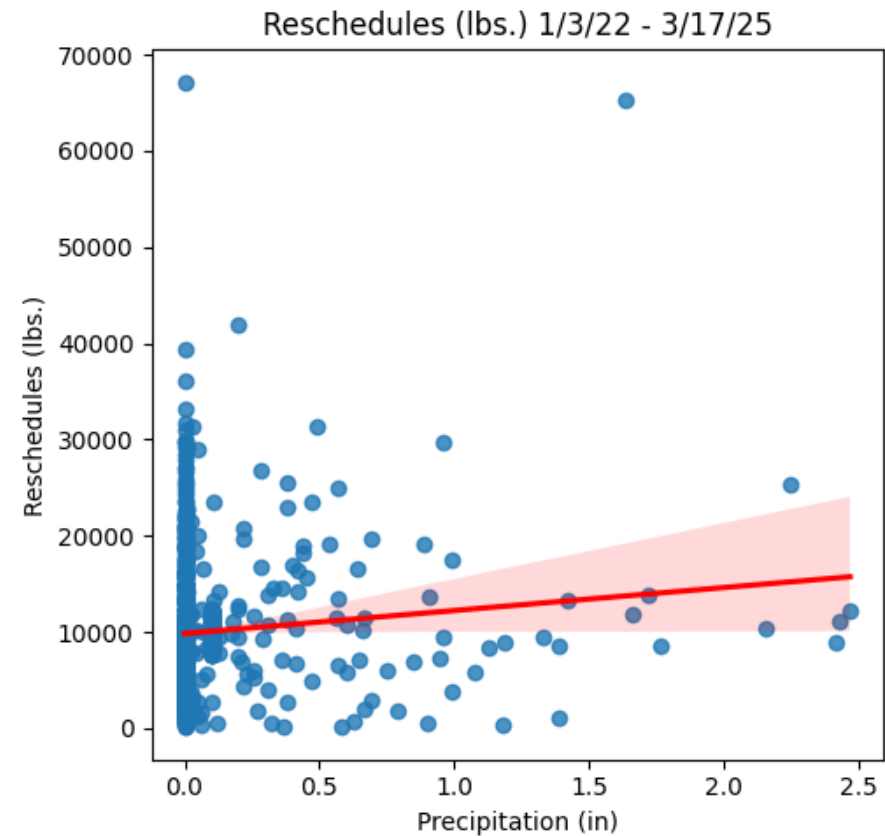
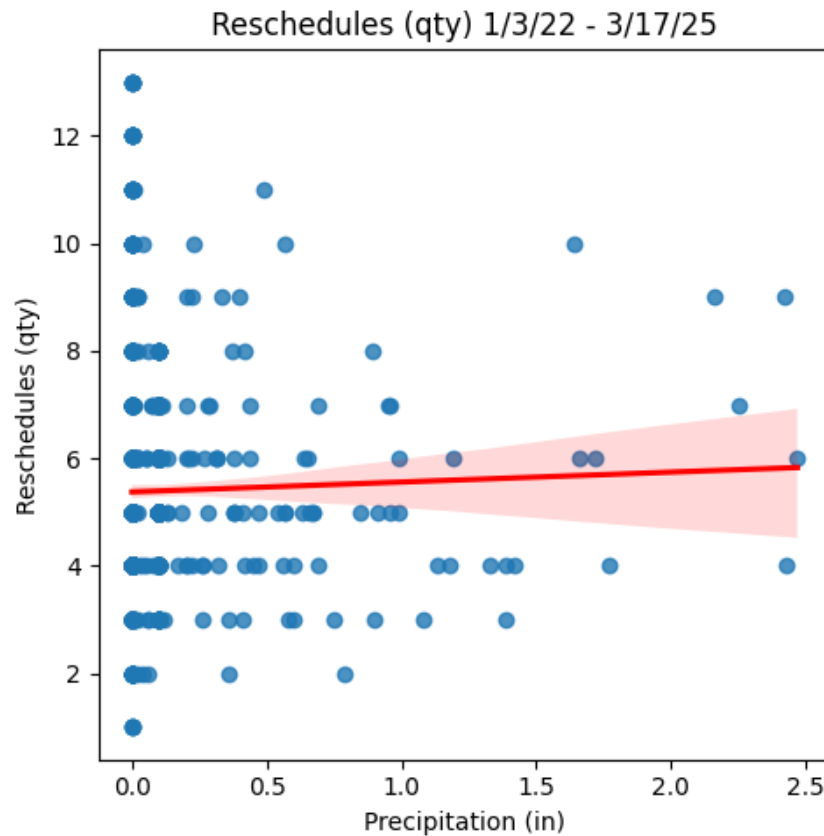
However, they have since increased and stabilized starting Jan. 2023.



Trucks and deliveries drive the demand in lumber.

More trucks and deliveries indicate a **clear increase in lumber's value**.

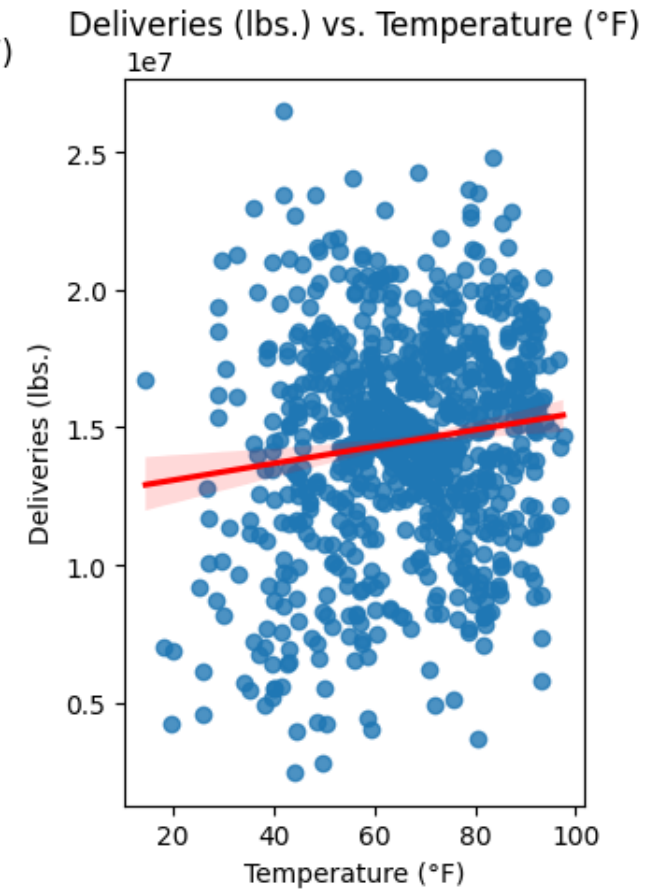
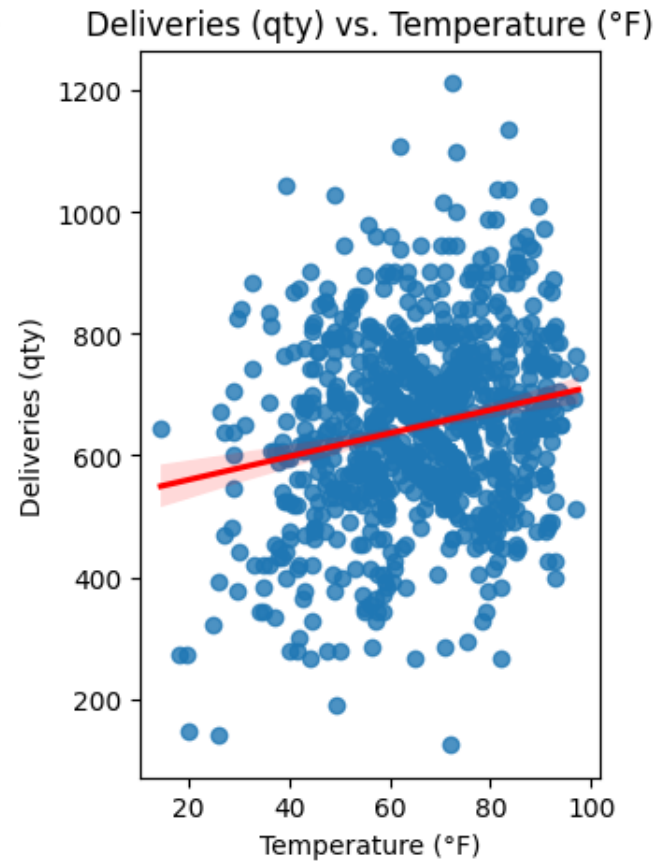
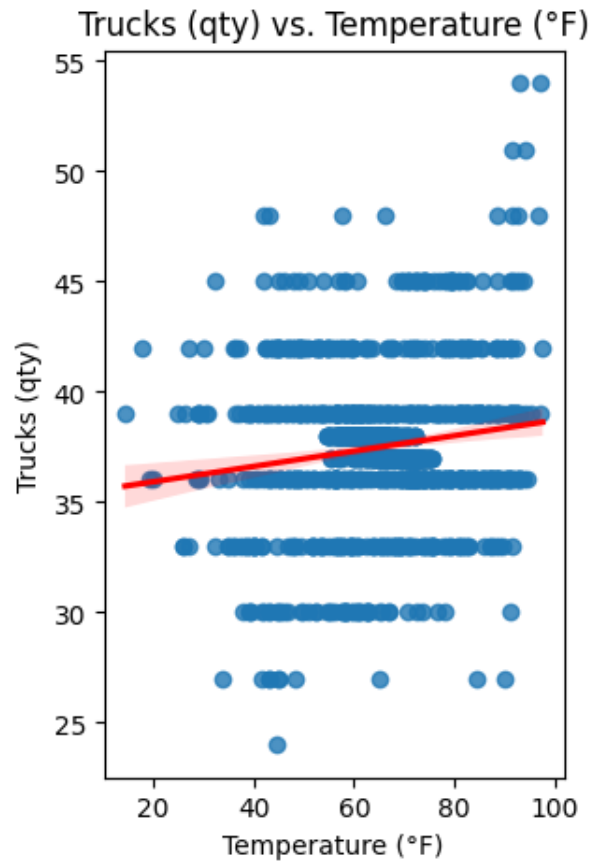
When the trucks and deliveries were at their highest and lowest, the lumber reflected as such.



Deliveries may be **rescheduled** from **precipitation**.

Up to 2.5 inches of rain may result in over 20000 lbs. of reschedules, but the *quantity* is an average of five.

This highlights heavier deliveries being more impacted than the lighter ones.



Higher temperatures give more trucks and deliveries.

Temperatures up to 100°F are more likely to get trucks and deliveries than those at 20°F.

This makes **summer** (June-Sept.) the **ideal construction season**.

Conclusion & Next Steps

Higher temperatures and **low precipitation** are factors that increase trucks and deliveries, which **increases lumber's overall value**.

Different weather conditions can't be helped, but we can work with them to maximize lumber's value in today's economy.

- Maximize trucks and deliveries during the **summer**, where the temperatures are at their highest.
 - Also aim for **sunny** days to minimize the chance of precipitation.
- Expect an increase in **reschedules** whenever **precipitation** is forecasted.
 - Likewise, expect a decrease in overall performance during the **winter** with **lower temperatures**.
- When lumber becomes more like the beginning of 2022, **you're in the right place**. At that point, **maintaining** current truck deliveries should be the focus.



Fig. 3: Warehouse worker lifting lumber with forklift truck

That's
everything

THANKS FOR
LISTENING.

References

Fig. 1, Fig. 2, Fig. 3: Session 2 presentation, [link](#)

PRIMARY DATA: 84 Lumber truck deliveries in Denton, TX from 1/3/22 to 3/17/25: [link](#)

Second-hand data

- Denton Airport weather from July 1996: [link](#)
 - Source: [NCEI](#)
- Lumber prices starting Nov. 1972: [link](#)
 - Source: [Macrotrends](#)

See all final deliverables [here.](#)