



# Case Study

## Logistics

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# Business Understanding

## OTIF

On-time in full (OTIF) is a supply chain metric for measuring performance in the logistics industry. OTIF generally refers to a supplier's ability to deliver product within prescribed delivery windows and at full quantities ordered.

OTIF was designed to improve store operations within Walmart itself and quickly led to a series of major changes as it was quickly adopted by other retailers and companies.

Expectations of Stakeholders are

Make various KPIs.

Explain the OTIF Performance over Time

What is the Order delivery status over Time?

What are the Highest OTIF Performances?

Do something with Key Influencers and other advanced visualizations.



# Data Understanding

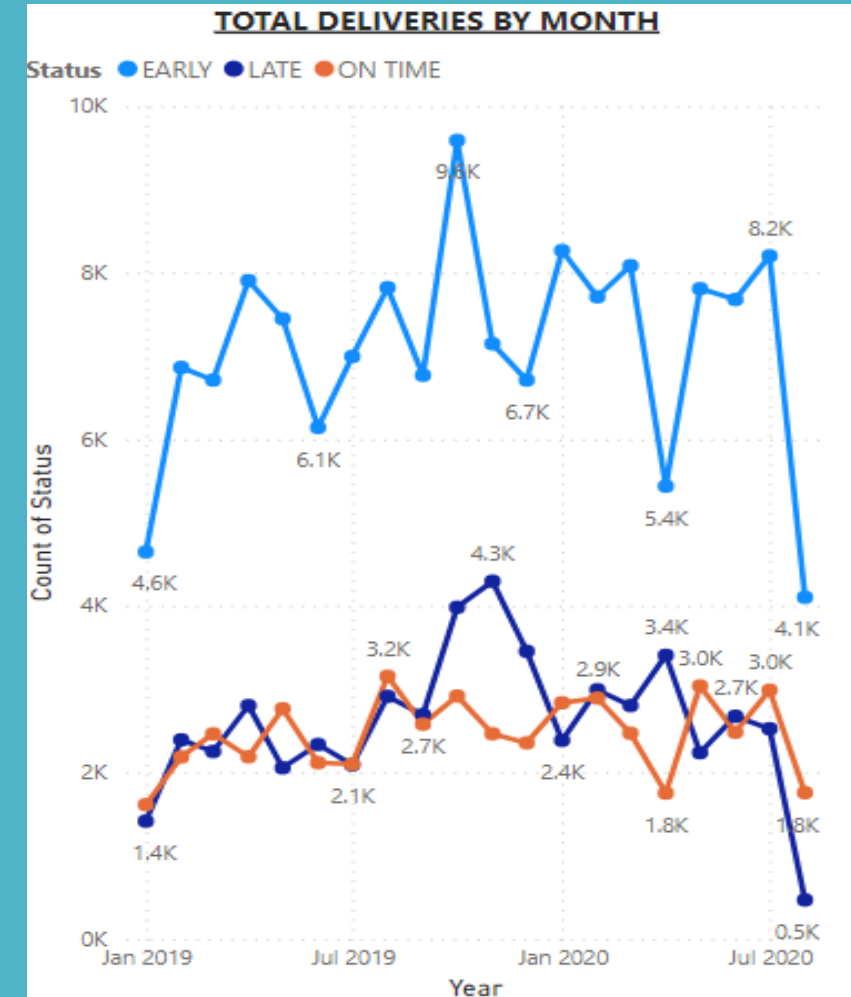
- ➔ "To ensure a thorough analysis, we must create a dedicated column to track the status of delivery. This column will be divided into three categories:
- ➔ Early Deliveries, On-Time Deliveries, and Late Deliveries. It is crucial that we consider the following columns while conducting our analysis: Order date, Scheduled delivery date, Actual delivery date, Salesperson, Team, City, Customer, and Service channel.
- ➔ These data points are integral to understanding the performance of our delivery process. Our initial assessment shows that 142k of the data in the 'Early delivery date' and 49k of the data in the 'on-time delivery date'.
- ➔ This data consists of
  - ✓ Average 3 delivery days
  - ✓ 37k Returns



# Overall Analysis

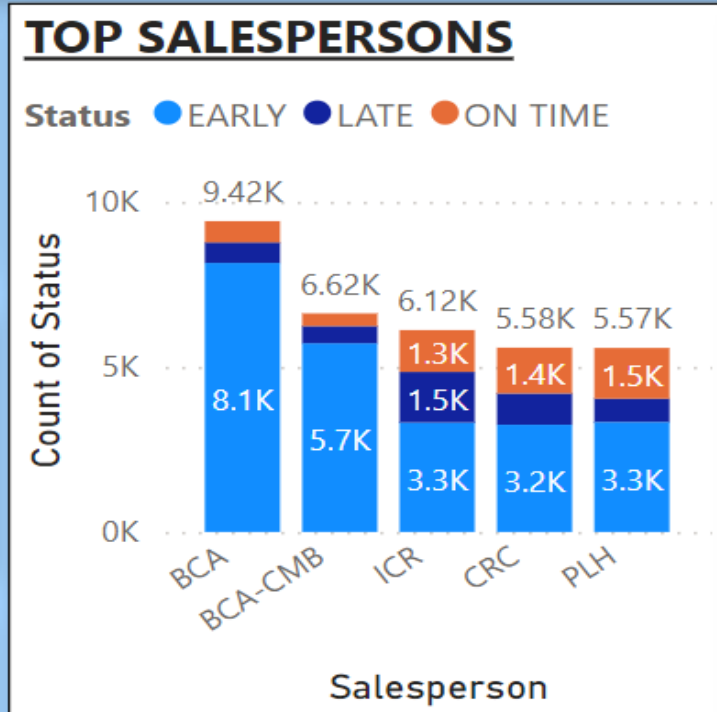
## Total Deliveries By Month

- Out of total deliveries 142k were early deliveries.
- 49k were on time deliveries.
- 52k were Late deliveries.

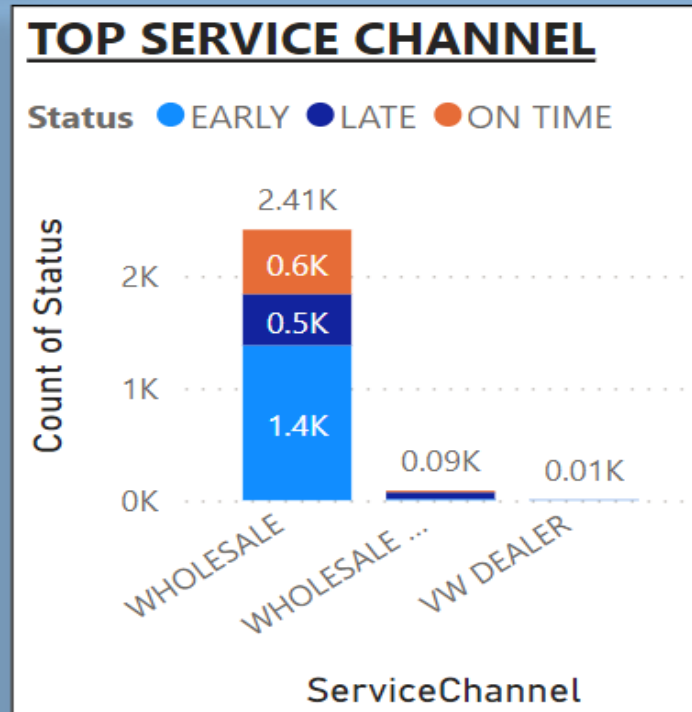




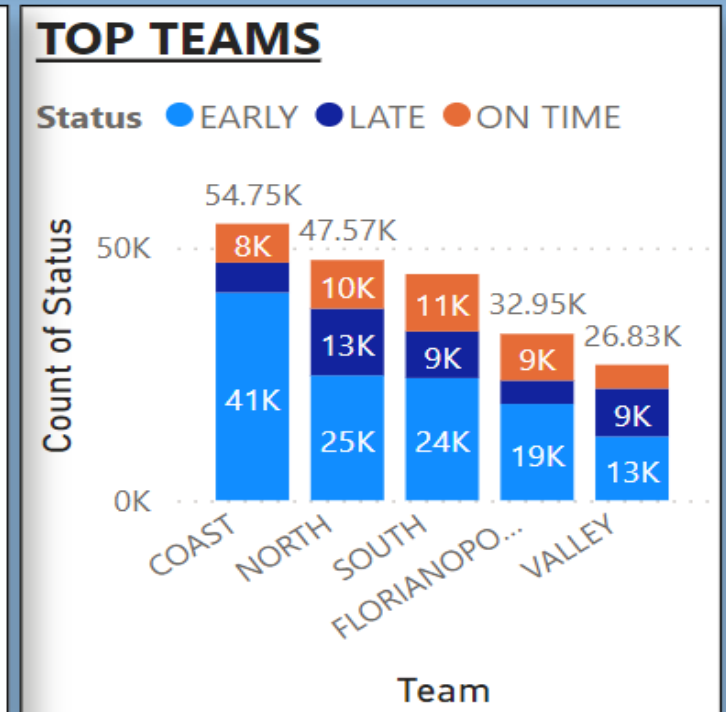
# Overall Analysis



- Above graph shows top 5 salesperson who made maximum deliveries.
- BCA salesperson made the highest number of deliveries.



- Above graph shows top 3 service channels.
- Wholesale tops the chart in service deliveries.



- Above graph shows that top 5 teams for the delivery.
- Coast, North and South are top three delivery teams respectively.

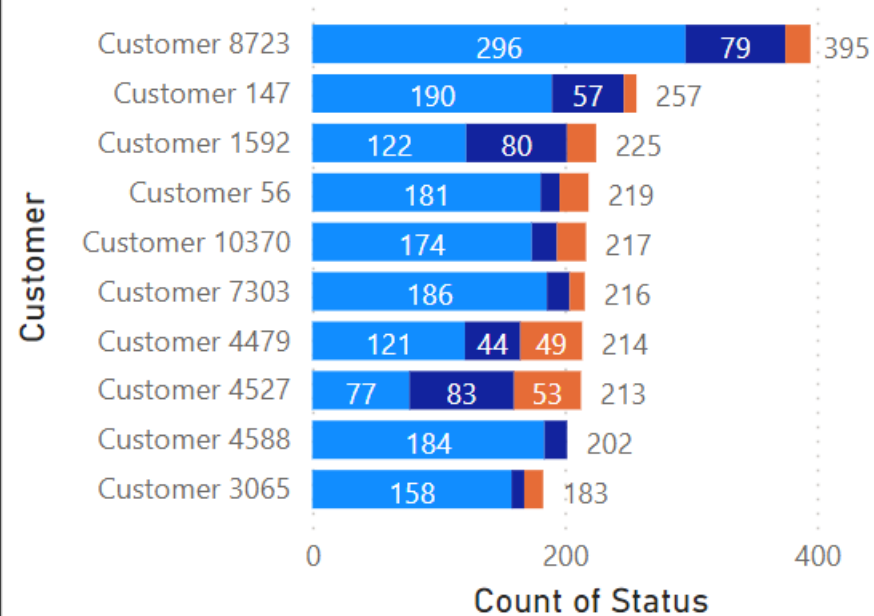




# Overall Analysis

## TOP CUSTOMERS

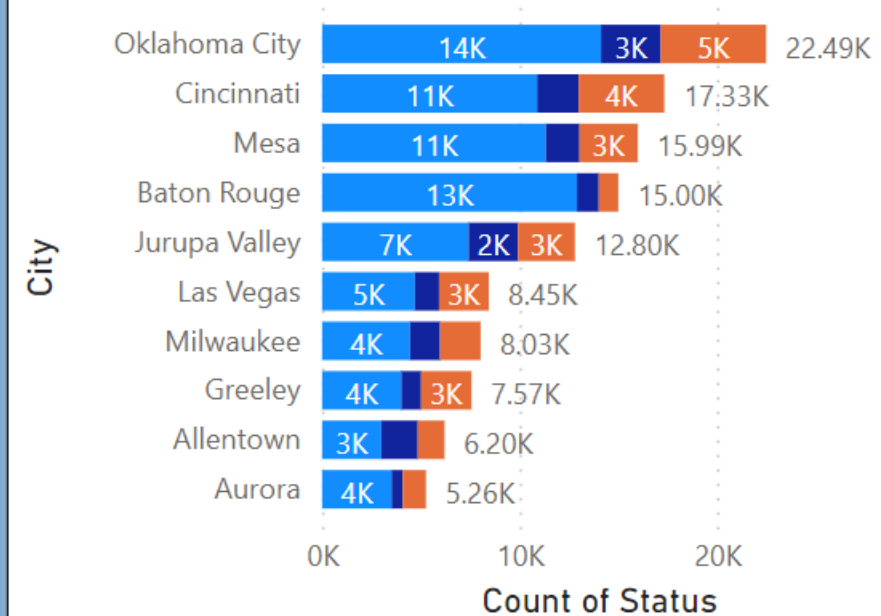
Status ● EARLY ● LATE ● ON TIME



Order wise top customers

## TOP CITIES

Status ● EARLY ● LATE ● ON TIME

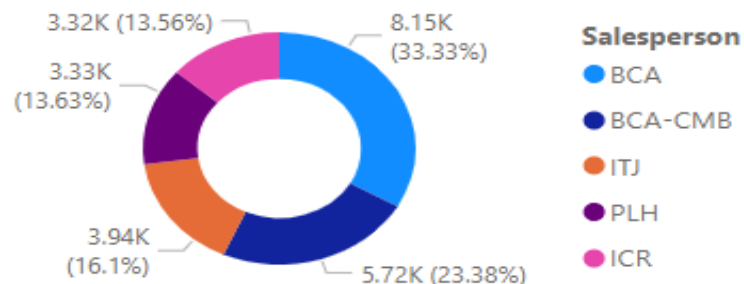


Order wise top cities



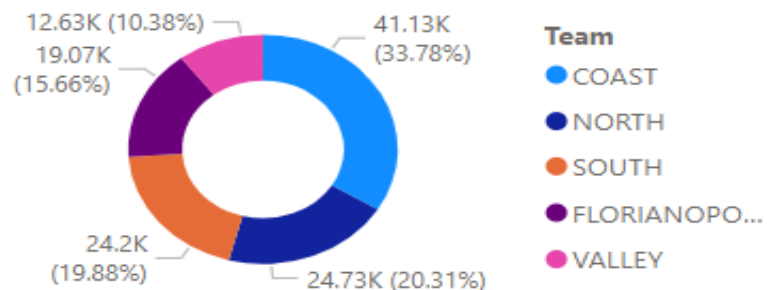
# Early deliveries

## TOP SALESPERSONS (EARLY)



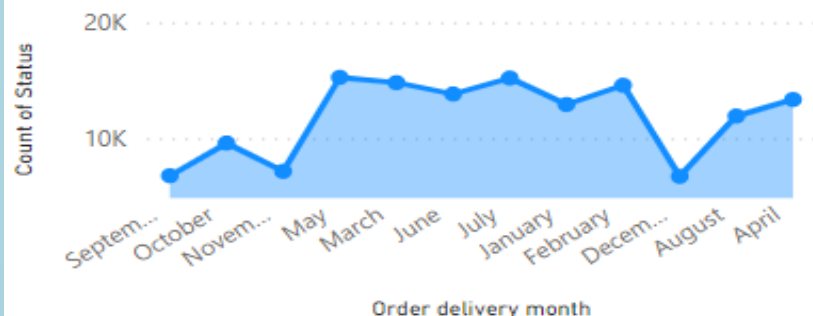
Early deliveries:  
BCA, BCA-CMB, ITJ are the top three salesperson.

## TOP TEAMS (EARLY)



Early deliveries:  
COAST, NORTH, SOUTH are the top three teams.

## MONTH WISE DELIVERIES (EARLY)



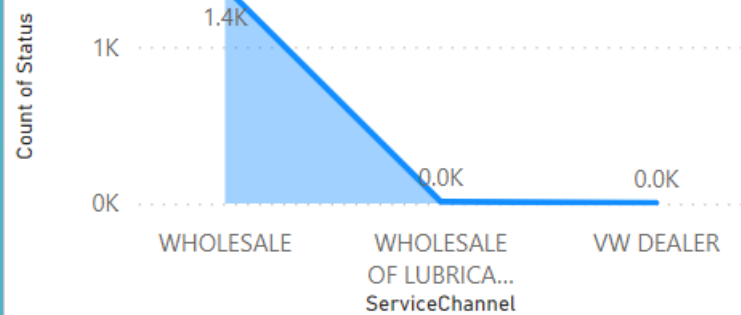
Early deliveries:  
FEBURARY, MAY and JULY are top three months.



# Early deliveries

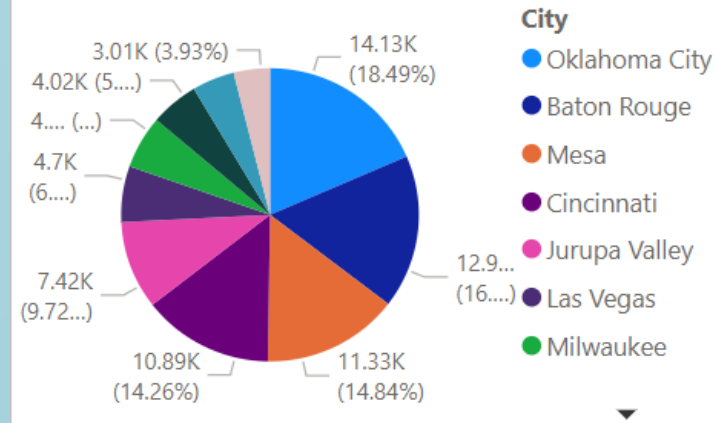
## TOP SERVICE CHANNEL (EARLY)

Status ● EARLY



WHOLESALE, WHOLESALE OF LUBRICANTS and VW DEALER are top three service channels for early deliveries.

## TOP CITIES (EARLY)



OKLAHOMA CITY, BATON ROUGE and MESA are top three cities for early deliveries.

## TOP CUSTOMERS (EARLY)



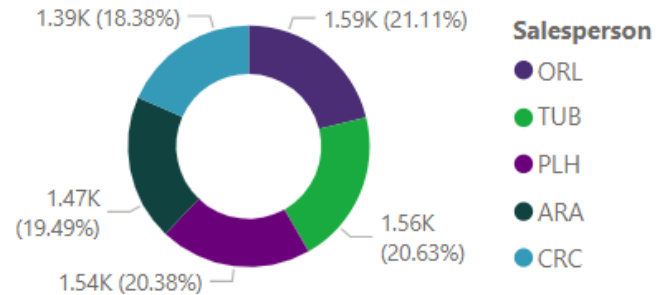
CUSTOMER 8723, 147 and 7303 are top three customers for early deliveries.





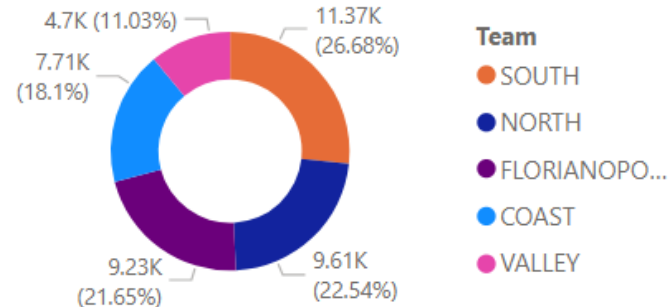
# On Time deliveries

## TOP SALESPERSONS (ON TIME)



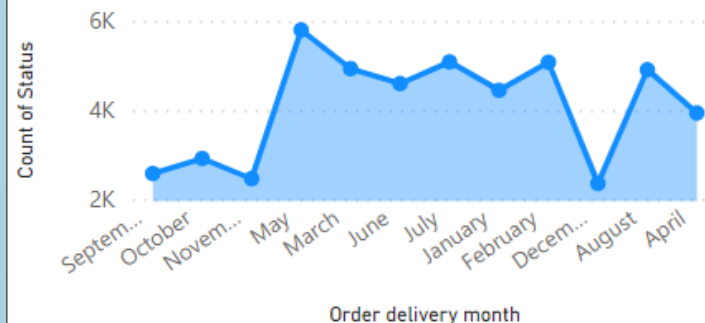
On Time deliveries:  
ORL, TUB, PHL are the top three salesperson.

## TOP TEAMS (ON TIME)



On Time deliveries:  
SOUTH, NORTH and FLORIANOPOLIS are the top three teams.

## MONTH WISE DELIVERIES (ON TIME)



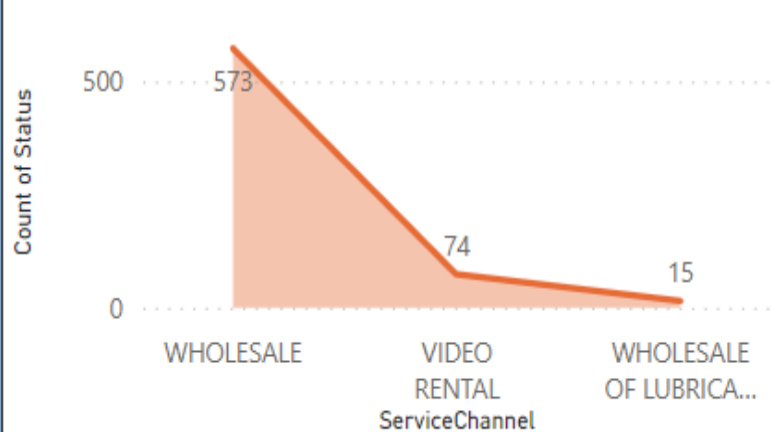
On time deliveries:  
FEBURARY, MAY and JULY are top three months.



# On Time deliveries

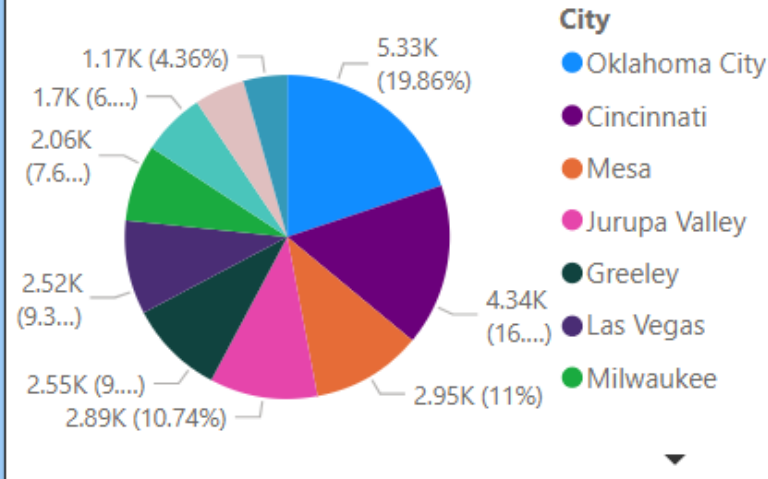
**TOP SERVICE CHANNEL (ON TIME)**

Status ● ON TIME



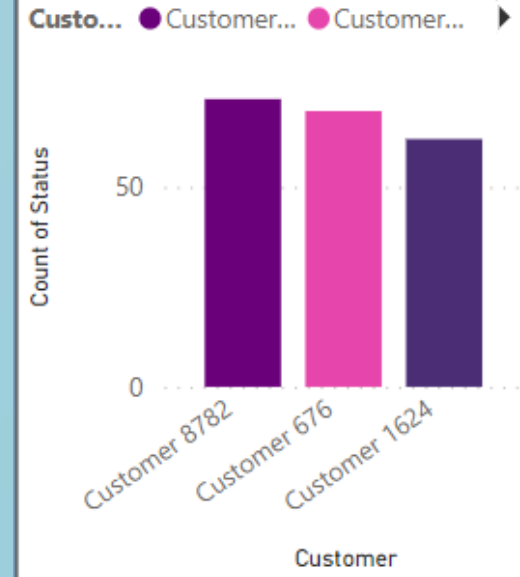
WHOLESALE, VIDEO RENTAL and WHOLESALE OF LUBRICANTS are top three service channels for On Time deliveries.

**TOP CITIES (ON TIME)**



OKLAHOMA CITY, CINCINNATI and MESA are top three cities for On Time deliveries.

**TOP CUSTOMERS (ON TIME)**



CUSTOMER 8782, 676, 1624 are the top three customers for On Time deliveries.



**Salesperson**

- CAN
- TAI
- MAF
- ITP-CEN
- SBS

Salesperson	Value	Percentage
CAN	2.24K	21.71%
TAI	2.12K	20.57%
MAF	2.04K	19.81%
ITP-CEN	1.99K	19.28%
SBS	1.92K	18.63%

**Team**

- NORTH
- VALLEY
- SOUTH
- COAST
- FLORIANOPO...

Team	Count	Percentage
NORTH	13.24K	31.14%
VALLEY	9.5K	22.34%
SOUTH	9.22K	21.69%
COAST	5.91K	13.9%
FLORIANOPO...	4.65K	10.94%

Order delivery month	Count of Status
September	~2.8K
October	~4.0K
November	~4.3K
December	~5.4K
January	~3.8K
February	~4.7K
March	~4.3K
April	~6.2K

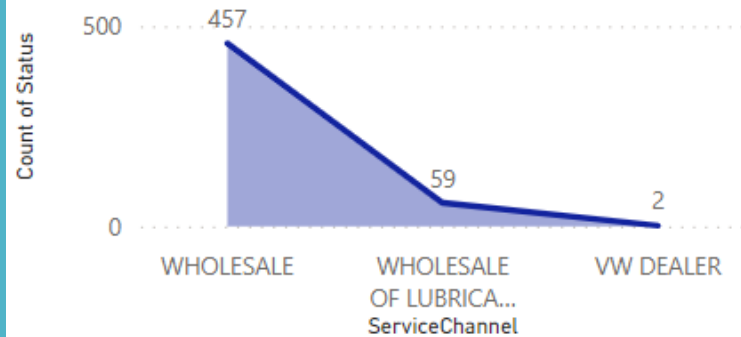
Late deliveries:  
FEBURARY, MARCH, APRIL are top three months.



# Late deliveries

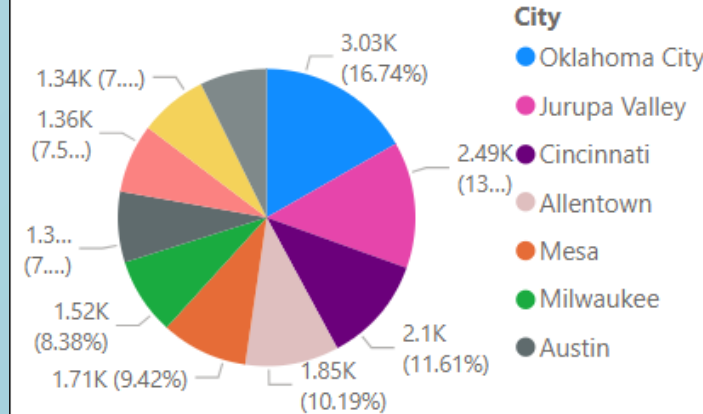
**TOP SERVICE CHANNEL (LATE)**

Status ● LATE



WHOLESALE, WHOLESALE OF LUBRICANTS and VW DEALER are top three service channels for late deliveries.

**TOP CITIES (LATE)**



OKLAHOMA CITY, JURUPA VALLEY, and CINCINNATI are top three cities for late deliveries.

**TOP CUSTOMERS (LATE)**

Custo... ● Customer 4499



CUSTOMER 4499, 8852 and 196 are top three customers for late deliveries.

# Conclusion

- **TOP SALES PERSON :**

- MAX. EARLY DELIVERIES ---> BCA, BCA-CMB, ITJ
  - MAX. ON TIME DELIVERIES ---> ORL, TUB, PLH
  - MAX. LATE DELIVERIES ---> CAN, TAI, MAF

- **TOP TEAMS:**

- MAX. EARLY DELIVERIES ---> COAST, NORTH, SOUTH
  - MAX. ON TIME DELIVERIES ---> SOUTH, NORTH, FLORIANOPOLIS
  - MAX. LATE DELIVERIES ---> NORTH, VALLEY, SOUTH

- **TOP SERVICE CHANNEL:**

- MAX. EARLY DELIVERIES ---> WHOLESALE, WHOLESALE OF LUBRICANTS, VW DEALER
  - MAX. ON TIME DELIVERIES ---> WHOLESALE, VIDEO RENTAL, WHOLESALE OF LUBRICANTS
  - MAX. LATE DELIVERIES ---> WHOLESALE, WHOLESALE OF LUBRICANTS, VW DEALER

- **TOP CITIES:**

- MAX. EARLY DELIVERIES ---> OKLAHOMA CITY, BATON ROUGE, MESA
  - MAX. ON TIME DELIVERIES ---> OKLAHOMA CITY, CINCINNATI, MESA
  - MAX. LATE DELIVERIES ---> OKLAHOMA CITY, JURUPA VALLEY, CINCINNATI

- **TOP CUSTOMERS:**

- MAX. EARLY DELIVERIES ---> CUSTOMER 8723, 147, 7303
  - MAX. ON TIME DELIVERIES ---> CUSTOMER 8782, 676, 1624
  - MAX. LATE DELIVERIES ---> CUSTOMER 4499, 8852, 196

- **TOP MONTHS:**

- MAX. EARLY DELIVERIES ---> FEBRUARY, MAY, JULY
  - MAX. ON TIME DELIVERIES ---> FEBRUARY, MAY, JULY
  - MAX. LATE DELIVERIES ---> FEBRUARY, MARCH, APRIL