

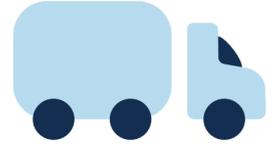
TOWSON UNIVERSITY PERDUE FARMS DATA ANALYSIS

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INTRODUCTION

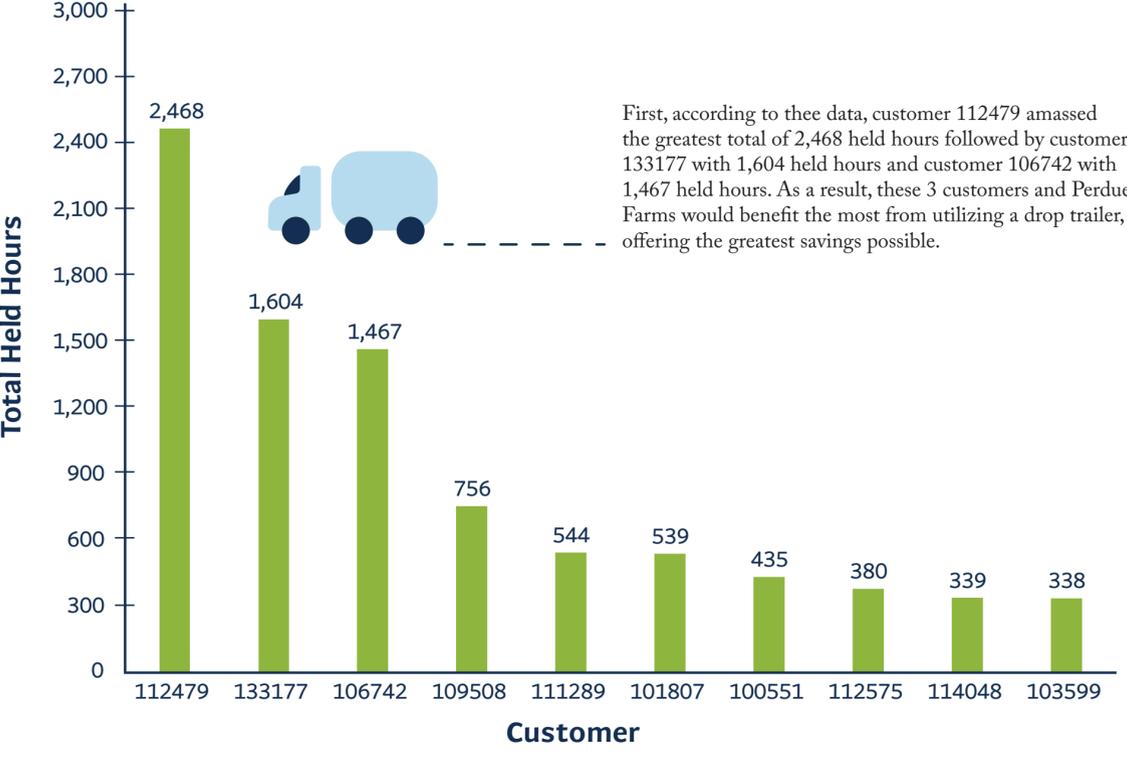
Perdue Farms is a local family-owned company in Salisbury, Maryland that has supplied quality products for over a century, striving to promote responsible, trustworthy practices in animal care, agriculture, and food. However, Perdue Farms seeks to maximize their delivery time and resources. Specifically, hold time costs are accumulated when a truck is held by a customer for an extended period of time. This causes a domino effect in being late to each stop afterwards. Therefore, in order to propose a suitable solution to this persistent issue, we helped analyze their datasets based on the following three questions:

1. Which customers would offer the greatest savings by using a drop trailer?
2. What are the top 10 customers with the highest per pound delivery cost?
3. Which 10 customers had the highest incidence of held time? In number of occurrences? In overall cost of occurrences? And in percent of deliveries?



1. WHICH CUSTOMERS WOULD OFFER THE GREATEST SAVINGS BY USING A DROP TRAILER?

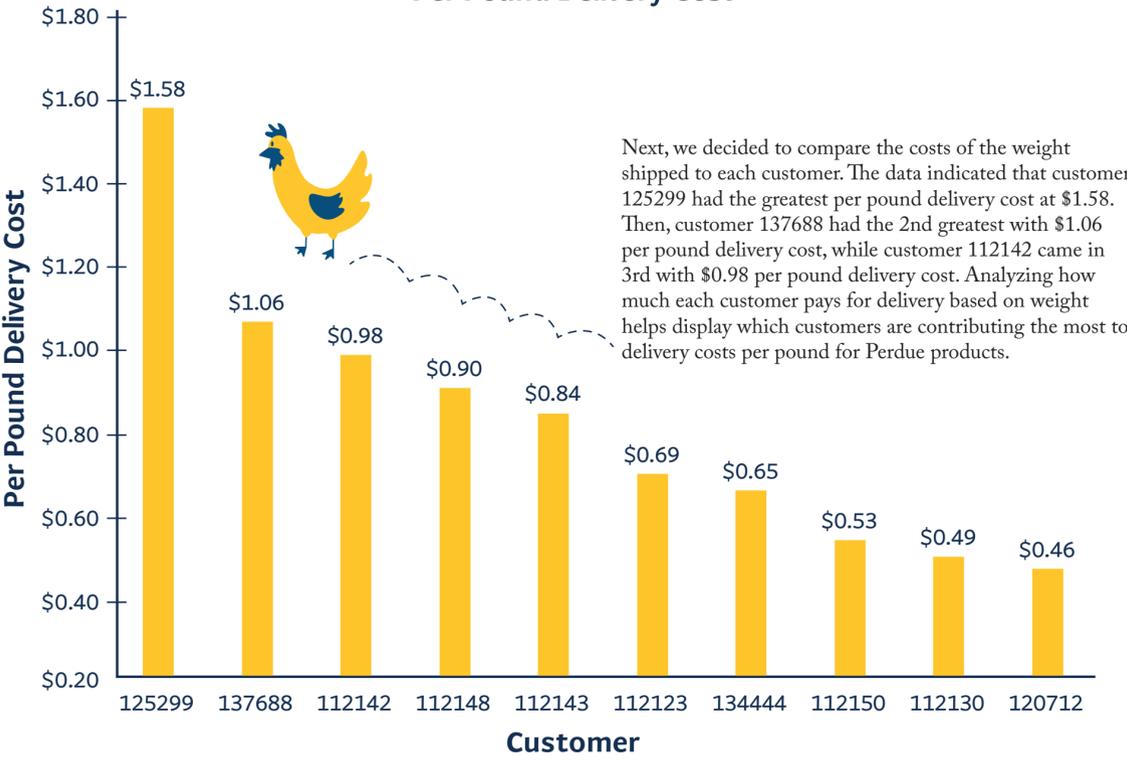
Total Held Hours



First, according to the data, customer 112479 amassed the greatest total of 2,468 held hours followed by customer 133177 with 1,604 held hours and customer 106742 with 1,467 held hours. As a result, these 3 customers and Perdue Farms would benefit the most from utilizing a drop trailer, offering the greatest savings possible.

2. WHAT ARE THE TOP 10 CUSTOMERS WITH THE HIGHEST PER POUND DELIVERY COST?

Per Pound Delivery Cost



Next, we decided to compare the costs of the weight shipped to each customer. The data indicated that customer 125299 had the greatest per pound delivery cost at \$1.58. Then, customer 137688 had the 2nd greatest with \$1.06 per pound delivery cost, while customer 112142 came in 3rd with \$0.98 per pound delivery cost. Analyzing how much each customer pays for delivery based on weight helps display which customers are contributing the most to delivery costs per pound for Perdue products.

3. WHICH 10 CUSTOMERS HAD THE HIGHEST INCIDENCE OF HELD TIME?

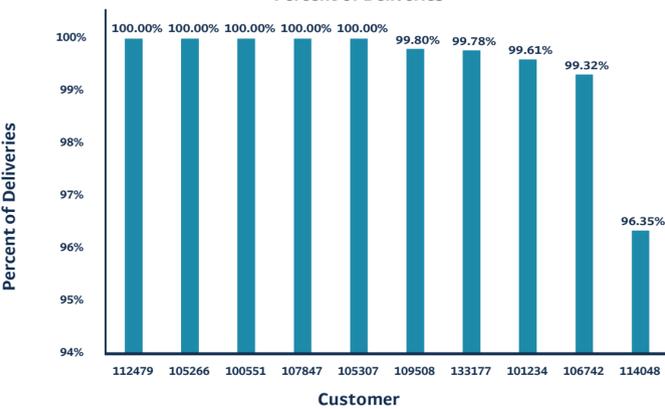
Number of Occurrences



Overall Cost of Occurrences



Percent of Deliveries



Lastly when interpreting the final datasets, the records presented which customers had the highest incidence of held time in 3 different aspects: number of occurrences, overall cost of occurrences, and percent of deliveries. As with Question 1 on total held hours, customer 112479 was consistently the largest throughout each of these 3 visualizations for Question 3. Additionally, customer 133177 and 106742 is in a similar high standing too with customer 112479. However, the data deviates when comparing the next greatest customers in the percent of deliveries bar chart.



Conclusion

Overall, the research, datasets, and visualizations strongly suggest that Perdue invests in drop trailers for customers 112479, 133177, and 106742. Not only will this make the drop-off session more convenient for Perdue Farms' delivery truck drivers in saving money, time, and energy, but will also benefit those tasked with unloading the products at the drop-off site. Rather than incurring additional costs during held time, the Perdue Farms truck driver can stay on schedule delivering products to the business thereafter and continue exceeding their on-time performance to build trust with customers.