



# Does Region Affect how Pumpkins are Priced?

Chitra Patel & Dominique Reynolds

# Fun Facts on Pumpkins

How many varieties of pumpkins are there ?

- 45 different varieties

When to Harvest?

- Northern States -> Late May
- Southern States -> Early July

Where are Pumpkins Grown?

- Top Nine States: Illinois, California, Ohio, Indiana, Texas, Pennsylvania, Michigan, North Carolina and New York

# 12 Varieties of Pumpkin



Howden Type



Cinderella



Fairytale



Pie Type



Blue Type



Big Mack Type



Mixed Heirloom Varieties



Miniature: Flat,  
Round, Other type



Knuckle Head Type



Howden White Type

# Objective

What influences pumpkin pricing the most?

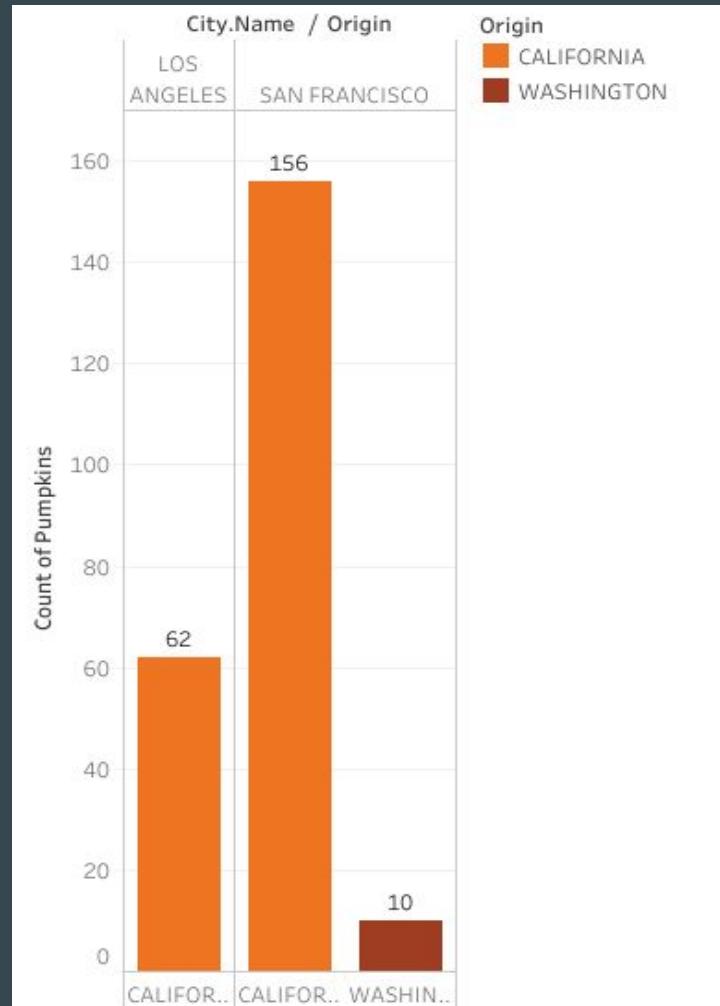
- A. Prices depending on where it is harvested
- B. Purpose of Use
  - a) Depends on various Varieties: either to decorate, pie making, cooking, etc.

What factors impact the size of the pumpkins?

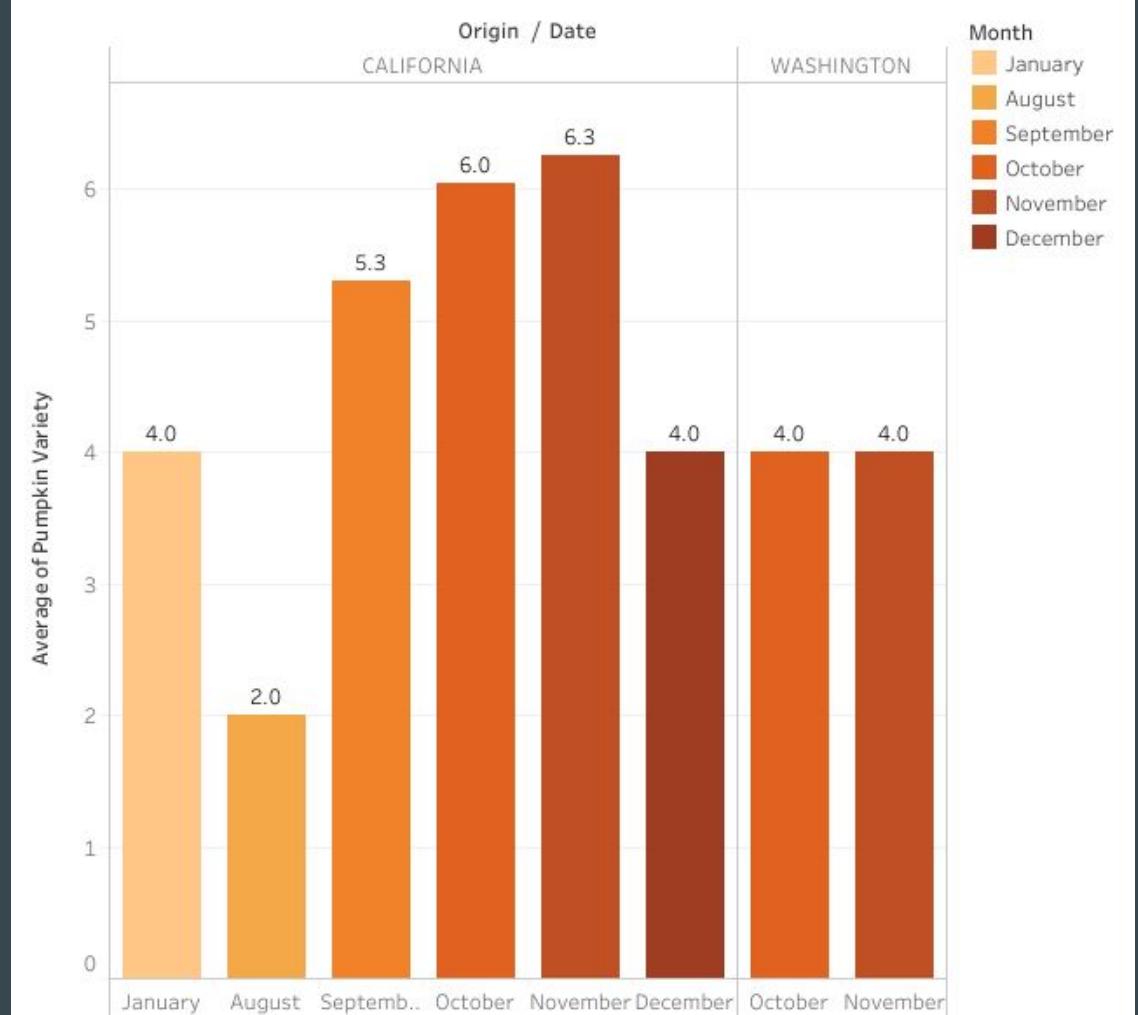
- A. Seedling
  - a. Seeds should be planted in rows or “pumpkin hills”
- B. Soil temperature
  - a. Soil needs to be at least 95 degrees Fahrenheit and mixed with mulch
- C. Space
  - a. Seeds cannot be placed too close together; pumpkin will not grow

# West Region

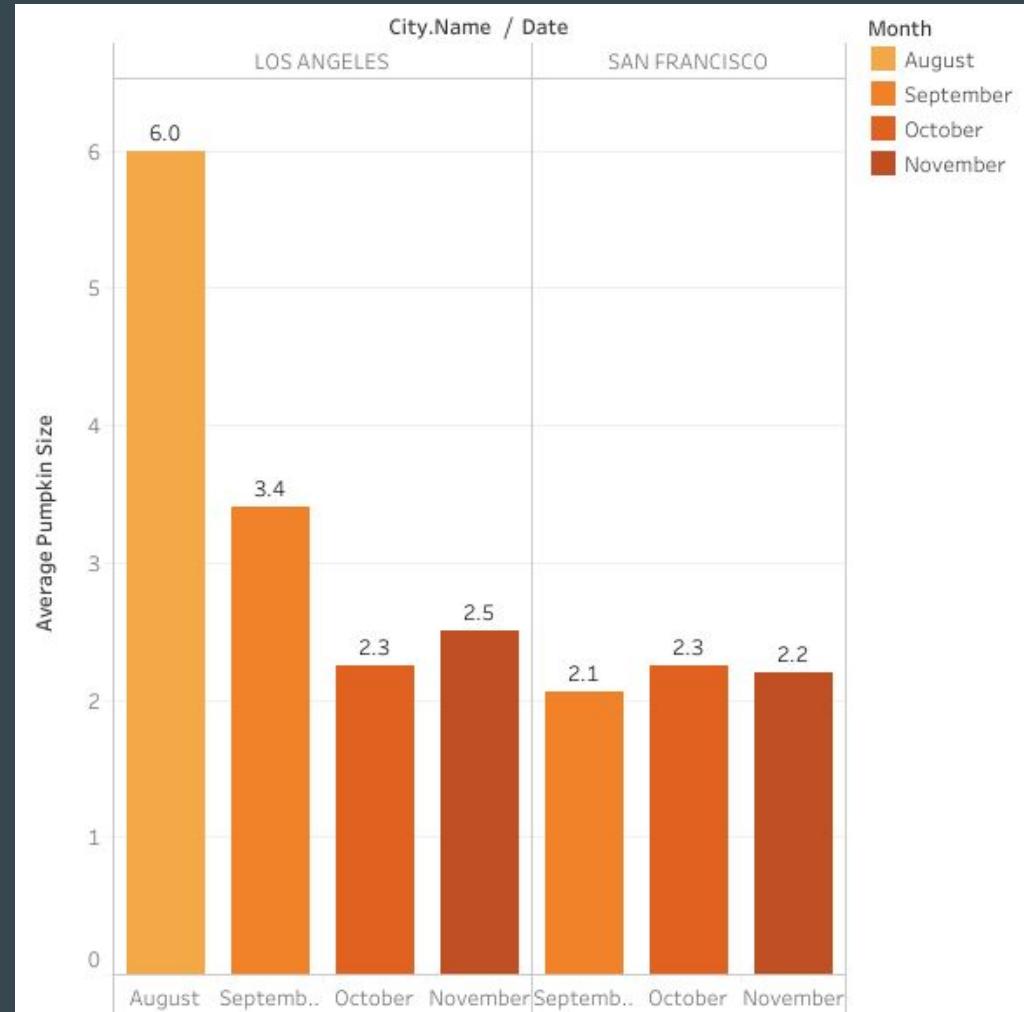
- Los Angeles, CA
- San Francisco, CA



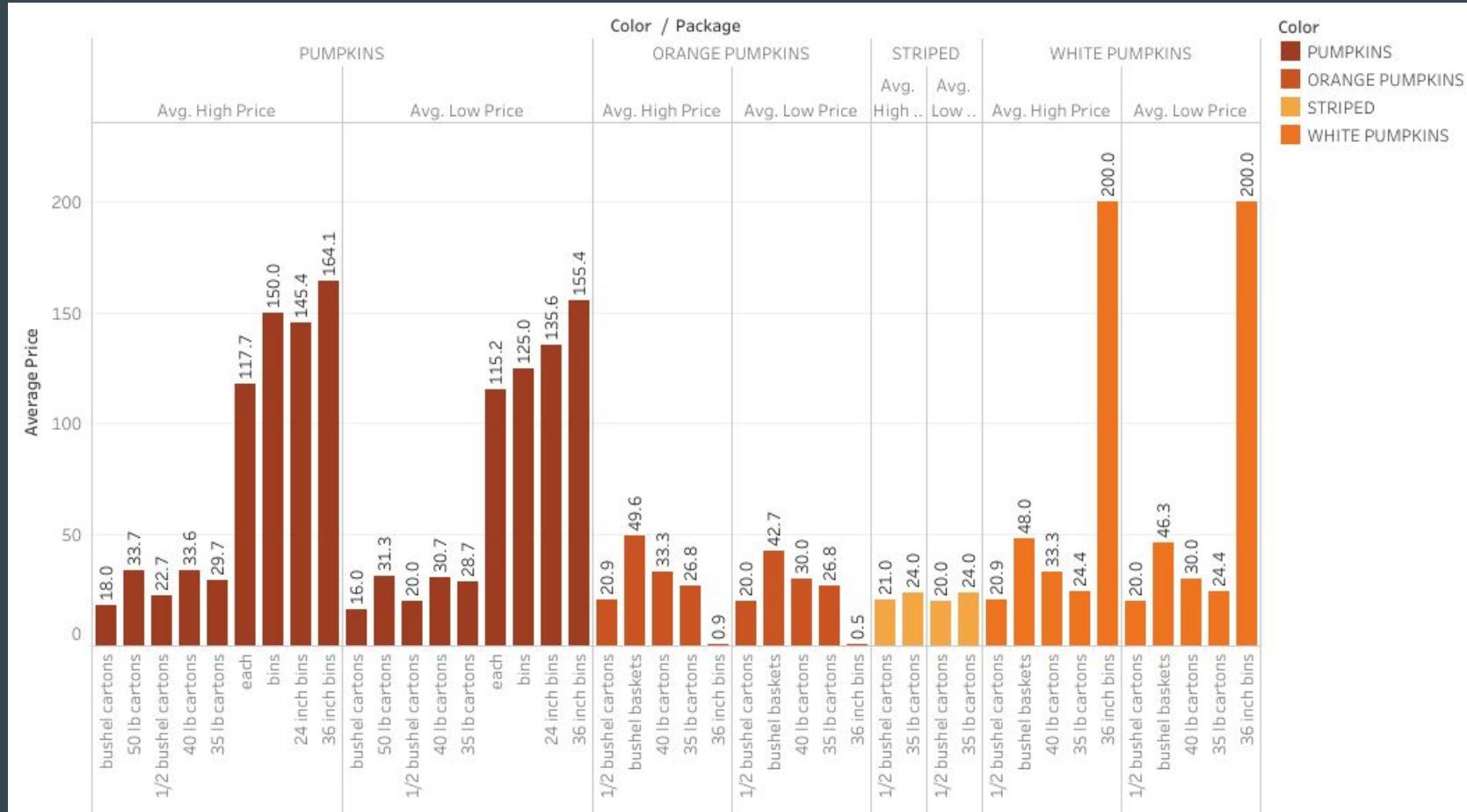
# Average Pumpkin Variety and Origin



# Average Pumpkin Size and City Purchased



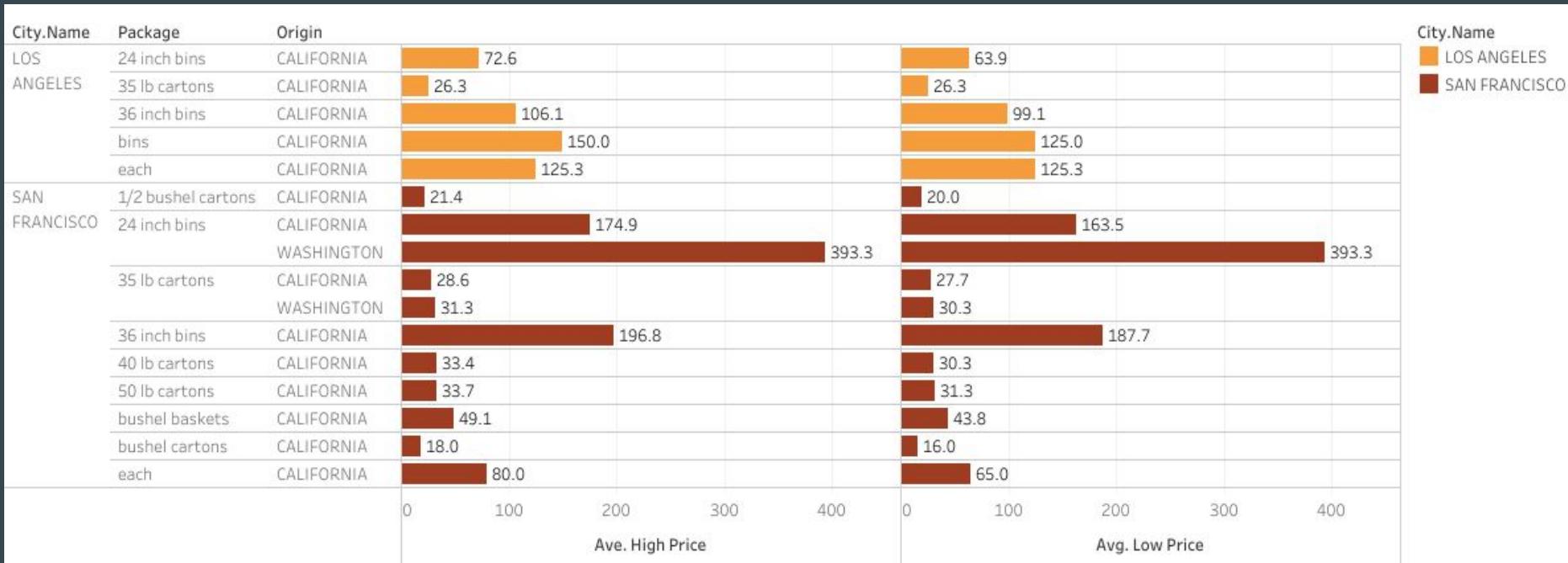
# West Region Color Variations & Price



# Count of Pumpkin Colors by Packages



# Average Pumpkin Pricing by City, Package and Origin

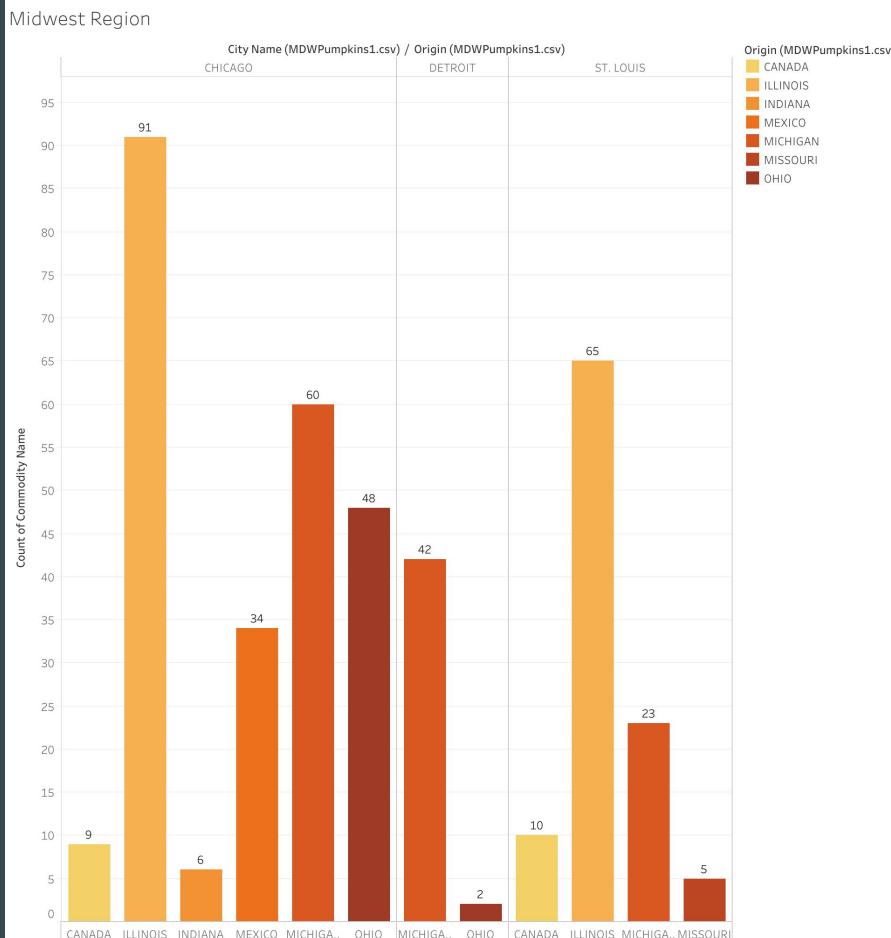


# Correlation Between Variables - West Region

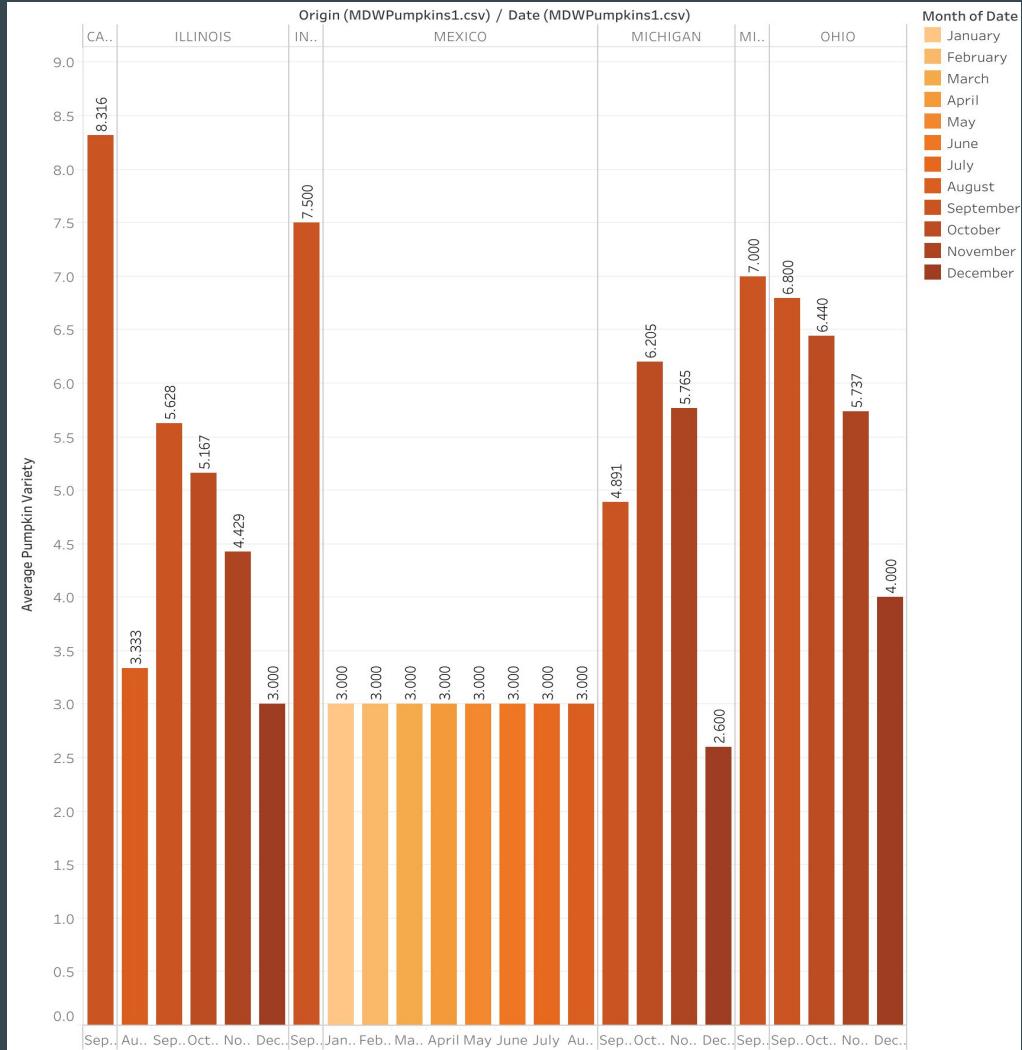
	Low.Price	High.Price	ItemSizeR	VarietyR	OriginR
Low.Price	1.0	0.99	-0.29	-0.41	0.12
High.Price	0.99	1.0	-0.31	-0.43	0.1
ItemSizeR	-0.29	-0.31	1.0	-0.17	nan
VarietyR	-0.41	-0.43	-0.17	1.0	-0.087
OriginR	0.12	0.1	nan	-0.087	1.0

# Midwest Region

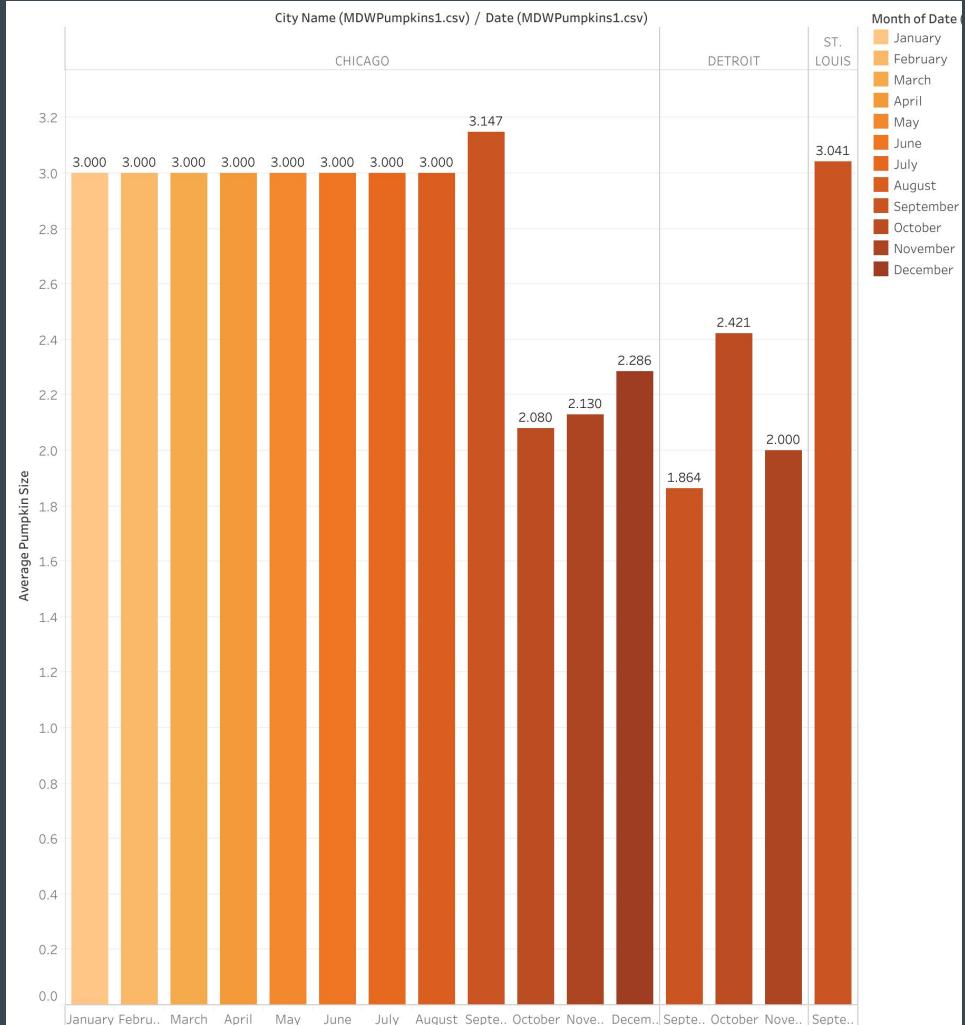
- Detroit, MI
- Chicago, IL
- St. Louis, MO



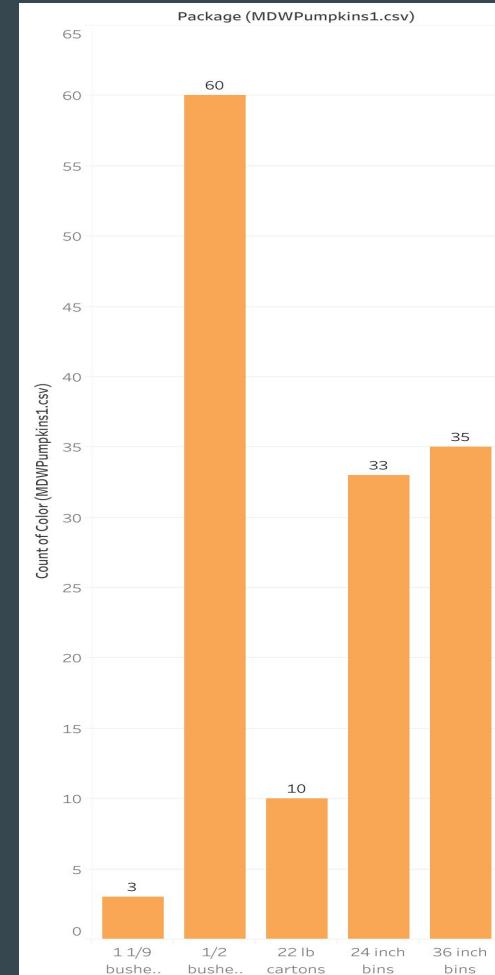
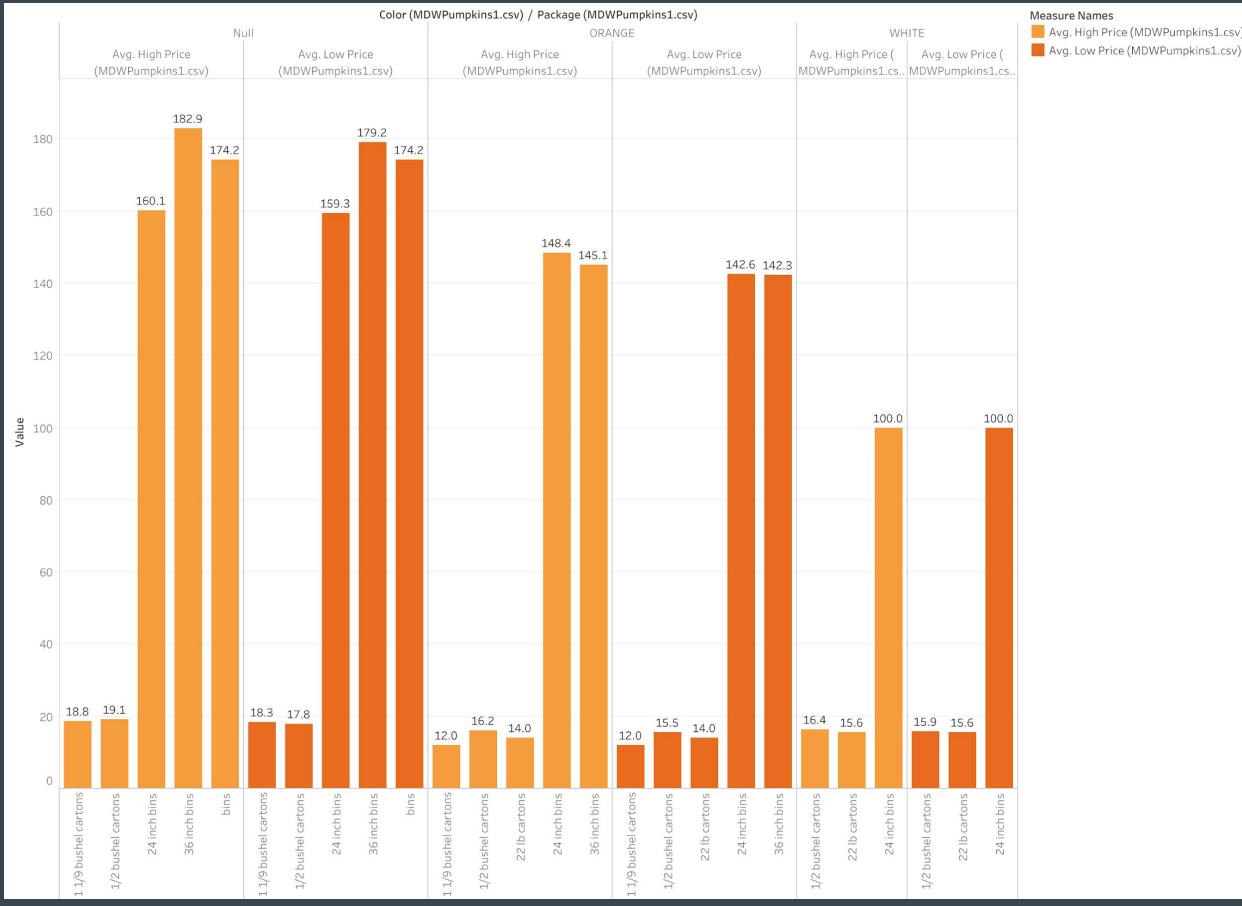
# Average Pumpkin Variety and Origin



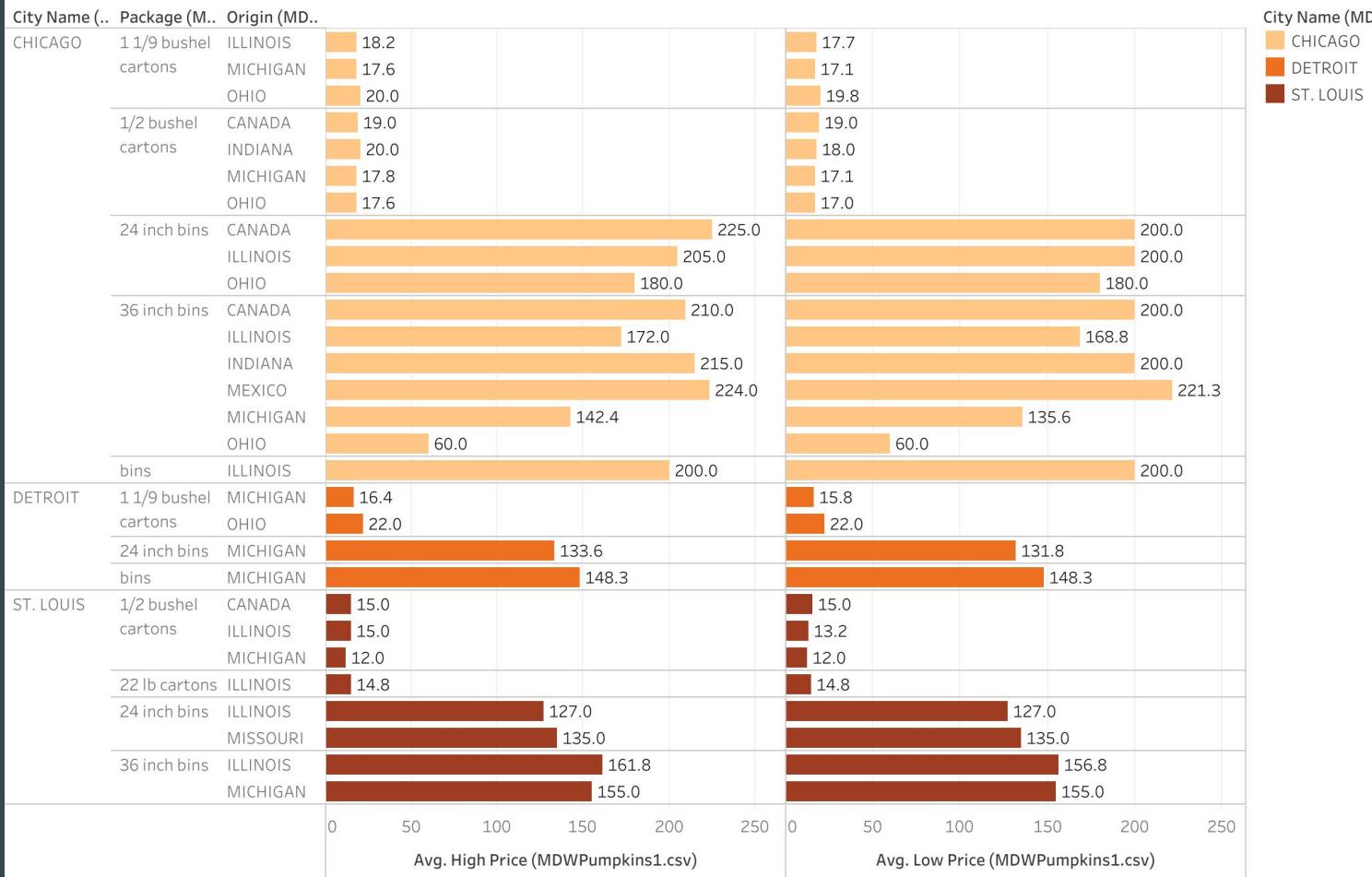
# Average Pumpkin Size and City Purchased



# Midwest Region Color Variations & Price

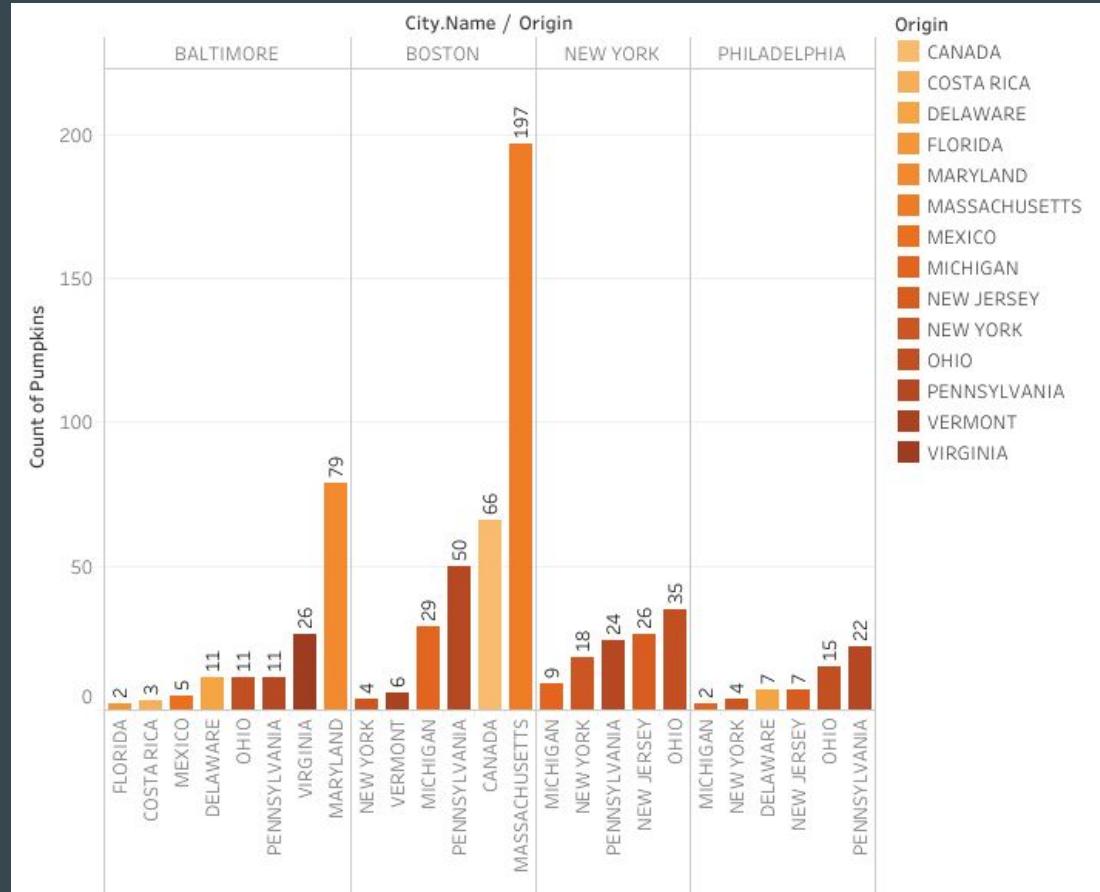


# Average Pumpkin Pricing by City, Package and Origin

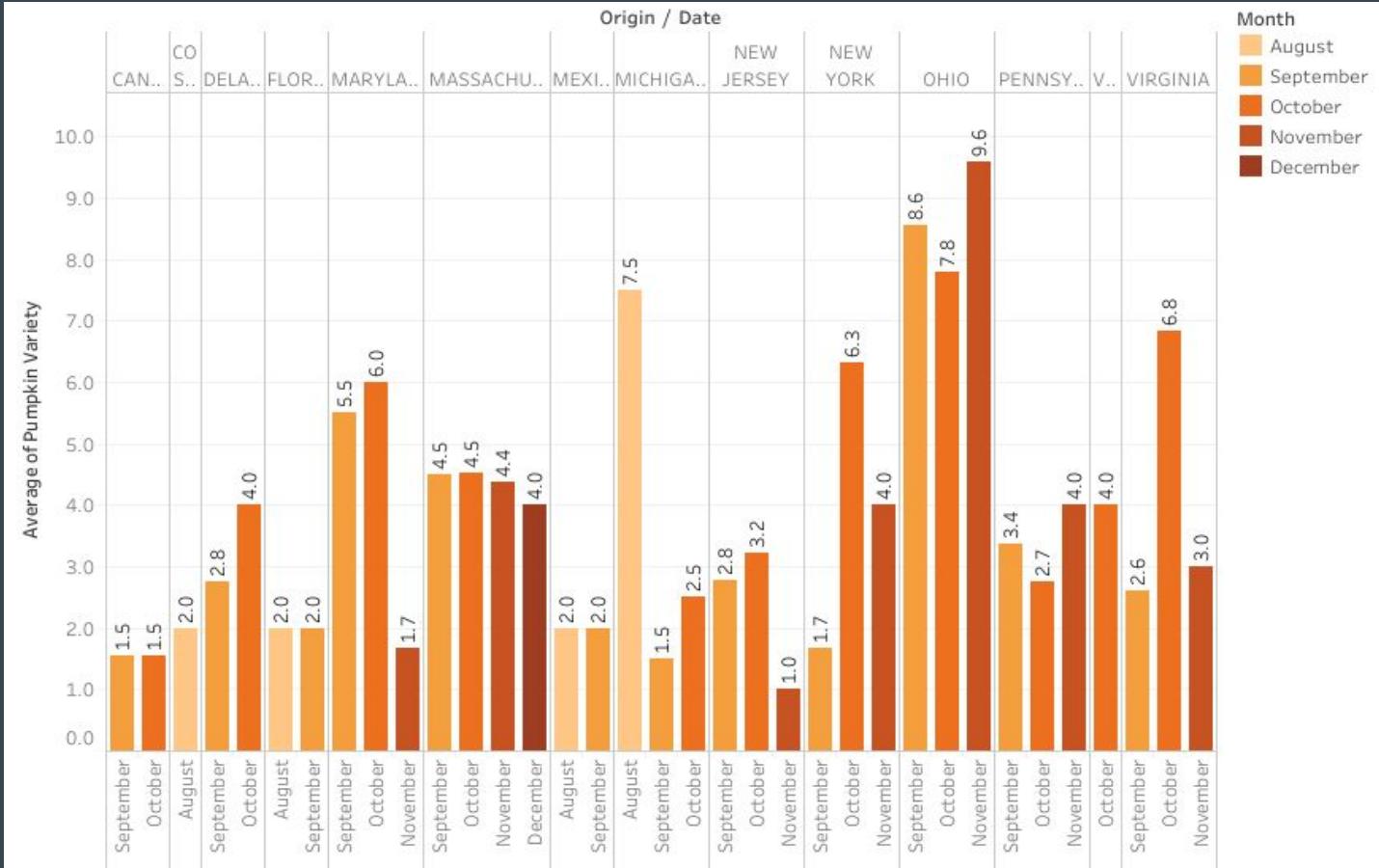


# East Region

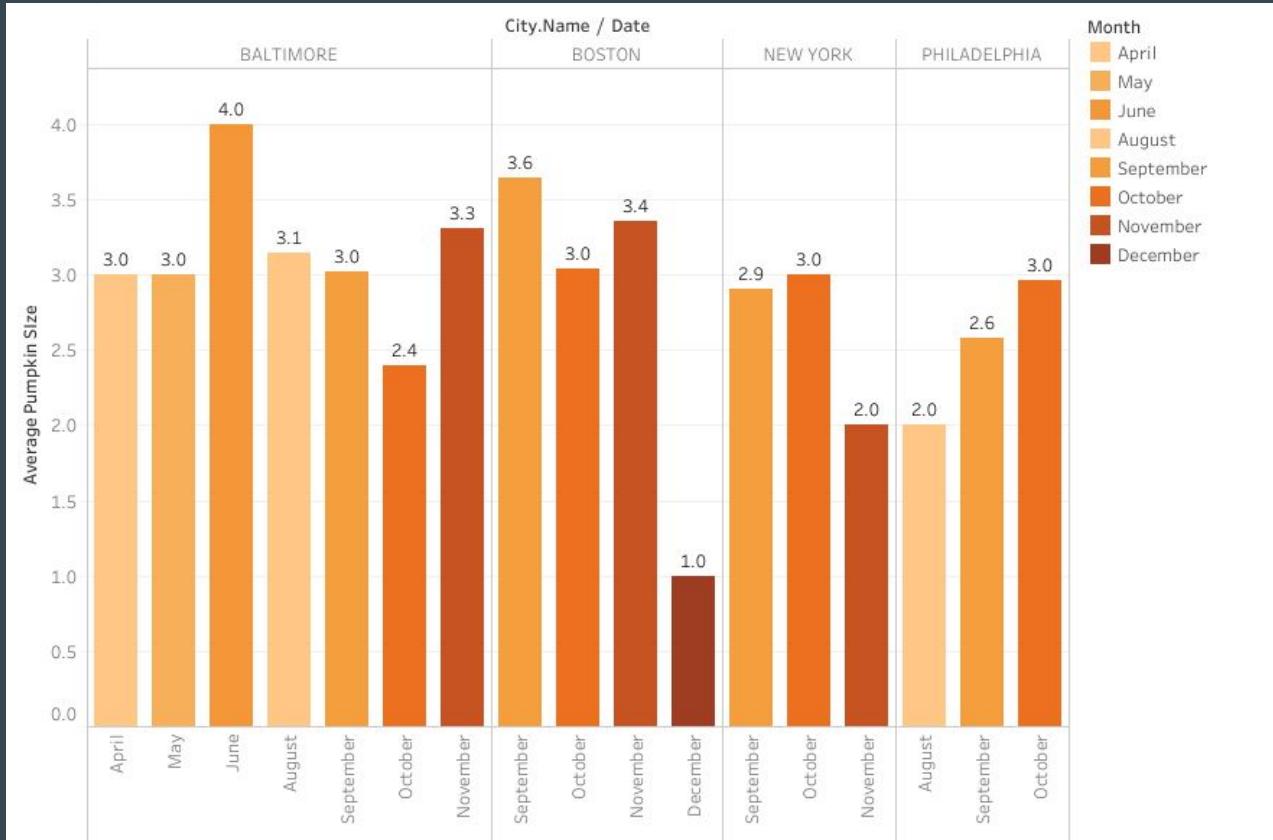
- Baltimore, MD
- Boston, MA
- New York, NY
- Philadelphia, PA



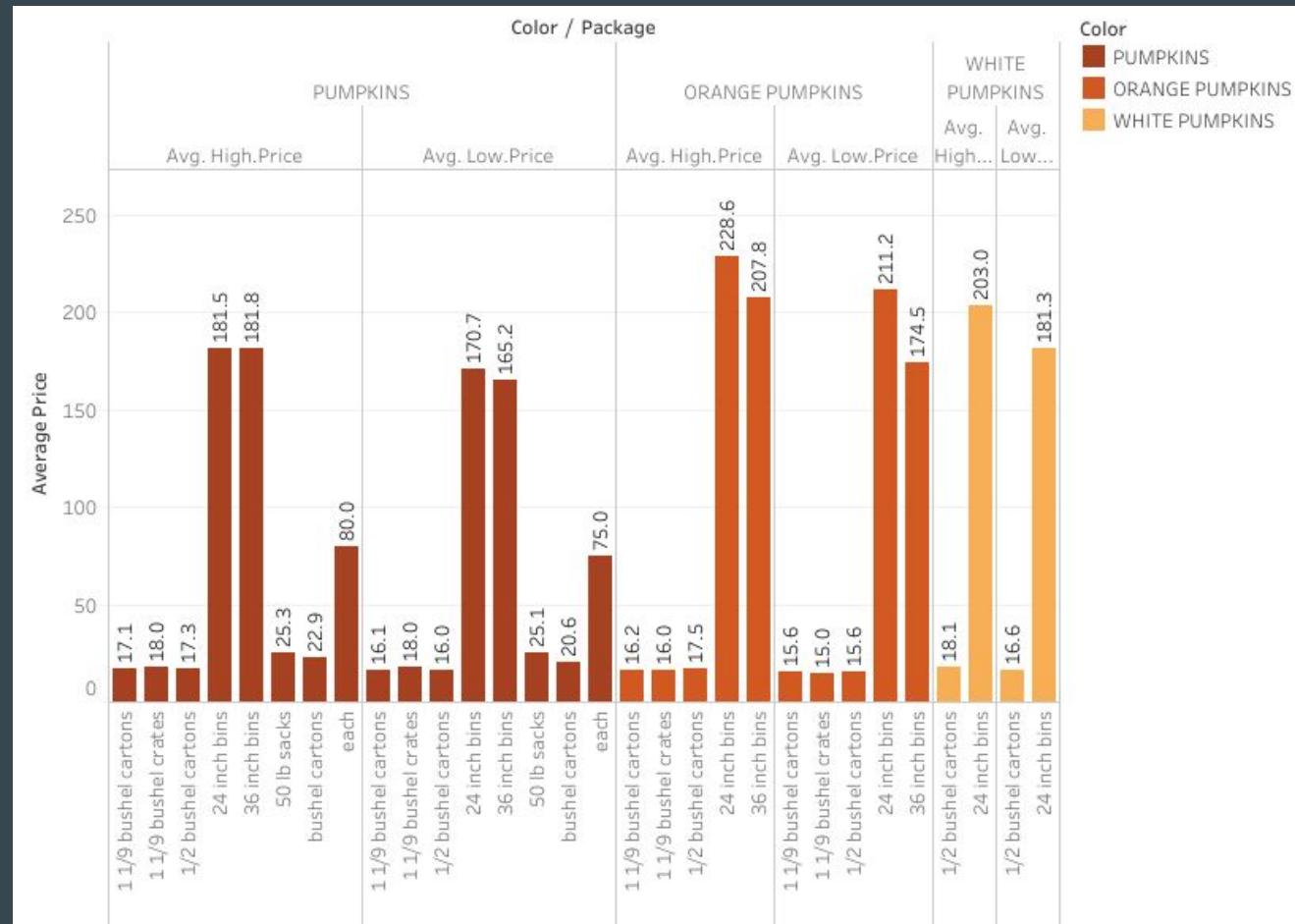
# Average Pumpkin Variety and Origin



# Average Pumpkin Size and City Purchased



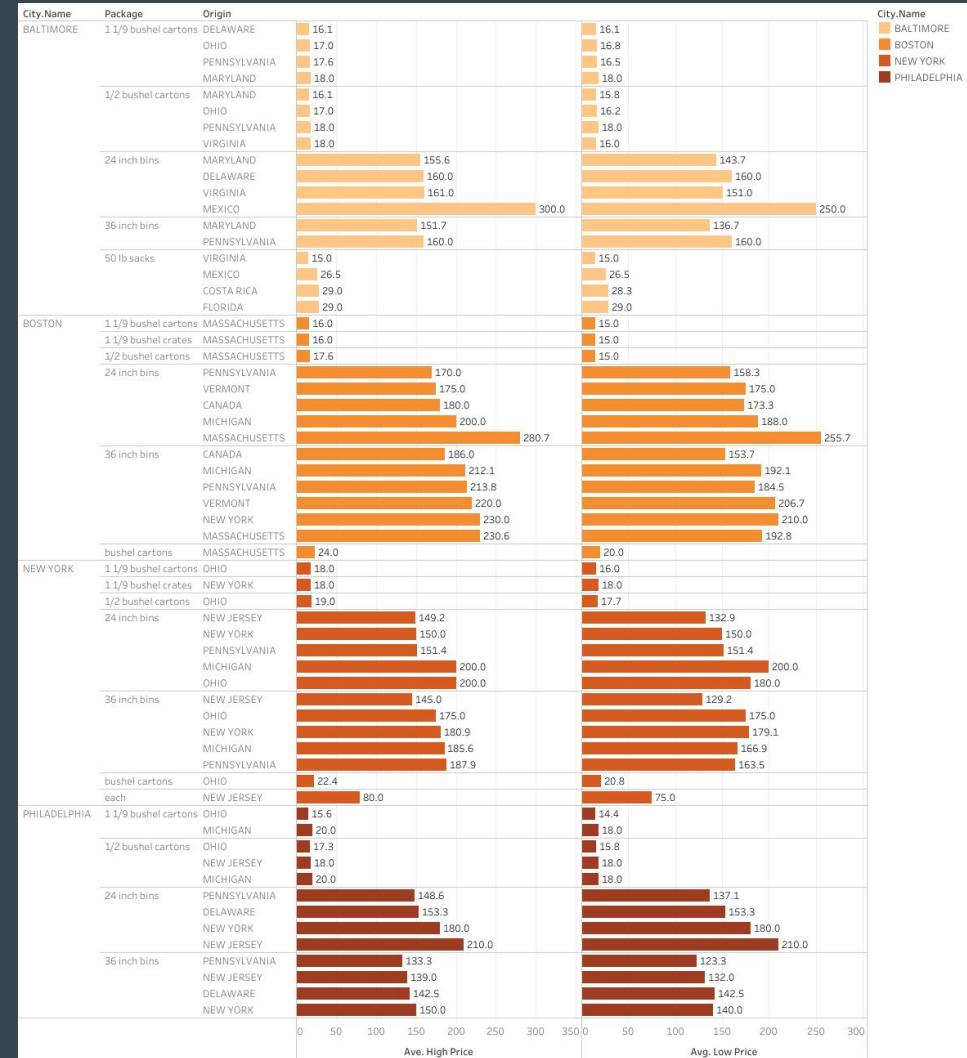
# East Region Color Variations & Price



# Count of Pumpkin Colors by Packages



# Average Pumpkin Pricing by City, Package and Origin

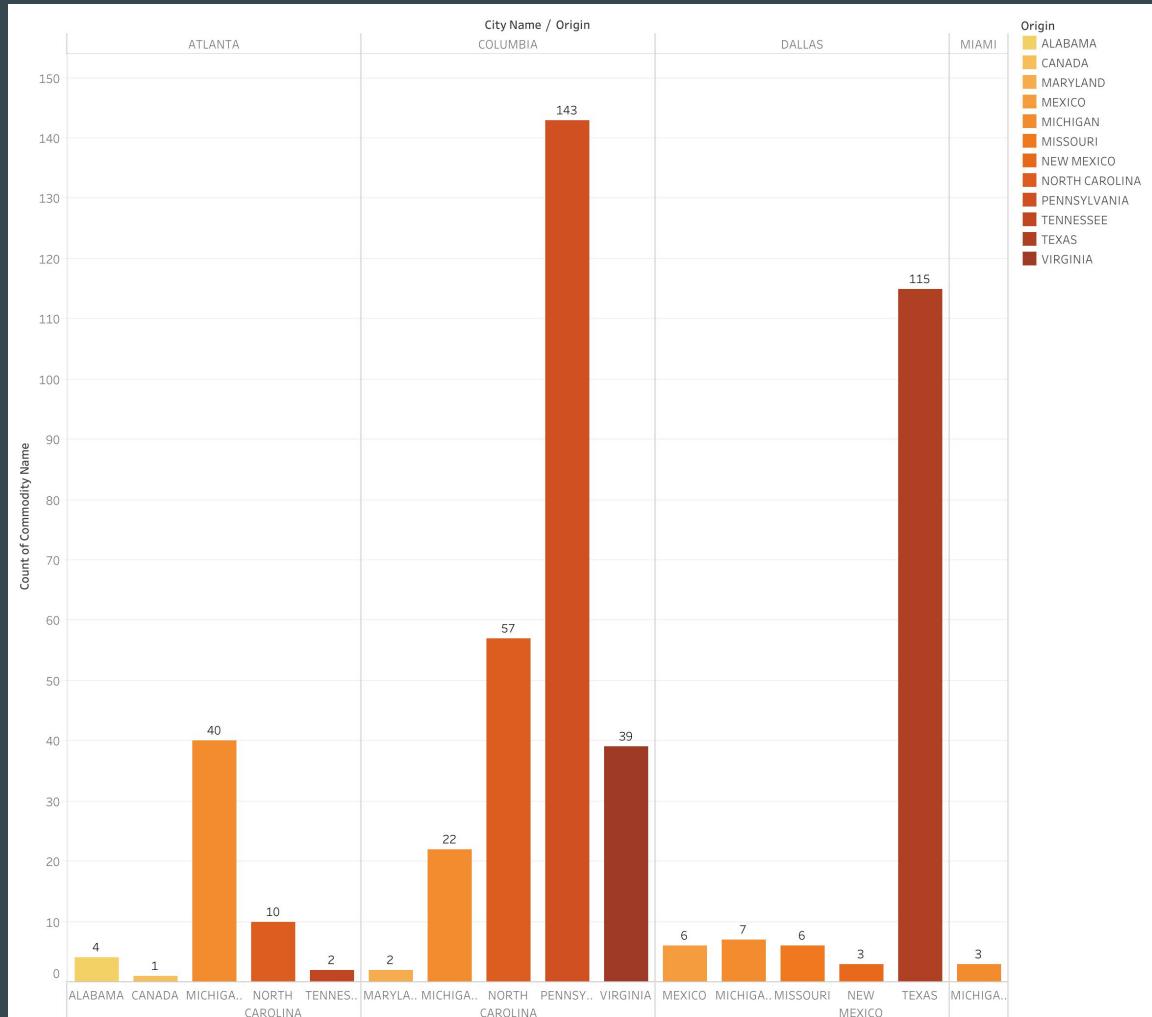


# Correlation Between Variables - East Region

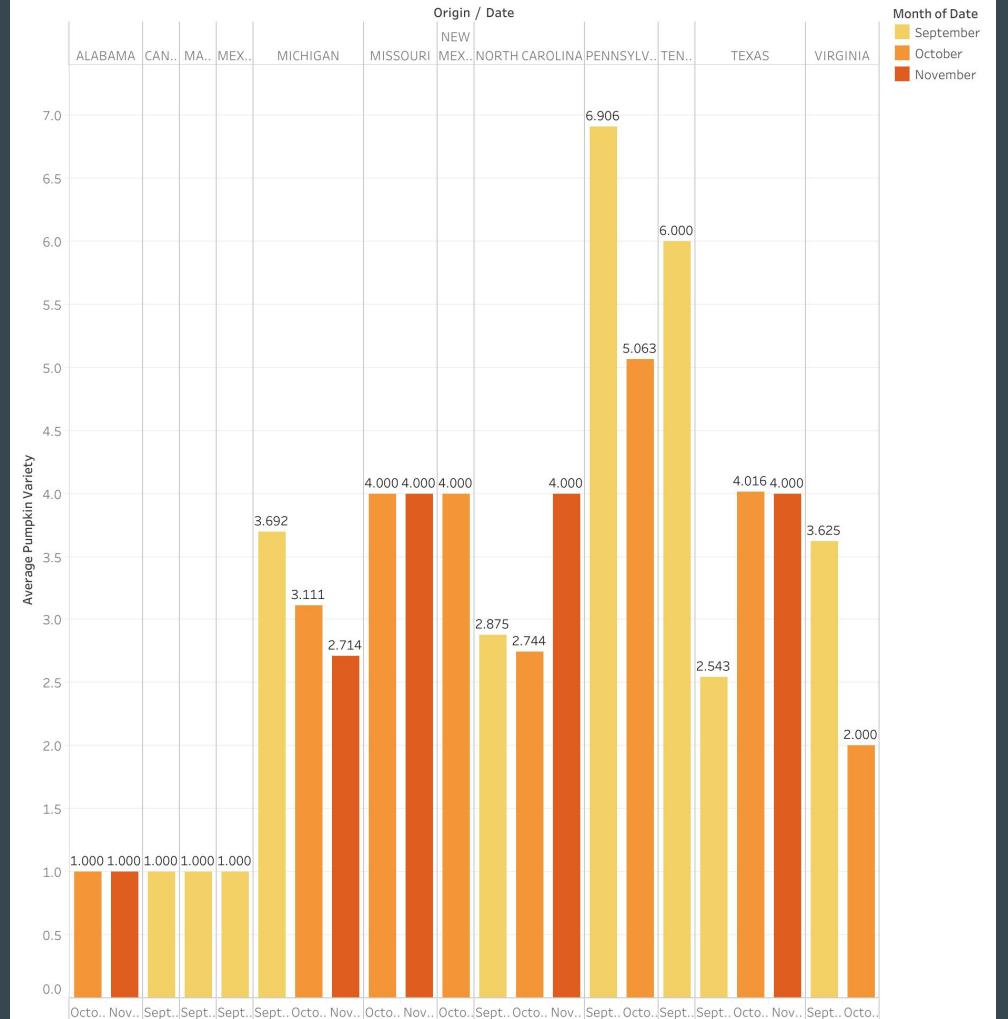
	Low.Price	High.Price	ItemSizeR	VarietyR	OriginR
Low.Price	1.0	0.99	0.51	-0.48	0.18
High.Price	0.99	1.0	0.53	-0.5	0.22
ItemSizeR	0.51	0.53	1.0	-0.42	-0.045
VarietyR	-0.48	-0.5	-0.42	1.0	-0.0035
OriginR	0.18	0.22	-0.045	-0.0035	1.0

# Southern Region

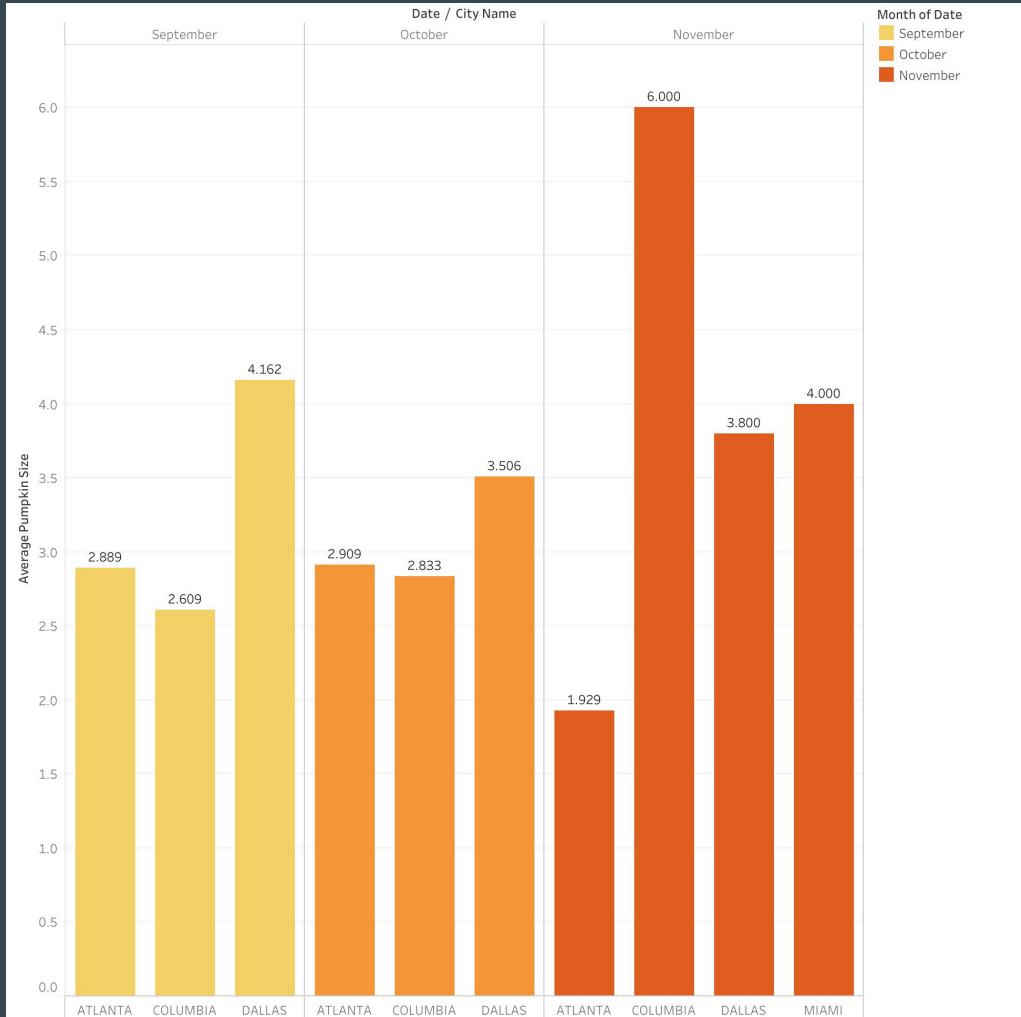
- Atlanta, GA
- Columbia, SC
- Dallas, TX
- Miami, FL



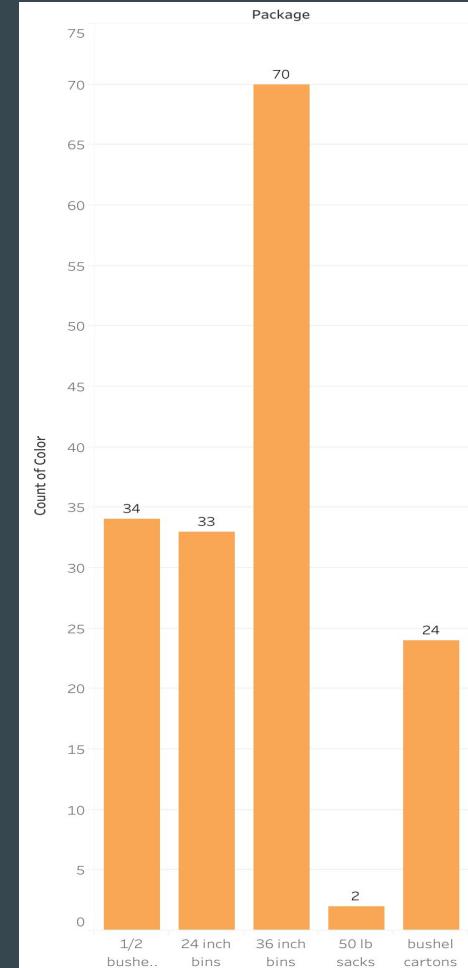
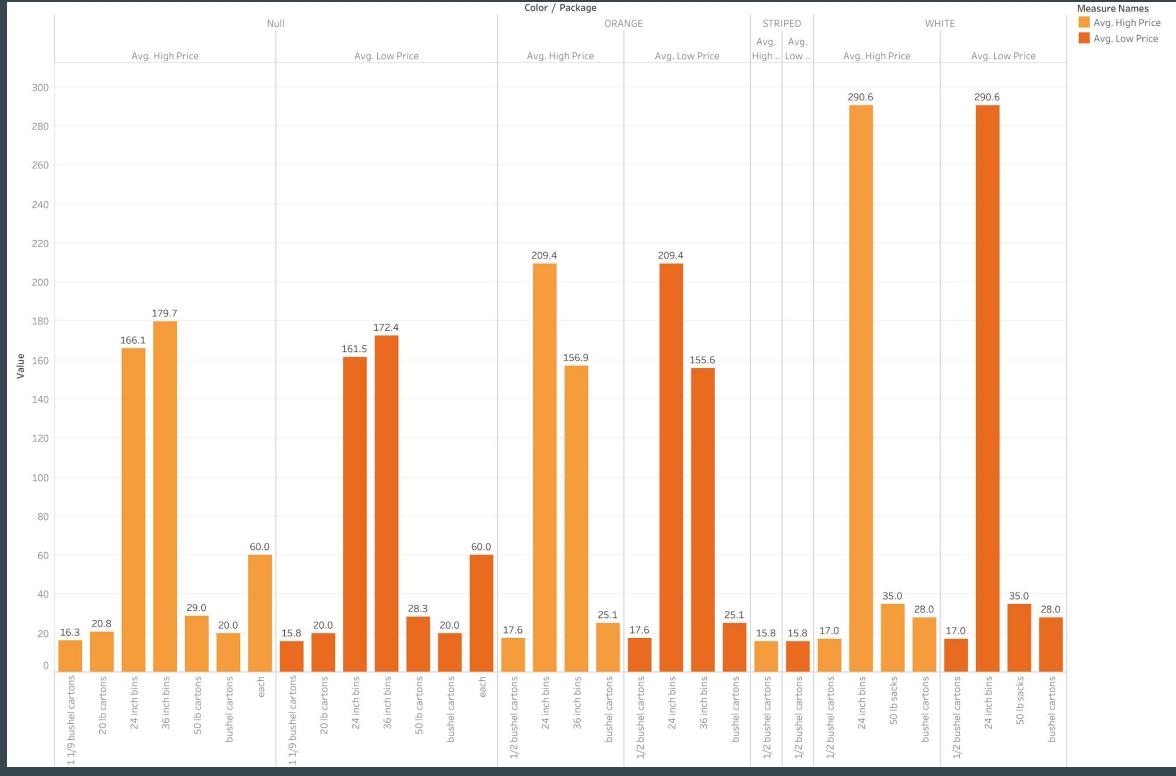
# Average Pumpkin Variety and Origin



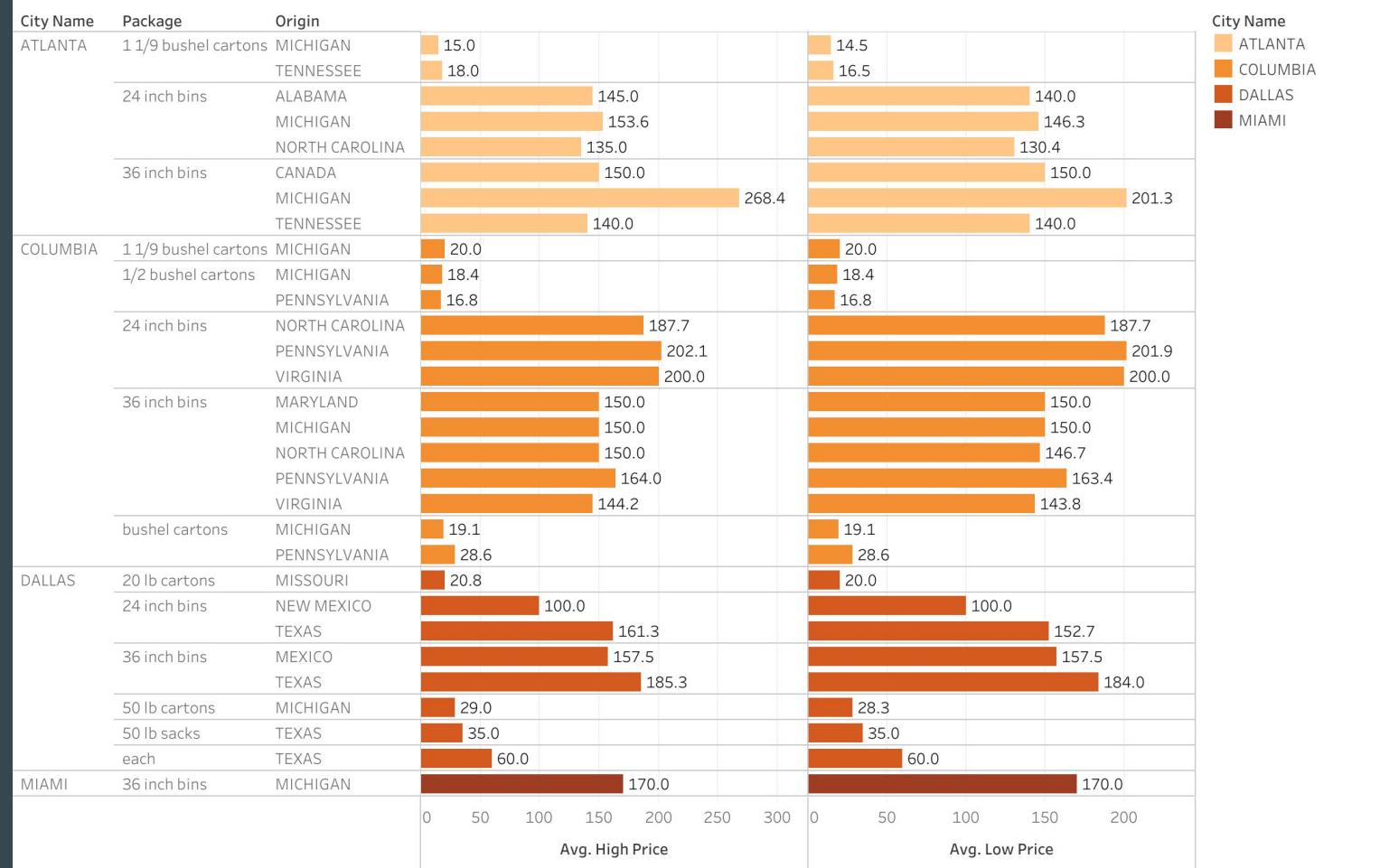
# Average Pumpkin Size and City Purchased



# Southern Region Color Variations & Price



# Average Pumpkin Pricing by City, Package and Origin



# Conclusion

## West and East Region:

- The prices are influenced by quantity purchased, color, origin and variety
- Bins and bushels of pumpkins are more expensive than cartons of pumpkins
- Orange colored pumpkins are purchased the most in both regions, and the price on average is cheaper than white pumpkins
- Big size pumpkins on average are highly purchased in June (East) and August (West; rest mainly in October and November)

## Midwest and Southern Region:

- The price varies on how many pumpkins a farm or pumpkin patch purchases
- Bins and bushels are more expensive buy than cartons
- The weight of each pumpkin purchased was not notated in the data
- Weight could definitely be a factor in pricing as well

# Questions????

