

Welcome!

Hi! I'm Ciera Millard and I am a Business Administration major with a minor in Statistics at California Polytechnic State University San Luis Obispo.



Welcome!

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ETV:

A Complete Learning Experience



GAT0365



CAL POLY



What does data provide?

Data is wonderful, but we truly want the *meaning* data can give us:

- Buy or sell a stock?
- Most popular shopping times?
- Fastest checkout line?
- Relationship between sleep and grades?



Data can be messy.

What is ETV?

Extract

Selecting data from sources such as web-based, spreadsheet or other formats.

Transform

Adjusting and manipulating variables to maintain meaning and improve utility.

Visualize

Create meaningful visualizations and applications using transformed data.

Why ETV?

ETV, in comparison to EDA (Exploratory Data Analysis)

- Cleaner visualizations
- Ability to use data that is not ideal
- A complete learning experience



ETV in Action

Example created by a middle-school student using NBA All-Star Game Data



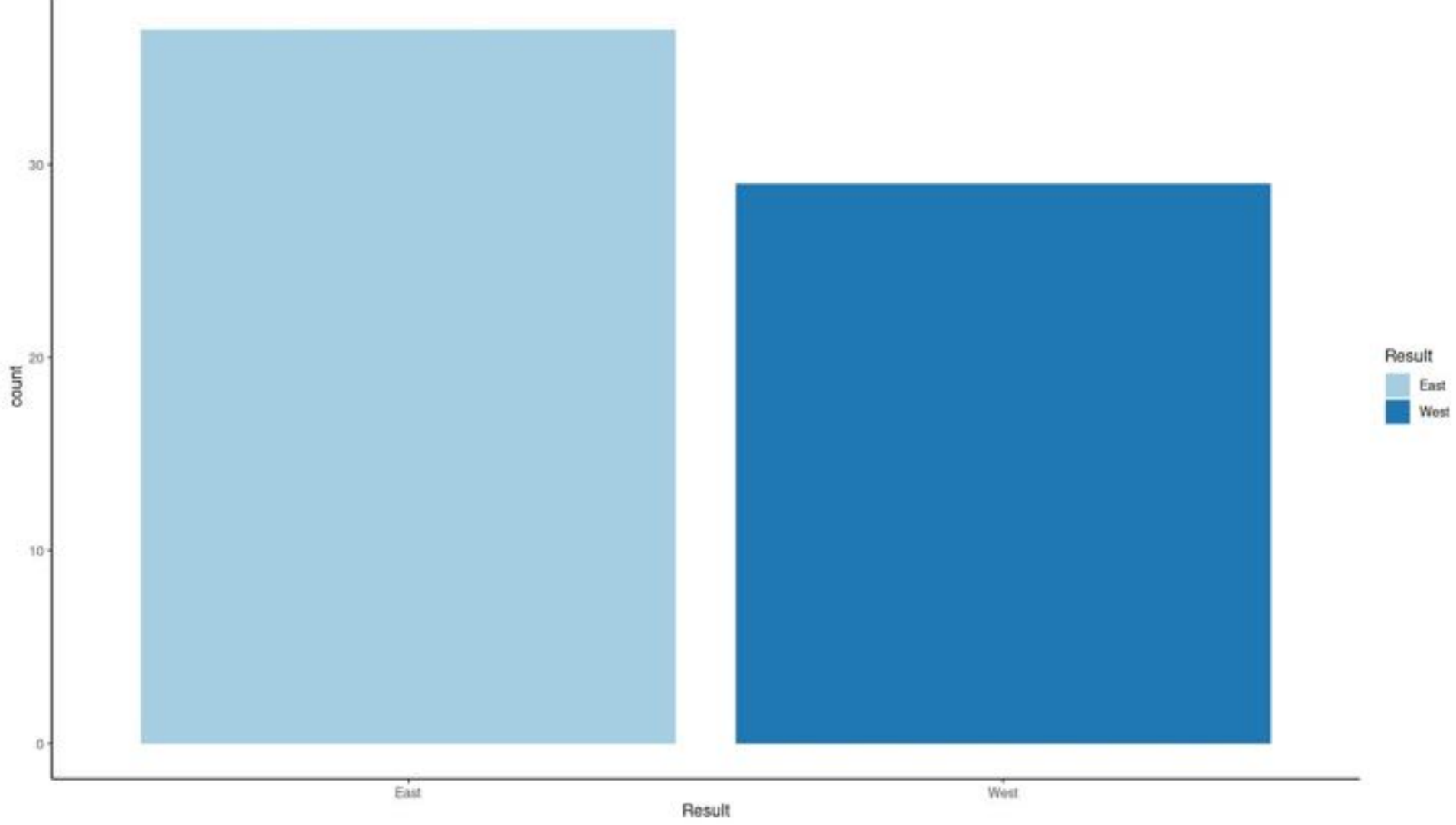
Code:

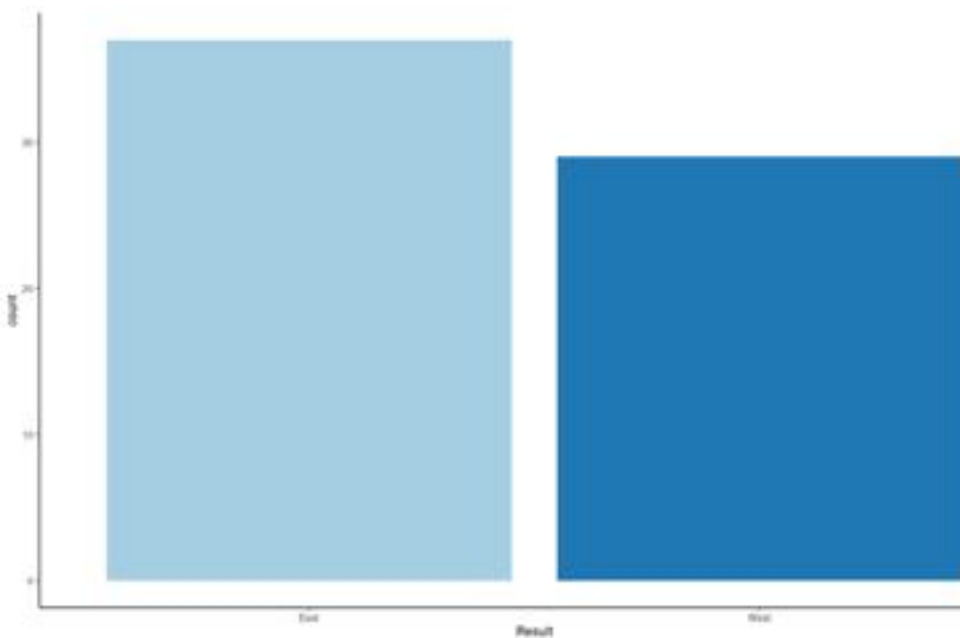
```
ggplot(data = all_star, aes(x = Result, fill = Result))+  
  geom_bar() +  
  theme_classic() +  
  scale_fill_brewer(palette = "Paired")
```

Note: **"all_star"** is the dataframe where the data is stored.

Result

Canceled due to the league's lockout. The game was originally set to play at the First Union Center in Philadelphia, Pennsylvania.	East 127, West 118	East 98, West 93 (OT)	West 139, East 112
East 100, West 91	East 129, West 118	TBA vs. TBA	West 140, East 129
East 104, West 94	East 130, West 113	Team LeBron 148, Team Stephen 145	West 143, East 134
East 106, West 102	East 130, West 118	Team LeBron 157, Team Giannis 155	West 143, East 138
East 108, West 91	East 132, West 120	Team LeBron 163, Team Durant 160	West 146, East 119
East 109, West 97	East 132, West 123	Team LeBron 170, Team Durant 150	West 148, East 143
East 111, West 107	East 133, West 125	Team LeBron 178, Team Giannis 164	West 150, East 130
East 111, West 110	East 134, West 128	West 108, East 107	West 152, East 149
East 111, West 94	East 135, West 114	West 108, East 94	West 153, East 113
East 115, West 108	East 137, West 94	West 112, East 110	West 153, East 131
East 116, West 114	East 138, West 133	West 124, East 108	West 153, East 132
East 120, West 118	East 139, West 132	West 125, East 124	West 154, East 149
East 122, West 120	East 141, West 139	West 134, East 123	West 155, East 145
East 123, West 109	East 142, West 135	West 134, East 129	West 163, East 158
East 123, West 112	East 144, West 124	West 135, East 120	West 192, East 182
East 123, West 120	East 144, West 136 (OT)	West 135, East 132 (OT)	West 196, East 173
East 124, West 123	East 154, West 145 (OT)	West 136, East 132	West 79, East 75
East 125, West 115	East 163, West 155	West 137, East 126	





Warning: n too large, allowed maximum for palette named is 12. Returning the palette you asked for with that many colors.



Conclusion

ETV has benefits that further an ultimate goal to derive useful and important information from data and be able to readily show it to the world in a useful manner.



Thank You!

Have a great day!

