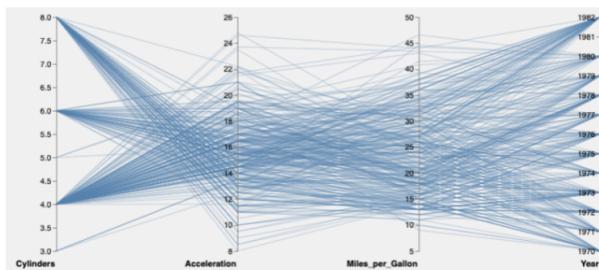


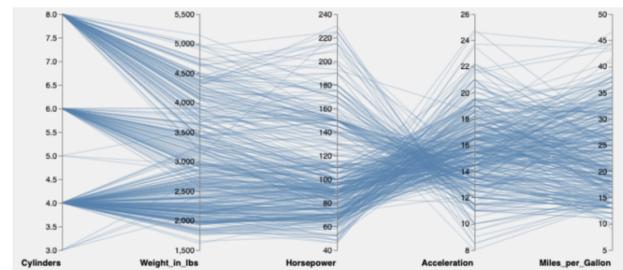
## Analyze - Summative Assessment

### Question 1:

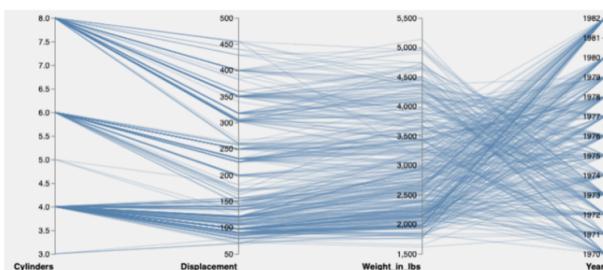
Which of the following charts is the best to answer a question examining the relationship between "Displacement" and "Weight in Lbs" when exploring data about cars?



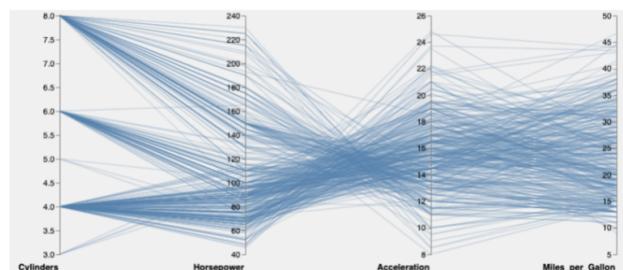
**A**



**C**



**B**

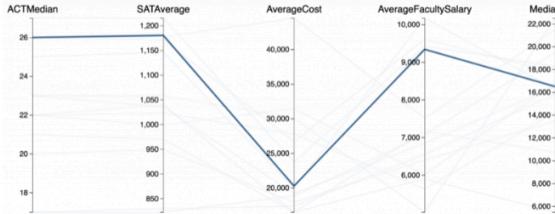


**D**

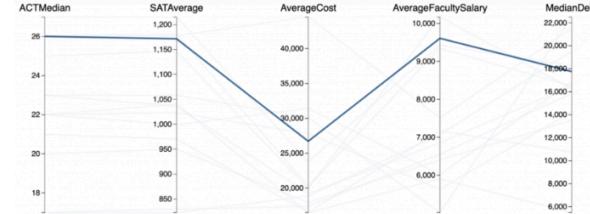
- A
- B
- C
- D

## Question 2:

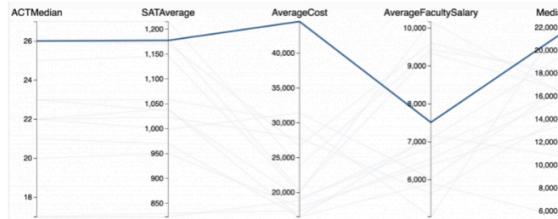
Sort the following parallel coordinates charts in **descending** order based on the "AverageCost" to attend the university.



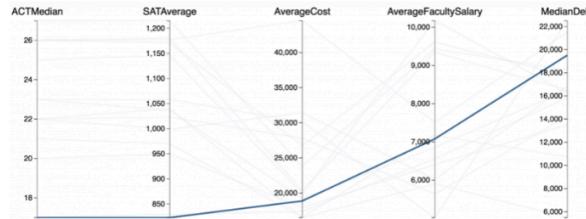
**A**



**B**



**C**

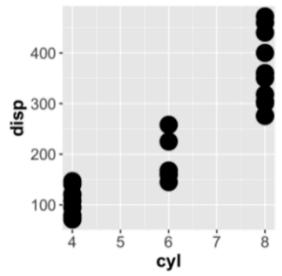
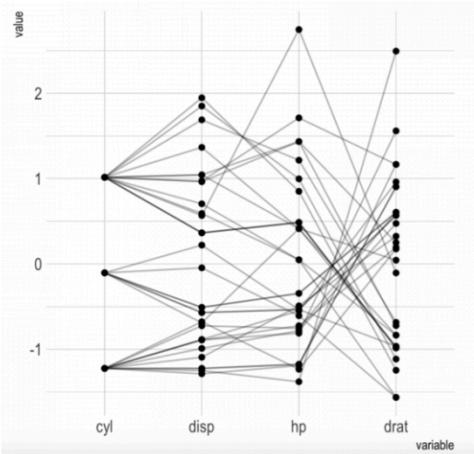


**D**

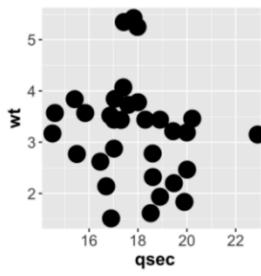
- C > D > A > B
- C > B > A > D
- B > D > A > C
- D > A > C > B

**Question 3:**

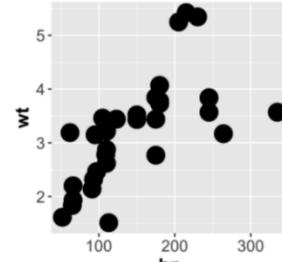
Which of the following scatterplot images is encoded in the following parallel coordinates plot?



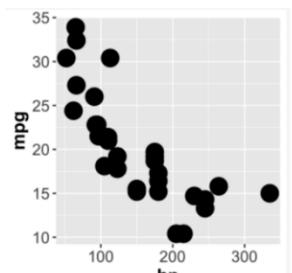
**A**



**B**



**C**

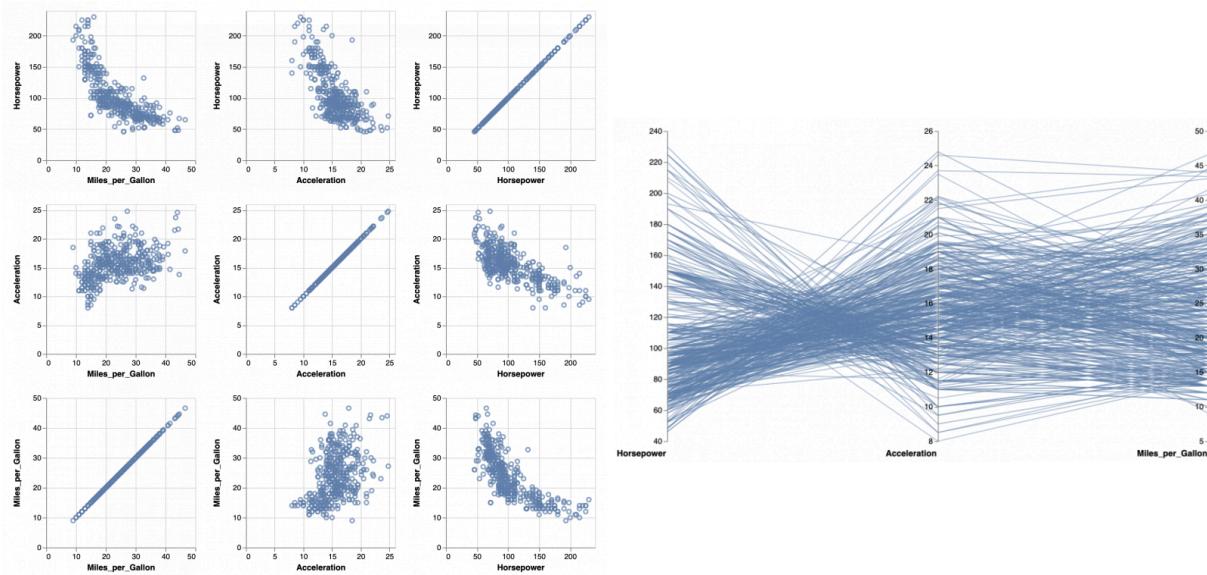


**D**

- A
- B
- C
- D

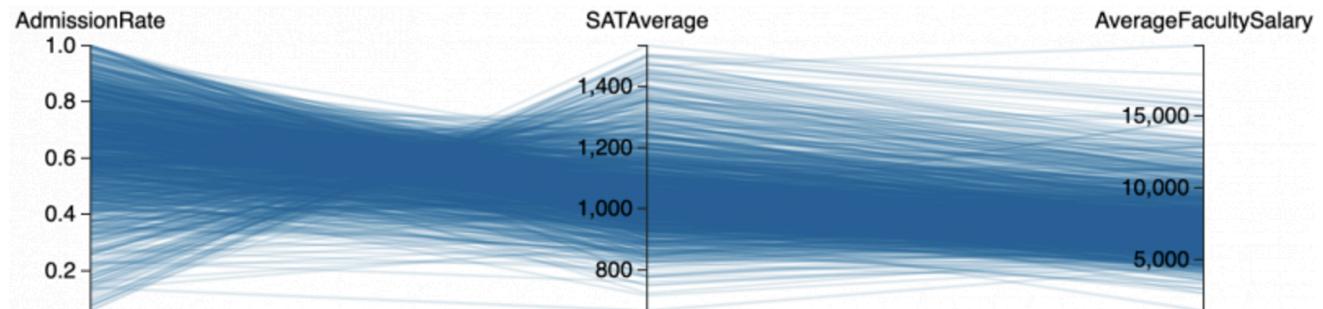
#### Question 4:

The following charts show two different visualization techniques (scatterplot matrix vs parallel coordinates) to visualize the same data. Please specify one advantage and one disadvantage for each technique?



#### Question 5:

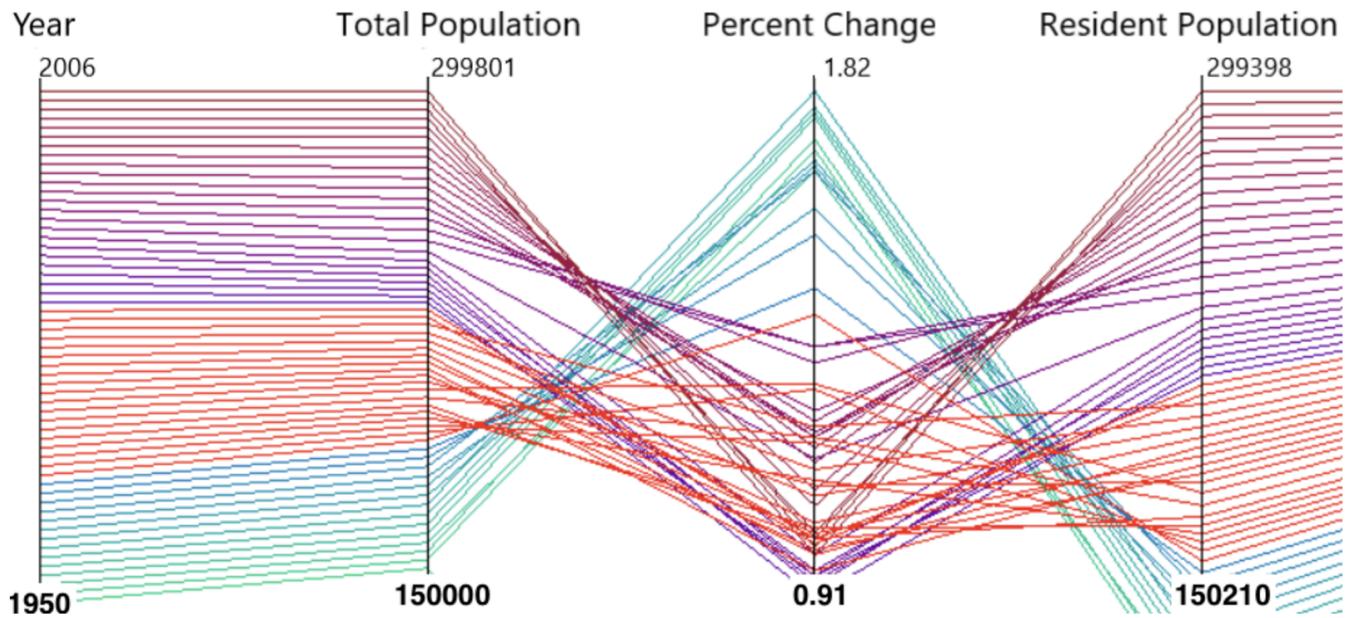
In the parallel coordinates plot below, what is the correlation between the **SATAverage** score and the **AdmissionRate**?



- They are positively correlated
- They are negatively correlated
- Not sure

**Question 6:**

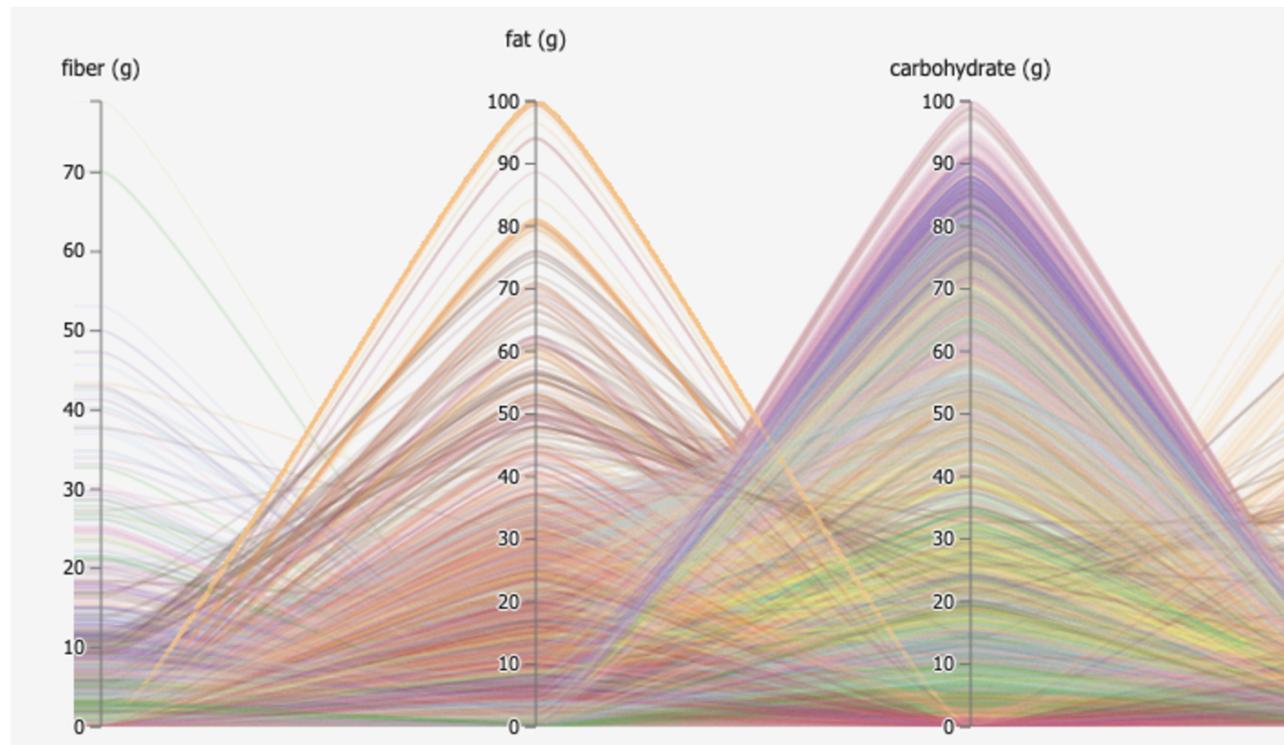
In this parallel coordinates plot, what is the correlation between **Year** and **TotalPopulation**?



- They are positively correlated
- They are negatively correlated
- Not sure

### Question 7:

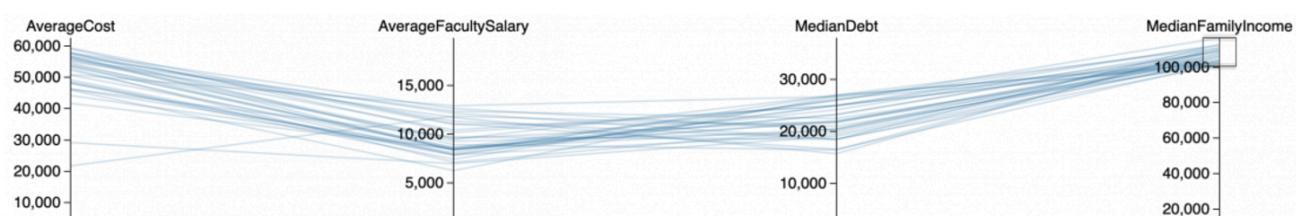
In the parallel coordinates plot below, what is the correlation between the **fat(g)** and the **carbohydrate (g)**?



- They are positively correlated
- They are negatively correlated
- Not sure

### Question 8:

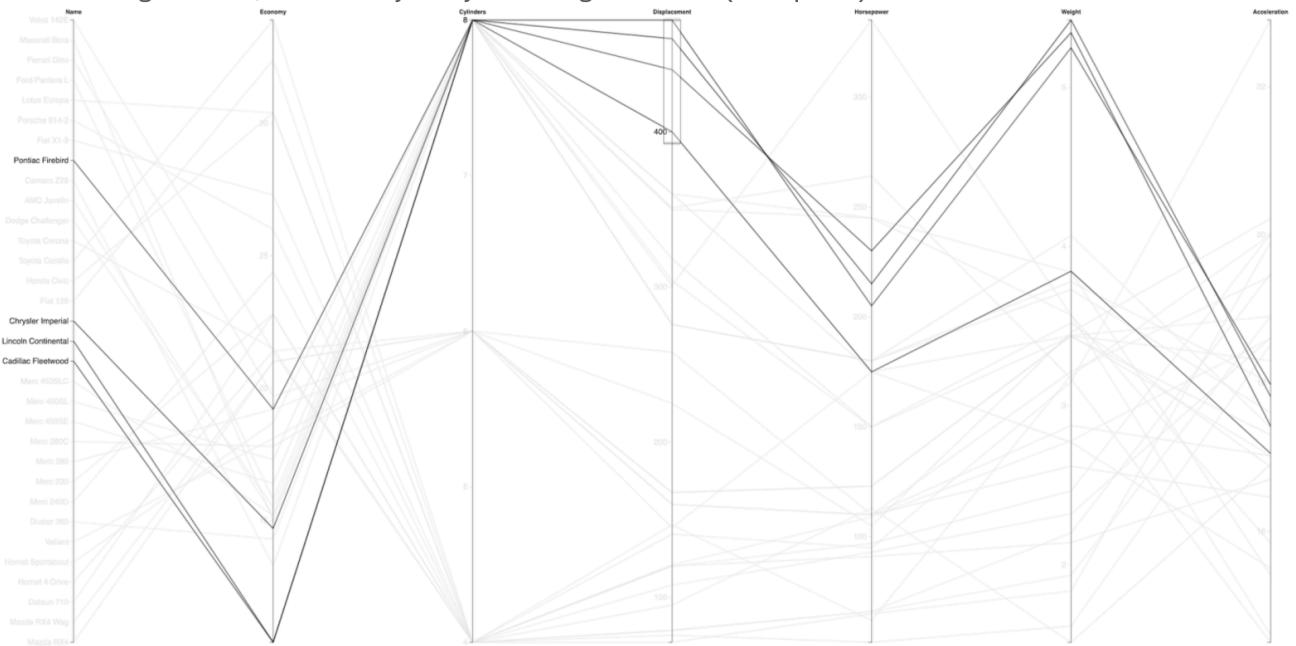
We get the following chart on using filtering to remove rows with Median Family Income less than 100,000. What can we say about the Average Cost of the colleges that the students from those households go to?



- Students from high Median Family Income families go to colleges that have a high Average Cost
- Students from high Median Family Income families go to colleges that have a low Average Cost
- Students from high Median Family Income families have a high Median Debt (greater than 30,000)

### **Question 9:**

In this parallel coordinates plot of a cars dataset, the user has selected only the cars that have displacement above 400. Based on reading this chart, what would you say is the range for the HP (Horsepower) of these cars?



- (150, 250)
- (150, 300)
- (175, 230)
- (200, 250)

### **Question 10:**

In this parallel coordinates plot, the user has selected countries shown using the black polylines? Which island has the highest "bill\_length\_mm" value?

