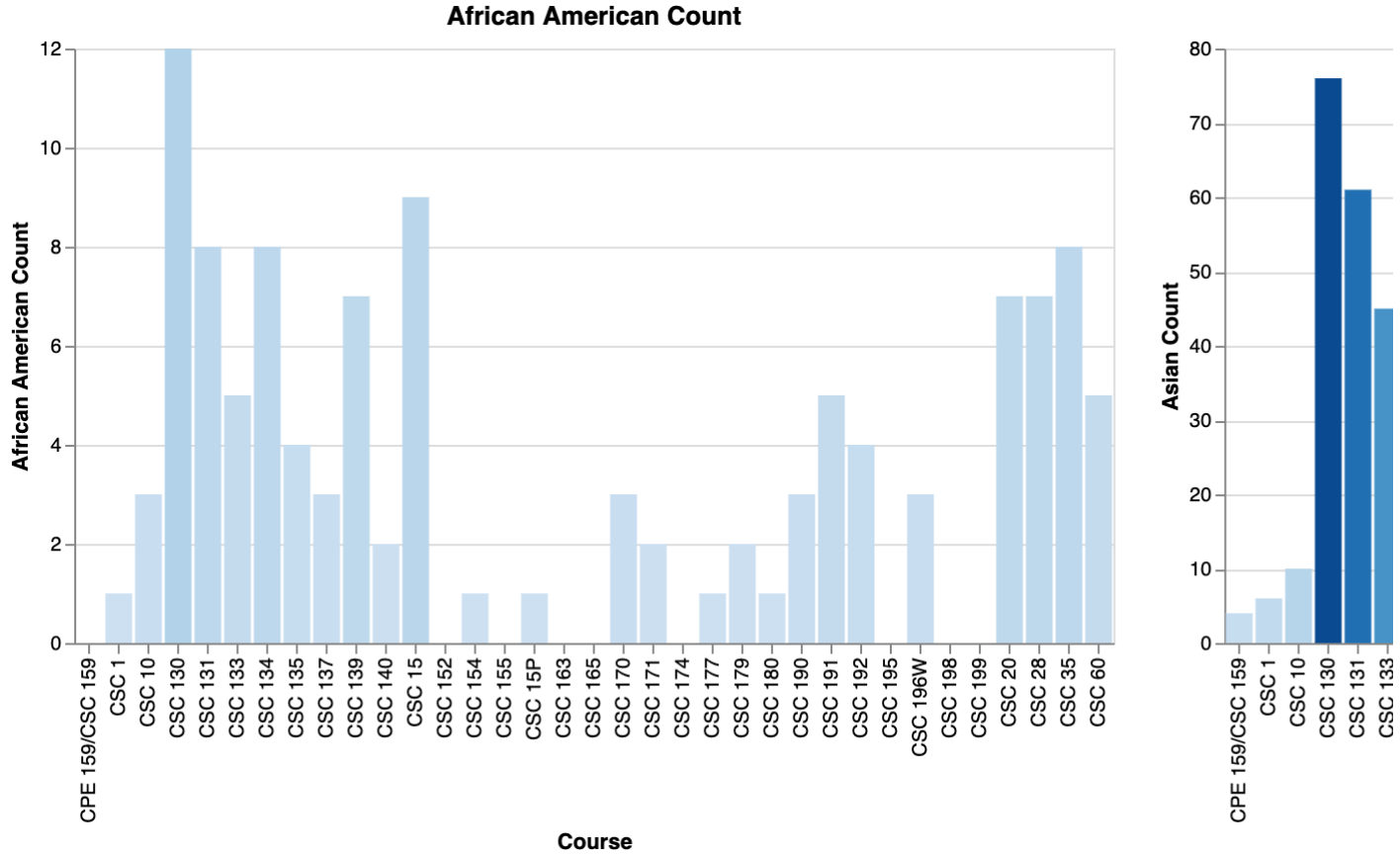
Assignment 1: Visualization Design - CSC 173

DataSet

Which ethnicity group faces the most amount of difficulty (DFW) across CSC courses?

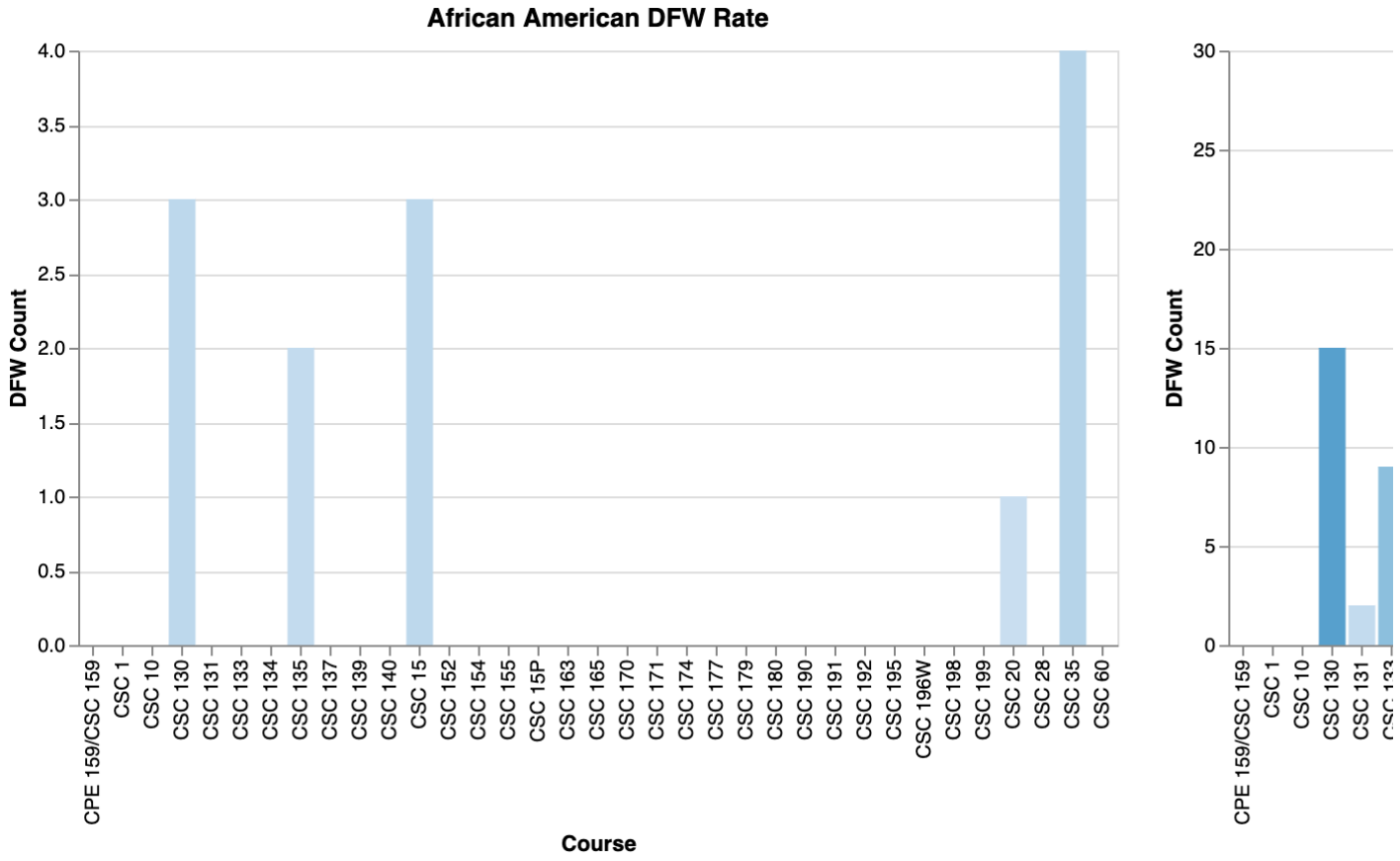
Ethnicity Count per Course (Spring 2022)



Ethnicity Count per Course

The bar charts above display the distribution of ethnicities across the courses offered here at CSUS during the Spring 2022 semester. Using the enrollment count provided, and the ethnicity percentages we can calculate the count of students for each ethnicity within the dataset. Each bar represents a specific course, with its height corresponding to the ethnicity count for that specific course. Upon hovering over a bar the total count for that ethnicity taking that course can be seen. Through these visualizations one is also able to see exactly which ethnicity is the 'minority'.

DFW Count among Ethnicities per Course



DFW Count among Ethnicities per Course

Write up

The presented bar charts above correlate with the amount of students who failed the course based off ethnicity. Using the 2 bar charts above we can see in CSC 130 3/12 African Americans failed the course. These bar charts can serve as suggestions that there are some factors that affect the academic performance of some ethnicity groups. My interest in this was to see the DFW variation among Hispanics taking CSC courses. Based off the following tables, it seems 14/37 hispanic students taking CSC 135 failed the course. However, the Asian group had the most failures as they had 29/67 failures based off the given data.

Import data sheets

```
dataset = ▸ Array(35) [Object, Object, Object, Object, Object, Object, Object, Objec
```

Library Dependecies

```
import {vl} from "@vega/vega-lite-api-v5"
```

```
import {printTable} from "@uwdata/data-utilities"
```

Import Danfo.js Lib

```
dfd = ▸Module {Config: ƒ(t), DataFrame: ƒ(e, r), Dt: ƒ(t), LabelEncoder: ƒ(), MinMa
```