Module 3: A Written Analysis of the Results

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Overview of Election Audit

The Colorado Board of Elections has asked for a vote count report to help certify election results in the congressional race in Precinct 1. The team was asked to report the total number of votes cast, total of votes for each candidate, percentages for each candidate, and the winner based on the popular vote. There will be three types of votes to be counted, mail-in ballots, punch cards, and direct reporting electronic (DRE). Excel would be the default software for this task, but the Colorado Board of Elections would like an automated way to complete the count, which is why Python will be used.

Election-Audit Results

After completing the audit of voters, the Colorado Board of Elections and the team can answer the questions that will educate the voters on their choices for the congressional race

- ★ How many votes were cast in this congressional election?
 - Across the three counties of Jefferson, Denver, and Arapahoe, 369,711 total votes were received and counted.
- ★ Provide a breakdown of the number of votes and the percentage of total votes for each county in the precinct.
 - Jefferson county cast a total of 38,855 votes, weighted at 10.5% of the total votes.
 - Denver county cast a total of 306,055 votes, weighted at 82.8% of the total votes.
 - Arapahoe county cast a total of 24,801 votes, weighted at 6.7% of the total votes.

- ★ Which county had the largest number of votes?
 - Denver county cast the largest number of votes.
- ★ Provide a breakdown of the number of votes and the percentage of the total votes each candidate received.
 - Charles Casper Stockham received 23% of votes, with a total of 85,213 votes cast in their favor
 - Diana DeGette received 73.8% of votes, with a total of 272,892 votes cast in their favor
 - Raymon Anthony Doane received a total of 3.1% of votes, with a total of 11,606 votes in their favor.
- ★ Which candidate won the election, what was their vote count, and what was their percentage of the total votes?
 - The winner of the Colorado Congressional race is Diana DeGette, by a wide margin of 272,892 votes, a total of 73.8% of the public chose Diana DeGette.

Election-Audit Summary:

The script used for this process does simplify the process of counting and certifying elections, however it was a lengthy process that included hours of training personnel that asked to become familiar with the codes. For future applications, the simplest use would be in similar election circumstances with minor adjustments to the lists containing counties and candidates, this would generate the same data types. If the election committee wishes for more details, this script could also be modified to compute other trends of data, such as which geographical areas voted for which candidates, and possibly even compile survey data about voter thoughts.