

Webster's Method

Lecture 22
Section 4.4

Robb T. Koether

Hampden-Sydney College

Mon, Oct 22, 2018

1 Webster's Method

2 Comparisons

3 Assignment

- 1 Webster's Method
- 2 Comparisons
- 3 Assignment

Definition (Webster's Method)

By **Webster's method**, we use with the *rounded* quotas. If the total is too small, then we use a smaller modified divisor. If the total is too large, then we use a larger modified divisor. The process continues until the rounded modified quotas add up to M .

Example

Example (Example)

- We applied Jefferson's method to the three states A , B , and C , with populations 3 million, 6 million, and 7 million and 50 seats to be apportioned.
- We found $SD = 320000$ and $q_1 = 9.375$, $q_2 = 18.75$, and $q_3 = 21.875$.
- Now apply Webster's method.

Example – VA, NY, and OH

Example

- The populations of VA, NY, and OH are 8,001,024; 11,536,504; and 19,378,102 people, respectively.
- The total number of seats apportioned to those states is 55.
- Use Webster's method to apportion 55 seats.

Outline

1 Webster's Method

2 Comparisons

3 Assignment

Comparisons

Example (Comparisons)

- The populations of CA, MN, AL, LA, and OR are

State	Population
CA	37,253,956
MN	5,303,925
AL	4,779,726
LA	4,533,372
OR	3,831,074

- Apportion 28 seats to these states using Hamilton's, Jefferson's, Adams's, and Webster's methods.
- Compare the results.
- Which states are favored by the different methods?

Outline

1 Webster's Method

2 Comparisons

3 Assignment

Assignment

Assignment

- Chapter 4: Exercises 35, 36, 37, 38, 39, 40.