

# Systematically Evaluating Apportionment Methods

## Ideal method should

- ▶ Stay within the quota
- ▶ Avoid the population paradox
- ▶ Avoid the Alabama paradox
- ▶ Avoid the new states paradox
- ▶ Avoid systematic bias toward large or small states

# Recap

## Paradoxes

- ▶ The divisor methods are the *only* methods that avoid the Population paradox
- ▶ All divisor methods avoid the Alabama paradox
- ▶ All divisor methods avoid the New States paradox

## Staying within the quota

- ▶ There is no method that avoids the population paradox and stays within the quota.

## Claim

- ▶ Webster's Method is the only unbiased divisor method

# Apportionment in 1920s

**In 1920**, argument about Hill's method vs. Webster's method

## 1929 Law

The president will send to the Congress the results of the census and the apportionment of the 435 members of the House based on:

- ▶ The method used in the preceding apportionment
- ▶ Webster's method
- ▶ Hill's method

If Congress does not apportion itself, then apportionment is based on the method last used.

# Current Situation

- ▶ In 1930, Hill's and Webster's method agreed
- ▶ In 1940, Hill's method gave an extra seat to the Democrats
- ▶ Hill's used since