Quiz 19 Solutions

A NESCAC subcommittee is being formed to address LGBTQ student issues. Schools may opt in for representation on the committee. The number of representatives per school will be determined by student body size and Hamilton's method.

1. Three schools, Tufts, Hamilton, and Wesleyan, ask to be represented on the committee. There are 10 representatives.

   Fill out the three blank columns on the right as for Hamilton's apportionment method. Write 1 if that school is given a surplus and 0 if they are not. Make sure you fill out the totals as well for the lower quota and the surplus!!! In the apportionment column, you should have the final number of representatives assigned to that school according to Hamilton's method.   (3 pts per column)

School	Pop	Quota	Lower Quota	Surplus	Apportionment
Tufts	5,180	5.18	5	0	5
Hamilton	1,920	1.92	1	1	2
Wesleyan	2,900	2.9	2	1	3
Total	10,000	10	8	2	10

2. Suppose Amherst decides later on to opt in. Two representatives are added, so there are now 12 representatives. Using Hamilton's method, Amherst gets their 2 representatives, but Wesleyan loses one to Hamilton. What paradox is illustrated by this phenomenon?   (1 pt)
   Circle one:

   Alabama Paradox   New State Paradox   Population Paradox

Extra Credit: Describe one interesting fact you learned from reading the provided resources on apportionment and districting. Try to give the grader an idea of which reading your fact comes from so she can fact-check.

Here are some additional readings that your classmates, Instructor Garant, and I found!

- New York Times on apportionment and small states.

- Gerry-mandering: the original.

- Zenodorus' proof that regular polygons are isoperimetrically optimal in the class of polygonal shapes.