



# PROJECT-SET

Statistics Education for Teachers

## Mira Beach #3

Written task aligned with SV Loop 4

Recall that the Town Census collects data about all 1400 people who live in the town of Mira Beach, Florida. The data about this population include age, gender, race, marital status, school attendance, public or private school, and personal income.

1. Suppose you were to construct an approximate sampling distribution for the sample mean of personal income, what do you expect to see with respect to shape, variability, and center?
2. Construct an approximate sampling distribution for the sample mean of personal income using 300 samples of size 40. Cut and paste (or attach) your approximate sampling distribution here.
3. For the constructed approximate sampling distribution in #2, give a range of plausible values (in an interval form) for the population mean income. Explain your answer.
4. Repeat steps 1 and 2 two more times.
5. Draw a number line and highlight the three plausible value intervals you have come up with. Do they overlap? What is the meaning of the overlap? Explain your answer.
6. Repeat steps 1-4 for the median.