Number the voters $1, 2, \ldots, 100,000$, where voters 1 through 20000 are the Republican voters. Let X_i be the random variable equal to 0 if i votes for R, and 1 if i votes for D. So $X = \sum_{i=1}^{100000} X_i$.

Now, for $i \le 20000$, $EX_i = .99 \cdot 0 + .01 \cdot 1 = .01$. For $i > 20000$, $EX_i = .01 \cdot 0 + .99 \cdot 1 = .99$. By linearity of expectation,

$$EX - \sum_{i=1}^{100000} EX_i - 20000 \cdot .01 + 80000 \cdot .99 - 79400.$$

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[1] ex734.264.279