

Interdisciplinary Application Supplement

	Female's Age	Total Female Population	Number registered females	Number of females not registered
*	18 to 20 years old	5,413,000	2,625,000	2,788,000
	21 to 24 years old	6,964,000	3,681,000	3,283,000
*	25 to 44 years old	42,388,000	27,153,000	15,235,000
*	45 to 64 years old	27,776,000	20,662,000	7,114,000
*	65 years and older	18,480,000	13,867,000	4,613,000
	Total	101,021,000	67,988,000	33,033,000

1. Complete the table above and then copy it to the back.

2. Find the probability that a female from the 45-64 age group is a registered voter.

$$P(RV|45-64) = \frac{20,662,000}{27,776,000}$$

3. Find the probability that a female from the 18-20 age group is not a registered voter.

$$P(\sim RV|18-20) = \frac{2,788,000}{5,413,000}$$

4. Find the probability that a female registered voter chosen at random is 25 to 44 years old.

$$P(RV|25-44) = \frac{27,153,000}{42,388,000}$$

5. Find the probability that a female registered voter chosen at random is not 21 to 24 years old.

$$P(RV|\sim 21-24) = \frac{64,307,000}{94,057,000}$$

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25 to 44 years old	42,388,000	27,153,000	15,235,000
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65 years and older	18,480,000	13,867,000	4,613,000
Total	101,021,000	67,988,000	33,033,000

6. Find the odds of randomly choosing a female registered voter that is 65 years and older.

$$\frac{RV\ 65^+}{\sim RV\ 66^+} = \frac{13,867,000}{4,613,000}$$

7. Find the odds of randomly choosing a female registered voter that is 25 to 64 years old.

$$\frac{RV\ 25-64}{\sim RV\ 25-64} = \frac{47,815,000}{22,349,000}$$

8. Find the odds of randomly choosing a female ages 21 to 24 years old that is not a registered voter

$$\frac{\sim RV\ 21-24}{RV\ 21-24} = \frac{3,283,000}{3,681,000}$$