

3. 90% confidence interval: 73.9, 98.9

95% confidence interval: 71.5, 101.3

The 95% confidence interval is wider

4. 90% confidence interval: 124.54, 133.46

95% confidence interval: 123.68, 134.32

5. 15.04, 18.36

6. 12.6, 17.0

The t interval would be wider.

7. a) 3.10, 4.44

b) 3.52, 4.01

The larger sample results in a narrower confidence interval.

15. $E = 0.013$

$P = 0.741$

16. 90% confidence interval: 0.585, 0.648

95% confidence interval: 0.579, 0.654

20. a) 0.274, 0.366

b) 0.202, 0.498