

139. **Make a Decision** The table shows the number B (in thousands) of bachelor's degrees earned by women in the United States from 1985 to 2002. The data can be approximated by the linear model

$$B = 14.3t + 492, \quad 0 \leq t \leq 17$$

where t represents the year, with $t = 0$ corresponding to 1985.

(Data Source: *U.S. Census Bureau*)

Year	Bachelor's degrees, B
1985	497
1986	502
1987	510
1988	518
1989	535
1990	560
1991	590
1992	616
1993	632
1994	637
1995	634
1996	642
1997	652
1998	664
1999	682
2000	708
2001	712
2002	742

- Use a graphing utility to plot the data and graph the model in the same viewing window.
- Use the model to approximate the number of bachelor's degrees earned by women for each year from 1980 to 2003.
- Compare the estimated to the actual data. Is the model a good fit for the data? Explain your reasoning.
- What are the slope and y -intercept of the model? Interpret their meaning in the context of the problem.
- Use the model to predict the number of bachelor's degrees earned by women in 2010.