

Dentists for the Future



**The Number of Active Dentists in the United States 1980 – 1994
(In thousands)**

Year	1980	1985	1989	1990	1991	1992	1993	1994
Number	121	136	144	147	149	152	154	157

Source: Statistical Abstract of the United States, 1997

Everyone values good health—including good dental health. Good dental health depends in part on the availability of good dental care. Will there be enough dentists in the future to keep our teeth healthy?

1. Using the data from the table, make a scatter plot showing the relationship between the year and the number of dentists. Be sure to use an appropriate scale.
2. Describe the pattern of the data points on your scatter plot.
3. Determine an equation for a line of best fit for the data. Use mathematics to explain how you determined your answer. Use words, symbols, or both in your explanation.
4. Graph your equation on your scatter plot.
5. What is the slope of your line? What is the meaning of the slope in the context of the problem?
6. Predict how many dentists there will be in the year 2010. Use mathematics to explain how you determined your answer. Use words, symbols, or both in your explanation.
7. Can you use your line or your equation to determine whether the United States will have enough dentists in the year 2010? Use mathematics to justify your answer. What are some other important considerations that might go into determining whether we will have enough dentists?