

TABLE 7.7 Effect of variation in x_i on the width of 95% confidence intervals for Census data

Regression	$\sum_{i=1}^n (x_i - \bar{x})^2$	Slope estimate	Estimated standard deviation of slope estimate	Lower bound of confidence interval for β	Upper bound of confidence interval for β	Width of confidence interval for β
1	12,851	3,912.4	394.99	3,137.3	4,687.5	1,550.2
2	13,006	3,981.1	356.55	3,281.4	4,680.8	1,399.4
3	13,023	4,532.2	439.78	3,669.2	5,395.2	1,726.0
4	13,061	4,353.4	420.35	3,528.5	5,178.2	1,649.7
5	13,452	4,748.2	385.53	3,991.7	5,504.8	1,513.1
6	13,724	4,097.2	352.20	3,406.0	4,788.3	1,382.3
7	13,738	3,577.8	367.54	2,856.6	4,299.1	1,442.5
8	13,778	3,678.0	316.15	3,057.6	4,298.4	1,240.8
9	13,864	4,302.7	396.47	3,524.7	5,080.7	1,556.0
10	13,871	3,937.2	364.89	3,221.2	4,653.3	1,432.1
11	13,904	3,869.5	383.02	3,117.8	4,621.1	1,503.3
12	14,103	4,018.2	339.09	3,352.8	4,683.6	1,330.8
13	14,142	4,575.4	415.93	3,759.2	5,391.6	1,632.4
14	14,143	3,932.0	347.29	3,250.5	4,613.5	1,363.0
15	14,247	3,892.1	360.46	3,184.7	4,599.4	1,414.7
16	14,300	4,266.3	380.32	3,519.9	5,012.6	1,492.7
17	14,316	4,405.3	377.40	3,664.7	5,145.9	1,481.2
18	14,453	3,993.4	388.60	3,230.8	4,755.9	1,525.1
19	14,472	4,198.0	378.97	3,454.3	4,941.7	1,487.4
20	14,495	4,433.5	352.78	3,741.2	5,125.8	1,384.6
21	14,503	3,732.3	357.64	3,030.5	4,434.2	1,403.7
22	14,561	3,198.3	320.66	2,569.0	3,827.5	1,258.5
23	14,599	3,892.4	361.38	3,183.2	4,601.5	1,418.3
24	14,643	3,913.5	356.21	3,214.4	4,612.5	1,398.1
25	14,658	3,389.2	307.68	2,785.4	3,993.0	1,207.6
26	14,710	4,144.2	356.12	3,445.4	4,843.0	1,397.6
27	14,762	3,283.5	346.28	2,604.0	3,963.0	1,359.0
28	14,885	4,730.9	403.41	3,939.3	5,522.5	1,583.2
29	14,929	3,659.0	303.11	3,064.1	4,253.8	1,189.7
30	14,943	3,943.6	354.18	3,248.5	4,638.6	1,390.1
31	15,060	3,929.5	385.72	3,172.6	4,686.4	1,513.8
32	15,105	3,326.7	292.61	2,752.5	3,900.9	1,148.4
33	15,127	4,469.0	398.11	3,687.8	5,250.3	1,562.5
34	15,242	3,718.9	325.78	3,079.6	4,358.2	1,278.6
35	15,313	3,778.3	311.58	3,166.9	4,389.7	1,222.8
36	15,470	3,665.2	356.59	2,965.4	4,364.9	1,399.5
37	15,559	3,732.8	361.99	3,022.5	4,443.2	1,420.7
38	15,584	3,953.2	330.33	3,304.9	4,601.4	1,296.5
39	15,769	4,016.9	366.77	3,297.1	4,736.6	1,439.5
40	15,772	4,011.3	350.42	3,323.6	4,698.9	1,375.3
41	15,781	3,722.8	370.50	2,995.8	4,449.8	1,454.0
42	15,803	3,723.7	320.04	3,095.6	4,351.7	1,256.1
43	15,918	3,492.6	316.71	2,871.1	4,114.0	1,242.9
44	15,986	3,426.5	327.76	2,783.3	4,069.7	1,286.4
45	16,027	3,582.1	276.45	3,039.6	4,124.6	1,085.0
46	16,161	3,644.0	330.07	2,996.3	4,291.7	1,295.4
47	16,165	3,749.3	340.74	3,080.6	4,417.9	1,337.3
48	16,203	3,254.9	322.58	2,621.9	3,887.9	1,266.0
49	16,307	3,871.4	362.04	3,161.0	4,581.8	1,420.8
50	16,934	3,357.0	371.66	2,627.6	4,086.3	1,458.7