TABLE A-10. Relative standard error for estimates of all R&D and percentage of estimates attributed to certainty companies, by state: 2007

State	All R&D (millions)	Relative standard error (%)	% of estimate from certainty companies
United States	269,267	0.8	90.3
Alabama	1,771	1.2	84.7
Alaska	58 e	7.1	47.1
Arizona	3,846	1.7	86.6
Arkansas	339	2.8	66.7
California	64,187	0.6	92.3
Colorado	5,223	0.8	92.0
Connecticut	9,444	0.3	96.0
Delaware	1,472	0.5	96.1
District of Columbia	379	12.2	65.0
Florida	4,569	2.6	77.5
Georgia	2,788	1.9	80.5
Hawaii	218	3.3	73.4
Idaho	726	1.1	89.9
Illinois	11,362	1.1	90.1
Indiana	4,939	0.6	92.3
Iowa	1,202	1.2	85.8
Kansas	1,304	1.0	87.5
Kentucky	890	1.7	81.1
Louisiana	373 e	6.2	44.7
Maine	265	2.8	73.0
Maryland	3,665	2.2	79.6
Massachusetts	19,488	0.5	94.0
Michigan	15,736	0.4	95.0
Minnesota	6,636	0.7	91.4
Mississippi	279	3.3	68.8
Missouri	2,736	1.4	85.3
Montana	134	3.7	69.9 i
Nebraska	489	2.3	77.7
Nevada	567	3.7	69.7
New Hampshire	1,814 i	0.7	91.0 i
New Jersey	17,892	0.8	92.5
New Mexico	568	1.5	83.2
New York	10,916	2.2	83.8
North Carolina	6,829	0.8	91.0
North Dakota	126	2.1	77.5
Ohio	7,265	0.9	88.6
Oklahoma	527	3.2	69.4
Oregon	3,629 i	0.7	91.7 i
Pennsylvania	10,387	0.9	90.1
Rhode Island	411	2.3	78.9
South Carolina	1,426	1.6	84.3
South Dakota	132	2.7	61.5
Tennessee	1,638	1.9	80.5
Texas	13,889	1.1	88.2
Utah	1,764	2.5	81.7

TABLE A-10. Relative standard error for estimates of all R&D and percentage of estimates attributed to certainty companies, by state: 2007

State	All R&D (millions)	Relative standard error (%)	% of estimate from certainty companies
Vermont	413	1.0	89.0
Virginia	4,840	1.5	81.6
Washington	12,687	0.5	95.0
West Virginia	233	2.9	77.6
Wisconsin	3,411	1.0	87.6
Wyoming	37 e	11.8	29.7
Undistributed funds	3,347 i	0.0	100.0 i

e = estimated, more than 50% of cell value is imputed due to raking of state data; i = more than 50% of the value is imputed.

NOTES: A description of the standard error of estimate is given in the technical notes in appendix A. The percentage (or relative) standard errors may be converted to standard errors of estimate by multiplying the percentages shown by the associated estimates. For example, the relative standard error of estimate for United States, all R&D is shown as 0.8%, and the associated R&D estimate is shown as $247.7 billion. The standard error of estimate is 0.008 times $247.7 billion, or $2.0 billion. Certainties are companies whose probability of selection is one based on prior-year R&D expenditures equal to or greater than $3 million as well as other companies included in the sample for analytical purposes (analytical certainties). Noncertainties are companies whose probability of selection is less than one. For definitions and more information about year-to-year comparability of the statistics, see technical notes and survey methodology.

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2007.