

Table 5-21

Total intramural research and development expenditures by major fields of science or technology and industry, 2011<sup>P</sup>

	Natural and formal sciences	Engineering and technology	Medical and health sciences	Agricultural sciences	Total all industries
millions of dollars					
<b>Total all industries</b>	<b>1,905<sup>A</sup></b>	<b>12,081<sup>A</sup></b>	<b>1,684<sup>A</sup></b>	<b>290<sup>A</sup></b>	<b>15,960<sup>A</sup></b>
<b>Agriculture, forestry, fishing and hunting</b>	<b>x</b>	<b>14<sup>A</sup></b>	<b>x</b>	<b>89<sup>A</sup></b>	<b>112<sup>A</sup></b>
Agriculture	x	11 <sup>A</sup>	x	74 <sup>A</sup>	90 <sup>A</sup>
Forestry, logging and support activities for forestry	x	x	x	x	15 <sup>A</sup>
Fishing, hunting, trapping and animal aquaculture	1 <sup>A</sup>	x	x	x	7 <sup>A</sup>
<b>Mining and oil and gas extraction</b>	<b>83<sup>A</sup></b>	<b>874<sup>A</sup></b>	<b>0<sup>A</sup></b>	<b>8<sup>A</sup></b>	<b>966<sup>A</sup></b>
Oil and gas extraction, contract drilling and related services	82 <sup>A</sup>	751 <sup>A</sup>	0 <sup>A</sup>	7 <sup>B</sup>	839 <sup>A</sup>
Mining and related support activities	F	124 <sup>A</sup>	0 <sup>A</sup>	1 <sup>A</sup>	126 <sup>A</sup>
<b>Utilities</b>	<b>x</b>	<b>163<sup>A</sup></b>	<b>x</b>	<b>1<sup>E</sup></b>	<b>191<sup>B</sup></b>
Electric power generation, transmission and distribution	x	x	0 <sup>A</sup>	x	165 <sup>B</sup>
Other utilities	x	x	x	x	25 <sup>A</sup>
<b>Construction</b>	<b>6<sup>A</sup></b>	<b>123<sup>A</sup></b>	<b>0<sup>A</sup></b>	<b>0<sup>C</sup></b>	<b>129<sup>A</sup></b>
<b>Manufacturing</b>	<b>675<sup>A</sup></b>	<b>6,149<sup>A</sup></b>	<b>454<sup>A</sup></b>	<b>90<sup>A</sup></b>	<b>7,368<sup>A</sup></b>
Food manufacturing	x	x	x	x	145 <sup>A</sup>
Beverage and tobacco product manufacturing	x	x	0 <sup>A</sup>	x	x
Textiles	x	x	0 <sup>A</sup>	0 <sup>A</sup>	40 <sup>A</sup>
Wood product manufacturing	x	x	0 <sup>A</sup>	4 <sup>A</sup>	85 <sup>A</sup>
Paper manufacturing	x	x	x	x	117 <sup>A</sup>
Printing and related support activities	x	x	x	0 <sup>A</sup>	45 <sup>B</sup>
Petroleum and coal products manufacturing	x	x	0 <sup>A</sup>	x	x
Pharmaceutical and medicine manufacturing	x	x	394 <sup>A</sup>	x	517 <sup>B</sup>
Other chemicals	58 <sup>A</sup>	x	x	31 <sup>A</sup>	299 <sup>C</sup>
Plastic product manufacturing	x	x	0 <sup>A</sup>	0 <sup>A</sup>	126 <sup>A</sup>
Rubber product manufacturing	x	x	0 <sup>A</sup>	0 <sup>A</sup>	18 <sup>C</sup>
Non-metallic mineral product manufacturing	x	x	0 <sup>A</sup>	0 <sup>A</sup>	74 <sup>C</sup>
Primary metal (ferrous)	x	x	0 <sup>A</sup>	0 <sup>A</sup>	41 <sup>A</sup>
Primary metal (non-ferrous)	x	x	0 <sup>A</sup>	0 <sup>A</sup>	163 <sup>A</sup>
Fabricated metal product manufacturing	x	190 <sup>A</sup>	x	0 <sup>A</sup>	194 <sup>A</sup>
Machinery manufacturing	x	589 <sup>A</sup>	0 <sup>A</sup>	x	615 <sup>C</sup>
Computer and peripheral equipment manufacturing	x	x	0 <sup>A</sup>	x	49 <sup>A</sup>
Communications equipment manufacturing	6 <sup>A</sup>	1,456 <sup>A</sup>	0 <sup>A</sup>	0 <sup>A</sup>	1,462 <sup>A</sup>
Semiconductor and other electronic component manufacturing	x	495 <sup>A</sup>	0 <sup>A</sup>	x	505 <sup>A</sup>
Navigational, measuring, medical and control instrument manufacturing	x	303 <sup>A</sup>	x	x	354 <sup>A</sup>
Other computer and electronic products	x	x	0 <sup>A</sup>	0 <sup>A</sup>	24 <sup>A</sup>
Electrical equipment, appliance and component manufacturing	x	x	x	F	143 <sup>A</sup>
Motor vehicle and parts	1 <sup>B</sup>	258 <sup>A</sup>	0 <sup>A</sup>	0 <sup>A</sup>	259 <sup>A</sup>
Aerospace products and parts manufacturing	x	x	x	0 <sup>A</sup>	1,306 <sup>D</sup>
All other transportation equipment	x	x	0 <sup>A</sup>	x	123 <sup>A</sup>
Furniture and related product manufacturing	x	x	x	x	38 <sup>A</sup>
Other manufacturing industries	x	x	35 <sup>A</sup>	0 <sup>D</sup>	198 <sup>A</sup>
<b>Services</b>	<b>1,106<sup>A</sup></b>	<b>4,759<sup>A</sup></b>	<b>1,227<sup>A</sup></b>	<b>103<sup>C</sup></b>	<b>7,194<sup>A</sup></b>
Wholesale trade	82 <sup>A</sup>	674 <sup>A</sup>	538 <sup>A</sup>	56 <sup>A</sup>	1,350 <sup>A</sup>
Retail trade	x	49 <sup>A</sup>	x	x	64 <sup>A</sup>
Transportation and warehousing	8 <sup>A</sup>	43 <sup>A</sup>	x	x	52 <sup>A</sup>
Information and cultural industries	x	919 <sup>A</sup>	x	x	1,143 <sup>A</sup>
Finance, insurance and real estate	91 <sup>A</sup>	139 <sup>A</sup>	x	x	234 <sup>C</sup>
Architectural, engineering and related services	68 <sup>A</sup>	347 <sup>A</sup>	6 <sup>C</sup>	3 <sup>D</sup>	424 <sup>A</sup>
Computer systems design and related services	406 <sup>A</sup>	945 <sup>A</sup>	31 <sup>A</sup>	1 <sup>B</sup>	1,383 <sup>A</sup>
Management, scientific and technical consulting services	28 <sup>B</sup>	53 <sup>A</sup>	x	x	87 <sup>A</sup>
Scientific research and development services	164 <sup>B</sup>	1,280 <sup>A</sup>	514 <sup>A</sup>	22 <sup>B</sup>	1,980 <sup>A</sup>
Health care and social assistance	x	11 <sup>A</sup>	68 <sup>A</sup>	x	85 <sup>A</sup>
All other services	58 <sup>D</sup>	299 <sup>B</sup>	F	F	392 <sup>A</sup>