

Table 8-3

Personnel engaged in research and development by industry and by occupational category, 2011^P

	Research and development professionals	Research and development technicians and technologists	Research and development other support staff	Total research and development personnel
	number			
Total all industries	93,443^A	37,912^A	9,067^A	140,423^A
Agriculture, forestry, fishing and hunting	805^A	732^A	201^A	1,738^A
Agriculture	589 ^A	659 ^A	176 ^A	1,424 ^A
Forestry, logging and support activities for forestry	154 ^A	36 ^A	18 ^A	208 ^A
Fishing, hunting, trapping and animal aquaculture	62 ^A	37 ^A	7 ^A	106 ^A
Mining and oil and gas extraction	1,165^A	560^B	90^D	1,814^A
Oil and gas extraction, contract drilling and related services	939 ^A	328 ^A	77 ^A	1,344 ^A
Mining and related support activities	226 ^C	232 ^C	F	470 ^C
Total utilities	772^D	447^C	F	1,303^B
Electric power generation, transmission and distribution	574 ^D	x	x	975 ^B
Other utilities	198 ^B	x	x	328 ^B
Construction	928^B	753^B	140^E	1,821^A
Manufacturing	37,525^A	16,168^A	4,472^A	58,164^A
Food manufacturing	1,019 ^A	725 ^A	198 ^A	1,942 ^A
Beverage and tobacco product manufacturing	82 ^A	41 ^A	18 ^A	141 ^A
Textiles	221 ^A	210 ^A	54 ^A	485 ^A
Wood product manufacturing	300 ^A	320 ^A	77 ^A	697 ^A
Paper manufacturing	477 ^A	348 ^A	60 ^A	885 ^A
Printing and related support activities	351 ^A	411 ^A	68 ^B	830 ^B
Petroleum and coal products manufacturing	257 ^A	26 ^A	3 ^B	286 ^A
Pharmaceutical and medicine manufacturing	1,645 ^A	770 ^A	692 ^A	3,108 ^A
Other chemicals	1,343 ^A	817 ^A	179 ^A	2,338 ^A
Plastic product manufacturing	847 ^A	696 ^A	189 ^A	1,732 ^A
Rubber product manufacturing	156 ^A	55 ^A	18 ^A	229 ^A
Non-metallic mineral product manufacturing	420 ^A	230 ^A	45 ^A	696 ^B
Primary metal (ferrous)	160 ^A	90 ^A	11 ^A	261 ^A
Primary metal (non-ferrous)	395 ^A	186 ^A	103 ^A	684 ^A
Fabricated metal product manufacturing	1,711 ^A	1,427 ^A	313 ^A	3,451 ^A
Machinery manufacturing	4,274 ^A	2,476 ^A	467 ^A	7,217 ^A
Computer and peripheral equipment manufacturing	413 ^A	98 ^A	21 ^A	531 ^A
Communications equipment manufacturing	8,133 ^A	537 ^A	262 ^A	8,932 ^A
Semiconductor and other electronic component manufacturing	3,267 ^A	799 ^A	229 ^A	4,295 ^A
Navigational, measuring, medical and control instrument manufacturing	2,722 ^A	767 ^A	164 ^A	3,652 ^A
Other computer and electronic products	285 ^A	54 ^A	18 ^A	357 ^A
Electrical equipment, appliance and component manufacturing	1,308 ^B	492 ^A	147 ^A	1,947 ^D
Motor vehicle and parts	1,241 ^A	810 ^A	250 ^A	2,301 ^A
Aerospace products and parts manufacturing	3,938 ^A	1,756 ^A	473 ^A	6,167 ^A
All other transportation equipment	727 ^A	584 ^A	61 ^A	1,372 ^A
Furniture and related product manufacturing	323 ^A	290 ^A	111 ^A	724 ^A
Other manufacturing industries	1,511 ^A	1,152 ^A	241 ^A	2,904 ^A
Services	52,249^A	19,253^A	4,081^A	75,583^A
Wholesale trade	7,022 ^A	2,338 ^A	689 ^A	10,049 ^A
Retail trade	631 ^A	377 ^A	67 ^A	1,075 ^A
Transportation and warehousing	307 ^A	179 ^A	53 ^A	539 ^A
Information and cultural industries	7,965 ^A	3,654 ^A	912 ^A	12,531 ^A
Finance, insurance and real estate	1,765 ^A	1,139 ^A	114 ^A	3,018 ^A
Architectural, engineering and related services	4,952 ^A	1,484 ^A	230 ^A	6,666 ^A
Computer systems design and related services	13,648 ^A	4,395 ^A	651 ^B	18,694 ^A
Management, scientific and technical consulting services	1,030 ^A	301 ^A	64 ^A	1,395 ^C
Scientific research and development services	10,813 ^A	3,374 ^A	976 ^C	15,163 ^A
Health care and social assistance	896 ^A	412 ^A	78 ^A	1,387 ^A
All other services	3,220 ^A	1,598 ^A	248 ^A	F

Note(s): Components may not add to totals due to rounding. Personnel counts are reported as full-time equivalent.