Table 5-20

Business enterprise research and development intramural expenditures — By field of science or technology

	2012 [r]	2013 [p]
	millions of dollars	
Total	**16,700** [A]	**16,032** [A]
Natural and formal sciences	**1,559** [A]	**1,368** [A]
Mathematics	39 [B]	36 [A]
Computer and information sciences	675 [A]	581 [A]
Physical sciences	92 [B]	122 [A]
Chemical sciences	278 [A]	259 [A]
Earth and related environmental sciences	274 [B]	182 [A]
Biological sciences	190 [A]	158 [A]
Other natural sciences	10 [A]	30 [A]
Engineering and technology	**13,280** [A]	**12,897** [A]
Civil engineering	126 [A]	99 [A]
Software engineering	2,859 [A]	2,624 [A]
Electrical engineering, electronic engineering and information technology	3,705 [A]	3,453 [A]
Mechanical engineering	2,355 [A]	1,960 [A]
Chemical engineering	506 [A]	548 [A]
Materials engineering	717 [A]	640 [A]
Medical engineering	61 [A]	63 [A]
Environmental engineering	755 [A]	744 [A]
Environmental biotechnology	16 [E]	17 [A]
Industrial biotechnology	64 [B]	38 [A]
Nano-technology	14 [A]	18 [A]
Other engineering and technologies	2,100 [A]	2,694 [A]
Medical and health sciences	**1,552** [A]	**1,364** [A]
Basic medicine	425 [A]	454 [A]
Clinical medicine	343 [A]	245 [A]
Health sciences	117 [A]	111 [A]
Medical biotechnology	312 [A]	295 [A]
Other medical sciences	355 [A]	261 [A]
Agricultural sciences	**309** [A]	**402** [A]
Agriculture, forestry, and fisheries	142 [A]	272 [A]
Animal and dairy science	54 [A]	54 [A]
Veterinary science	4 [C]	6 [A]
Agricultural biotechnology	53 [A]	36 [A]
Other agricultural sciences	56 [A]	35 [A]

Note(s): Components may not add to totals due to rounding.