

TABLE S8-14

USPTO patents and patent families granted in measurement, by region, country, or economy: 1998–2018

(Number)

Region, country, or economy	1998		1999		2000		2001		2002		2003		2004		2005		2006		2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		2018			
	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families	USPTO patents	Patent families				
World	6,516	12,940	6,371	14,652	6,802	12,568	7,232	12,091	7,898	12,153	8,538	13,386	8,304	14,040	7,462	14,368	8,911	14,991	8,644	15,839	8,789	16,661	8,801	18,122	10,188	20,557	9,773	25,615	10,649	29,456	11,453	31,466	12,109	32,911	12,384	34,850	13,113	38,972	14,413	44,560	13,893	45,235		
North America	3,825	3,841	2,768	4,004	4,155	2,718	3,841	2,660	4,415	2,693	4,823	2,844	4,667	2,630	4,188	2,245	5,031	4,688	2,394	2,413	4,689	2,327	4,596	2,275	5,078	2,432	4,950	2,227	5,210	2,241	5,518	2,227	5,723	2,328	5,826	2,298	6,168	2,361	6,353	2,204				
Canada	133	106	134	105	125	91	136	94	139	87	163	109	172	93	135	67	150	80	161	76	159	93	164	90	184	96	186	78	202	97	237	123	245	125	232	110	269	126	287	107	300	109		
Mexico	0	0	3	2	0	0	2	1	3	2	8	7	8	8	6	9	6	4	6	4	3	3	0	3	2	1	2	1	2	1	4	3	6	5	7	6	7	6	27	9	15			
Puerto Rico	1	0	1	0	0	0	1	0	0	0	2	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0	2	1	0	0	0	0	2	0	1	0	0	1	0	0		
United States	3,691	2,901	3,703	2,660	3,879	2,626	4,017	2,565	4,273	2,603	4,650	2,728	4,486	2,528	4,044	2,172	4,872	2,551	4,521	2,333	4,526	2,299	4,429	2,185	4,890	2,335	4,761	2,111	5,003	2,143	5,277	2,102	5,474	2,200	5,588	2,183	5,890	2,189	6,426	2,227	6,043	2,080		
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Central and South America	7	3	5	3	4	8	7	8	3	7	9	9	5	9	4	6	10	8	11	4	10	12	8	14	14	13	11	16	15	14	16	18	19	16	18	25	15	34	41	77	33	87		
Argentina	1	0	0	0	1	2	1	0	0	0	3	1	2	1	0	1	1	2	2	2	2	2	2	5	3	5	3	3	2	3	0	6	3	2	1	3	2	1	3	3	11	8	5	3
Brazil	3	1	3	2	2	5	3	5	2	2	3	6	1	4	2	4	4	5	6	1	7	10	3	10	7	9	11	8	12	9	13	8	12	10	21	8	30	23	67	19	81			
All others	3	2	1	1	2	2	3	2	2	1	3	1	3	4	1	6	3	2	2	2	1	3	1	2	2	2	2	1	4	2	2	6	4	2	4	3	7	4	3	8	3	8		
Europe	1,196	3,598	1,103	3,048	1,287	3,107	1,417	2,968	1,587	3,240	1,692	3,490	1,607	4,007	1,445	3,926	1,673	4,055	1,672	4,133	1,698	4,212	1,663	4,431	2,108	4,317	2,029	4,033	2,313	4,428	2,641	4,534	2,916	4,889	2,905	5,028	3,126	4,718	3,439	5,383	3,263	5,143		
EU	1,067	2,144	1,008	2,040	1,159	2,043	1,283	2,014	1,420	1,985	1,509	1,974	1,435	2,133	1,287	2,179	1,490	2,294	1,477	2,333	1,466	2,125	1,436	2,099	1,820	2,294	1,788	2,321	2,021	2,572	2,586	2,519	2,572	2,586	2,512	2,552	2,685	2,896	3,024	3,033	2,873	2,791		
Austria	16	44	17	35	16	33	17	35	28	47	24	54	30	43	24	48	35	65	31	62	29	91	31	65	47	63	50	101	46	102	67	78	74	83	119	121	123	126	104	129				
Belgium	12	9	15	12	11	10	16	11	18	9	15	10	14	10	16	10	17	14	24	12	20	8	13	4	18	7	27	31	32	9	31	12	42	15	41	16	60	32	51	34				
Denmark	13	8	13	19	12	11	11	15	12	8	16	10	21	7	20	12	27	13	21	13	8	16	11	24	9	30	11	24	12	38	10	26	17	36	22	46	13	46	16	44	17			
Finland	26	55	24	39	39	36	27	41	43	62	50	67	47	81	34	63	43	35	44	63	55	48	61	50	65	44	43	54	36	68	55	62	46	77	62	98	62	77	47	88	48			
France	190	441	157	419	175	398	174	385	164	309	187	329	154	425	160	426	181	475	198	486	213	477	183	535	251	531	261	476	308	622	382	549	407	622	415	598	424	619	497	671	430	604		
Germany	487	889	467	825	541	833	622	890	706	961	786	913	727	919	652	1,002	730	1,136	729	1,146	716	898	668	765	830	899	797	799	892	901	1,074	1,077	989	1,065	1,074	1,077	1,042	1,005	1,088	1,090	1,274	961	1,265	1,120
Hungary	1	12	4	4	6	3	6	1	3	2	6	2	6	2	6	1	7	2	6	2	2	3	2	3	1	8	2	8	5	6	3	6	4	6	4	6	4	7	8	4	3			
Ireland	1	13	7	9	8	5	2	1	6	4	13	7	3	3	1	11	6	13	3	8	2	13	5	17	8	11	4	10	8	17	7	15	8	26	14	23	7	19	6	19	6			
Italy	44	134	42	156	44	187	62	109	58	106	62	64	63	151	46	92	55	23	60	28	59	39	53	74	65	84	115	83	74	32	119	27	126	35	120	40	223	220	145	184				
Netherlands	52	79	44	68	53	80	52	73	66	64	66	62	57	60	45	64	55	58	57	77	73	83	72	77	66	90	81	108	66	114	67	150	63	143	50	151	79	164	94	160	53			
Spain	3	67	1	72	6	50	4	69	9	25	3	79	3	49	9	66	10	77	69	15	68	17	83	13	113	23	131	25	107	24	143	29	130	26	133	29	101	26	97	22	83			
Sweden	49	75	57	93	68	84	76	101	77	92	67	93	55	111	56	71	74	70	65	53	59	55	57	75	68	75	50	86	59	97	65	117	57	97	70	114	74	113	73	103	63			
United Kingdom	166	116	156	102	178	137	212	121	219	126	206	133	240	149	211	170	232	164	214	114	198	132	239	145	303	166	272	145	325	166	360	156	388	170	380	134	419	196	406	205	392	155		
All others	7	203	3	188	8	173	6	157	15	169	11	147	11	112	9	149	18	157	14	213	15	198	22	271	24	250	22	221	28	319	37	295	33	42	482	66	460	58	292					
Other Europe	129	1,454	95	1,008	128	1,064	135	955	167	1,256	182	1,515	173	1,874	158	1,747	183	1,761	195	1,800	231	2,086	228	2,332	289	2,023	241	1,842	292	1,939	320	2,015	343	2,303	393	2,475	441	1,821	2,350	389	2,352			
Former Soviet Union	0	52	2	14	1	25	1	32	2	53	3	177	2	536	2	155	4	109	5	245	5	250	3	248	2	218	4	204	6	165	5	193	3	218	2	181	9	119	3	106				
Norway	11	29	15	13	16	27	21	22	20	29	31	34	28	22	30	33	32	33	33	41	43	56	60	60	47	56	66	47	56	66	41	70	83	52	68	46	77	37	59	33				
Russia	18	1,279	10	928	10	926	15	787	20	1,077	22	1,208	14	1,229	9	1,472	17	1,485	20	1,411	14	1,833	19	1,833	23	1,574	16	1,463	22	1,576	30	1,631	26	1,820	26	2,061	40	1,880	34	1,942				
Switzerland	98	92	67	53	95	82	94	110	120	96	123	94	129	85	116	85	125	114	134	107	153	186	160	200	200	166	158	122	200	157	213	145	222	210	272	177	321	191	275	318	279	266		
All others	2	1	2	1	4	4	2	4	4	1	4	2	0	2	1	5	1	3	3	4	6	4	3	6	4	8	3	6	7	4	9	5	8	1	5	8	1	13	5	15	4			
Asia	1,402	6,205	1,349	8,619	1,411	6,491	1,545	6,338	1,778	6,113	1,904	6,973	1,897	7,260	1,712	7,827	2,061	8,134	2,120	9,205	2,239	9,932	2,369	11,340	2,797	13,683	2,604	19,264	2,902	22,626	3,040	24,554	3,211	25,519	3,353	27,355	3,520	31,697	3,854	36,593	3,886	37,664		

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China	3	82	2	62	9	129	9	159	17	176	16	446	30	762	30	844	41	978	59	1,247	93	2,035	130	3,765	174	5,006	154	8,042	202	9,741	217	10,280	262	12,021	297	18,063	341	21,574	437	26,085	536	27,338
India	2	1	1	1	2	2	1	0	8	6	12	8	16	8	14	8	12	9	28	18	30	21	22	18	29	16	19	48	26	72	40	89	57	94	59	126	67	134	59			
Japan	1,230	5,542	1,177	6,551	1,188	5,631	1,297	5,478	1,490	5,141	1,609	5,285	1,562	5,028	1,337	5,030	1,656	4,805	1,635	5,380	1,687	5,819	1,757	5,790	2,024	6,450	1,833	8,160	1,963	8,824	2,070	8,906	2,136	8,183	2,097	5,110	2,137	6,068	2,195	5,592	2,197	5,817
Malaysia	0	0	1	0	4	4	2	2	3	2	6	5	6	6	7	7	21	11	25	22	23	23	18	15	17	19	12	28	11	23	9	28	16	25	14	26	18	31	11	28		
Singapore	8	3	9	7	15	7	19	9	22	15	24	15	19	10	20	8	13	8	20	11	23	14	17	9	21	7	21	12	27	11	23	11	29	16	31	15	44	17	63	25	68	
South Korea	92	461	73	1,841	77	540	82	413	95	541	89	857	111	990	132	1,487	147	1,767	174	1,922	189	1,701	203	1,403	246	1,832	256	2,600	315	3,411	315	4,175	333	3,955	471	2,984	509	3,150	611	3,915	563	3,760
Taiwan	67	112	83	154	116	177	132	273	135	225	144	352	152	451	170	439	170	553	177	596	192	317	219	337	281	348	298	406	330	327	345	1,109	345	1,247	341	1,084	372	799	396	865	370	630
All others	2	5	2	3	0	0	3	4	8	8	3	4	2	6	2	5	1	4	2	9	3	3	2	2	5	7	1	6	5	6	4	10	7	11	6	15	9	8	14	5	12	
Middle East	46	21	38	22	59	37	68	46	80	53	67	36	69	38	67	36	83	35	84	31	98	39	98	29	118	39	103	39	137	45	147	52	195	58	194	70	260	91	264	89		
Israel	45	18	38	20	59	25	68	36	76	33	64	27	67	31	59	25	78	30	77	22	91	33	91	25	109	29	111	26	113	33	108	24	148	30	142	40	204	57	192	46		
All others	0	3	0	2	1	12	1	10	4	20	3	9	1	7	8	11	5	5	7	9	6	6	7	5	9	10	13	13	23	21	25	22	39	29	47	28	53	30	56	35	72	43
Africa	4	10	6	16	5	10	3	11	2	7	1	8	4	15	2	10	6	8	7	3	8	3	7	8	1	10	3	4	11	11	25	8	7	10	6	17	4	10	12			
South Africa	4	4	5	10	5	3	3	3	2	2	3	2	3	4	0	3	5	3	2	5	2	6	2	7	5	3	2	1	5	3	2	5	3	1	7	0	10	1	6	1		
All others	0	5	1	6	0	7	1	8	0	4	0	6	1	11	2	7	0	3	3	5	1	2	1	0	5	2	6	3	13	7	11	4	23	5	7	3	6	7	3	4	11	
Australia and Oceania	36	23	27	20	31	22	36	34	33	37	44	25	54	30	44	29	49	46	62	38	54	47	64	24	71	53	73	62	71	85	90	62	84	77	77	78	80	49	82	33		
Australia	30	19	16	14	23	19	28	32	26	37	37	20	46	27	36	28	45	43	55	34	44	44	53	23	63	51	62	57	56	67	69	57	69	59	73	62	67	61	46	61	30	
New Zealand	5	4	10	5	8	3	8	2	7	1	6	4	7	3	8	1	4	3	7	4	9	3	11	1	8	2	11	6	15	10	20	23	17	9	18	5	17	4	19	3	21	2
All others	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Unclassified	0	73	1	156	0	175	0	25	0	7	1	3	0	51	0	289	0	70	0	7	0	17	0	0	9	1	4	0	1	0	8	1	0	2	2	24	2	1	3	4		

EU = European Union; USPTO = U.S. Patent and Trademark Office.

Note(s)

USPTO patents are allocated according to patent inventorship information. USPTO patents are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. Patents are classified under the World Intellectual Property Organization (WIPO) classification of patents, which classifies International Patent Classification (IPC) codes under 35 technical fields. IPC reformed codes take into account changes that were made to the WIPO classification in 2006 under the eighth version of the classification and were used to prepare these data. However, because PatentsView only provides the original IPC codes as they appeared on patents and not the IPC reformed codes, current Cooperative Patent Classification codes on patents were converted back to the most recent IPC classification to prepare these statistics. Fractional counts of patents were assigned to each technological field on patents to assign the proper weight of a patent to the corresponding technological fields under the classification. International Patent Documentation (INPADOC) patent families across all patent offices covered in the Worldwide Patent Statistical Database (PATSTAT) are counted according to the year of the first granted patent in the patent family. Patent families are allocated according to patent inventorship information found on the priority patent of the INPADOC patent families. To account for missing ownership information in PATSTAT for some offices, a method designed by de Rassenfosse et al. (2012) is used to fill in missing information on priority patents using information in successive filings within the patent families (see technical documentation for details). Patent families are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. Because of data coverage issues for some patent offices in PATSTAT, statistics for some countries may be underestimated partially for some years or across the whole trend. Countries with identified issues include India (missing data) and South Africa (no data for 2018). For Italy, because of data gaps regarding information on granted patents, patent applications are used instead, which slightly overestimates Italy's output and creates a small shift in the year for which its output is accounted. The EU includes 28 member countries. China includes Hong Kong.

Source(s)

Science-Metrix; PATSTAT, accessed April 2019; PatentsView, USPTO, accessed June 2019.