

TABLE S8-4

USPTO patents and patent families granted, 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		
China	254	1,928	266	2,454	326	5,876	461	6,549	561	5,663	614	11,156	740	17,757	744	19,647	1,057	25,315	1,193	29,908	1,606	43,521	2,043	63,070	3,215	72,964	3,720	104,541	5,359	141,055	6,680	147,860	8,123	157,183	9,021	236,588	11,439	294,233	14,286	314,027	15,477	334,022
India	90	57	118	73	141	74	187	106	265	169	354	257	369	401	256	511	341	566	390	651	414	709	389	1,144	598	1,277	700	1,756	921	2,456	1,362	3,073	1,648	3,457	1,698	3,767	1,850	4,271	1,901	4,315	1,886	
Japan	30,887	121,611	31,161	128,342	31,362	103,210	33,278	99,515	34,913	96,130	35,567	98,910	35,441	99,675	30,381	99,899	36,870	106,707	33,410	127,391	33,725	130,678	35,557	139,279	44,978	152,795	46,337	172,248	50,899	179,163	52,271	178,866	54,318	171,734	52,809	116,928	50,169	136,250	50,074	124,707	47,904	118,535
Malaysia	24	31	20	15	34	31	34	34	58	47	48	65	85	99	94	145	123	242	171	367	159	317	156	367	200	340	222	441	213	435	267	489	275	513	270	606	252	538	538			
Singapore	123	99	149	113	226	149	307	258	420	271	438	231	457	193	345	164	412	197	391	211	406	210	436	238	616	274	650	282	805	300	793	320	933	356	961	351	989	356	1,023	360	974	344
South Korea	3,269	19,609	3,567	49,864	3,332	25,207	3,548	14,942	3,792	16,815	3,952	30,093	4,429	34,321	4,365	58,560	5,901	93,070	6,299	93,911	7,544	61,266	8,775	39,841	11,669	48,345	12,254	68,027	13,236	79,156	14,556	89,574	16,529	91,019	17,963	68,210	19,576	75,939	20,815	82,848	19,901	81,433
Taiwan	3,110	4,421	3,718	5,088	4,705	7,083	5,397	9,950	5,444	8,835	5,299	9,739	5,951	10,735	5,115	11,343	6,350	13,699	6,104	12,941	6,345	8,986	6,666	9,489	8,235	10,984	8,794	12,273	20,510	11,342	21,898	11,688	21,509	11,576	21,825	11,606	19,543	10,994	13,608	13,608		
All others	41	116	51	95	46	73	57	77	76	102	69	103	64	92	59	113	83	108	50	136	61	100	71	123	108	116	111	142	134	174	176	226	216	215	221	229	252	263	241	209		
Middle East	781	442	792	433	841	676	1,022	659	1,094	659	1,236	694	1,089	619	980	563	1,274	582	1,163	553	1,250	646	1,478	594	1,937	726	2,123	788	2,752	1,092	3,406	1,255	3,988	1,386	4,182	1,534	4,357	1,643	4,898	1,796	4,956	1,713
Israel	755	381	757	373	789	385	983	427	1,046	460	1,189	513	1,053	494	936	406	1,217	458	1,111	390	1,183	440	1,413	516	1,839	585	1,976	571	2,482	746	3,008	866	3,486	1,033	3,631	1,104	3,713	1,177	4,100	1,271	4,038	1,237
All others	26	61	35	61	52	291	39	232	48	199	47	181	35	124	44	157	57	124	52	163	67	206	66	78	98	140	147	217	269	346	398	390	502	352	551	430	644	466	798	525	918	475
Africa	119	527	125	565	130	458	137	464	129	542	136	584	124	521	114	441	129	545	99	514	108	589	112	585	151	467	155	308	188	223	322	234	383	228	251	264	258	246	177	177		
South Africa	115	385	110	377	112	232	119	240	112	219	111	262	102	290	90	304	109	279	78	259	90	387	90	355	121	282	120	96	140	131	96	154	99	161	97	181	119	187	139	152	29	
All others	4	141	15	188	19	227	18	224	17	323	25	322	22	232	24	136	21	265	21	255	18	202	22	230	30	185	35	212	48	237	60	247	80	283	67	98	70	146	77	119	94	147
Australia and Oceania	842	655	827	660	819	830	1,012	1,334	1,010	1,334	1,048	971	1,094	1,435	1,052	1,350	1,472	1,362	1,382	1,480	1,400	1,540	1,374	1,448	1,944	1,736	2,129	1,958	1,754	2,321	1,893	2,210	2,014	2,475	1,935	2,878	1,832	2,912	2,028	1,498	2,010	1,356
Australia	722	626	709	616	710	802	882	1,316	861	1,317	909	934	957	1,412	929	1,326	1,334	1,325	1,271	1,445	1,295	1,517	1,242	1,424	1,770	1,700	1,943	1,910	1,643	2,132	1,753	2,416	1,667	2,836	1,561	2,863	1,602	1,462	1,680	1,318	1,318	
New Zealand	118	28	117	35	109	27	129	19	147	19	137	35	135	23	122	24	137	37	111	35	104	23	132	25	171	32	185	48	223	50	250	77	260	56	267	40	270	47	314	33	328	37
All others	1	2	1	9	0	1	1	0	1	0	2	2	2	0	1	0	1	0	0	0	0	0	0	0	3	3	0	0	1	1	3	1	2	2	2	2	5	3	3	2	2	
Unclassified	27	708	22	2,066	26	1,577	15	258	9	190	8	116	2	479	4	1,344	4	715	4	78	4	114	4	74	7	84	10	47	11	100	19	136	17	52	33	41	46	139	44	12	47	20

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-Matrix; PATSTAT, accessed April 2019; PatentsView, USPTO, accessed June 2019.