

TABLE S8-16

USPTO patents and patent families granted in control, 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	5	17	2	16	2	34	4	34	9	46	5	99	6	154	7	124	11	182	21	198	21	534	16	1,290	38	1,377	38	1,848	48	2,430	55	2,541	95	3,117	104	4,827	111	6,959	188	8,769	244	8,954
India	0	0	1	0	1	1	2	2	4	2	1	1	6	3	6	2	7	8	7	3	7	5	13	8	17	10	26	18	48	32	64	39	55	35	80	59	118	74	132	67		
Japan	479	2,831	498	2,802	480	2,208	481	2,227	480	2,170	480	2,212	504	2,194	433	2,184	557	2,348	481	2,584	412	2,414	435	2,672	552	2,934	528	3,426	693	4,121	698	3,916	675	3,690	700	2,279	733	2,876	835	2,594	972	3,029
Malaysia	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	2	0	2	7	2	0	2	1	2	1	3	3	6	3	6	3	9	2	8	2	9	2	16	3	12		
Singapore	2	2	2	2	5	3	3	2	3	1	4	3	5	2	7	2	3	4	3	2	6	4	8	7	9	8	11	6	7	6	7	8	7	8	17	8	19	13	24	12	22	
South Korea	44	197	63	667	53	268	56	202	32	159	49	445	40	483	42	656	48	852	59	1,058	46	682	66	525	74	776	91	1,204	95	1,268	106	1,478	148	1,479	179	1,091	200	1,322	213	1,497	238	1,661
Taiwan	39	53	36	50	49	73	37	83	47	114	54	164	66	180	65	129	87	204	66	254	70	191	74	154	89	220	82	215	137	317	115	491	140	509	140	425	139	389	154	402	145	269
All others	1	2	0	0	0	0	0	1	0	0	1	1	1	2	1	1	4	3	0	2	0	0	1	2	6	2	1	2	2	3	7	3	7	3	8	6	9	5	2	5	2	
Middle East	15	10	17	10	20	15	20	9	16	6	23	8	25	13	16	7	25	13	25	12	18	10	24	13	28	16	38	15	33	21	42	23	62	25	70	30	63	23	97	29	101	37
Israel	15	9	16	9	17	11	19	7	15	4	23	6	23	12	15	6	22	11	22	8	17	9	23	11	25	13	31	11	26	13	48	14	56	17	52	17	77	20	80	22		
All others	0	1	1	1	3	4	1	2	1	2	1	1	2	1	1	1	3	2	3	4	1	1	1	2	4	4	7	4	6	8	12	10	14	11	14	13	12	8	20	9	21	15
Africa	5	19	4	23	1	10	7	15	5	9	3	11	3	13	2	10	3	4	3	6	2	7	3	8	4	6	3	7	7	10	7	13	8	4	8	7	4	4	12	12		
South Africa	5	12	4	10	1	5	6	10	5	3	3	7	3	7	2	9	3	2	3	5	2	7	3	7	4	5	3	2	6	4	3	2	4	3	6	1	5	0	4	1	8	0
All others	0	7	0	13	0	5	1	5	0	6	0	5	0	6	0	0	2	0	0	1	0	0	0	0	0	1	1	5	1	4	1	8	3	10	1	2	3	8	3	4	12	
Australia and Oceania	9	11	15	12	21	18	18	36	20	22	26	24	32	33	28	39	33	37	39	27	33	31	36	38	60	43	63	45	111	61	118	59	111	51	96	70	93	57	134	37	104	48
Australia	9	11	13	11	20	17	16	35	17	21	25	24	29	33	26	38	30	36	34	27	31	31	33	37	60	43	60	44	106	58	115	55	107	50	88	70	88	55	126	37	95	45
New Zealand	0	0	1	1	1	0	2	1	3	1	1	0	3	1	3	1	2	1	5	0	2	1	3	1	3	0	3	2	4	3	4	4	4	2	7	1	5	2	8	0	9	2
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	1	0	0	0	
Unclassified	1	13	1	25	1	34	1	0	0	3	1	1	0	5	0	17	0	18	0	0	1	1	0	1	2	1	0	1	0	1	0	1	0	1	0	2	2	1	0	0	0	0

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.