



APPENDIX TABLE 8-27 

Federal technology transfer activity indicators for U.S. agencies with federal laboratories: FYs 2001–14

(Number)

Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Invention disclosures and patenting														
All 11 agencies														
Inventions disclosed	3,962	4,149	5,106	5,454	4,771	5,193	4,732	4,572	4,452	4,755	5,251	5,350	5,321	5,103
Patent applications filed	2,175	2,130	2,318	1,768	1,745	1,912	1,847	1,952	1,957	2,002	2,308	2,361	2,494	2,609
Patents issued	1,610	1,511	1,631	1,391	1,012	1,284	1,380	1,253	1,319	1,468	1,449	2,228	1,855	1,931
USDA														
Inventions disclosed	118	151	121	142	125	105	126	100	143	149	158	160	191	117
Patent applications filed	83	90	60	81	88	83	114	123	123	113	124	122	157	119
Patents issued	64	53	64	50	27	39	37	30	24	45	49	69	65	83
DOC														
Inventions disclosed	26	17	21	25	21	14	32	40	41	31	26	52	41	47
Patent applications filed	12	12	5	12	12	5	8	21	20	20	17	21	26	25
Patents issued	21	20	9	12	10	7	3	3	7	12	16	13	16	18
DOD														
Inventions disclosed	1,005	1,122	1,332	1,369	534	1,056	838	1,018	831	698	929	1,078	1,032	963
Patent applications filed	809	829	810	517	354	691	597	590	690	436	844	1,013	942	916



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Patents issued	619	617	619	426	191	472	425	462	404	304	523	1,048	648	670
DOE														
Inventions disclosed	1,527	1,498	1,469	1,617	1,776	1,694	1,575	1,460	1,439	1,616	1,820	1,661	1,796	1,588
Patent applications filed	792	711	866	661	812	726	693	904	775	965	868	780	944	1,144
Patents issued	605	551	627	520	467	438	441	370	363	480	460	483	554	693
EPA														
Inventions disclosed	17	16	14	18	12	12	16	9	8	5	8	18	8	5
Patent applications filed	14	14	23	12	13	13	15	6	3	3	8	10	7	9
Patents issued	12	9	8	11	9	10	10	4	9	9	12	17	16	5
HHS														
Inventions disclosed	434	431	472	461	452	442	447	437	389	337	351	352	320	351
Patent applications filed	255	262	279	216	230	166	261	164	156	291	272	233	230	216
Patents issued	119	116	136	167	154	164	379	278	397	470	270	453	428	335
DHS														
Inventions disclosed	na	na	na	NA	NA	NA	NA	10	32	7	38	40	20	36
Patent applications filed	na	na	na	NA	NA	NA	NA	0	2	2	12	10	4	5
Patents issued	na	na	na	NA	NA	NA	NA	1	2	1	0	0	4	3
DOI														
Inventions disclosed	6	14	9	6	4	5	7	7	4	5	5	10	9	6



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Patent applications filed	17	12	8	6	3	2	5	7	8	7	2	3	8	4
Patents issued	7	13	5	9	9	5	6	1	4	5	1	3	4	2
NASA														
Inventions disclosed	696	775	1,485	1,612	1,678	1,749	1,514	1,324	1,412	1,735	1,723	1,642	1,618	1,683
Patent applications filed	152	166	231	207	202	142	127	122	141	150	130	131	146	146
Patents issued	159	128	155	189	133	85	68	90	93	130	111	129	116	117
DOT														
Inventions disclosed	2	0	0	0	4	3	2	3	3	1	2	2	13	3
Patent applications filed	3	0	0	2	5	3	2	2	2	2	2	1	5	0
Patents issued	0	0	0	0	2	0	3	4	1	4	0	4	1	1
VA														
Inventions disclosed	131	125	183	204	165	157	175	164	150	171	191	335	273	304
Patent applications filed	38	34	36	54	26	27	25	13	37	13	29	37	25	25
Patents issued	4	4	8	7	10	5	8	10	15	8	7	9	3	4
Licensing														
All 11 agencies														
All licenses, total active in the fiscal year	4,391	6,063	6,497	7,567	9,577	10,186	12,024	12,732	12,598	15,166	12,077	11,542	11,672	20,822
Invention licenses	3,140	3,588	3,747	3,804	4,236	4,163	3,790	4,046	3,854	4,081	3,211	3,882	3,768	3,956
Other intellectual property licenses	1,254	2,475	2,771	3,775	5,341	6,023	8,234	8,686	8,744	11,085	8,866	7,660	7,904	16,866



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
USDA														
All licenses, total active in the fiscal year	255	267	270	296	320	332	339	328	330	344	358	384	400	414
Invention licenses	255	267	270	296	320	332	339	304	302	313	322	341	351	363
Other intellectual property licenses	0	0	0	0	0	0	0	24	28	31	36	43	49	51
DOC														
All licenses, total active in the fiscal year	40	41	101	125	133	111	222	29	40	46	40	41	40	41
Invention licenses	40	41	101	125	133	111	222	29	40	46	40	41	39	41
Other intellectual property licenses	0	0	0	0	0	0	0	0	0	0	0	0	1	0
DOD														
All licenses, total active in the fiscal year	285	471	364	369	412	444	495	365	432	397	633	520	527	NA
Invention licenses	283	350	361	364	406	438	460	351	386	341	431	432	425	297
Other intellectual property licenses	5	121	3	5	6	6	35	14	46	56	202	88	102	NA
DOE														
All licenses, total active in the fiscal year	2,005	3,459	3,687	4,345	5,677	5,916	5,842	6,196	5,742	6,228	5,310	5,328	5,217	5,861
Invention licenses	1,162	1,327	1,223	1,362	1,535	1,420	1,354	1,418	1,452	1,453	1,432	1,428	1,353	1,560
Other intellectual property licenses	843	2,132	2,464	2,983	4,142	4,496	4,488	4,748	4,290	4,775	3,878	3,900	3,864	4,301
EPA														
All licenses, total active in the fiscal year	16	23	32	38	39	35	38	37	40	37	45	42	42	41
Invention licenses	16	23	32	38	39	35	38	37	40	37	45	42	42	41



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Other intellectual property licenses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHS														
All licenses, total active in the fiscal year	1,367	1,356	1,423	1,424	1,532	1,535	1,418	1,675	1,584	1,941	1,613	1,465	1,426	1,555
Invention licenses	1,007	1,213	1,350	1,173	1,237	1,213	915	1,376	1,304	1,240	414	1,090	1,069	1,186
Other intellectual property licenses	360	143	82	251	295	322	460	299	280	701	1,199	375	357	369
DHS														
All licenses, total active in the fiscal year	na	na	na	NA	NA	NA	NA	18	63	458	495	523	1,265	10,313
Invention licenses	na	na	na	NA	NA	NA	NA	NA	45	0	0	0	0	2
Other intellectual property licenses	na	na	na	NA	NA	NA	NA	NA	18	458	495	523	1,265	10,311
DOI														
All licenses, total active in the fiscal year	8	8	11	13	20	21	15	19	21	28	25	26	20	18
Invention licenses	8	8	10	12	19	20	15	18	18	23	23	24	20	16
Other intellectual property licenses	0	0	1	1	1	1	0	1	3	5	2	2	0	2
NASA														
All licenses, total active in the fiscal year	328	357	521	861	1,338	2,856	3,520	3,912	4,181	5,515	3,363	3,013	2,538	2,381
Invention licenses	292	290	312	338	441	308	316	330	146	456	309	284	266	253
Other intellectual property licenses	36	67	209	523	897	2,548	3,204	3,582	4,035	5,059	3,054	2,729	2,272	2,128
DOT														
All licenses, total active in the fiscal year	1	0	0	1	5	5	5	5	2	3	3	3	3	1



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Invention licenses	1	0	0	1	5	5	1	5	3	3	3	3	0	0
Other intellectual property licenses	0	0	0	0	0	0	0	0	0	0	0	0	3	1
VA														
All licenses, total active in the fiscal year	86	81	88	95	101	112	130	153	163	169	192	197	194	197
Invention licenses	76	69	88	95	101	112	130	153	163	169	192	197	194	197
Other intellectual property licenses	10	12	12	12	0	0	0	0	0	0	0	0	0	0
Collaborative R&D relationships														
All 11 agencies														
CRADAs, total active in the fiscal year	3,676	5,377	5,603	6,015	5,947	7,268	7,333	6,954	7,756	8,374	8,240	8,307	8,830	9,180
Traditional CRADAs	2,837	2,858	2,316	3,546	3,962	3,666	3,845	3,712	4,296	4,772	4,569	4,292	5,258	4,891
Other collaborative R&D relationships	NA	NA	8,162	7,454	11,767	9,738	10,568	12,719	17,649	20,538	25,367	24,717	27,051	27,182
USDA														
CRADAs, total active in the fiscal year	219	225	229	205	199	195	230	254	259	273	292	274	259	267
Traditional CRADAs	217	222	212	185	171	163	207	223	207	219	207	211	211	193
Other collaborative R&D relationships	NA	NA	2,769	1,166	5,028	3,477	4,084	5,821	10,306	12,943	15,837	15,878	17,344	17,005
DOC														
CRADAs, total active in the fiscal year	247	1,883	1,903	1,969	1,904	3,008	2,778	2,390	2,397	2,253	2,245	2,410	2,428	2,359
Traditional CRADAs	188	139	92	67	80	149	154	131	101	100	98	153	196	206
Other collaborative R&D relationships	1,575	1,694	1,814	2,301	2,714	2,114	2,672	2,816	2,828	2,897	2,899	2,782	2,977	3,031



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
DOD														
CRADAs, total active in the fiscal year	1,965	1,913	2,134	2,833	2,736	2,999	2,971	2,596	2,870	3,248	2,554	2,400	2,682	2,762
Traditional CRADAs	1,418	1,376	1,523	2,425	2,736	2,424	2,383	1,993	2,247	2,516	1,685	1,328	2,076	2,281
Other collaborative R&D relationships	0	0	0	0	0	0	0	3	1	287	988	0	606	581
DOE														
CRADAs, total active in the fiscal year	558	680	661	610	644	631	697	711	744	697	720	742	742	704
Traditional CRADAs	558	680	661	610	644	631	697	711	744	697	720	742	742	NA
Other collaborative R&D relationships	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EPA														
CRADAs, total active in the fiscal year	48	59	91	104	107	94	84	112	112	67	84	92	112	129
Traditional CRADAs	45	55	77	82	95	83	67	74	51	50	54	63	55	52
Other collaborative R&D relationships	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HHS														
CRADAs, total active in fiscal year	498	470	427	220	215	164	284	453	457	447	430	377	427	532
Traditional CRADAs	289	261	254	119	117	92	206	295	284	300	284	245	313	378
Other collaborative R&D relationships	0	0	0	0	0	0	0	0	0	0	0	0	114	154
DHS														
CRADAs, total active in the fiscal year	na	na	na	NA	NA	NA	NA	23	23	36	62	94	114	158
Traditional CRADAs	na	na	na	NA	NA	NA	NA	21	22	32	55	89	91	121



Agency	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Other collaborative R&D relationships	na	na	na	NA	NA	NA	NA	3	5	3	11	11	6	31
DOI														
CRADAs, total active in fiscal year	56	52	51	61	70	82	170	170	248	436	351	379	476	601
Traditional CRADAs	41	42	51	45	49	31	20	33	36	29	22	28	21	35
Other collaborative R&D relationships	0	0	0	0	0	0	0	0	0	0	209	283	322	292
NASA														
CRADAs, total active in the fiscal year	1	1	0	0	1	1	1	1	1	0	0	0	0	0
Traditional CRADAs	1	1	0	0	1	1	1	1	1	0	0	0	0	0
Other collaborative R&D relationships	1,053	2,659	3,579	3,987	4,025	4,275	3,812	4,076	4,507	4,379	5,384	5,749	5,656	6,058
DOT														
CRADAs, total active in fiscal year	82	92	96	0	57	59	36	23	22	22	25	29	40	50
Traditional CRADAs	78	80	96	0	55	59	36	23	22	0	0	3	3	7
Other collaborative R&D relationships	0	0	0	0	0	0	0	0	2	29	39	14	26	30
VA														
CRADAs, total active in the fiscal year	2	2	11	13	14	37	82	221	623	895	1,477	1,510	1,550	1,618
Traditional CRADAs	2	2	11	13	14	33	74	207	581	829	1,444	1,430	1,550	1,618
Other collaborative R&D relationships	0	0	0	0	0	0	0	0	0	0	0	0	0	0

na = not applicable; NA = not available.



CRADA = Cooperative R&D Agreement; DHS = Department of Homeland Security; DOC = Department of Commerce; DOD = Department of Defense; DOE = Department of Energy; DOI = Department of the Interior; DOT = Department of Transportation; EPA = Environmental Protection Agency; HHS = Department of Health and Human Services; NASA = National Aeronautics and Space Administration; USDA = Department of Agriculture; VA = Department of Veterans Affairs.

Note(s)

DHS started to operate in early 2003; it did not start to provide technology transfer statistics until FY 2008. Invention licenses refer to inventions that are patented or could be patented. Other intellectual property refers to intellectual property protected through mechanisms other than a patent (e.g., copyright). Total CRADAs refers to all agreements executed under CRADA authority (15 USC 3710a). Traditional CRADAs are collaborative R&D partnerships between a federal laboratory and one or more nonfederal organizations. (Nontraditional CRADAs are established for special purposes, such as material transfer or technical assistance that may result in protected information.) Federal agencies have varying authorities for other kinds of collaborative R&D relationships.

Source(s)

National Institute of Standards and Technology, U.S. Department of Commerce, *Federal Laboratory Technology Transfer, Fiscal Year 2014: Summary Report to the President and the Congress* (2016), https://www.nist.gov/sites/default/files/documents/2016/10/26/fy2014_federal_tech_transfer_report.pdf.

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