

**National Institute of Standards and Technology (NIST)  
Technology Partnership Office (TPO)  
Software Copyright Impact Survey**

**Introduction**

**NIST's Return on Investment (ROI) Initiative supports the President's Management Agenda goal of modernizing federal government practices to further fuel the nation's engines of innovation by maximizing the transfer of Federal investments in science and technology to the private sector.**

**The ROI Initiative is the culmination of a broad-ranging and inclusive review of policies and practices that constrain technology commercialization. One of these constraints is the regulatory prohibition of copyright protection on software developed by federal agency employees (Title 17, Section 105, of the United States Code).**

This survey is part of a NIST-sponsored study to assess the future economic benefits of eliminating the prohibition of copyright protection for software developed in government-operated federal laboratories. Contractor-operator federal laboratories are included because of their extensive experience with copyrighted software.

The survey covers two time periods, 2015-2019 and 2020-2024. Based on your informed judgement, we want to obtain, for the laboratory or facility (or laboratories or facilities) that you are responding for, estimates of the approximate number of software products (and associated revenue), that *have been* subject to copyright protection in federal laboratories (either because the lab is contractor-operated or because of exceptions that apply to government-operated labs), and the number of software products without copyright protection that *could be* available for copyright protection *if* the prohibition was eliminated. We will use the information you provide to estimate the net economic benefits of such a policy action. Please answer all questions to the best of your ability.

***The information provided will be used to estimate costs and revenues as functions of numbers and types of software products. Individual responses will not be attributed to you, the survey respondent, or the specific laboratory or facility with which you are associated. Issues concerning specific survey questions should be directed to David Leech <david.leech@starpower.net>.***

***Disclaimer:*** By design, the data entry fields in this survey form are not intended for the insertion of sensitive personally identifiable information (SPII)—nor are they intended for any proprietary business identifiable information (BII). Please take Federal best practice precautions in not inserting any data that is not explicitly requested.

**Software Copyright Impact Survey (Section 1)  
Government-Operated or Contractor-Operated?**

**1. Identify the laboratory/laboratories (or laboratory facility/facilities) for which you are responding.**

(Open dialog box)

**2. Name the parent federal agency** of which your laboratory/laboratories (or laboratory facility/facilities) is/are a part.

(Drop down for 13 agencies and Open dialog box for “other”)

13 Agencies:

- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Energy
- Department of Health and Human Services
- Department of Homeland Security
- Department of Interior
- Department of Labor
- Department of Transportation
- Department of Veterans Affairs
- Environmental Protection Agency
- National Aeronautics and Space Administration
- National Science Foundation
- Other (Please Specify)

**3. Is/Are the laboratory/laboratories (or laboratory facility/facilities) you are responding for considered government-operated or contractor-operated?** (Choose one or if you are responding for multiple laboratories or facilities and they are not all considered to be in the same operation category, please list each in the dialog box and identify each as GOGO or GOCO.)

Government Owned Government Operated (GOGO)

Government Owned Contractor-Operated (GOCO)

Other (please specify) and identify as either GOGO or GOCO  
(Open Dialog Box)

**If answering for multiple labs or facilities, from this point on just respond to each question for the collection of those labs or facilities.**

**Software Copyright Impact Survey (Section 2)  
 Software Licensing & Public Domain Software Release Activity 2015-2019  
 (in the laboratory/laboratories or laboratory facility/facilities for which you are  
 responding)**

**For fiscal years, FY15-FY19:**

4. For the FY15-FY19 period as a whole, approximate the percentage of the two custom-developed software\* product categories that your laboratory/laboratories (or laboratory facility/facilities) contributed to your parent Federal agency's ({{Q2}}) total output in those categories:

\* Custom-developed computer software refers to software developed by agency employees as part of their official duties and software written as part of a federal contract or otherwise fully funded by the federal government. It includes computer software projects, modules, plugins, scripts, middleware, and Application programming interface (APIs).

	<b>Percent of Parent Federal Agency</b>
Software Exclusive of Open Source	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
Open Source Software	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%

	55%
	60%
	65%
	70%
	75%
	80%
	85%
	90%
	95%
	100%

**5. How many custom-developed software products made by your laboratory/laboratories or facility/facilities were made available for licensing?** (For GOGO labs it is understood that copyrighted software products transferred to federal agencies or protected outside the U.S. are available to be licensed.)

Number available for licensing (numerical only please):

<b>FY1 5</b>	
<b>FY1 6</b>	
<b>FY1 7</b>	
<b>FY1 8</b>	
<b>FY1 9</b>	

**6. Estimate the approximate percentage distribution of the kinds of intellectual property protection applied to software products available for licensing:**

	<b>Percent</b>
<b>Copyright Only</b>	(Drop down)
	Less than 5%
	10%
	15%
	20%
	25%
	30%
	35%
	40%
	45%
50%	
55%	
60%	
65%	

	70% 75% 80% 85% 90% 95% 100%
<b>Copyleft Only</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Patented Only</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Copyrighted and Patented</b>	(Drop down)

	Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
--	--

**7. Estimate how many custom-developed computer software products were licensed and the average number of times each product was licensed in each fiscal year:**

	<b>Number of Products Licensed</b>	<b>Number of Times (on average for those products) each product was licensed</b>	<b>Number of “seats per license” (on average for those licenses, if this metric applies)</b>
<b>FY15</b>	(Drop down)	(Drop down)	(Drop down)
	5 or less	5 or less	5 or less
	10	10	10
	20	20	20
	30	30	30
	40	40	40
	50	50	50
	60	60	60
	70	70	70
	80	80	80
	90	90	90
	100	100	100
	200	200	200
	300	300	300
	400	400	400
	500	500	500
	500+	600	600

		700	700
		800	800
		900	900
		1,000	1,000
		2,000	2,000
		3,000	3,000
		4,000	4,000
		5,000	5,000
		6,000	6,000
		7,000	7,000
		8,000	8,000
		9,000	9,000
		10,000	10,000
		11,000	11,000
		12,000	12,000
		13,000	13,000
		14,000	14,000
		15,000	15,000
		16,000	16,000
		17,000	17,000
		18,000	18,000
		19,000	19,000
		20,000	20,000
		20,000+	20,000+
<b>FY16</b>	(Drop down)	(Drop down)	(Drop down)
	5 or less	5 or less	5 or less
	10	10	10
	20	20	20
	30	30	30
	40	40	40
	50	50	50
	60	60	60
	70	70	70
	80	80	80
	90	90	90
	100	100	100
	200	200	200
	300	300	300
	400	400	400
	500	500	500
	500+	600	600
		700	700
		800	800
		900	900
		1,000	1,000
		2,000	2,000

		3,000	3,000
		4,000	4,000
		5,000	5,000
		6,000	6,000
		7,000	7,000
		8,000	8,000
		9,000	9,000
		10,000	10,000
		11,000	11,000
		12,000	12,000
		13,000	13,000
		14,000	14,000
		15,000	15,000
		16,000	16,000
		17,000	17,000
		18,000	18,000
		19,000	19,000
		20,000	20,000
		20,000+	20,000+
<b>FY17</b>	(Drop down)	(Drop down)	(Drop down)
	5 or less	5 or less	5 or less
	10	10	10
	20	20	20
	30	30	30
	40	40	40
	50	50	50
	60	60	60
	70	70	70
	80	80	80
	90	90	90
	100	100	100
	200	200	200
	300	300	300
	400	400	400
	500	500	500
	500+	600	600
		700	700
		800	800
		900	900
		1,000	1,000
		2,000	2,000
		3,000	3,000
		4,000	4,000
		5,000	5,000
		6,000	6,000
		7,000	7,000



		8,000	8,000
		9,000	9,000
		10,000	10,000
		11,000	11,000
		12,000	12,000
		13,000	13,000
		14,000	14,000
		15,000	15,000
		16,000	16,000
		17,000	17,000
		18,000	18,000
		19,000	19,000
		20,000	20,000
		20,000+	20,000+
<b>FY18</b>	(Drop down)	(Drop down)	(Drop down)
	5 or less	5 or less	5 or less
	10	10	10
	20	20	20
	30	30	30
	40	40	40
	50	50	50
	60	60	60
	70	70	70
	80	80	80
	90	90	90
	100	100	100
	200	200	200
	300	300	300
	400	400	400
	500	500	500
	500+	600	600
		700	700
		800	800
		900	900
		1,000	1,000
		2,000	2,000
		3,000	3,000
		4,000	4,000
		5,000	5,000
		6,000	6,000
		7,000	7,000
		8,000	8,000
		9,000	9,000
		10,000	10,000
		11,000	11,000
		12,000	12,000

		13,000	13,000
		14,000	14,000
		15,000	15,000
		16,000	16,000
		17,000	17,000
		18,000	18,000
		19,000	19,000
		20,000	20,000
		20,000+	20,000+
<b>FY19</b>	(Drop down)	(Drop down)	(Drop down)
	5 or less	5 or less	5 or less
	10	10	10
	20	20	20
	30	30	30
	40	40	40
	50	50	50
	60	60	60
	70	70	70
	80	80	80
	90	90	90
	100	100	100
	200	200	200
	300	300	300
	400	400	400
	500	500	500
	500+	600	600
		700	700
		800	800
		900	900
		1,000	1,000
		2,000	2,000
		3,000	3,000
		4,000	4,000
		5,000	5,000
		6,000	6,000
		7,000	7,000
		8,000	8,000
		9,000	9,000
		10,000	10,000
		11,000	11,000
		12,000	12,000
		13,000	13,000
		14,000	14,000
		15,000	15,000
		16,000	16,000
		17,000	17,000

		18,000	18,000
		19,000	19,000
		20,000	20,000
		20,000+	20,000+

**8. Estimate the annual total dollar amount of revenues generated by software licenses:\***

\* Total revenues should include at least license issue royalties, minimum annual royalties, earned royalties, sub-licensing royalties, and benchmark royalties but not unreimbursed expense royalties. The latter will be included as part of licensing costs.

**Annual Revenue (nominal dollars):**

<b>FY15 (\$)</b>	
<b>FY16 (\$)</b>	
<b>FY17 (\$)</b>	
<b>FY18 (\$)</b>	
<b>FY19 (\$)</b>	

**9. How many custom-developed computer software products were available for download to the public without a license\*?**

\*Such public release software includes software released to the general public or other federal agencies without copyright or copyleft restrictions, and software released to the general public or other federal agencies for non-commercial use (exclusive of open source).

<b>FY15</b>	
<b>FY16</b>	
<b>FY17</b>	
<b>FY18</b>	
<b>FY19</b>	

**10. To the best of your knowledge, for FY15-FY19 as a whole, estimate the percentage distribution of the software products available from your laboratory/laboratories (or laboratory facility/facilities) across the following categories:**

	<b>Percent</b>
<b>Percent released as open source</b>	(Drop down)
	Less than 5%
	10%
	15%
	20%
	25%
	30%
	35%
	40%
	45%
50%	
55%	

	60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent released to the general public or other agencies for non-commercial use (exclusive of open source)</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent released to general public without copyright or copyleft restrictions</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95%

OMB Control # 0693-0033  
Expiration Date: 07/31/2022

	100%
<b>Percent released under other conditions</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%

**Software Copyright Impact Survey (Section 3)  
Software Development and Management Costs, 2015-2019  
(in the laboratory/laboratories or laboratory facility/facilities for which you are  
responding)**

**Costs over the entire period, 2015-2019:**

**Software Development Costs**

- 11. Estimate the average, maximum, and minimum number of lines of source code for the typical individual custom-developed software product developed by your laboratory/laboratories (or laboratory facility/facilities):**

Average	
Maximum	
Minimum	

- 12. For the average size software product (in terms of lines of source code), estimate the average number of full-time equivalent (FTE) person-years required for its development (and a representative GS-rating):**

Average Number of FTE Person-Years	
Representative General Schedule (GS) - Rating	

**Software Management Costs**

For software made available for download to the public with or without a license:

- 13. Over and above the cost of developing software that is released to the general public with or without a license, is there a significant annual cost to maintaining this software in terms of writing additional software or managing and administering the inventory once released? If so, please provide estimates of the average annual number of FTE person-years required and a representative GS-rating:**

<b>Average annual FTE person-years writing supporting software</b>	
<b>Representative GS-rating</b>	
<b>Average Annual FTE person-years administering software inventory</b>	
<b>Representative GS-rating</b>	

With reference to licensed software:

**14. Internal to your laboratory/laboratories or facility/facilities for which you are responding, what is the average annual number of FTE person-years (and representative GS-rating) dedicated to obtaining, maintaining intellectual property protection, and managing the licensing transactions for your software portfolio?**

<b>Average annual number of FTE person-years</b>	
<b>Representative GS-rating</b>	

**15. For your laboratory/laboratories or facility/facilities for which you are responding, estimate the average annual annuity fees (paid to maintain all issued patents) required to maintain your software portfolio:**

<b>Average Annual Cost of Annuity Fees (\$)</b>	
---	--

**16. External to your laboratory/laboratories or facility/facilities for which you are responding, what is the average annual cost of the legal support required for obtaining, maintaining intellectual property protection, and managing the licensing transactions, for your laboratory's software portfolio (including, if known, unreimbursed expense royalties)?\***

\* External legal costs include all annual expenses paid to private sector law firms in support of the agency's portfolio of software patents and copyrights.

<b>Average Annual Cost of External Legal Support (\$)</b>	
---	--

**Software Copyright Impact Survey (Section 4)  
 Counterfactual Software Copyright License & Public Release Activity 2020-2024  
 (in the laboratory/laboratories or laboratory facility/facilities for which you are  
 responding)**

**Assuming Elimination of the Copyright Prohibition for Government Works**

We would be grateful for your experience-based forecast of the 2020-2024 period assuming the copyright prohibition for government-produced software in eliminated.

- 17. Assuming the elimination of the copyright prohibition for government works, estimate the average annual number of custom-developed software products that will be available for licensing:**

<b>5-Year Annual Average for Number of Products Available for Licensing</b>	
---	--

- 18. Assuming the elimination of the copyright prohibition for government works, estimate the average annual number (and frequency) of custom-developed software products that will be licensed:**

<b>5-year annual average for the number of software products</b>	
<b>5-year annual average for number of times each product is expected to be licensed</b>	
<b>5-year annual average of the number of “seats per license” (if this metric applies)</b>	

- 19. If the copyright prohibition for government works was eliminated, estimate the distribution of custom-developed software products across the following software release categories (Note that with the prohibition eliminated, software inventions could be covered by both copyrights and patents):**

	<b>Percent</b>
<b>Percent patented but not copyrighted</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50%



	55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent copyrighted but not patented</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent patented and copyrighted</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90%

	95% 100%
<b>Percent copyrighted as open source</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent released to the general public or other agencies for non-commercial use (exclusive of open source)</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent released to general public without copyright or copyleft restrictions</b>	(Drop down) Less than 5% 10% 15% 20% 25%

	30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%
<b>Percent classified or export controlled</b>	(Drop down) Less than 5% 10% 15% 20% 25% 30% 35% 40% 45% 50% 55% 60% 65% 70% 75% 80% 85% 90% 95% 100%

**Compared to the 2015-2019 period:**

**20. Do you anticipate the average number of source lines of code for individual custom-developed software products available for licensing will grow, decline, or stay roughly the same? (Please choose one response and enter the %.)**

<b>Average annual growth (%)</b>	
<b>Average annual decline (%)</b>	
<b>Remain the same (enter the number 0)</b>	

**21. Do you expect the average annual dollar amount of revenues generated per licensed software product (i.e., after removing the effects of inflation and thus using dollars of constant value) to grow, decline, or remain roughly the same? (Please choose one of the first three responses and enter the %. Then provide your rationale in the fourth response area.)**

<b>Inflation-adjusted average annual growth (%)</b>	
<b>Inflation-adjusted average annual decline (%)</b>	
<b>Remain the same (enter the number 0)</b>	
<b>Please provide a rationale for your estimate.</b>	

**Please click “Done” when you are ready to submit your responses.**

**You Have Completed the Survey.  
Thank You!**

Note: This collection of information contains Paperwork Reduction Act (PRA) requirements approved by the Office of Management and Budget (OMB). Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number. Public reporting burden for this collection is estimated to be 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the National Institute of Standards and Technology, Attn: Nicole Gingrich 301-975-8034 [nicole.gingrich@nist.gov](mailto:nicole.gingrich@nist.gov).