

***Guidelines to Agencies for Preparing the Annual Report on Federal Laboratory Technology Transfer Plans and Activities – In Response to the Technology Transfer Commercialization Act of 2000 (P.L.106-404)***

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*Prepared in discussion with the members of the Interagency Working Group on  
Technology Transfer*

This is an updated version\* of the Guidelines document, intended for application in the CY 2003-04 reporting cycle commencing this Fall.

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The data elements discussed below outline a common response framework for departments/agencies with federal laboratories to prepare their Annual Agency Reports on federal lab technology transfer called for by the Technology Transfer Commercialization Act (TTCA) of 2000. This framework is directed at several considerations:

- The requirements identified for the annual “agency report on utilization” by 15 USC Sec. 3710 (f)(2) (hereafter referred to as the “Annual Agency Report”);
- The material needed for the DOC Secretary’s annual “Summary Report” to the President, the Congress, and U.S. Trade Representative under 15 USC Sec. 3710 g)(2) (hereafter referred to as the “Summary Report”);
- The types of data deemed important and reported by the agencies in the past for prior Biennial Report process under the Stevenson-Wydler Technology Innovation Act (P.L. 96-480, as amended by the Federal Technology Transfers Act of 1986); and
- Current policy concerns (such as congressional interest in greater information about the tangible downstream “outcomes” resulting from federal tech transfer policies and programs).

The potential for differences across the departments/agencies regarding technology transfer priorities, policies, and programs is well recognized. Accordingly, the reporting framework discussed below is outfitted with considerable flexibility to accommodate these differences.

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(\*Previous editions of these Guidelines were prepared and distributed by the Department of Commerce in December 2001 and December 2002. The Guidelines document is periodically

updated/refined to reflect prior year experience in preparing the reports, as well as to accommodate any agency management initiatives. Furthermore, the Guidelines reflect ongoing input – chiefly through the Interagency Working Group on Technology Transfer – from agency personnel with substantial experience in operating federal lab technology transfer programs.

### ***1. Annual Cycle of Events***

A general concept of the major milestones in the overall TTCA performance reporting process is described below. The Office of Management and Budget (OMB) may establish more specific dates for report materials. Accordingly, agency personnel preparing reports should consult the current edition of OMB’s Circular A-11 for such clarifications.

#### **General Schedule**

Fall of the current calendar year (CY)	Each agency assembles its data (current through the recently closed fiscal year) and drafts its Annual Agency Report. As discussed below, this involves reviewing the tech transfer “plans” for the current and forthcoming FY and describing the relevant activities and achievements in the FY most recently closed.
Jan./early Feb. of the new CY	The agency finalizes its Annual Agency Report and submits the document to OMB in conjunction with the agency’s regular budget proposal for the forthcoming FY. (Also send copy of this report to the Department of Commerce’s Office of Technology Policy).
March-May of the new CY	Commerce OTP reviews all the Annual Agency Reports, organizes and compiles these documents, tabulates the quantitative data presented into a consistent format, and drafts a new edition of the Secretary of Commerce’s Summary Report.
By June of the new CY	DOC publishes a new edition of the Summary Report.

**For example**, the schedule for the calendar year 2003-04 reporting cycle would be as follows: The Annual Agency Report will provide data current through FY 2003. The “plans” portion of this document should be forward looking, i.e., roughly FY 2004 and 2005. This report becomes part of the departmental budget proposal for FY 2005, which is submitted as part of the President’s Budget Proposal to Congress in early February 2004. OTP’s work on the Commerce Secretary’s federal-wide Summary Report will commence in later February 2004. The Summary Report will be finalized and submitted to the President and Congress in early Summer 2004.

## ***2. Scope of Organizational Coverage in Reporting***

In previous reporting cycles, some agencies encountered questions regarding what portions of agency lab operations should be covered. Typically, such questions arose with respect to agency R&D facilities that were other than “intramural.”

The following is offered to assist agencies in resolving such questions:

The portion of the TTCA that deals with the agency annual reporting (15 USC Sec.3710 (f)) reads: “Each Federal agency which operates or directs one or more Federal laboratories or which conducts activities under sections 207 and 209 of title 35, United States Code, shall report ..... on the activities performed by that agency and its Federal laboratories .....”

A clear (in statute) definition of Federal laboratories appears in 15 USC Sec. 3710a (d)(2):

- “(2) the term “laboratory” means –
- (A) a facility or group of facilities owned, leased, or otherwise used by a Federal agency, a substantial purpose of which is the performance of research, development, or engineering by employees of the Federal Government;
  - (B) a group of Government-owned, contractor-operated facilities under a common contract, when a substantial purpose of the contract is the performance of research and development for the Federal government; and
  - (C) a Government-owned, contractor-operated facility that is not under a common contract described in subparagraph (B), and the primary purpose of which is the performance of research and development for the Federal Government,”

In preparing its Annual Report, each agency should review this definition and make an appropriate determination of the organizational coverage that is appropriate. Also, the statistical summary tables for each agency in the Secretary of Commerce’s annual Summary Report will provide a statement of what component agency organizations are included in the reported data. So, whatever organization coverage you select for the statistics can be clearly stated. (For example, see the *2002 Summary Report*, Chapter 2, any of the agency “summary measures” tables. Accessible at <http://www.ta.doc.gov/Reports.htm> , in the “2002 reports” section.)

## ***3. Key Elements for Agency Reporting***

The information requested annually from each agency for performance reporting falls into two main categories:

- I. Description of the agency’s present technology transfer programs and plans;
- II. Presentation of data about the agency’s federal lab tech transfer activities and achievements in the most recently closed fiscal year

The content of these information areas is discussed in greater detail below. These conform in general to the information requirements imposed by the TTCA and are consistent with the past approach of the agencies and Commerce OTP in preparing the prior Biennial Reports under the Stevenson-Wydler Act.

### **Report Format**

The “guidelines” discussed below are intended as a working outline for this reporting. The guidelines are a list of common data questions all agencies need to address, a suggested sequence for presenting the material, along with opportunities for each agency to present additional performance measures and adjust its reporting style in ways it expects will best communicate its tech transfer activities and achievements.

*These guidelines do not seek, however, to specify a regimented format for each agency’s report. Each agency is encouraged generally to prepare the report in a form it deems appropriate and best presents its case. In addition, OTP will not distribute a standard survey instrument to collect this information, as it did in past years for the Stevenson-Wydler Act Biennial Reports.*

This overall approach seeks to strike a balance among several competing considerations. Obviously, broad uniformity in the form of reporting across the agencies will assist the DOC in efficiently preparing the Secretary of Commerce’s Annual Summary Report and aid outside readers/reviewers (e.g., the White House, Congress, agency officials) to quickly assimilate the information across the numerous agencies involved. At the same time, however, tech transfer programs, policies, and priorities vary across the agencies, and, accordingly, each agency needs some flexibility to set the content and format of its reporting in way that can appropriately reflect these differences.

***Observations.** In the reporting cycles recently completed, most of the agencies adopted the report flow described in the guidelines below and most seemed not to encounter major difficulties. Some agencies did draw on the built-in reporting flexibility to include program performance measures beyond those listed below and to otherwise shape their reports to highlight unique aspects of their technology transfer activities.*

## I. Agency Approach and Plans for Technology Transfer

### Tech Transfer Principals, Modes, Plans

<p>Topics on which information is requested:</p> <ul style="list-style-type: none"> <li>● Explanation of the agency's tech transfer program for the preceding FY</li> <li>● Explanation of the agency's plans for conducting its tech transfer function</li> </ul> <p style="padding-left: 40px;">including:</p> <ul style="list-style-type: none"> <li>-- Plans for securing IP rights in laboratory innovations with commercial promise</li> <li>-- Plans for managing laboratory IP so as to advance the agency's mission and benefit the competitiveness of U.S. industry</li> </ul>	<p>For example, in the agency material to be reported in the forthcoming FY 2005 budget proposal (to be submitted early Feb. 2004), "preceding FY" would be FY 2003.</p> <p>Both of the elements under "including" are specified by the TTCA, which are listed largely verbatim here (see 15 USC Sec. 3710 (f)(2)(A))</p> <p>The law does not explicitly define the coverage of years intended for "plans." However, a logical extrapolation is the two FY's following the "preceding FY" language above (e.g., FY 2004 and 2005, carrying on the above example). Such an interpretation is consistent with the timing of the departmental budget cycle to which the reporting process is attached (which would be the FY 2005 budget proposal in the example) and the immediately prior planning year (i.e., FY 2004).</p> <p>(For those familiar with agency annual planning and performance management activities under the Government Performance and Results Act of 1993, the above timing for TTCA reporting is closely parallel.)</p>
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A narrative discussion will likely be the best form of response -- of whatever length the agency deems appropriate to describe its programs, policies, and priorities. (For an agency where tech transfer authority is delegated to its laboratories, the information for the agency plan will no doubt need input from these laboratories.)

To provide a basis for interpreting the agency's activity/performance statistics, this narrative should discuss:

- The agency's mission and overall goals;
- The various modes through which the agency's tech transfer occurs, their operating principles, and how these modes and principles relate to the agency's mission and goals;
- The agency (or laboratory, as appropriate) management's expectations for performance in each of these modes.

In the recent reporting cycles, the better agency discussions were those that addressed these topics in some depth, indicated concrete priorities for the next several years, and discussed the links between tech transfer activities and the agency's broader strategic goals. For example, see NASA's material in the Secretary of Commerce's *2002 Summary Report* (<http://www.ta.doc.gov/Reports.htm>), pp. 52-55 (only half of which is included from NASA's April 2002 Annual Agency Report). See also the Department of Interior's material, particularly that of the Bureau of Reclamation, pp. 45-47 in the *2002 Summary Report*, and the Department of Agriculture, pp. 9-10 in the *2002 Summary Report*.

**Observations.** *It is recognized that federal S&T agencies differ in the modes of tech transfer they use. How they seek to manage their intellectual assets and how these activities are shaped to respond to the agency's mission may differ from agency to agency -- and may, in fact, differ from lab to lab within an agency. The narrative discussion requested above will be central in providing a clear picture of the main ways in which the agency seeks to transfer technology, including those approaches and priorities that distinguish it from the tech transfer programs and activities of other agencies. The essentials of this information should be up front, regardless of which specific organization and format an agency elects to implement for its annual report.*

## **II. Performance in the Last Fiscal Year: Activities and Outcomes**

Data on federal lab activities and achievements in several key areas is requested:

- Collaborative relationships for R&D
- Invention disclosure and patenting
- Licensing
- Other performance measures deemed important by the agency
- Downstream outcomes from federal lab tech transfer activities

This information is intended to indicate how an agency and its laboratories are carrying out the technology transfer function and illustrate what results are being achieved. Some of this calls for quantitative statistical data about program activities (e.g., CRADAs and licensing); some is best addressed by case examples (e.g., downstream commercial outcomes from past federal lab tech transfer relationships).

### **Several Fiscal Years of Data Recommended**

The law calls for the data to be provided for the "...preceding fiscal year ...". Nonetheless, agencies are encouraged to also include data for several earlier years, as a basis for comparison.

Progress in R&D is typically non-linear, and irregular upticks and downticks in year-to-year measures of tech transfer activity can be the norm. Multi-year trends will usually provide a sounder basis for interpretation. For an example of this reporting approach, see DOC's FY 2001 Annual Agency Report at <http://www.ta.doc.gov/Reports.htm> (section on "2002 reports").

Note that this is presented as a good practice recommendation, not a mandate. Providing this prior year information should be increasingly easy as the number of completed cycles under the

new reporting process grows. For the present, we assume that agencies electing to provide this additional data will do so on an “as data is available” basis.

**Observations.** *The data elements listed below have, for the most, been collected from the agencies in the past as part of the Biennial Report process under the Stevenson-Wydler Act. The several new data series requested arise chiefly from the expanded reporting requirements under the TTCA.*

*Again, it is recognized that the specifics of tech transfer priorities, policies, and programs can vary from agency to agency. This may necessitate including activity/achievement measures in addition to those listed below. Accordingly, while all the data questions need to be addressed (as they are relevant), agencies can certainly tailor their presentation in ways that present the priorities and activities of their tech transfer programs in the most informative light.*

**■ Collaborative Relationships for Research & Development**

	Prior FYs, as reference (2)	FY 2003 (1)
● CRADAs (3), total active in the FY (4)	x, x, x, x .....	x
- New, executed in the FY	x, x, x, x .....	x
▪ Traditional CRADAs (5), total active in the FY	x, x, x, x .....	x
- New, executed in the FY	x, x, x, x .....	x
▪ Non-traditional CRADAs (6), total active in the FY	x, x, x, x .....	x
- New, executed in the FY	x, x, x, x .....	x
● Other types of collaborative R&D relationships (7)		
▪ (specify as relevant), total active in the FY	x, x, x, x .....	x
-New, executed in the FY	x, x, x, x .....	x
▪ (add other rows as needed .....	x, x, x, x .....	x

(1) FY for the statutory reporting. For example, FY 2002 for the report submitted in CY 2003.

(2) See statement in main body of text just above recommending that agencies consider providing data for several prior years, as a basis for comparison. Left to agency discretion on how best to respond here -- 3 to 4 prior FYs would likely be ideal in most cases.

(3) Comprehensive of all agreements done under the authority of 15 USC 3710a. (4) “Active” = legally in force at any time during the FY.

(5) CRADAs involving collaborative research and development by a federal laboratory and non-federal partners.

(6) CRADAs used for special purposes -- such as, material transfer or technical assistance that may result in protected information.

(7) Some agencies may consider such other relationships an important aspect of their tech transfer programs and wish to provide relevant data. If so, include an appropriate measure(s) for gauging the activity, specifying both “total active” and “new, executed in the FY.”

## ■ Invention Disclosure and Patenting

	Prior FYs, as reference	FY 2003
● New inventions disclosed in the FY (1)	x, x, x, x .....	x
● Patent applications filed in the FY (2)	x, x, x, x .....	x
● Patents issued in the FY	x, x, x, x .....	x

(1) For inventions arising at the federal lab.

(2) Tally includes: U.S. patent applications, foreign patent applications filed on cases for which no U.S. application was filed, divisional applications, and continuation-in-part applications. Excludes: provisional, continuation, duplicate foreign, and PCT applications.

## ■ Licensing

The basic classification of license types is as follows:

- Total, all licenses
- Invention licenses, all active in the FY
  - Patent (including patent application) licenses
  - Material transfer licenses (of inventions)
  - Other invention licenses
- Other IP licenses
  - Copyright licenses (fee bearing)
  - Material transfer licenses (of non-inventions)
  - Other

This is a substantially revised classification of licenses, compared to earlier years' reporting.

The basic distinction between “invention licenses” and “Other IP licenses” is preserved. But a wider set of sub-classifications is arrayed under both of these headings. These changes have been introduced to better reflect the diversity of licensing activities now prevailing across the federal labs – which seems likely to expand further in the years ahead. This schema also helps to clarify the specific kinds of licenses to which the activity and performance questions apply (matters that were left somewhat vague in last year’s guidelines).

As will become clear in the tables below, particular attention is placed on patent (including patent application) licenses and copyright licenses, as key representatives, respectively, of the “inventions” and “other IP” categories. Also, in recognizing present agency practice, it is clear that material transfer licenses happen as both inventions and other IP, which makes the above double listing necessary for consistency.

The data tables resulting from this revised license classification scheme, as fully arrayed below, may seem rather large, with numerous additional data calls compared to prior years' reporting. Nevertheless, most agencies will not have licensing activities in all the categories listed below, and data rows not relevant can be dropped.

**Profile of Active Licenses**

	Prior FYs, for reference	FY 2003
● All licenses, number total active in the FY (1)	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
▪ Invention licenses, total active in the FY	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
- Patent (incl. pat. app.) licenses, total active in FY	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
- Material transfer lic. (inv.), total active in FY	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
- Other invention licenses (2), total active in the FY	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
▪ Other IP licenses, total active in the FY	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
- Copyright licenses (fee bearing)	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
- Material transfer lic. (non-inv.), total active in FY	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x
- Other (2)	x, x, x, x .....	x
▫ New, executed in the FY	x, x, x, x .....	x

(1) "Active" = legally in force at any time during the FY. Whether or not royalty bearing.

(2) A brief footnote explaining what such "other" licenses are would be helpful.

Multiple inventions in a single license are counted as one license. Licenses that include both patents and copyrights (hybrid licenses) are reported as patent licenses -- and not included in the count of copyright licenses.

**(cont.)**

	Prior FYs, for reference	FY 2003
● Licenses which are income bearing (1), total number	x, x, x, x .....	x
▫ Number exclusive/partially-excl./non-excl.	x/x/x, x/x/x, .....	x/x/x
▪ Invention licenses which are income bearing	x, x, x, x .....	x
▫ Number exclusive/partially-excl./non-excl.	x/x/x, x/x/x, .....	x/x/x
- Patent (incl. patent application) licenses	x, x, x, x .....	x

▫ Number exclusive/partially-excl./non-excl.	x/x/x, x/x/x, .....	x/x/x
▪ Other IP licenses which are income bearing	x, x, x, x .....	x
▫ Number exclusive/partially-excl./non-excl.	x/x/x, x/x/x, .....	x/x/x
- Copyright licenses (fee bearing)	x, x, x, x .....	x
▫ Number exclusive/partially-excl./non-excl.	x/x/x, x/x/x, .....	x/x/x
• Licenses which are royalty bearing (1), total number	x, x, x, x .....	x
▪ Invention licenses which are royalty bearing	x, x, x, x .....	x
- Patent (incl. patent application) licenses	x, x, x, x .....	x
▪ Other IP licenses which are royalty bearing	x, x, x, x .....	x
- Copyright licenses (fee bearing)	x, x, x, x .....	x

(1) Income/royalty-bearing, rather than –receiving is deemed the most appropriate measure here.

To keep the proliferation of data calls down, the only license sub-classifications included are for patent licenses and copyright licenses. Nonetheless, the totals for Invention licenses and Other IP licenses are assumed to include all the license types identified earlier.

### Licensing Management

	Prior FYs, for reference	FY 2003
• Elapsed execution time (1), licenses granted in the FY		
▪ Invention licenses (2)		
▫ average (or median) / min-max (3)	x / x-x, x / x-x, .....	x / x-x
- Patent (incl. patent application) licenses		
▫ average (or median) / min-max	x / x-x, x / x-x, .....	x / x-x
• Number of licenses terminated for cause in the FY		
▪ Invention licenses (2)	x, x, x, x .....	x
- Patent (incl. patent application) licenses	x, x, x, x .....	x

(1) Measured from the date of (formal) license application to the date of license execution. “Date of license application” is the date the lab formally acknowledges the written request for a license from a prospective licensee and agrees to enter into negotiations.

(2) The interest in this measure is interpreted to lie principally with invention licenses as a class and patent licenses as a subclass. The data call above reflects this presumption.

(3) In the general case, more than one new license will be executed in the FY and, thereby, the statistic will involve a distribution of license execution times. Accordingly, the relevant distributional descriptors are: Average (or median) time, and Minimum and Maximum times. A median is likely a better statistic than an average if the distribution of times is unpeaked, skewed, or otherwise irregular.

**License Income**

	Prior FYs, for reference	FY 2003
● Total income received (1), all licenses active in the FY	\$, \$, \$, \$ .....	\$
▪ Invention licenses	\$, \$, \$, \$ .....	\$
- Patent (and patent application) licenses	\$, \$, \$, \$ .....	\$
▪ Other IP licenses, total active in the FY	\$, \$, \$, \$ .....	\$
- Copyright licenses	\$, \$, \$, \$ .....	\$
● Total Earned Royalty Income (ERI) (2)	\$, \$, \$, \$ .....	\$
▫ Median ERI (3,4)	\$, \$, \$, \$ .....	\$
▫ Minimum, Maximum ERI	\$-\$, \$-\$, \$-\$, .....	\$ - \$
▫ ERI from top 1% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 5% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 20% of licenses	\$, \$, \$, \$ .....	\$
▪ Invention licenses	\$, \$, \$, \$ .....	\$
▫ Median ERI	\$, \$, \$, \$ .....	\$
▫ Minimum, Maximum ERI	\$-\$, \$-\$, \$-\$, .....	\$ - \$
▫ ERI from top 1% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 5% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 20% of licenses	\$, \$, \$, \$ .....	\$
- Patent (and patent application) licenses	\$, \$, \$, \$ .....	\$
▫ Median ERI	\$, \$, \$, \$ .....	\$
▫ Minimum, Maximum ERI	\$-\$, \$-\$, \$-\$, .....	\$ - \$
▫ ERI from top 1% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 5% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 20% of licenses	\$, \$, \$, \$ .....	\$
▪ Other IP licenses, total active in the FY	\$, \$, \$, \$ .....	\$
▫ Median ERI	\$, \$, \$, \$ .....	\$
▫ Minimum, Maximum ERI	\$-\$, \$-\$, \$-\$, .....	\$ - \$
▫ ERI from top 1% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 5% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 20% of licenses	\$, \$, \$, \$ .....	\$
- Copyright licenses	\$, \$, \$, \$ .....	\$
▫ Median ERI	\$, \$, \$, \$ .....	\$
▫ Minimum, Maximum ERI	\$-\$, \$-\$, \$-\$, .....	\$ - \$
▫ ERI from top 1% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 5% of licenses	\$, \$, \$, \$ .....	\$
▫ ERI from top 20% of licenses	\$, \$, \$, \$ .....	\$

(1) Total income includes license issue fees, earned royalties, minimum annual royalties, paid-up license fees, and reimbursement for full-cost recovery of goods and services provided by the lab to the licensee including patent costs.

(2) “Earned royalty” = royalty based upon use of a licensed invention (usually, a percentage of sales or of units sold), rather than a license issue fee or a minimum royalty.

(3) In short, start with a list of all royalty-producing licenses, ranked by the level of earned royalties received in the FY. Then, report the sum of revenue in the FY from the top 1% on the list, from the top 5%, and so on.

(4) That statute makes it clear that reporting these distributional statistics can be suspended if such information would inappropriately reveal the amount of royalty income associated with an individual license or licensee.

### Disposition of License Income

	Prior FYs, for reference	FY 2003
● Income distributed (1)		
▪ Invention licenses (2), total distributed	\$, \$, \$, \$ .....	\$
- To inventors (3)	\$, \$, \$, \$ .....	\$
- To other (3)	\$, \$, \$, \$ .....	\$
- Patent (and pat. app.) licenses, total distributed	\$, \$, \$, \$ .....	\$
- To inventors	\$, \$, \$, \$ .....	\$
-To other	\$, \$, \$, \$ .....	\$

(1) “Income” includes royalties and other payments received during the FY.

(2) Income disposition is of interest only for invention licenses. The data calls in this table reflect this.

(3) In last year’s reporting cycle, some of the agencies provided substantial detail on the categories of disposition other than “to inventors.” There was wide variation, however, among the categories used by differing agencies. At least for the coming year, it seems best to ask for a simple “to inventors” and “to other” split. However, the agency can certainly provide further disaggregation for “to other” such as it would like.

In general, it is recognized there is not a balance between income and expenditures in any given FY. It is also recognized that agencies may not have full reporting from the labs on the use of funds. Accordingly, the agency should respond as best it can based on the available information.

### ■ Other Performance Measures Deemed Important by the Agency

There may be other activity/performance information an agency deems relevant to submit, in addition to the items discussed earlier in this section. This could arise due to unique aspects or the predominant emphases of the agency’s mission or tech transfer practices. *The agency can certainly elect to include this kind of added information, as it views important to adequately describe the priorities and achievements of its current tech transfer programs and activities.*

For example, in the Department of Commerce’s Annual Agency Report for FY 2001, the National Institute of Standards and Technology (NIST) included quantitative measures for the following activities, which it deemed significant aspects of its overall technology transfer effort:

- facility use agreements
- guest scientists/engineers
- Standard Reference Materials
- Standard Reference Data
- items calibrated
- technical publications

For further details see DOC’s FY 2001 Annual Agency Report at <http://www.ta.doc.gov/Reports.htm> . See the 2002 reports, in the section on NIST.

Other Performance Measures information can be incorporated in the Annual Agency Report in a separate “other measures” section, using a table format similar to those above for the common activity measures. Alternatively, it may be better to introduce this material as added data rows at appropriate points in the tables above.

### ■ Downstream Outcomes from Technology Transfer Activities

Policymakers continue to indicate interest in this kind of information -- which speaks to the longer-term success of Federal lab technology transfer efforts.

A good start on a substantial body of cases across the agencies has resulted from the *2002 Summary Report* and the earlier *FY 1999-2000 Biennial Report*. (Both reports are accessible on DOC’s website: <http://www.ta.doc.gov/Reports.htm> See the 2002 report listings for each. The outcome cases provided by USDA, DOC, DOD, DOE, DOI, NASA, and DOT are particularly instructive.)

#### Types of outcomes that may be relevant to cite

<ul style="list-style-type: none"> <li>● Did technology arising under a CRADA (or other kind of collaborative R&amp;D relationship) become commercially available?</li> <li>● Did technology arising under a CRADA (or other kind of collaborative relationship) strengthen the capabilities of the laboratory?</li> </ul>	<p>Generally, these cases will have been years in maturation. Objective success stories will likely be those based upon reports required in licenses relating to earned income. But subjective success stories may also be useful, based on anecdotal knowledge of the transfer of know-how/know-what that resulted in commercial accomplishments.</p> <p>Often a laboratory’s technical staff will advance their own competencies or make a breakthrough that will significantly impact the ability of the lab to carry out its mission activities.</p>
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<ul style="list-style-type: none"> <li>● Did technology licensed by the lab become commercially available?</li> </ul>	<p>An obvious type of success case.</p>
<ul style="list-style-type: none"> <li>● Did a product or process developed by a lab licensee strengthen the lab's capabilities?</li> </ul>	<p>A feedback effect, which can be important and well worth documentation.</p>
<ul style="list-style-type: none"> <li>● Other kinds of outcomes [specify and describe]</li> </ul>	<p>For example, expanded know-how, know-what of lab scientists and engineers -- such knowledge may be shared with others through technical presentations or refereed papers to advance the larger body of knowledge.</p>

The cases are intended to concretely illustrate the agency's mission, R&D program, and tech transfer efforts. They should be selected with an eye to providing this "big picture." They should also seek to present the range of the agency's activities and achievements. Typically, a small number of well-described cases will be more compelling than a large number of thinly presented examples.

Cases selected should have a plausible link to the "this FY" orientation of the survey questions. In other words, if FY 2003 is the "data year" for the report, it would be best that the cases included have an easily understood outcome connection to FY 2003. (Of course, it will very often be the case that the technology evolution and application took many turns and years to reach the results being reported for FY 2003.)

In general, the responses should discuss both the nature of the outcome (e.g., a new commercial product, improved mfg. process or service capability) and the history of the technological evolution and tech transfer steps involved.

Extensive documentation is not needed – a well crafted, factual paragraph should often suffice. The discussion should be as succinct as possible, consistent with conveying the essential aspects of the achievement and the technology transfer steps involved.

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For an illustration of how all this agency-submitted information will be organized and presented in the Secretary of Commerce's Annual Summary Report, see several of the agency sections in Chapter 2 of the *2002 Summary Report* (Accessible at the DOC website <http://www.ta.doc.gov/Reports.htm> See "2002 reports" section.)

## ■ Information on Agency Plans for Strengthening its Performance Metrics

As part of the Annual Summary Report process, OTP is asked to “discuss the progress made [by the agencies] toward development of additional useful measures of the outcomes of technology transfer programs of Federal agencies” (15 USC Sec. 3710 (g)(2)(B)(iii))

Accordingly, we request that agency directly address this topic in its Annual Agency Report. (See, for example, DOE’s discussion on this topic in Chapter 4 of the *2002 Summary Report*, pp. 91-92)

Two possibilities for incorporating this material in the Annual Agency Report:

- a) As a separate section at the end of the report; or
- b) As a subsection in the earlier “Agency Approach and Plans” section

**APPENDIX:  
 TEMPLATES FOR DATA TABLES IN THE AGENCY ANNUAL REPORT**

The templates below correspond to the primary data tables envisioned by the previous guidelines for the Agency Annual Reports under the TTCA. (The table format presumes that FY 2003 is the data year for the report.)

Agencies may wish to transfer copies of these tables for use in preparing their own reports. Modifications of these templates can certainly be done to fit the specific needs of an agency.

**■ Collaborative Relationships for Research & Development**

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
● CRADAs, total active in the FY <sup>(1)</sup>	x	x	x	x	x
- New, executed in the FY	x	x	x	x	x
▪ Traditional CRADAs, <sup>(2)</sup> total active in the FY	x	x	x	x	x
- New, executed in the FY	x	x	x	x	x
▪ Non-traditional CRADAs, <sup>(3)</sup> total active in the FY	x	x	x	x	x
- New, executed in the FY	x	x	x	x	x
● Other types of collaborative R&D relationships					
▪ (specify as relevant), total active in the FY	x	x	x	x	x
-New, executed in the FY	x	x	x	x	x
..... add other rows as needed					

CRADA = Cooperative Research and Development Agreement. n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

(1) "Active" = legally in force at any time during the FY. "Total active" is comprehensive of all agreements executed under CRADA authority (15 USC 3710a).

(2) CRADAs involving collaborative research and development by a federal laboratory and non-federal partners.

(3) CRADAs used for special purposes -- such as, material transfer or technical assistance that may result in protected information.

Add other interpretive notes as needed.

(Notes on table development:

x = data point to be entered. Please list "0" if there are no non-traditional CRADAs. No entries in the "Other types of collaborative R&D relationships" row if these are not used by the agency.)

## ■ Invention Disclosure and Patenting

	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>
● New inventions disclosed in the FY <sup>(1)</sup>	x	x	x	x	x
● Patent applications filed in the FY <sup>(2)</sup>	x	x	x	x	x
● Patents issued in the FY	x	x	x	x	x

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

(1) Inventions arising at the federal lab.

(2) Tally includes: U.S. patent applications, foreign patent applications filed on cases for which no U.S. application was filed, divisional applications, and continuation-in-part applications. Excludes: provisional, continuation, duplicate foreign, and PCT applications.

(Notes on table development:  
x = data point to be entered.)

## ■ Licensing

### Profile of Active Licenses

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
● All licenses, number total active in the FY <sup>(1)</sup>	S	S	S	S	S
▫ New, executed in the FY	S	S	S	S	S
▪ Invention licenses, total active in the FY	S	S	S	S	S
▫ New, executed in the FY	S	S	S	S	S
- Patent (and patent application) licenses, total active in FY	X	X	X	X	X
▫ New, executed in the FY	X	X	X	X	X
- Material transfer licenses (inventions), total active in FY	X	X	X	X	X
▫ New, executed in the FY	X	X	X	X	X
- Other invention licenses, <sup>(2)</sup> total active in the FY	X	X	X	X	X
▫ New, executed in the FY	X	X	X	X	X
▪ Other IP licenses, total active in the FY	S	S	S	S	S
▫ New, executed in the FY	S	S	S	S	S
- Copyright licenses (fee bearing)	X	X	X	X	X
▫ New, executed in the FY	X	X	X	X	X
- Material transfer licenses (non-inventions), total active in the FY	X	X	X	X	X
▫ New, executed in the FY	X	X	X	X	X
- Other <sup>(3)</sup>	X	X	X	X	X
▫ New, executed in the FY	X	X	X	X	X

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

Multiple inventions in a single license are counted as one license. Licenses that include both patents and copyrights (hybrid licenses) are reported as patent licenses -- and not included in the count of copyright licenses.

(1) "Active" = legally in force at any time during the FY.

(2) ..... please include a brief footnote explaining what such "other" licenses are tallied.

(3) ..... please include a brief footnote explaining what such "other" licenses are tallied.

Notes on table development:

x, s = data to be entered. In the general case, "s" entries will be the sum of rows below.

**Profile of Active Licenses (cont.)**

	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>
● Licenses which are income bearing, total number	s	s	s	s	s
◦ Number exclusive/partially-exclusive/non-exclusive	s/s/s	s/s/s	s/s/s	s/s/s	s/s/s
▪ Invention licenses which are income bearing	x	x	x	x	x
◦ Number exclusive/partially-exclusive/non-exclusive	x/x/x	x/x/x	x/x/x	x/x/x	x/x/x
- Patent (and patent application) licenses	x	x	x	x	x
◦ Number exclusive/partially-exclusive/non-exclusive	x/x/x	x/x/x	x/x/x	x/x/x	x/x/x
▪ Other IP licenses which are income bearing	x	x	x	x	x
◦ Number exclusive/partially-exclusive/non-exclusive	x/x/x	x/x/x	x/x/x	x/x/x	x/x/x
- Copyright licenses (fee bearing)	x	x	x	x	x
◦ Number exclusive/partially-exclusive/non-exclusive	x/x/x	x/x/x	x/x/x	x/x/x	x/x/x
● Licenses which are royalty bearing, total number	s	s	s	s	s
▪ Invention licenses which are royalty bearing	x	x	x	x	x
- Patent (and patent application) licenses	x	x	x	x	x
▪ Other IP licenses which are royalty bearing	x	x	x	x	x
- Copyright licenses (fee bearing)	x	x	x	x	x

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

Notes on table development:

x, s = data to be entered. In the general case, "s" entries will be the sum of rows below.

Income/royalty "bearing" (rather than "receiving") is deemed the most appropriate descriptor on conceptual grounds.

To keep the proliferation of data calls down, the only license sub-classifications included are patent licenses and copyright licenses. Nonetheless, the totals for Invention licenses and Other IP licenses are assumed to include all the license types identified earlier.

## Licensing Management

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2002
● Elapsed execution time, <sup>(1)</sup> licenses granted in the FY					
▪ Invention licenses					
◦ average (or median) / min-max	x/x-x	x/x-x	x/x-x	x/x-x	x/x-x
- Patent (and patent application) licenses					
◦ average (or median) / min-max	x/x-x	x/x-x	x/x-x	x/x-x	x/x-x
● Number of licenses terminated for cause in the FY					
▪ Invention licenses	x	x	x	x	x
- Patent (and patent application) licenses	x	x	x	x	x

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

(1) Date of license application to the date of license execution. (Date of license application is the date the lab formally acknowledges the written request for a license from a prospective licensee and agrees to enter into negotiations.)

### Notes on table development:

x = data to be entered.

The interest of these measures is interpreted to lie chiefly with invention licenses as a class and patent licenses as a subclass. The data call above reflects this presumption.

In the general case, more than one new license will be executed in the FY and, thereby, the statistic will involve a distribution of license execution times. Accordingly, the relevant distributional descriptors are: Average (or median) time, and Minimum and Maximum times. A median is likely a better statistic than an average if the distribution of times is unpeaked, skewed, or otherwise irregular.

## License Income

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
● Total income received, all licenses active in the FY <sup>(1)</sup>	s\$	s\$	s\$	s\$	s\$
▪ Invention licenses	\$	\$	\$	\$	\$
- Patent (and patent application) licenses	\$	\$	\$	\$	\$
▪ Other IP licenses, total active in the FY	\$	\$	\$	\$	\$
- Copyright licenses	\$	\$	\$	\$	\$
● Total Earned Royalty Income (ERI) <sup>(2)</sup>	s\$	s\$	s\$	s\$	s\$
▫ Median ERI	s\$	s\$	s\$	s\$	s\$
▫ Minimum, Maximum ERI	s\$-\$	s\$-\$	s\$-\$	s\$-\$	s\$-\$
▫ ERI from top 1% of licenses	s\$	s\$	s\$	s\$	s\$
▫ ERI from top 5% of licenses	s\$	s\$	s\$	s\$	s\$
▫ ERI from top 20% of licenses	s\$	s\$	s\$	s\$	s\$
▪ Invention licenses	\$	\$	\$	\$	\$
▫ Median ERI	\$	\$	\$	\$	\$
▫ Minimum, Maximum ERI	\$-\$	\$-\$	\$-\$	\$-\$	\$-\$
▫ ERI from top 1% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 5% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 20% of licenses	\$	\$	\$	\$	\$
- Patent (and patent application) licenses	\$	\$	\$	\$	\$
▫ Median ERI	\$	\$	\$	\$	\$
▫ Minimum, Maximum ERI	\$-\$	\$-\$	\$-\$	\$-\$	\$-\$
▫ ERI from top 1% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 5% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 20% of licenses	\$	\$	\$	\$	\$
▪ Other IP licenses, total active in the FY	\$	\$	\$	\$	\$
▫ Median ERI	\$	\$	\$	\$	\$
▫ Minimum, Maximum ERI	\$-\$	\$-\$	\$-\$	\$-\$	\$-\$
▫ ERI from top 1% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 5% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 20% of licenses	\$	\$	\$	\$	\$
- Copyright licenses	\$	\$	\$	\$	\$
▫ Median ERI	\$	\$	\$	\$	\$
▫ Minimum, Maximum ERI	\$-\$	\$-\$	\$-\$	\$-\$	\$-\$
▫ ERI from top 1% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 5% of licenses	\$	\$	\$	\$	\$
▫ ERI from top 20% of licenses	\$	\$	\$	\$	\$

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

(1) Total income includes license issue fees, earned royalties, minimum annual royalties, paid-up license fees, and reimbursement for full-cost recovery of goods and services provided by the lab to the licensee including patent costs.

(2) "Earned royalty" = royalty based upon use of a licensed invention (usually, a percentage of sales or of units sold). Not a license issue fee or a minimum royalty.

Notes on table development:

\$. s\$ = data to be entered. In the general case, "s\$" entries will be the sum of rows below. Although, where distributions are involved, the "summing" process will require an appropriate statistical weighting.)

In short, start with a list of all royalty-producing licenses, ranked by the level of earned royalties received in the FY. Then, report the sum of revenue in the FY from the top 1% on the list, from the top 5%, and so on.

That statute makes it clear that reporting these distributional statistics can be suspended if such information would inappropriately reveal the amount of royalty income associated with an individual license or licensee.

Some rows may be judiciously dropped, if the license type is not an aspect of the agency's tech transfer program.

## Disposition of License Income

	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
• Income distributed <sup>(1)</sup>					
▪ Invention licenses, total distributed	\$	\$	\$	\$	\$
- To inventors	\$	\$	\$	\$	\$
- To other <sup>(2)</sup>	\$	\$	\$	\$	\$
- Patent (and patent application) licenses, total distributed	\$	\$	\$	\$	\$
- To inventors	\$	\$	\$	\$	\$
-To other <sup>(2)</sup>	\$	\$	\$	\$	\$

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

(1) Income includes royalties and other payments received during the FY.

(2) .... please list, even if general categories

### Notes on table development:

\$ = data to be entered.

Income disposition is of interest only for invention licenses. The data calls in this table reflect this.

In general, it is recognized there is not a balance between income and expenditures in any given FY. It is also recognized that agencies may not have full reporting from the labs on the use of funds. Accordingly, the agency should respond as best it can on the information available.

In last year's reporting cycle, some of the agencies provided substantial detail on the categories of disposition other than "to inventors." However, the agencies differed widely on the categories used. The above is an effort to provide a simple, straightforward classification relevant for all agencies. Nonetheless, an agency can certainly provide further disaggregation for "to other" such as it judges appropriate to do.

**■ Other Performance Measures Deemed Important by the Agency**

Reporting data under this heading will depend on what, if any, such measures each agency elects to provide.

In the general case, it may be best to present this information as a separate Other Performance Measures table (as below). Alternatively, it may be better to introduce this information as added data rows at appropriate points in the tables above.

**Other Performance Measures**

	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>

n/a = Data not available from agency at time of this report. -- = Data not requested from agency in previous years' reports.

(Notes on table development:

Add whatever interpretative notes warranted to assist readers in understanding the nature of the measures/data rows included.