



*The Only Government-
wide Forum for
Technology Transfer*

Measuring Outcomes: Applying the Lessons of the AUTM Survey to Federal Labs

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- Chair, Association of University Technology Managers (AUTM), Federal Laboratories Special Interest Group (2000-present)
- Member, AUTM Metrics Committee
- Past President, Association for Federal Technology Transfer Excellence (AFTTE)
- Director of Technology Transfer, University of Utah
- Licensing Specialist, Technology Transfer Office, MIT
- 20 years' experience in technology transfer; negotiated more than 150 licenses
- Ph.D., Materials Science and Engineering



TOPICS

- AUTM Survey: History, Process, and Concerns
- Outcomes measured by the AUTM Annual Survey
- Other Outcomes measured by AUTM Surveys
- Using the AUTM Data at NRL
- Lessons from the AUTM Survey for Federal Labs



THE AUTM ANNUAL SURVEY: PURPOSE

- Educational Benefit of Members
- Public Service to non-profit Tech Transfer Licensing Community



THE AUTM SURVEY: DEMONSTRATES TECH TRANSFER BENEFITS

- New Products
 - Public benefit
 - Improve quality of life
- New Companies that Create New Jobs
- Royalty Income Funds Academic Research
- Licensing Supports Corporate Growth
- Generates New Tax Revenue



THE AUTM ANNUAL SURVEY: CONCERNS

- What you measure is what you get.
- Too time consuming to collect/report data
- Inappropriate comparisons
- What if we're last?
- Can't control the message: "It's All about Royalties"
- Identify Other Metrics that will Better Support our Message!!!



THE AUTM ANNUAL SURVEY: RESPONDENTS

- U.S. universities
 - 94% of top 100 research universities
 - >50 of member represented institutions
- Teaching hospitals
- Research institutions
- Patent commercialization companies
- Canadian universities (now separate report)
- ??? federal labs???



THE AUTM SURVEY: ORGANIZATIONAL STRUCTURE

- Survey Policy Committee
 - Public Policy, Academic Expert, Board Member
- Working Committee, Chair from Policy Committee
- Working Sub-Committees
 - Salary survey, Start-up, Definitions,
- Board Review and Approval of Budget, Reports
- Self Funded



THE AUTM SURVEY: TYPES

- Annual U.S.
- Annual Canadian
- Salary Survey, periodic
- Supplementary Surveys
 - Royalty Distribution Formulae
- Better World Project 2006
- AUTM “Approved” One-time Academic Research Surveys



THE AUTM SURVEY: CRITICAL ELEMENTS

- Voluntary, Self-reported Data
- Member Driven Questions
- Well Crafted Definitions yield consistent reporting
 - What is a License? software, biological materials, Count MTAs? Count plant patents?
- Knowledgeable review of Data
- Electronic “sanity check” of Data
- Continuously enhanced, 1-2 new questions per year



AUTM ANNUAL SURVEY: INPUTS REPORTED

- Office Staffing: Prof. FTE's, Admin. FTE's
- Sponsored Research Expenditures
- New Invention Disclosures Received
- New Patent Applications Filed
- Patent Costs and Reimbursements
- Patents Issued



AUTM ANNUAL SURVEY: OUTCOMES REPORTED

- 5 New Product Stories
- Options and Licenses Executed
- New Research Funding from Licenses
- Total Active Licenses
- # of Start-up Companies Formed
- License Income (by type)
- # of New Products on the Market



OTHER OUTCOMES: ACADEMIC STUDIES TO DISPEL CONCERNS

- Distortion of Academic Mission?
 - Is Faculty Research becoming more Commercial and less Basic?
- Publication Delays for Patenting Purposes?
- Effects of Gene Patenting on Research
- Impact on “Collegiality”
 - Less Sharing of Information, Data, Samples?



USES: NRL USES OF AUTM SURVEY DATA

- Understanding
- Benchmarking
- Planning
- Selling Tech Transfer Potential to Management
 - By Comparison to Peer Universities
 - Projected Growth Rate & Returns based on AUTM data



USES: WHY AUTM DATA WILL WORK FOR NRL

- Works for University Peer Institutions
- Lincoln Labs (FFRDC) vs. MIT
 - Missions: Weapons Development vs. Education
 - Tech Transfer Performance Data Matched
- Personal Experience
 - NRL Technology is MORE licensable than MIT's



USES: WHY AUTM DATA WON'T WORK FOR NRL?

- UNFUNDED MANDATE
 - Insufficient Tech Transfer Staff
 - Budget for Two Foreign Filings per Year
- Navy Processes make patenting and licensing more labor intensive and time consuming
 - 7 hard copy approvals required for each license, each has a week to respond
 - 20 page Inter-institutional Agmt. vs. 3 pages
- Patent Quality (lowest bidder vs. best patent attny.)



USES: DATA NRL COLLECTS

- Internal
 - “Interest Expressed” per disclosure
 - New Licenses, New CRADA’s
 - Income from CRADA’s, Income from licenses
 - Royalties to Inventors; # of Inventors receiving \$\$\$; Amounts by inventor
- Royalty Reports from Licensees
 - Net Sales per product per country
 - Funds expended to develop the product
 - No. of employees developing product



USES: DATA NRL REPORTS

- Internal
 - New Patents Issued
 - New Licenses & New CRADA's by Division
 - Income from CRADA's & Licenses
 - Royalties to Inventors; # of Inventors receiving \$\$\$; Amounts by inventor
- External
 - Annual Report with Required Numbers
 - Occasional Press Release by Licensee



USES OF AUTM SURVEY: BENCHMARKS

- Disclosures per Million \$\$ in Research Funding
- New Disclosures per Professional FTE
- % of New Disclosures Filed on
- Licenses per Professional FTE
- Blockbusters per 1000 licenses
- Royalties per Million \$\$ Research Funding
- Royalty Income as a % of Research Budget



LESSONS: NRL OUTCOMES WISH LIST

- Benefits from CRADA's to the Mission
 - Examples of Synergy with Corporate CRADA Partners
- Benefits to War-fighters from Licenses
 - Products that are better or more available for DOD
 - Cost savings to Military through cheaper products
 - Faster transitions of new technology to Military



LESSONS FROM AUTM SURVEY

- Although the Missions are Different, Most AUTM Survey Data can be Useful for Federal Labs
- Informed use of AUTM Data can be Helpful in Planning and Forecasting
 - Staffing Levels
 - Royalty Projections
- AUTM data derived Benchmarks also apply to Federal Labs



LESSONS FROM AUTM SURVEY (Cont.)

- Respondents Complain about Data Collection, but Don't want to receive less data. They want more!
- Collecting Complex Outcome Data is so Time Consuming that Funding is Necessary
- Impossible to Manage Academic and Press Interpretations of the Data
 - Success Story Outcomes don't get much Press
- Necessary to Respond to Misinterpretations in Print and with Studies