

# ADVANCING FORENSIC SCIENCE AT NIJ

---

Greg Ridgeway

# NIJ Has Responded to the “Yellow Book”

## *Focus on Science*

- For five years there has been a consistent focus on science
- Robinson delegation memo gives NIJ authority on all scientific grantmaking
- DOJ Scientific Integrity Policy offers further support
  - “Across-the-board culture of scientific, technological and research validity, reliability, accuracy, objectivity and integrity”
  - “Director of the National Institute of Justice shall have final authority over all grants”

# NIJ Has Responded to the “Yellow Book” *Focus on Science*

- Focus as many dollars as possible on scientific innovation
  - Shedding “support” programs
  - Steering the NLECTCs toward research
- Heavily weight “the idea” in scoring proposals
- Focus grantees on scholarly products
- Freeing scientists to focus on technical issues

NAS and CLAJ should help protect NIJ’s science focus

# NIJ Has Responded to the “Blue Book”

## *Reorganized to Focus on Forensics*

- Created the Office of Investigative and Forensic Science
  - Staffed with scientists: chemistry, biology, anthropology, toxicology, and others
  - Most have forensic lab experience
- Invested \$120M+ in research on forensics
  - Largest forensic science research effort in the world
  - Hundreds of projects, papers, and reports

# NIJ Has Responded to the “Blue Book”

## *Solicitation Realigned*

### 2008 R&D

- General improvements to the “front end” of the forensic DNA analysis process
- Physical separation of the components of a mixture
- Body-fluid/cell-type identification
- Improved tools for examining compromised DNA evidence
- Species differentiation

### 2009 R&D

- Make quantitative those methods that are currently qualitative in nature
- Examine potential human or systemic errors in forensic practice
- Quantifiable measures of uncertainty in conclusions of forensic analyses
- Establish limits of reliability and accuracy

# Research Operations Varies Across NIJ Offices

- Similarities:
  - Peer review
  - Scholarly products expected of all grantees
    - Dissemination through scholarly outlets (journals, academic press books, law reviews, patents)
    - No final technical report
  - Data archiving expected of all grantees
- Agenda setting varies greatly
  - ORE largely driven by personality
  - OST largely driven by technology needs assessment
    - Very organized, transparent
    - Risks missing important issues not on the radar
  - OIFS largely driven by the research community
    - Open solicitation but prompted by working group's published priorities

## NIJ Does Not Consistently Track Impact

- Yellow Book noted that NIJ-funded research has a negligible footprint in the scholarly literature
- Project officers catalog grantee products in final summary reports
- Violence Against Women research organized in a 233 page compendium, 1993-2013

# NIJ Appropriations Are Spread Across Several Funding Streams

	FY 2013 Enacted	FY 2014 Requested	FY 2014 Enacted	FY 2015 Enacted
<b>Research, Evaluation, and Statistics</b>				
Research, Development, and Evaluation Programs and Other Authorized Activities (NIJ base program)	38	44.5	40	36
<i>Transfer to NIST/OLES</i>	5	-	-	-
Evaluation Clearinghouse/CrimeSolutions.gov	1	3	1	-
Forensic Science Advisory Commission	-	1	1	1
Forensic science guidance groups and standards (NIST)	-	3	3	3
Basic forensic science (NSF)	-	5	-	-
<b>State and Local Law Enforcement</b>				
Domestic radicalization	4	-	4	4
DNA-related and forensic programs and activities	125	100	125	125
Coverdell forensic science grants	12	-	12	12
School safety	-	-	75	75
<b>OJP Set-Aside for Research and Evaluation (2%)</b>	29	30	~30	?
<b>Office on Violence Against Women (OVW) Transfer</b>				
Research and Evaluation on Violence Against Women	3.5	3	3.25	3
Research on Violence Against Indian Women	1	1	1	1

## DNA-Related and Forensic Programs and Activities Appropriation Is the Key Source for Forensic R&D

(17) \$125,000,000 for DNA-related and forensic programs and activities, of which—

- (A) \$117,000,000 is for a DNA analysis and capacity enhancement program and for other local, State, and Federal forensic activities, including the purposes authorized under section 2 of the DNA Analysis Backlog Elimination Act of 2000 (Public Law 106–546) (the Debbie Smith DNA Backlog Grant Program): Provided, That up to 4 percent of funds made available under this paragraph may be used for the purposes described in the DNA Training and Education for Law Enforcement, Correctional Personnel, and Court Officers program (Public Law 108–405, section 303);
- (B) \$4,000,000 is for the purposes described in the Kirk Bloodsworth Post-Conviction DNA Testing Program (Public Law 108–405, section 412); and
- (C) \$4,000,000 is for Sexual Assault Forensic Exam Program grants, including as authorized by section 304 of Public Law 108–405;

# Continuing Resolutions and Rescission Create Narrow Funding Window

- NIJ usually operates on a continuing resolution on October 1

SEC. 101. (a) Such amounts as may be necessary, at a rate for operations as provided in the applicable appropriations Acts for fiscal year 2014 and under the authority and conditions provided in such Acts, for continuing projects or activities (including the costs of direct loans and loan guarantees) that are not otherwise specifically provided for in this joint resolution, that were conducted in fiscal year 2014, and for which appropriations, funds, or other authority were made available in the following appropriations Acts:

(2) The Commerce, Justice, Science, and Related Agencies Appropriations Act, 2014 (division B of Public Law 113–76).

# Continuing Resolutions and Rescission Create Narrow Funding Window

- NIJ usually operates on a continuing resolution on October 1
- On September 30<sup>th</sup> all unobligated funds are rescinded

(b) Of the unobligated balances available to the Department of Justice, the following funds are hereby rescinded, not later than September 30, 2015, from the following accounts in the specified amounts—

(11) “State and Local Law Enforcement Activities, Office of Justice Programs”, \$82,500,000

# Continuing Resolutions and Rescission Create Narrow Funding Window

- NIJ usually operates on a continuing resolution on October 1
- On September 30<sup>th</sup> all unobligated funds are rescinded
- Limits NIJ in several ways
  - complicates collaboration with NIST and NSF and CDC
  - impossible to allow resubmits 3-6 months later
  - timing of graduate research fellowships with academic calendar

# My Vision of NIJ Within the Federal Movement to Improve Forensic Science

- NIJ should have the primary role of organizing, selecting, funding, and curating applied forensic science research and development
  - Innovations to increase our nation's lab capacity including automation, high throughput drug analysis, and workflow analysis
  - Improve our understanding of error rates and reliability
  - Development of research infrastructure, such as databases of fingerprints, shoeprints, tire treads, paint chips, fibers, tool marks
- Rely on partners at NSF for basic science and NIST for standards and metrology

## What the Committee Can Do for NIJ

- NAS can help protect NIJ's science focus
- Reset the NAS opinion of NIJ
  - NIJ has trouble advancing because of the previous review
- Tell NIJ if the portfolio is in the right direction
- Tell NIJ if its work is advancing forensic science
- How can NIJ attract proposals from qualified teams prepared to address key forensic science research questions