

Presentation to the National Academies  
**Committee on Identifying the Needs of  
the Forensic Sciences Community**

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# **Overview of Forensic Training and Education**

1. Current situation and environment
2. Education and accreditation
3. Thoughts on needs

# 1. Current situation and environment

- The discipline lives at the nexus between **science, law, and law enforcement**
  - This means serving many masters
- ~80% of labs are administratively part of law enforcement agencies
  - Managing police in para-military organization is different than managing scientists in a laboratory
  - Neither are particularly prepared for this

# 1. Current situation and environment

- Law enforcement and science have **different mandates**
  - This necessitates **different education and training**
- Forensic science is a **separate** scientific discipline
  - Requires:
    - Fundamental curriculum
    - Philosophy and principles
- Barriers to efficiency and success are cultural
  - Law enforcement
  - Forensic laboratories
  - Academia

# 1. Current situation and environment

- Law Enforcement Barriers
  - *“Do you know how many squad cars I could buy for that?”*
  - FS Lab Directors (with **science degrees**) should report to head of agency, not through non-scientific officer
    - **Science requires objectivity and autonomy to be neutral**
- Forensic Barriers
  - *“You can’t understand the subtleties of what I do”*
  - If it’s science, then you can communicate it and others can do it
    - **Publish, develop curricula, teach, research, professional development**
- Academic Barriers
  - *“It’s only an applied science”*
  - Like medicine, engineering, chemistry, etc. it is **basic and applied**
    - **Work against the “applied vs. basic” dichotomy**

***"Forensic methods attract a growing interest from professional circles. Unsurprisingly, many young people focus on this career from the start of their study [....]. It becomes absolutely necessary for them to obtain a specialized grade at the end of their specialized study."***

**Rodolphe Archibald Reiss, 1909**

## 2. Education and accreditation

- 1999: NIJ *Status and Needs* report
  - Accreditation/certification of forensic academic training programs/institutions.
  - Setting **national consensus standards of education** in the forensic sciences.
  - Establishing independent, community-wide, consensus standard-setting bodies, such as Technical Working Groups.
  - **Funding by NIJ of forensic academic research** and development programs.
  - Ensuring that all forensic scientists have **professional orientations to the field**, formal quality-assurance training, and expert-witness training.
- 2002-2003: NIJ/WVU Technical Working Group on Education and Training in Forensic Science (TWGED)
  - *NIJ Special Report: Education and Training in Forensic Sciences*

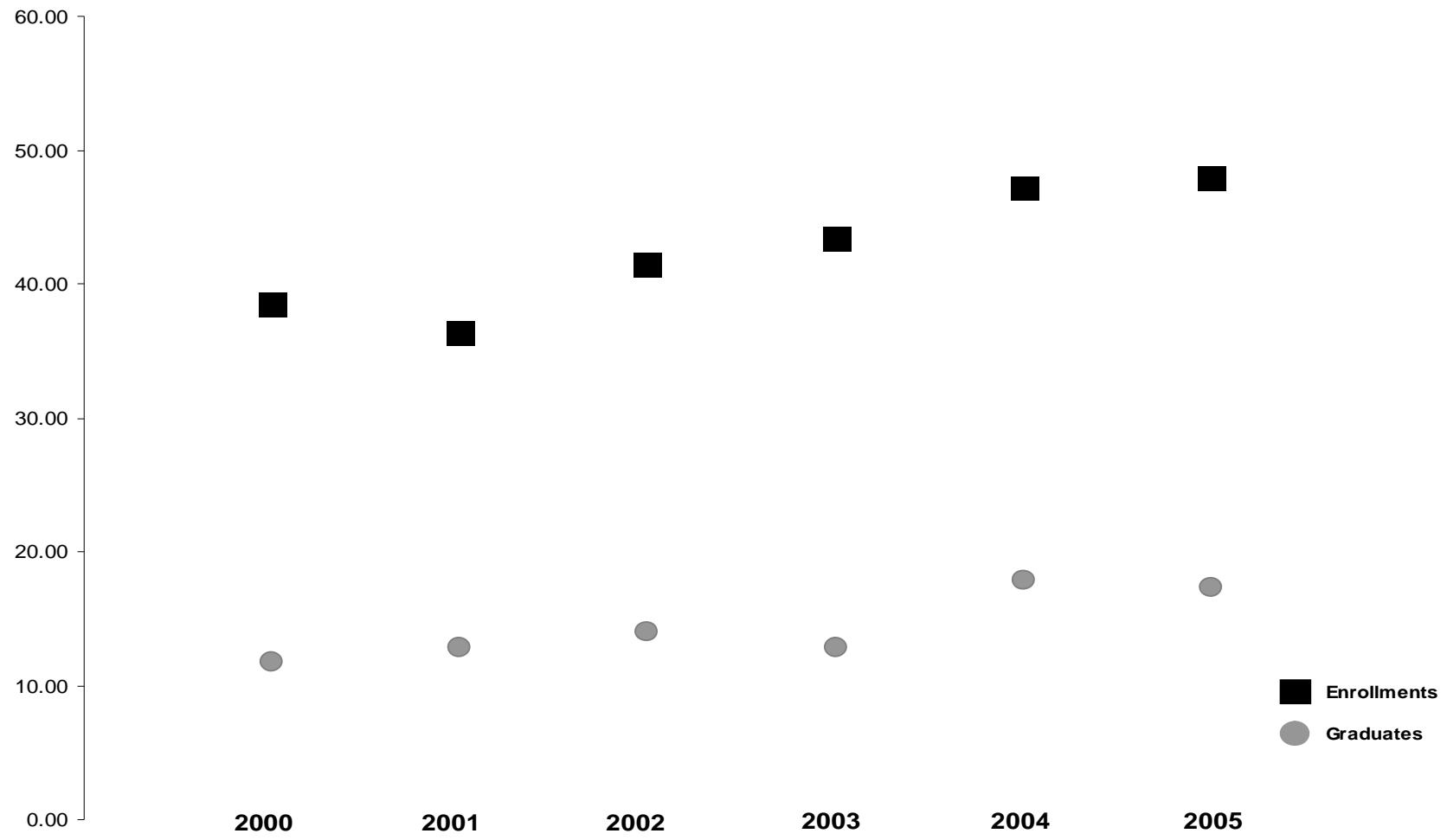
## 2. Education and accreditation

- 2003: AAFS: creates the Forensic Science Educational Program Accreditation Commission (FEPAC) as an ad hoc committee
  - Pilot program accredits 5 programs
- 2004: AAFS establishes FEPAC as a standing committee

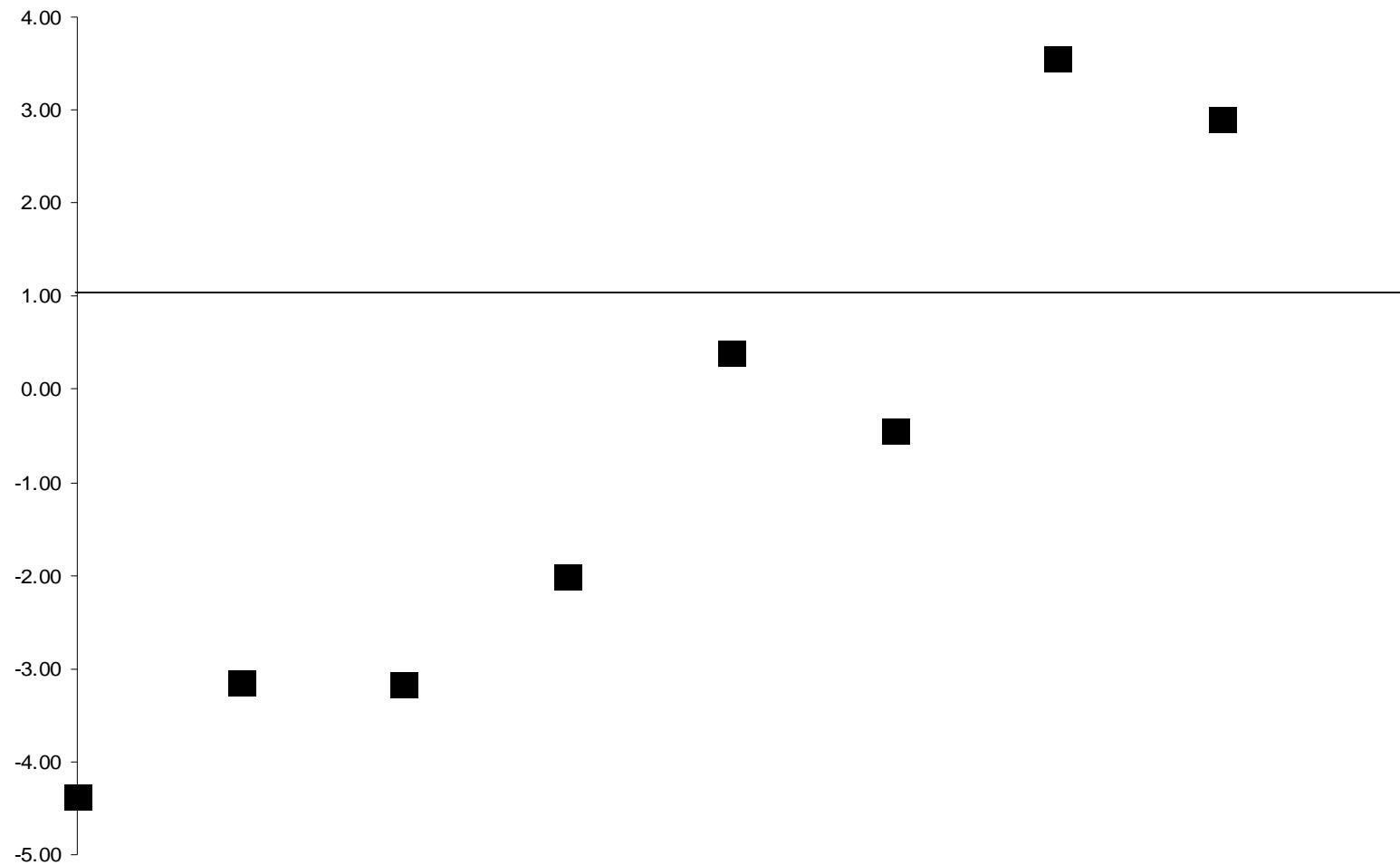
## 2. Education and accreditation

- 13 programs accredited by FEPAC
  - 3 in Conditional status
  - Routinely 4-6 programs apply each year
- Commission made up of:
  - 4 Academicians
  - 4 Practitioners
  - 1 Public member
- Director of Accreditation (AAFS employee)

# FEPAC Enrollments & Graduates



# FEPAC Enrollment/Graduate Ratio



# How many new FS jobs? One answer: 33,000

TABLE 1—*Forensic Scientists in the North Eastern United States.*

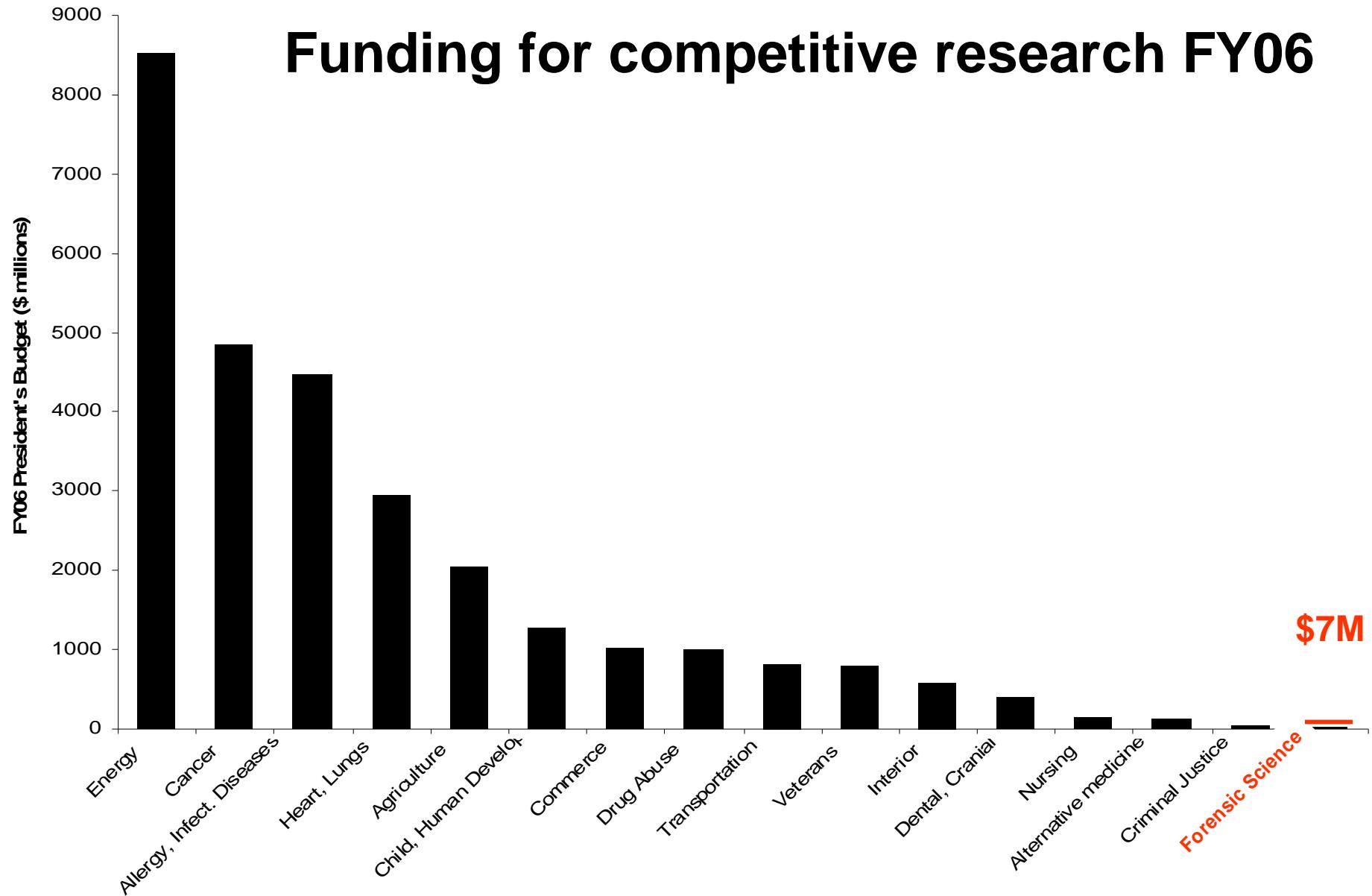
State	Population (millions)	# Forensic Scientists
Connecticut	3.5	65
Maine	1.2	17
Massachusetts	6.1	66
New Hampshire	1.2	20
New Jersey	8.1	95
New York	18	400
Pennsylvania	12	150
Rhode Island	1	21
Vermont	0.6	12
Total	51	846
Present FS per capita Supply Ratio	846 FS/51 m	1 FS/61,000
900 scientists needed for a 1/33,333 ratio		1800 FS/60 m = 1 FS/33,333

Estimates taken from New York State Police Forensic Investigation  
Straw Pole of New England States Forensic Scientists (2001).

Dale WM and Becker WS, “Strategy for staffing forensic scientists”, *Journal of Forensic Sciences* (letter to the editor), 48(2) 2003, 465-466.

# 3. Thoughts on needs

- If FS is not funded at levels of other sciences, how can it progress?
  - Not routinely funded by NSF/NIH because it is not “legitimate”
  - Not “legitimate” because it has not been funded
- FS may have neglected its professional mandate
  - Non-academic disciplines now in question
    - Those that don’t cleanly map to academia
    - “patterned evidence”
    - No university curriculum *per se* as a basis
  - Police and science have different mandates, so little to no interest in internal funding



### 3. Thoughts on needs

- Percent of FS labs putting resources in:
  - Research = 12%
  - Training/Education = 52%
- Educational/training session sponsored by WVU/NIJ (no cost to attendees)
  - Over 900 “slots” that could be filled in 20 classes
  - Announced at ASCLD
  - *Filled to capacity in 7 working days*
  - 400 attendees from 35 states

# 3. Thoughts on needs

- We are in a transitional stage of the development of our discipline
  - some variance is to be expected
- Promote growth of discipline as a distinct science and profession
  - Avoid incursions from sibling professions with their own agendas but different mandates (“police-ification” and “lawyer-ification”)
  - Accreditation is a step in the right direction
  - Find mechanisms for graduate education of working professionals
- Fund competitive research
- Promote continuing professional development

**Thank you for the opportunity to make  
this presentation.**

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