

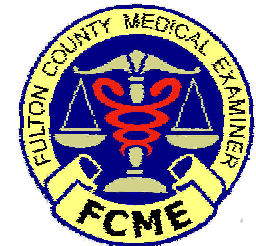
An Overview of Medical Examiner/Coroner Systems in The United States

-Development, Current Status, Issues, and Needs-

Randy Hanzlick, MD
Atlanta, GA



EMORY
UNIVERSITY



The National Academies: Forensic Science Needs Committee

Topics to be Discussed

- **Medicolegal Death Investigation**
- **Medical Examiner & Coroner Systems**
- **People (the Workers)**
- **Funding**
- **Training and Education**
- **Quality of Services**
- **Availability of Services**
- **Needs**

Medicolegal Death Investigation

- Performed in accordance with state law
- “Official” death investigations on behalf of the government and the public
- Conducted by Coroner Systems or Medical Examiner Systems
- Not all systems are the same
- There are commonalities

Deaths Investigated, in general:

Fairly uniform among states:

- Known or suspected as having been caused by injury or poisoning, regardless of interval
- Sudden, unexpected, and unexplained
- Unusual or suspicious
- No physician to certify the death
- In-custody deaths

Some variation by state

- Special categories such as anesthetic deaths, public health threats, etc

HOWEVER:

The extent of investigation and postmortem examination varies based on law, tradition, and resources. For example, apparent suicides may be routinely autopsied in some areas and not in others. There are many such examples.



Medicolegal Death Investigation in the US is conducted by:

- **Coroner Systems (titular head = Coroner)**
- **Medical Examiner Systems (titular head = Medical Examiner)**

Serving the 3137 Counties are ~2342 separate death investigation “systems”

Thus.....

- There is room for more standardized practice in medicolegal death investigation.
- Large numbers of systems hamper communication and standardized practices.

Death Investigation is not new

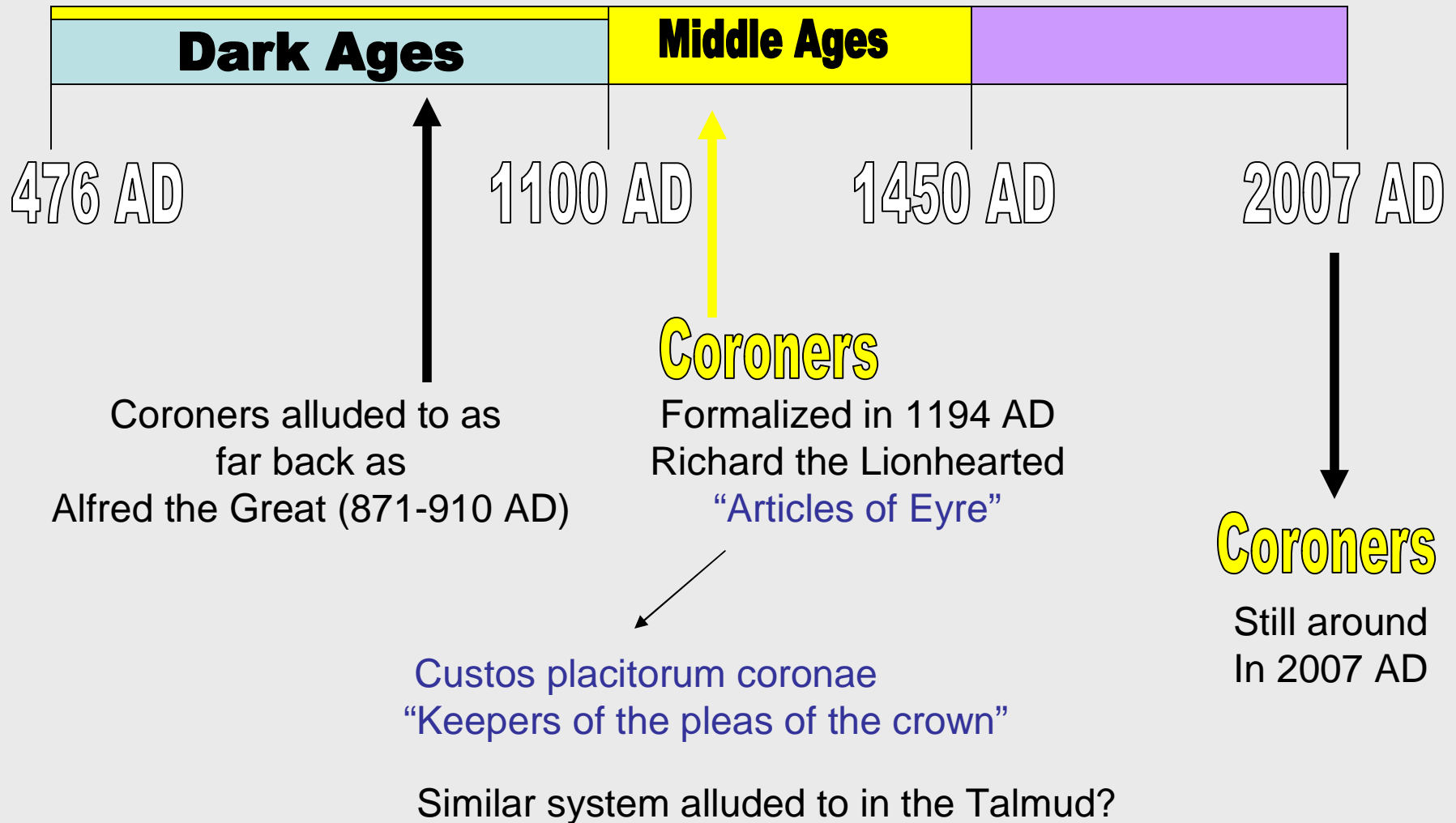


Rembrandt-1656

Recognition of Need is not new

- 1928: NRC Report: The Coroner and Medical Examiner
- 1932: NRC Report: Possibilities and Needs for Development of Legal Medicine in the United States
- 1954: Uniform Law Commission: Model Postmortem Examinations Act
- 1968: NRC Committee on Forensic Pathology
- 1985: Wingspread Symposium (NACo and others)
- 2003: IOM Workshop on the Medicolegal Death Investigation System

Time Line



Coroner Duties

Inquests

Lex Murdrorum

Value objects

Get Arrest Warrants

Confiscate property

Investigate treasure troves

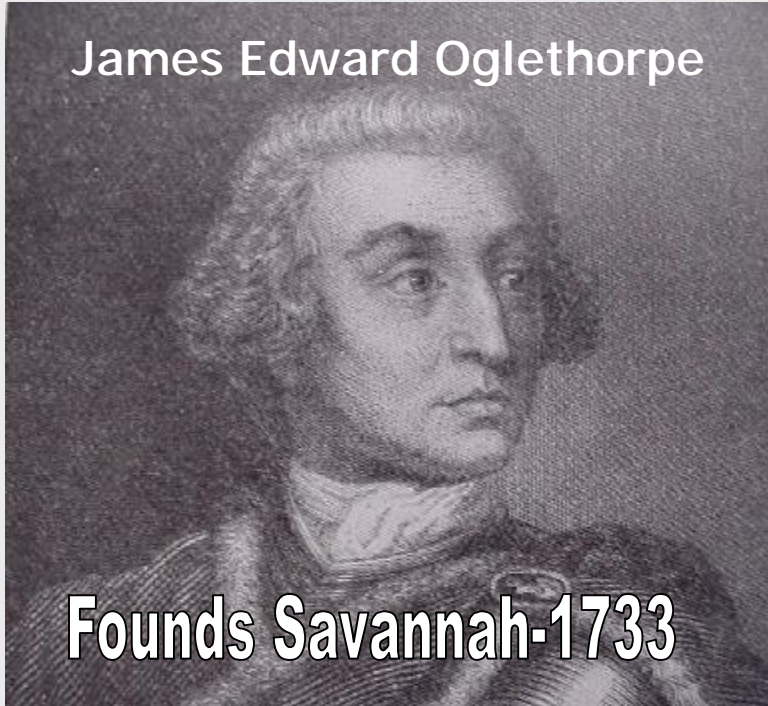


Coroners go way back in history. Colonists brought the concept from England. English Common Law was utilized.

Credit: Britannia.com

Georgia's 1st Constitution-1777

James Edward Oglethorpe



Founds Savannah-1733

“In absence of the chief justice, the senior justice on the bench shall act as chief-justice with the clerk of the county, attorney for the State, sheriff, **coroner, constable, and the jurors.”**

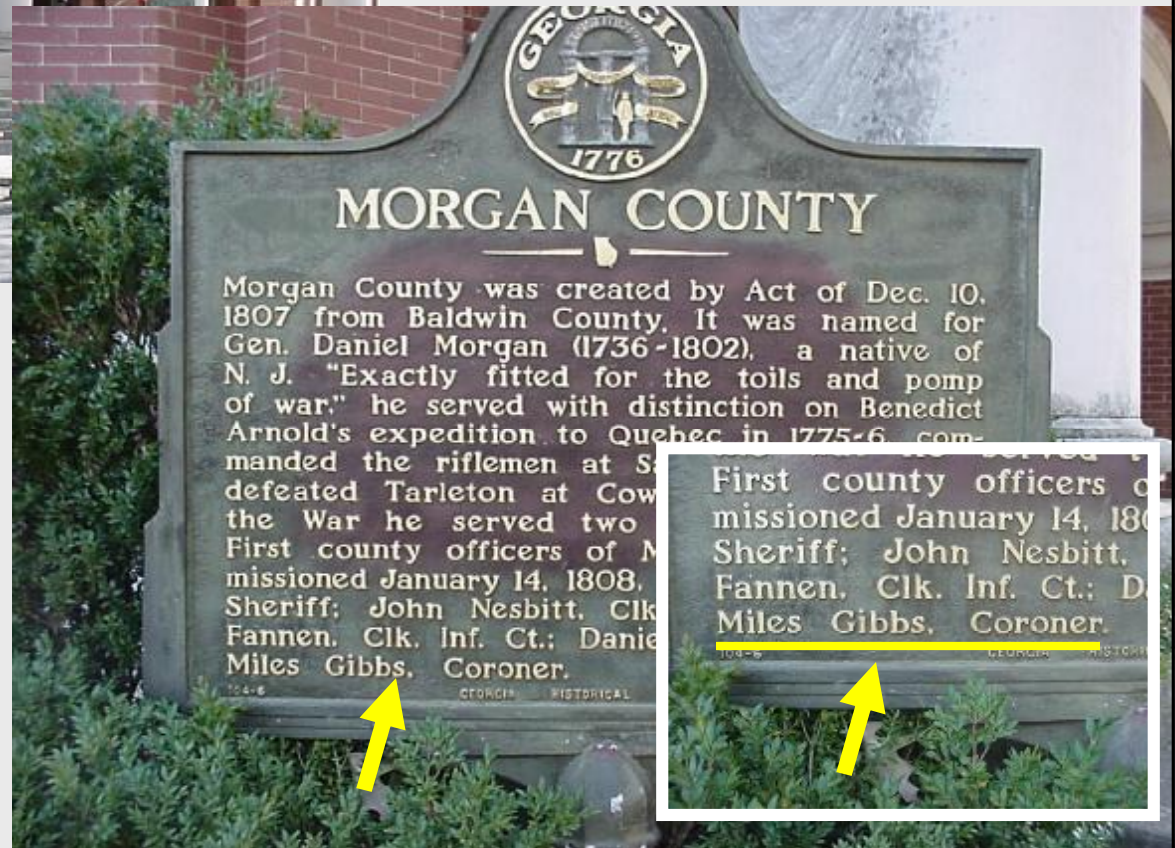
-Article XI, 1777 Georgia Constitution

The 1777 Constitution did not explain what coroners were. Everyone already knew.

Georgia 1808



Coroners are historically an integral part of government and politics and partially explains their continued existence.



Coroners

Oddities:

[Appointed in HI, KS, ND]

[Physicians in KS, ND, LA, OH]

[Sheriff in parts of CA]

[Prosecutor in NE, some of WA]

[2 per County in NY]

[JP in TX]

- Usually elected
- Usually NOT physicians
- Requirements may be minimal
- Usually must rely upon the help of a pathologist to perform autopsies
- They often have other jobs that take priority

To serve as Coroner in Georgia....

(Similar in many other states)

Registered voter

At least 25 years old

No felony conviction

High school diploma or equiv

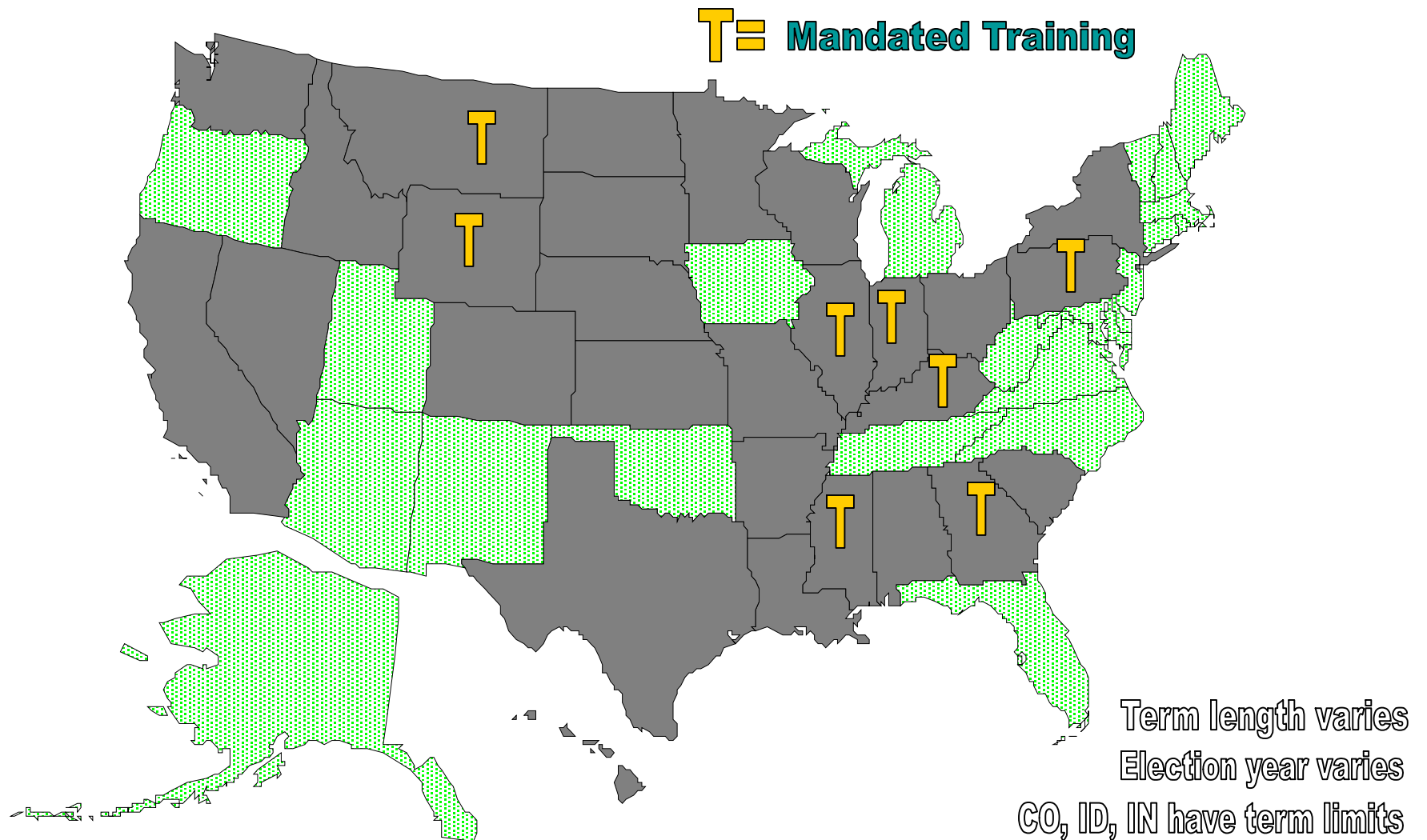
Attest to above with Affidavit

Annual training (1 week)



Regardless of the state, many coroners have another main job or source of income. Being a coroner is only part of what they do.

28 States with Coroners



Less than 1/3 of states with coroners require training

Medical Examiners

- Almost always physicians
- Appointed
- Usually pathologists
- Often forensic pathologists

“Medical Examiner:” Variations

- In some states, a physician, not necessarily a pathologist, who assists in death investigation or functions like a coroner (MI)
- In some states, not necessarily a physician (VT, WV, WI)
- People who do insurance physicals or job related physicals are also referred to as “medical examiners” which can cause confusion.

So, the meaning of “medical examiner” and requirements to hold that job vary. One must be familiar with state law.

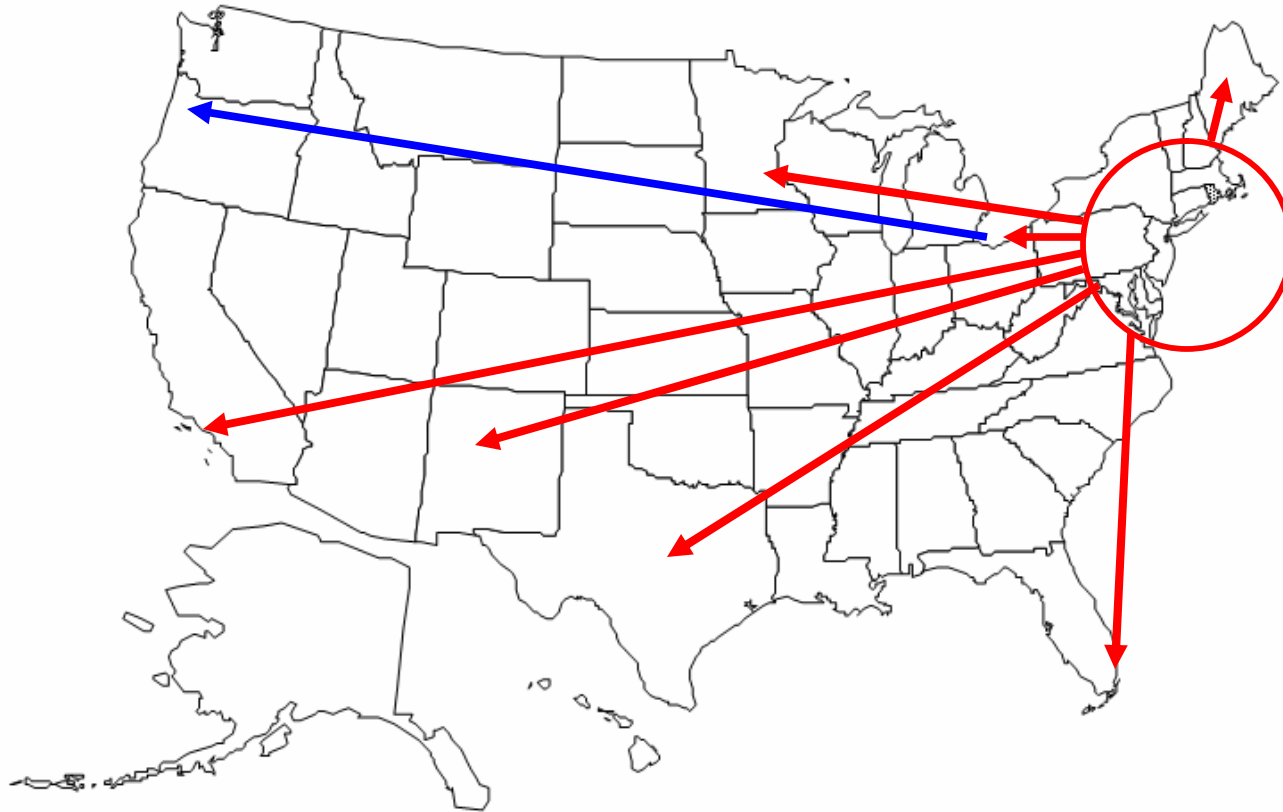
Ideally, a “Medical Examiner” would be a forensic pathologist.

The Birth of Medical Examiners



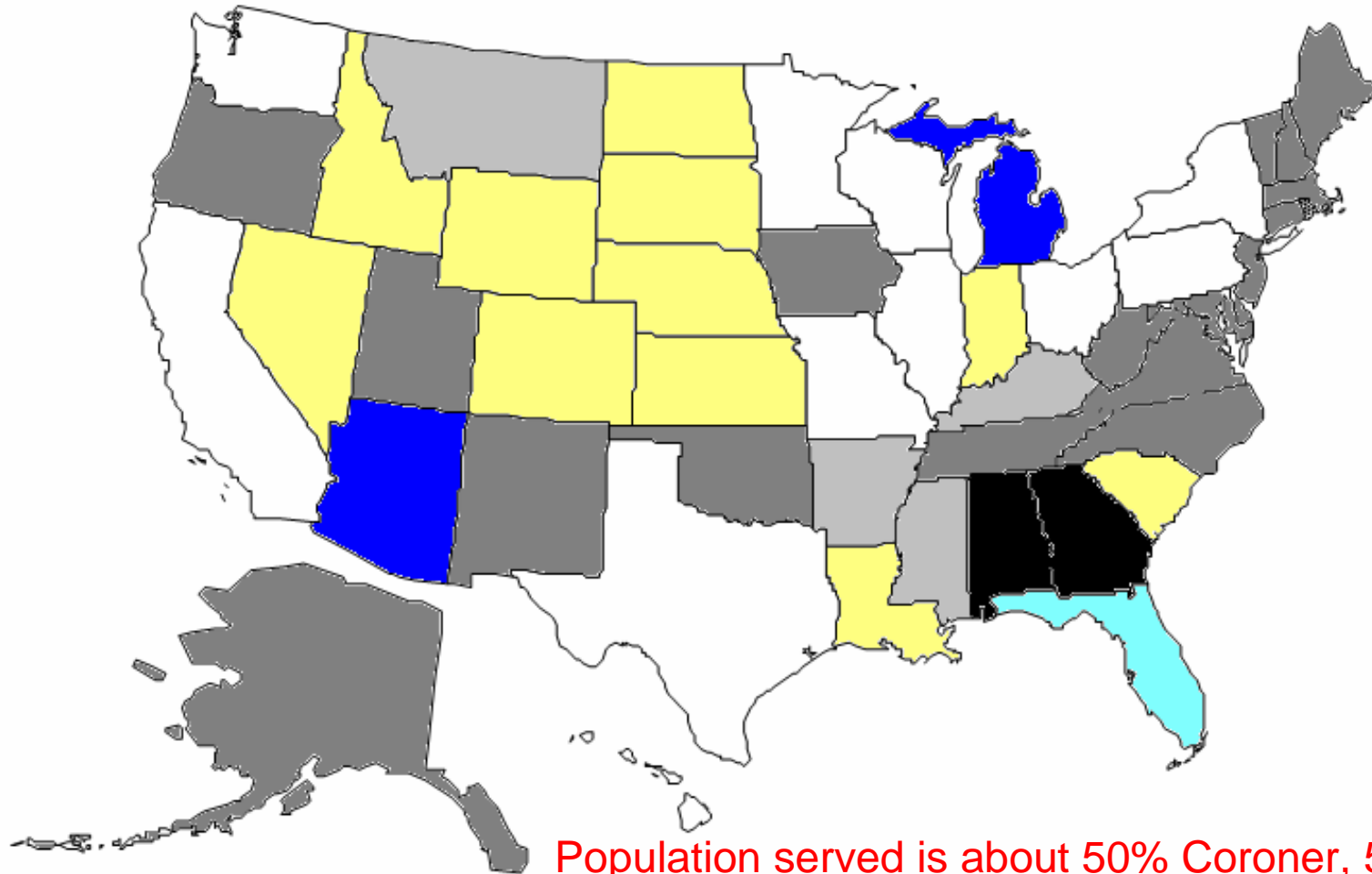
1. 1860 Maryland. Laws allowed coroner to require MD presence at inquest.
2. 1868 Maryland. Physician appointed as Coroner of Baltimore.
3. 1877 Massachusetts. Physician “Medical Examiners” replaced Coroners.
4. 1890 Baltimore. Physician “Medical Examiners” perform autopsies for Coroner.
5. 1918 New York City. First formal “Medical Examiner System” in the US.

Medical Examiner Concept Spreads



As people trained in the Northeast and left, they took the medical examiner concept with them. Laws gradually changed to implement ME systems in many areas. Training centers emerged, and spread continued.

Death Investigation System Type: Current Status



Some counties have a Medical Examiner and some have a Coroner

District Medical Examiners

State Medical Examiner, Coroner in each county

Medical Examiner in each county

State Medical Examiner with various types of non-coroner, regional or local assistance

Coroner in each county

State Medical Examiner assisting Coroner of most counties; autonomous County Medical Examiner in some counties

System Funding

County Systems per capita

\$ 0.62 - \$5.54

Mean \$2.16

2007 = \$1.31 - \$9.19

\$2.89

State Systems per capita

\$ 0.32 - \$3.20

Mean \$1.41

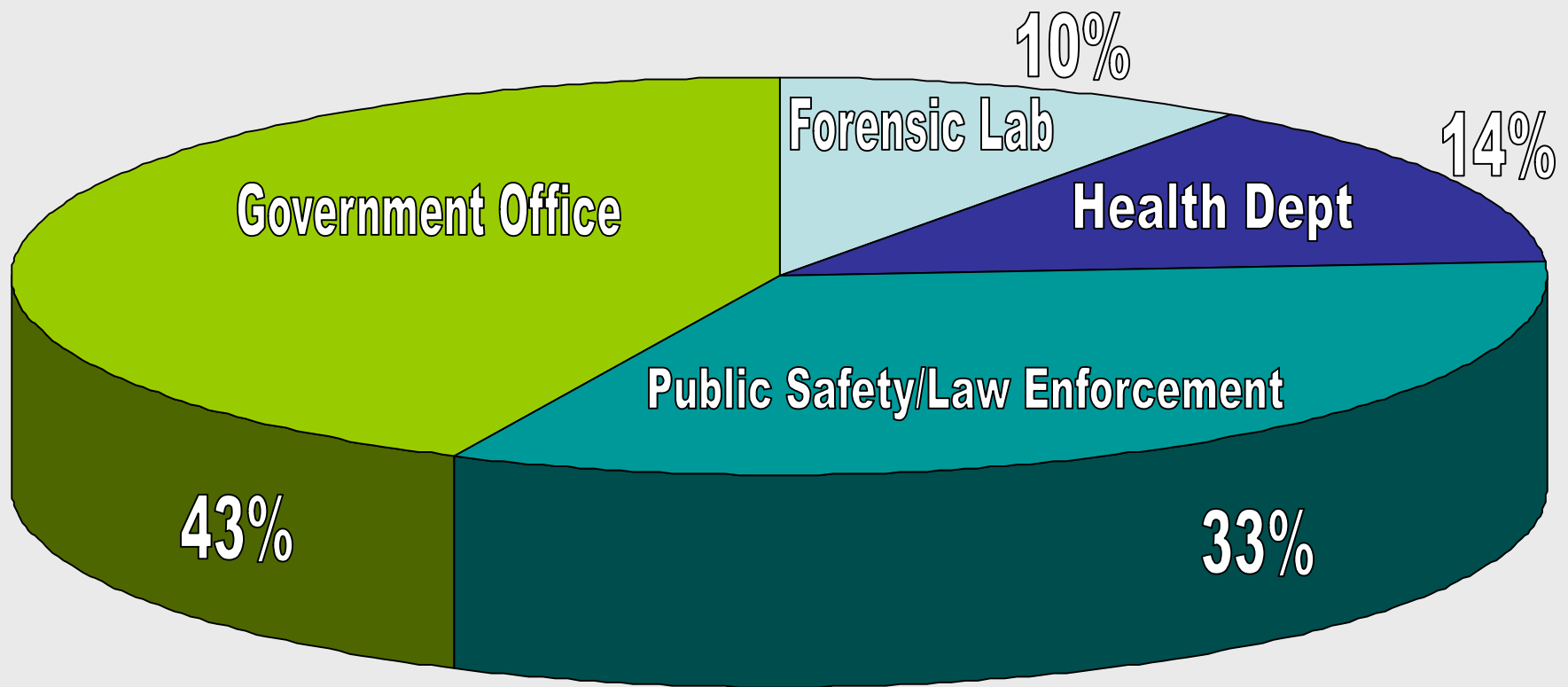
2007 = \$ 0.64 – \$2.81

\$1.76

Comparisons are difficult because service scope varies

Less than 1% of budget is allocated for training.

Organizational Oversight



% US Population Served

**MODEL POSTMORTEM EXAMINATIONS
ACT**

Drafted by the

**NATIONAL CONFERENCE OF COMMISSIONERS ON
UNIFORM STATE LAWS**

at its

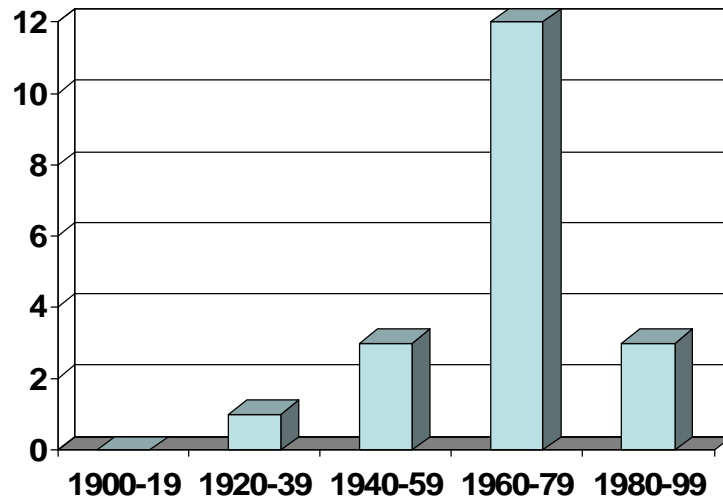
**Annual Conference
Meeting in its Sixty-Third Year
At Chicago, Illinois
August 9-14, 1954**

**Remember: Medicolegal
Death Investigation is
governed by state law.**

**States vary in the extent
to which they have adopted
the recommendations in the
Model Postmortem
Examinations Act of 1954
which laid out guidelines for
medical examiner system
development.**

Victor Weedn will discuss this further.

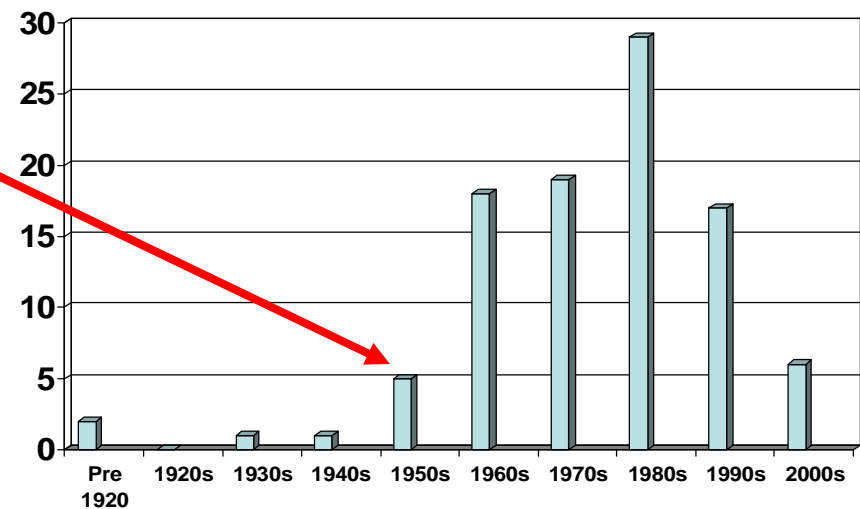
States



Conversion from Coroner to Medical Examiner Systems by Decade

1954 Model Postmortem Examinations Act

Counties



A "Spurt" followed the 1954 Model Act

A "Lull in the Action" exists since 1980s

Lull in the Action: Reasons

- Legislative/Statutory/Constitutional
- Political/Elective
- Geographical/Local
- Population-based
- Financial
- Manpower availability
- Lack of interest
- “Market” saturation

- State Constitutions may need to be changed
- Laws may need to be changed
- As elected officials, coroners have political ties
- Its nice to have local services and the coroner is a local
- A given population base may not have enough deaths or enough tax dollars to support a system
- Medical examiners cost more than coroners
- There aren't enough forensic pathologists to go around
- There may be no local interest or person with impetus and interest to change the system

| Counties served by a medical examiner system | Counties |
|--|---------------|
| State Medical Examiner System; No Coroners (19 states) AK CT DE IA MA MD ME NC NH NJ NM OK OR RI TN UT VT VA WV | 697 |
| Medical Examiner System in every County (2 states) AZ MI | 98 |
| District Medical Examiner System; No Coroners (1 state) FL (24 Districts) | 67 |
| Sporadic County Medical Examiner Systems (14 states) AL CA CO GA HI IL MN MO NY OH PA TX WA WI | 98 |
| Total Counties in the United States | 3137 |
| Total Counties Served by a Medical Examiner System | 960* (31%) |

* These 960 counties are served by 239 ME Systems.

What is a Forensic Pathologist?

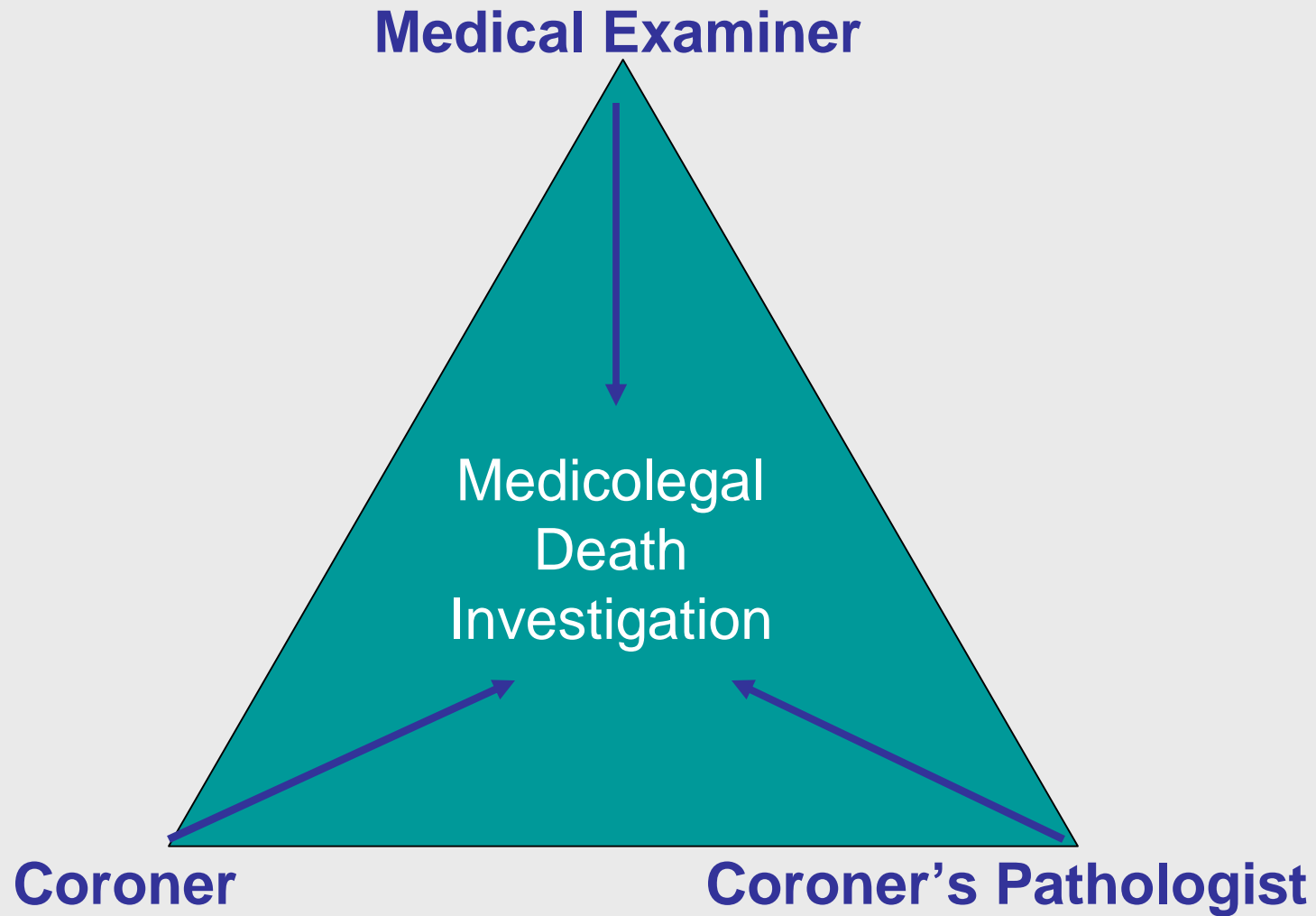
The Birth of Forensic Pathologists

- “Legal Medicine” Programs emerged at Harvard, in Virginia, and other places in the 1940s-1950s
- The pathologists and other physicians who did medicolegal autopsies had no common training or subspecialty area
- In 1959, the American Board of Pathology first offered certification in Forensic Pathology, recognizing it as a subspecialty area of pathology.

Forensic Pathology

- *Forensis* (public, forum)
(of the courts, open to debate/argument)
- *Pathology* (*pathos*; suffering) (study of)
(suffering is due to disease and injury)
- **Forensic Pathology**
(the study of disease and injury that is
of interest to the public and courts)

What do Forensic Pathologist's do?



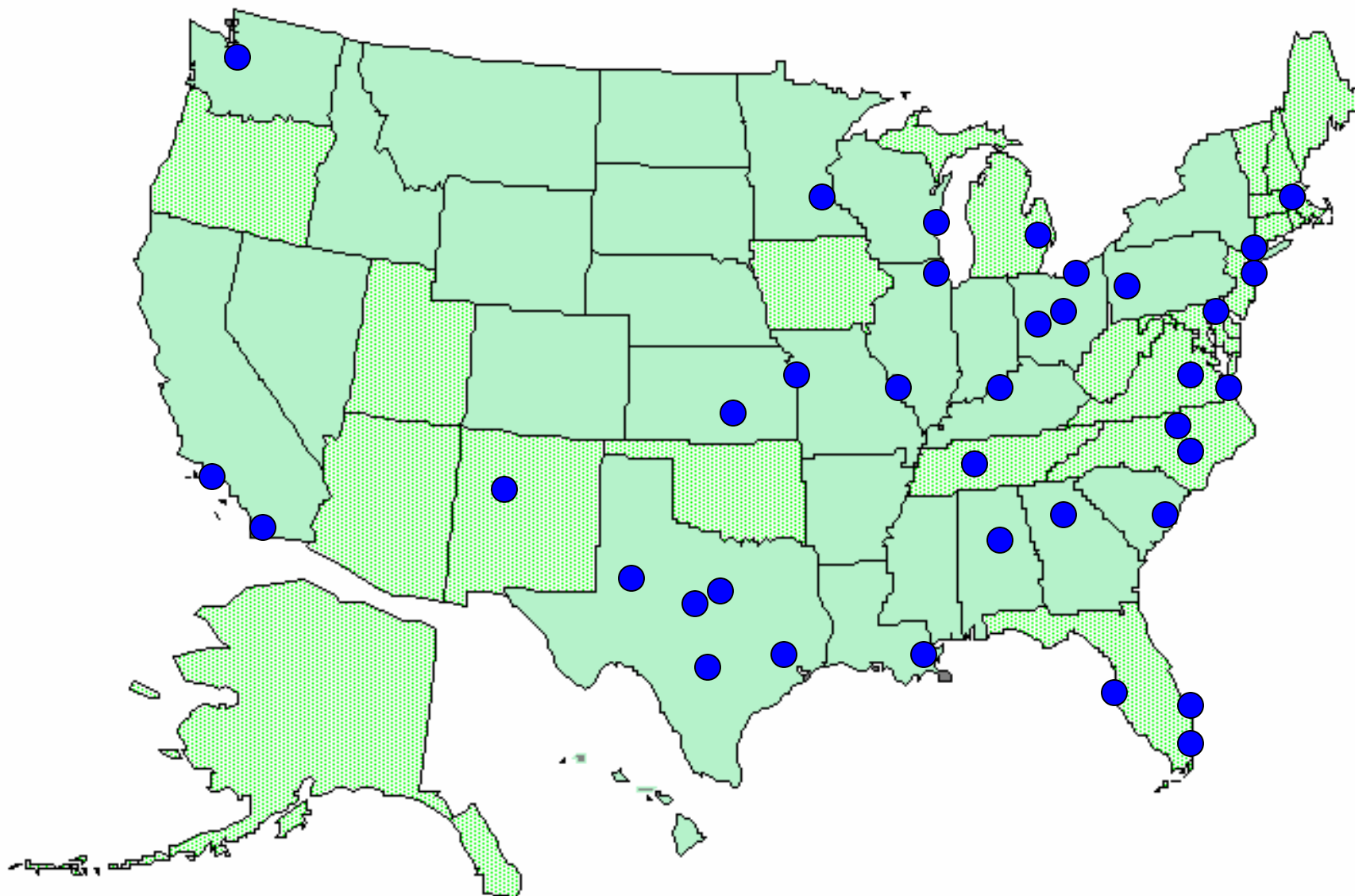
Requirements

- Medical school (4 years)
- Pathology Residency (3 years minimum)
- Forensic Pathology Fellowship (1 year)

Most are 30 or 31 years old when training is completed and in big time debt.

Not all persons who practice forensic pathology are board certified forensic pathologists

39 ACGME-Accredited Forensic Pathology Training Programs



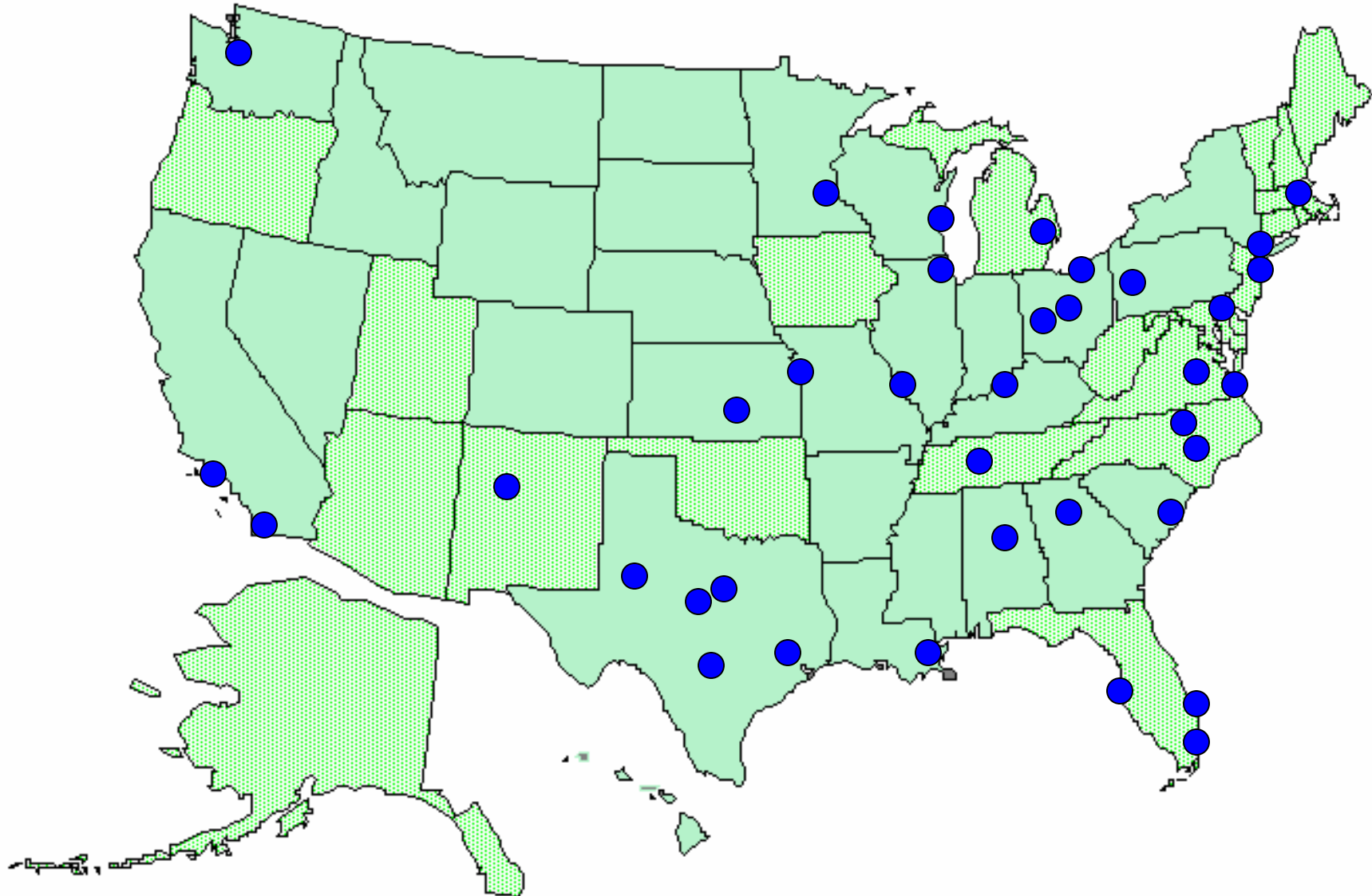
These are in busy metropolitan death investigation offices for the most part.

So.....

If we have forensic pathologist physicians specifically trained to do death investigations and autopsies, why should (or can) they not be available in, or even manage/run, every death investigation system in the U.S?

Answer: Aside from the political.....

.....There are only about 70 positions available per year. Some are not funded. Recent data indicated that only 70% of slots are filled.



Doctor Facts

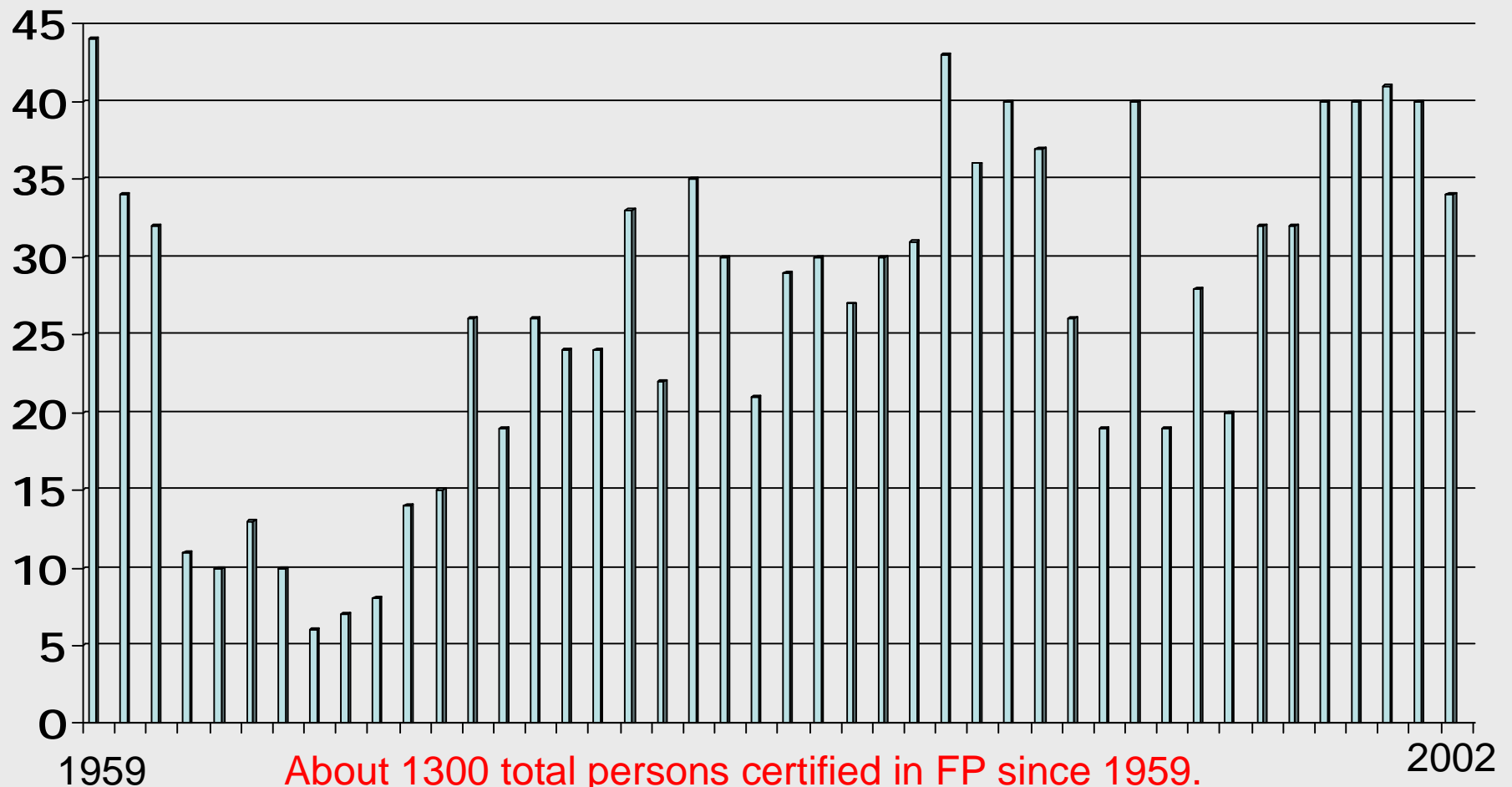
Each Year:

- New medical students 15,000
- Internal Medicine Residents 5,000
- Radiology Residents 1,000
- Pathology Residents 500
- Forensic Pathology Residents 40*

*39 Programs, approximately 70 positions approved.

Only 19 FPs certified in 2005 and 25 in 2006.

Forensic Pathology Board Certifications since 1959



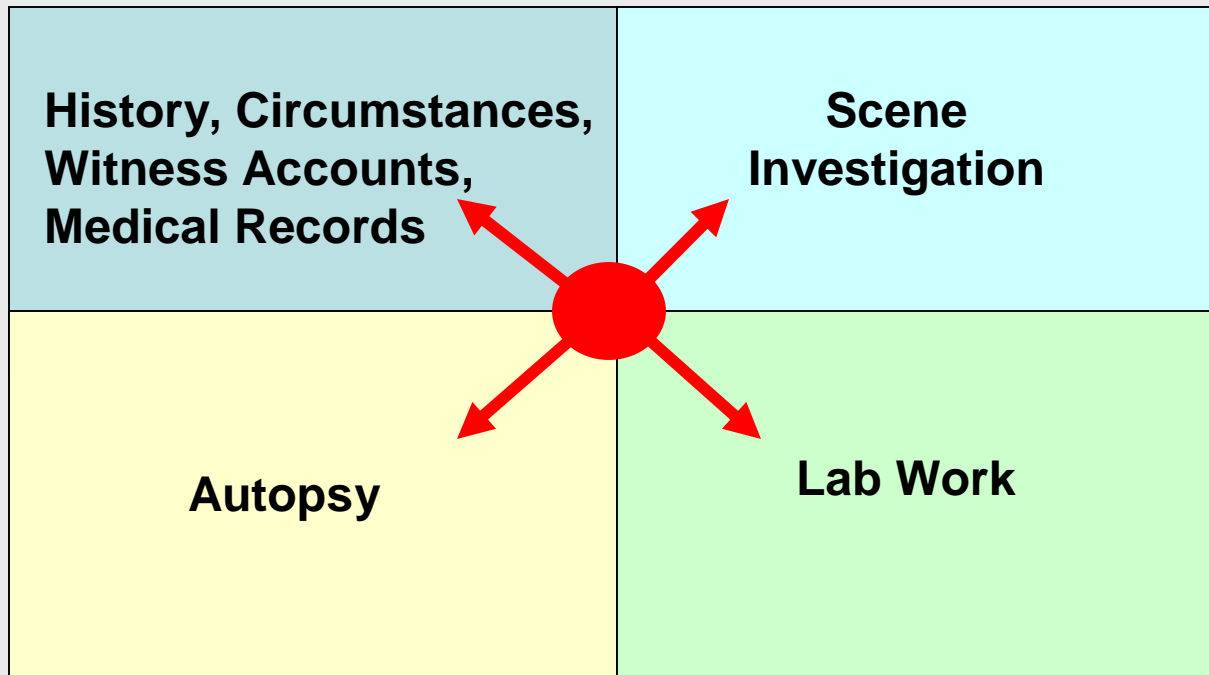
About 1300 total persons certified in FP since 1959.
Many have retired, died, or stopped practicing FP.

About Forensic Pathologists

- About 400-500 currently practice full time
- National need is about 1000 FTE*
- About 10% of positions are vacant
- Many FPs move once or twice per decade
- Pay is low compared with other physicians
- Work conditions often not good

*Based on total autopsy need and a maximum annual autopsy load of 250/FP

Medicolegal Death Investigation



Must have them all.

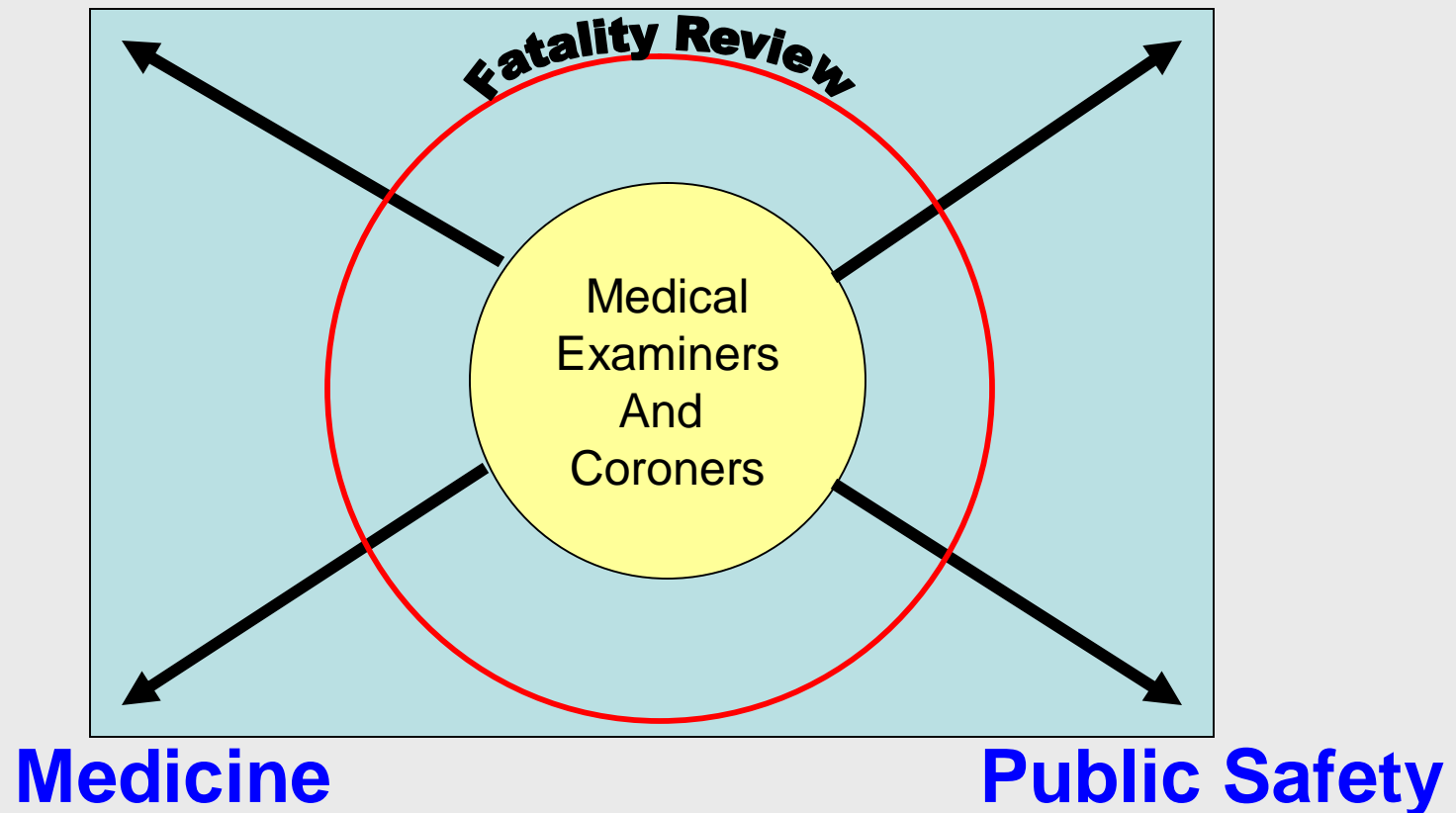
Much of this is medically oriented.

Trained physicians must be involved.

Broad Roles of ME/Cs

Criminal Justice

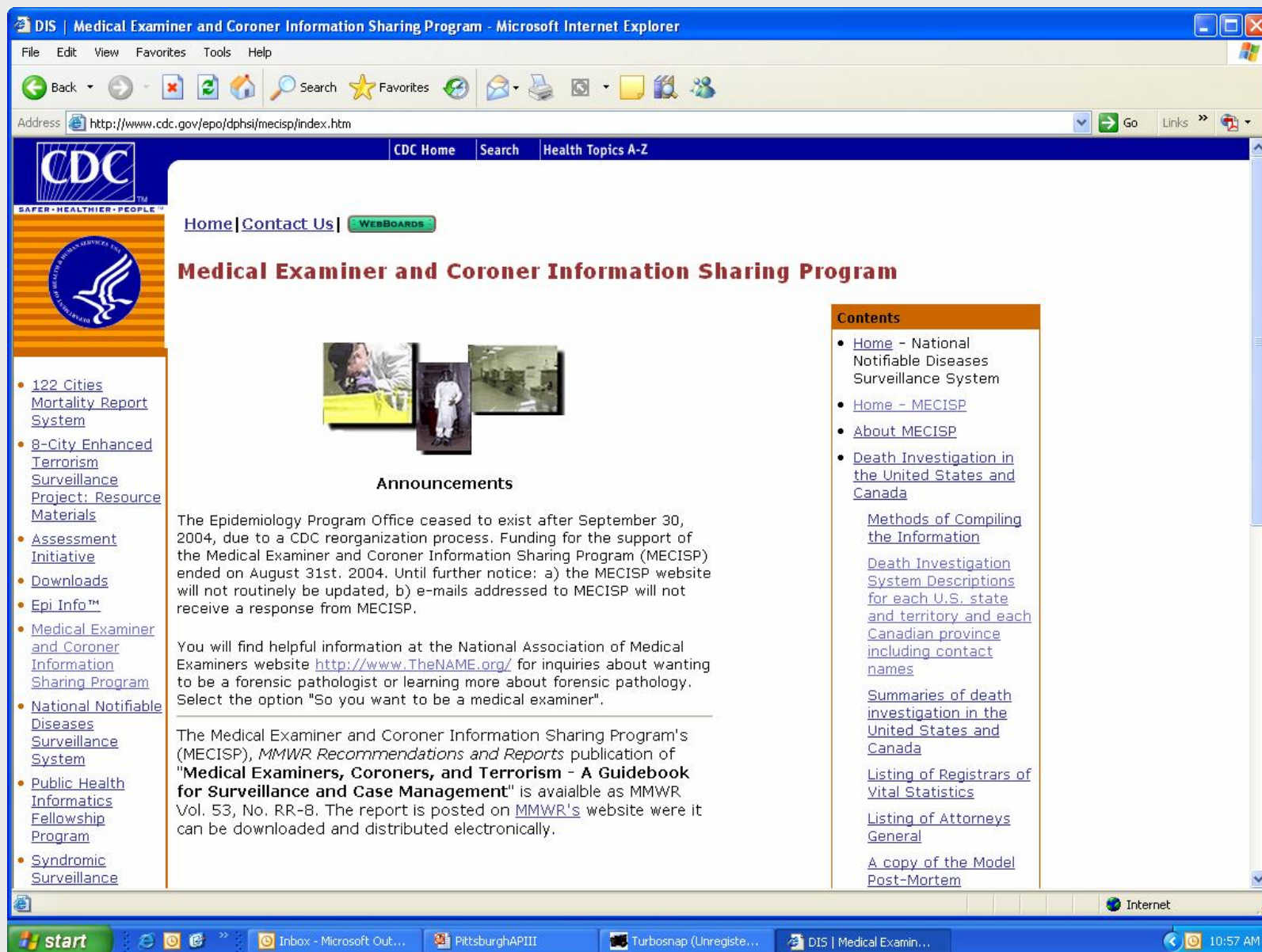
Public Health



Death investigation also impacts on....

- Personal liberty and freedom
- Financial well being
- Injury Prevention and Control
- Mortality analysis
- Assessment of medical care

Other Issues



MECISP: 1986 - 2004

Everyday deaths in US (Yearly)

| | |
|-------------|----------------|
| • Homicides | 17,732 |
| • MVA's | 44,767 |
| • Accidents | 64,510 |
| • Suicides | 31,647 |
| | 158,656 |

Add the “Undetermined” and “Sudden and Unexpected” and the number at least doubles. Recent funding has emphasized terrorism and disaster preparedness, but there are huge numbers of ongoing, routine death investigation cases for which funding and support are inadequate.



National Association of Medical Examiners

Forensic Autopsy Performance Standards

Prepared by:

Garry F. Peterson, M.D. (Committee Chair)

Steven C. Clark, Ph.D. (NAME Consultant)

*Amendments Approved October 16, 2006
N.A.M.E. Annual Meeting, San Antonio, Texas*

NATIONAL ASSOCIATION OF MEDICAL EXAMINERS®

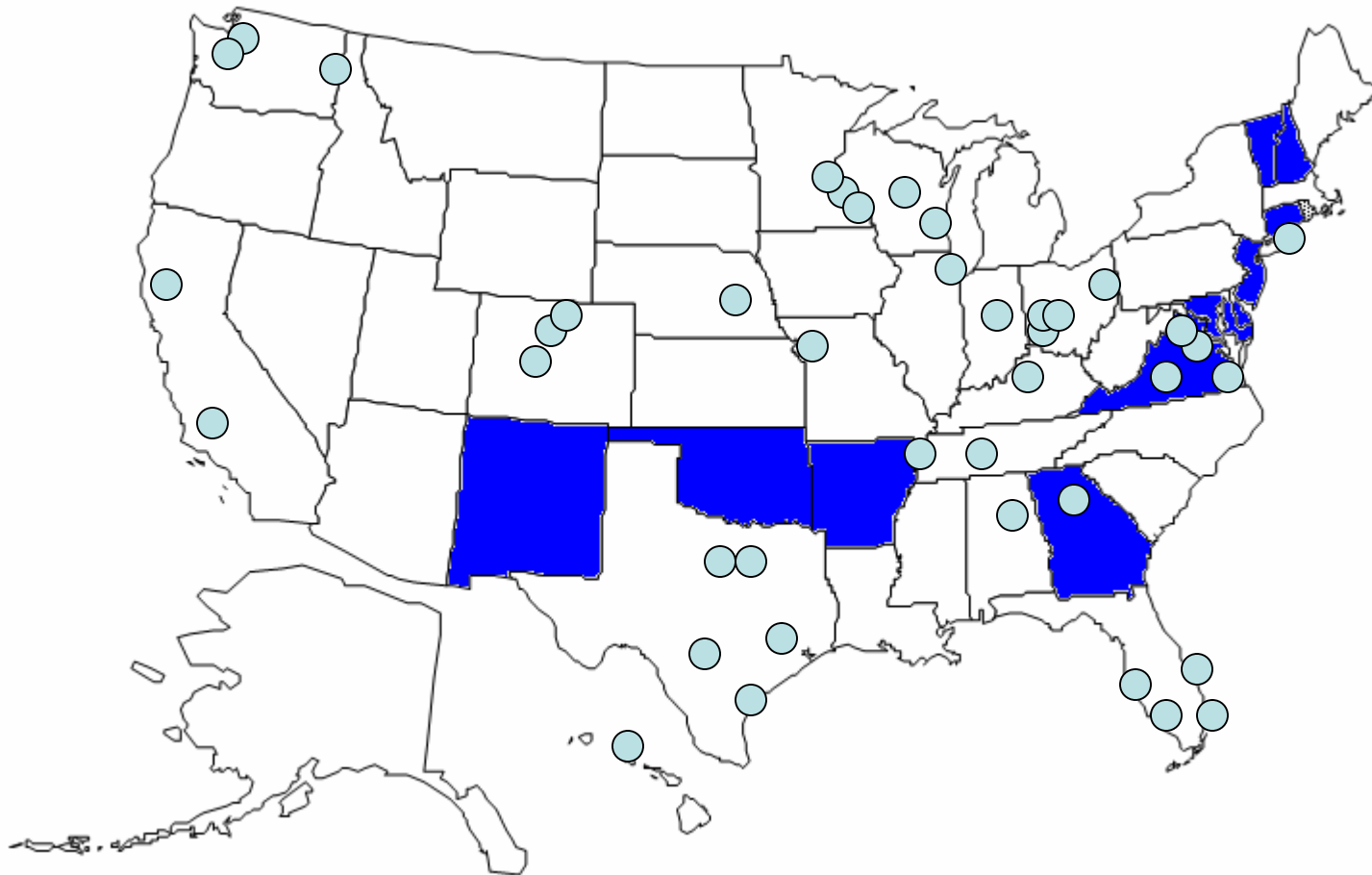
ACCREDITATION CHECKLIST

**FIRST REVISION
ADOPTED SEPTEMBER 2003**

*Amended 13 September 2004
#Amended 13 October 2006
+Amended 20 February 2007

Effective Date: January 2004
Date of Expiration: January 2009

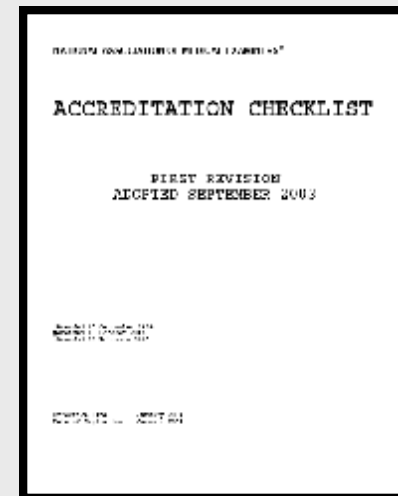
NAME Accredited Offices



54 NAME Accredited Offices. Most are county based.
Shaded states have state-wide or near state-wide services.

Why so few accredited offices?

- Some offices cannot qualify
- Many offices cannot meet Inspection and Accreditation Standards
- Must have written Policy-Procedure
- Must have a facility
- Preparation takes time and lots of work
- Inspection costs money
- Must be renewed every 5 years
- Caseload is too high
- Lack of perceived benefit





National Association of Medical Examiners

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N.A.M.E. Annual Meeting, San Antonio, Texas

- Non-compliance by many offices
- Compliance precluded because of case load, staffing, lacking equipment, non-availability of required services, or contradictory policies or practices

U.S. Department of Justice
Office of Justice Programs
National Institute of Justice



Death Investigation: A Guide for the Scene Investigator



Every Scene.
Every Time.

Research Report

ABMDI - American Board of Medicolegal Death Investigators -SLP- -SLP- Microsoft Internet Explorer

File Edit View Favorites Tools Help

Search Favorites

http://www.abmd.org/abmd/index.html



American Board of Medicolegal Death Investigators®

NOTICE: There have been substantial changes made to the eligibility requirements for registry certification. Please visit the registry webpage and confirm you fit the criteria before sending in your application request form. Thanks!

The American Board of Medicolegal Death Investigators® (ABMDI) is a national, not-for-profit, independent professional certification board that has been established to promote the highest standards of practice for medicolegal death investigators.

The American Board of Medicolegal Death Investigators will certify individuals who have the proven knowledge and skills necessary to perform medicolegal death investigations as set forth in the Death Investigation: A Guide for the Scene Investigator published in 1999 by the National Institutes of Justice. This is a voluntary certification program.

The American Board of Medicolegal Death Investigators was created, designed, and developed by veteran, practicing medicolegal death investigators who have been involved in the development of the Death Investigation: A Guide for the Scene Investigator. It will also assist the courts and public in evaluating competence of the certified individual.

In 2005, the ABMDI became one of four professional boards in the nation to be accredited by the **Forensic Specialists Accreditation Board**.

Purpose of the American Board of Medicolegal Death Investigators®

- To encourage adherence to high standards of professional practice and ethical conduct when performing medicolegal death investigations.
- To recognize qualified individuals who have voluntarily applied for basic and advanced levels of professional certification.

To assist our members and the public, we have created this resource of information of our certification process and will

start

Home Microsoft Data VISA-01

Performance Analytics

ABMDI - American Board of Medicolegal Death Investigators

Other Issues:

- Only 1/3 of offices have in-house histology
- Only 1/3 of offices have in-house toxicology
- 1/3 do not have x-ray services in house

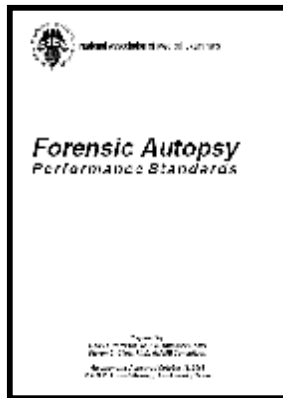
This can result in short cutting or delays in case work completion.

Death Investigation Personnel -Organizations, Priorities-

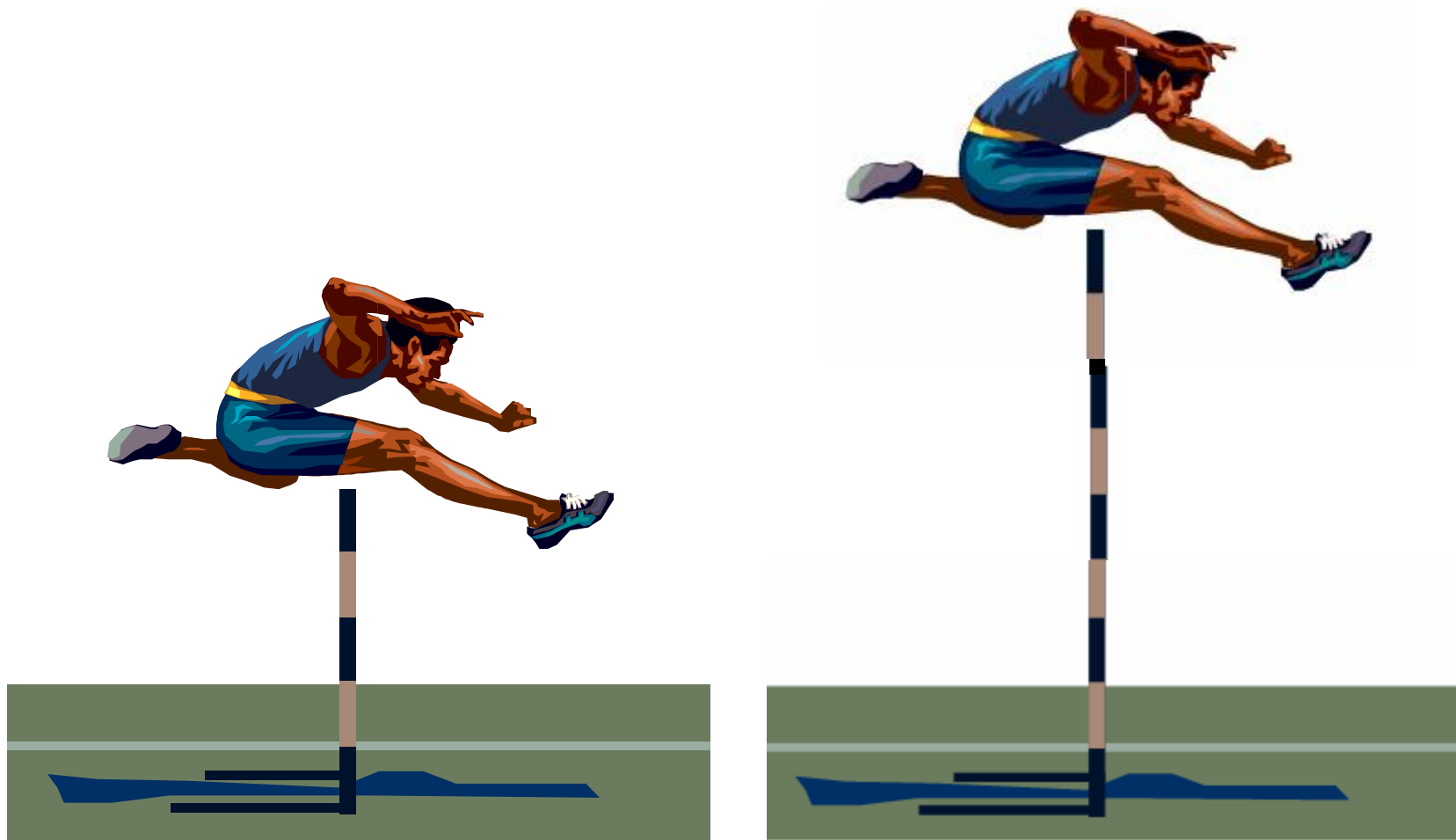
- **Coroners**
- **Medical Examiners**
- **Forensic Pathologists**
- **Death Investigators**
- **Police (in some areas)**

Although these groups work together in death investigation, each group has its own agendas, priorities, and organizations with different, sometimes conflicting missions.

Needs



Each state should do an assessment of its death investigation system to determine status and needs using as a benchmark and goal, compliance with current professional standards, guidelines, and accreditation requirements.

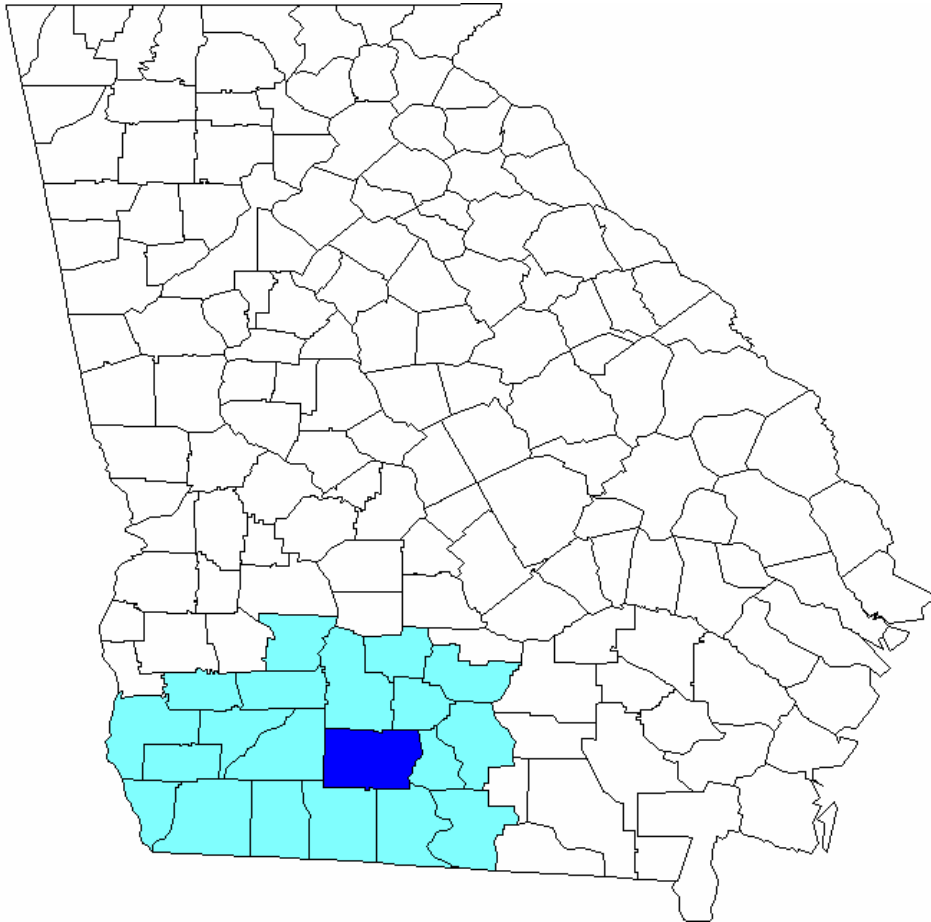


Raise the bar. Make the requirements to hold any job in death investigation progressively more stringent with time.

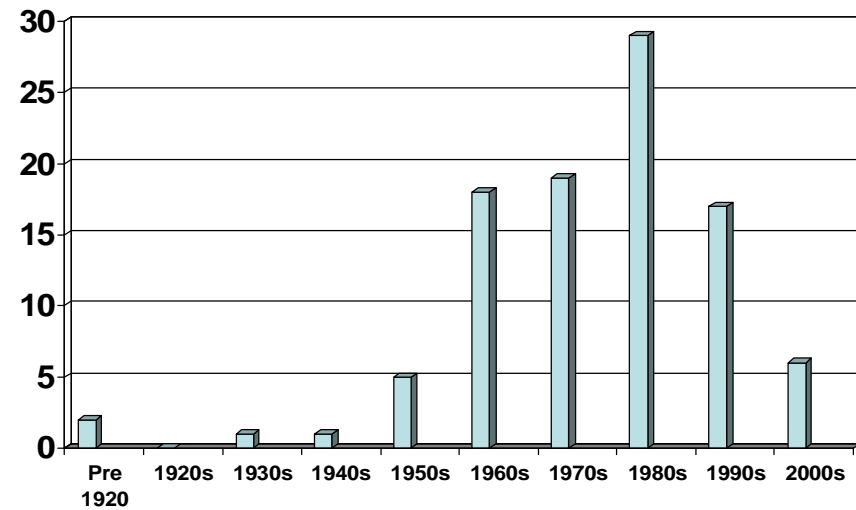
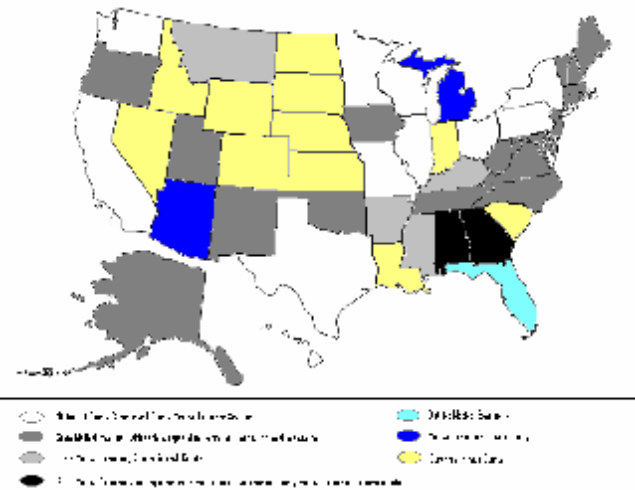
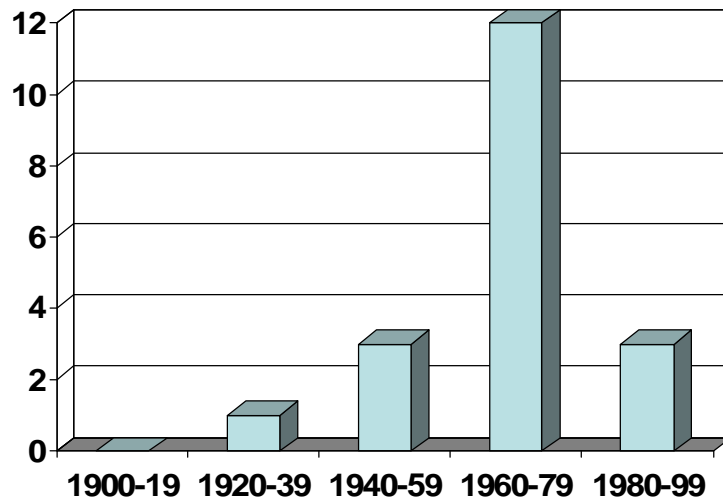
- New medical students 15,000
 - Internal Medicine Residents 5,000
 - Radiology Residents 1,000
 - Pathology Residents 500
 - Forensic Pathology Residents 40
- 

70? ←

Find ways to recruit more medical students into pathology and then into forensic pathology, and improve pay and job conditions to attract and keep them.



Strive to have full death investigations services locally.... scene response and investigation at a minimum...and trained forensic pathologists available to all jurisdictions at least regionally.



Reverse the lull in conversion to medical examiner systems, where feasible.
Strive to have all systems led by trained medical professionals.

**MODEL POSTMORTEM EXAMINATIONS
ACT**

Drafted by the

**NATIONAL CONFERENCE OF COMMISSIONERS ON
UNIFORM STATE LAWS**

at its

**Annual Conference
Meeting in its Sixty-Third Year
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Revisit and Modernize the 1954 Model Postmortem Examinations Act

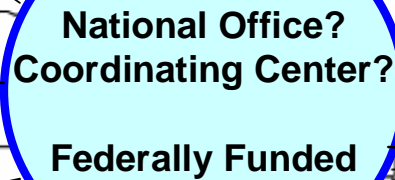
- 1928: NRC Report: The Coroner and Medical Examiner
- 1932: NRC Report: Possibilities and Needs for Development of Legal Medicine in the United States
- 1954: Uniform Law Commission: Model Postmortem Examinations Act
- 1968: NRC Committee on Forensic Pathology
- 1985: Wingspread Symposium (NACo and others)
- 2003: IOM Workshop on the Medicolegal Death Investigation System



Review and follow up on the recommendations of the past century.

Needs

- Ensure access to needed lab services
- Effect more even per-capita funding
- Plan and fund training
- Upgrade and Improve facilities



Coordinate ME/C activities with:

- **State Associations**
- **NAME**
- **IACME**
- **Government agencies**
- **Universities/Researchers**
- **Other partners**

Contact Points

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Chief Medical Examiner, Fulton County, GA

Professor of Forensic Pathology

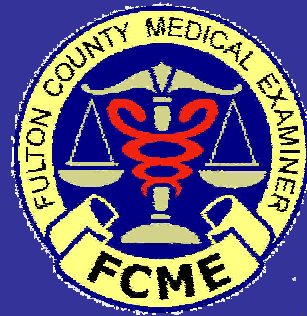
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Further Reading

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