

Emmy Demchak  
Professor Lori Bedell  
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## The True State of the Medicolegal Death Investigation System

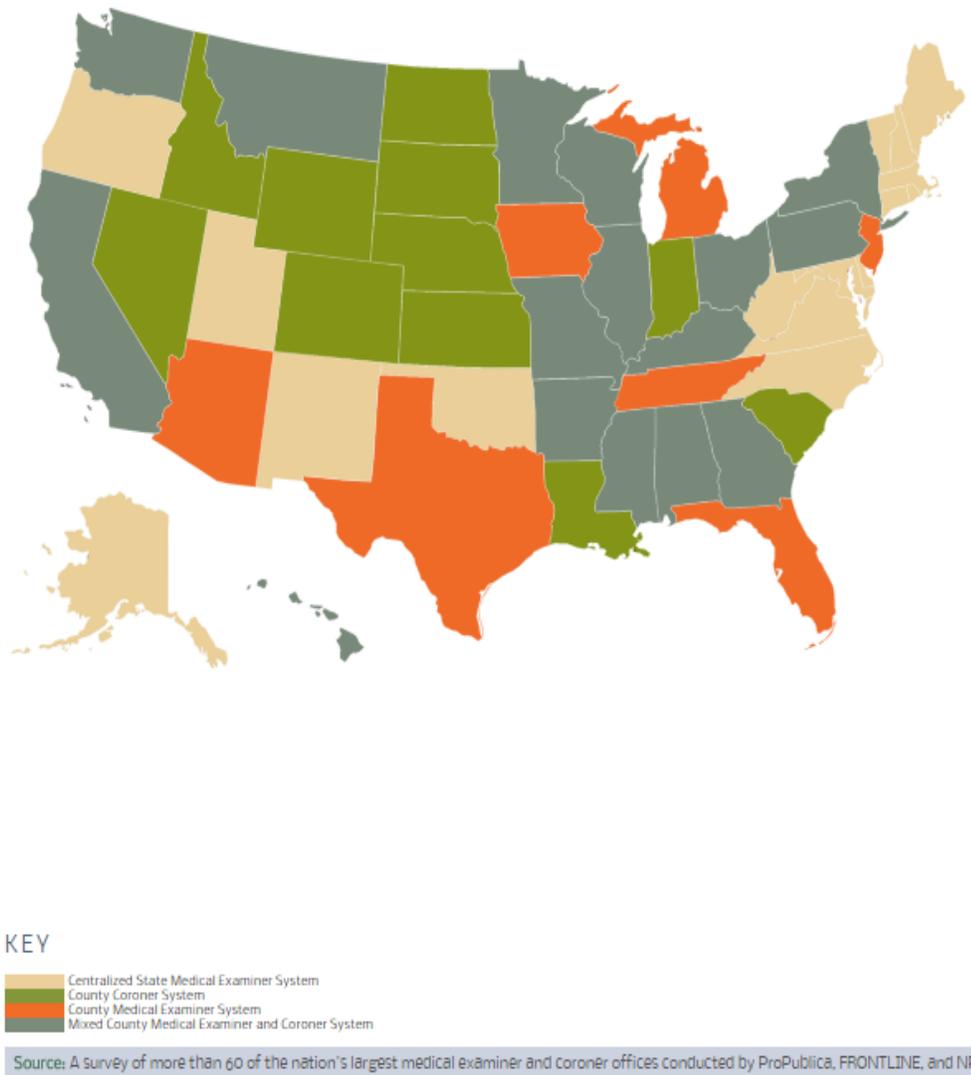
Michael Jordan's father, James Jordan, was found dead in a South Carolina swamp on August 3, 1993.<sup>1</sup> He was identified only by dental records because his body was cremated on August 6 by the Marlboro County, South Carolina, coroner.<sup>2</sup> Although the media accused him of racism, coroner Timothy Brown claims that the body was cremated because he did not have the refrigeration facilities to keep the unidentified body, nor the funds to bury it.<sup>3</sup> James Jordan's murderers were eventually convicted, but the cremation before identification certainly hindered the investigation of his death.<sup>4</sup> This unfortunate hindrance of a criminal trial can be traced largely to the deplorable conditions of medicolegal death investigation systems in the United States.

Currently, there is no federal legislature regarding the standardization of medicolegal death investigation systems, nor is there any overarching regulation for the forensic certifications required of staff members in these systems.<sup>5,6</sup> Medicolegal death investigation systems are also suffering from gross underfunding.<sup>7</sup> The lack of funding leads to non-competitive salaries for employees, poor working conditions, and subpar technology.<sup>8,9</sup> The American legal system is progressing rapidly in terms of forensic science, but her medicolegal death investigation system has obvious flaws that desperately need the attention of policy makers. The egregious implications of murders walking free and innocent individuals being convicted lie on the shoulders of lawmakers if the death investigation system is not soon amended.

## Coroner and Medical Examiner Offices

When a death occurs in the United States and must be investigated, ultimately a coroner or medical examiner has complete jurisdiction over determining the manner of death.<sup>10</sup> These individuals hold investigative responsibility for any death that legally requires investigation within their jurisdiction.<sup>11</sup> The term medical examiner is often interchangeable with forensic pathologist, who is a physician who performs autopsies.<sup>12</sup> However, in states with a centralized medical examiner system such as Massachusetts, the chief medical examiner is the appointed physician responsible for medicolegal death investigative services.<sup>13</sup> Figure 1:<sup>14</sup>

A coroner is a constitutional officer who is most often elected and usually only required to be of voting age without a felony record and possibly complete a training program.<sup>15</sup> Each state has the power to determine which system it will employ, and as seen in figure 1, some states do not even have homogeneous systems within their own borders.



## The Coroner: An Elected Position

The office of coroner can be traced back to ninth or tenth century England when “crowners” determined the identity of the dead, how they died, and collected the death duties.<sup>16</sup> Many states, like Georgia, constitutionally include the position of coroner without actually defining it.<sup>17</sup> South Carolina legislature is very similar; it defines coroner as “the person elected or serving as the county coroner.”<sup>18</sup> With no real definition, barely any regulation can be made upon this position. Granted, many states do define an age or minimal education requirement, but many outrageous circumstances have been permitted within this ambiguous job title. The man who preceded coroner Brown in Marlboro County, S.C, was blind.<sup>19</sup> This blind coroner was reelected multiple times, and held his position for decades.<sup>20</sup>

Elected officials controlling death investigation is an extreme conflict of interest in the current medicolegal death investigation structure. The coroner of Orleans Parish, Dr. Frank Minyard, can be implicated in multiple suspicious cause of death findings in regards to deaths in the custody of law enforcement officials.<sup>21</sup> One of these cases was the death of Adolph Archie, who Dr. Minyard initially claimed could have died from an accidental fall, when in reality Archie was beaten to death by police officers.<sup>22,23</sup> Dr. Minyard later conceded to the police beating, but the precedent of his initial statement could not be shaken. Although Dr. Minyard was not the physician who performed the autopsy, or even a trained pathologist, he is the individual who has the right, as coroner, to determine the causes of death of individuals who perish in his jurisdiction. According to the retired chief medical examiner of Virginia, Dr. Marcella Fierro, “in [regards to] the police shootings and those that are related to law enforcement... the best friend law enforcement could have would be an objective, honest, straightforward, careful autopsy.”<sup>24</sup> It is obvious that, even if an objective and trained pathologist

performs a competent autopsy, in jurisdictions where the individual who has the last say in the cause of death must remain in public favor for reelection, there can be no true honest and straightforward determination of evidence that relates to cases which the public may not accept.

### The Lack of Standards in the Medicolegal System

There are a number of coroner and medical examiner offices employ perfectly competent board certified forensic pathologists. In order to become board certified a rising forensic pathologist must complete their four years of medical school, a four year residency in anatomical and clinical pathology, and then a subsequent one year residency in forensic pathology in order to cover the knowledge tested by the American Board of Pathology exams.<sup>25</sup> Despite the availability of these exams, not every physician who performs autopsies is board certified for forensic pathology. In fact there is no requirement for board certification when it comes to the pathologists who perform autopsies on perhaps one of the most sensitive and challenging demographics: children.<sup>26</sup>

In the case of toddler Jayceon Tyson, his mother claims that she noticed a bump on his forehead after playing with his brothers, and when she tried to put him down for a nap Jayceon threw up, went limp, and then stopped breathing.<sup>27</sup> Dr. Paul Shrode, the El Paso chief medical examiner at the time, testified that during the autopsy he found bruising consistent with child abuse and the fatal wound to Jayceon was blunt force trauma to the head, and he classified the death as a homicide.<sup>28</sup> However, when the mother's defense team looked into Dr. Shrode's past, they realized his resume was not credible and that he never passed the forensic pathology board exams.<sup>29</sup> They hired a second forensic pathologist who found no evidence of trauma to the head strong enough to kill the child, and that the bruises that Dr. Shrode identified were likely birthmarks.<sup>30</sup> This pathologist testified that the death of Jayceon was caused by an infection, and

eventually his mother was acquitted of her murder charges.<sup>31</sup> It is appalling that an individual would lie about such an important aspect of their forensic education as board certification, but it is even more abhorrent that his testimony was still admissible in court though he was under investigation for his false claims.<sup>32</sup>

### Funding of Medicolegal Death Investigation Systems

Certainly, coroner Brown's decision to cremate his unidentified body was influenced by the fact that death investigation systems in the United States are grossly underfunded.<sup>33</sup>

Taxpayers do not fully understand the implications of subpar death investigation systems. They do not realize that insurance prices can be affected by poor death investigation, and they do not consider the need for a competent death investigation system until it is their loved one who needs his or her death to be investigated.<sup>34,35</sup>

Figure 2:<sup>36</sup>

The high-profile case of James Jordan only served to highlight these difficulties, in contrast to the multitude of unfortunate cases similar to his that do not gain media attention.<sup>37</sup> In 2004 the estimated budget for all medical examiner and coroner offices in the United States was \$718.5 million to pay 7,320 full time equivalent employees (FTE).<sup>38</sup> These employees can be seen distributed in figure 2. This measly

Type of office	Total number of offices	National estimate*	
		FTEs	Percent
<b>Total</b>	1,998	7,320	100.0%
<b>County coroner office</b>	1,590	3,520	48.1%
Large jurisdiction (250,000 or more)	82	1,100	15.0
Medium jurisdiction (25,000 to 249,999)	660	1,360	18.6
Small jurisdiction (Less than 25,000)	848	1,060	14.5
<b>County medical examiner office</b>	316	2,040	27.9%
Large jurisdiction (250,000 or more)	69	1,700	23.2
Medium jurisdiction (25,000 to 249,999)	172	240	3.3
Small jurisdiction (Less than 25,000)	75	100	1.4
<b>District or regional medical examiner office</b>	35	500	6.8%
<b>District or regional coroner office</b>	29	60	0.8%
<b>State medical examiner office</b>	24	680	9.2%
<b>City medical examiner office</b>	3	520	7.1%
<b>Other</b>	1	1	--

Note: Detail may not add to total due to rounding. Excludes offices in Louisiana.  
 \*Estimates based on 1,547 offices reporting 6,540 FTEs. See *Methodology* for details on estimation procedures.  
 --Less than 0.5%.

budget must cover the salaries of many trained physicians as forensic pathologist who work for both medical examiners and coroners, and the medical examiners themselves. The lack of funding for these positions often leads to no competitive salaries, and a diminished interest for those who may enter the field.<sup>39</sup> Forensic pathologists can expect to make roughly \$120,000 per year which pales in comparison to the projection that orthopedic surgeons can make \$460,000.<sup>40,41</sup>

The lack of funding for death investigations also takes a toll on the quality of working conditions for those who must determine the cause of death. The board-certified forensic pathologist who performed the autopsy of James Jordan worked in a converted garage in South Carolina, in the middle of summer, with no air conditioning.<sup>42</sup> Temperatures between 25 °C and 35 °C (77 °F to 95°F) are an optimum for decomposition of human remains because the bacteria which aid in decomposition grow best in this heat.<sup>43</sup> The working conditions that arise from an unconditioned space in South Carolina summer obviously contribute to the decay of human tissue, and any decay alters a body and complicates autopsy procedure. In addition to facilities for death investigators not having proper refrigeration units or air conditioning, as many as two-thirds of all offices do not have the technology to microscopically diagnose tissues or toxicologically determine chemical presence.<sup>44</sup> This utter lack of technology greatly hinders the ability of any death investigator to determine the true cause of death.

### Rational Solutions

The National Academy of Sciences has pushed for the abolition of the coroner system since 1928.<sup>45</sup> This abolition has not yet come into effect, as figure 2 shows almost 80% of the medicolegal death investigation offices falling under the coroner category. The Clark County, Nevada coroner, P. Michael Murphy, claims that this is a ‘nuclear approach’.<sup>46</sup> Certainly,

abolishing a position that hold 80% of the relative offices is nuclear, and this is why a more sensible compromise needs to be reached. Rather than a direct switch to the medical examiner system, a gradual change could be arranged. States could rewrite legislature to require increasing levels of training for the current coroner systems, until they are functionally able to become medical examiner offices.

Murphy also mentions the need for more forensic pathologist to support a new system of solely medical examiners.<sup>47</sup> An estimated 1,000 forensic pathologists will be required for the proper function of a national medical examiner system, but as few as 400 are currently full time employees as of now.<sup>48</sup> An increase of that sheer amount does require an extraordinary overhaul of the current system. Funding would need to be increased to facilitate competitive salaries and adequate working facilities with proper technology. However, if legislation is passed almost universally among jurisdictions this cost can be distributed greatly, and thus be feasible. The retired chief medical examiner of San Antonio, Texas, Dr. Vincent DiMaio, claims that a good medical examiner system costs roughly \$2.25 to \$2.50 per individual per year.<sup>49</sup> Of course, this must vary depending on the size of the community, but another option to weigh is the creation of regional death investigation rather than county. Some areas have a coroner for every county, when really the crime rate is so low that they are only able to be part-time workers.<sup>50</sup> Once regional systems can be set up, and the gradual phase away from coroners is completed, a larger amount of capital can go straight to the forensic pathologist and medical examiners, thus creating a superior system.<sup>51</sup>

Ultimately, a lack of reform regarding the medicolegal death investigation will lead to more failures of the criminal justice system. There can be no examples of murders walking free, simply because data cannot be collected for crimes that are not even known to have been

committed. There is such a burden on the system now that otherwise competent individuals in their posts cannot properly determine the cause or manner of death simply because they do not have access to the infrastructure that a good death investigation system calls for. Many death investigators simply do not have the connection to the technology or medical expertise that they need to properly determine the manner of death. There can be multitudes of small details differentiating a natural heart attack from one caused by low-voltage electrocution that the untrained eye cannot see, and thus allows an accidental death to become labeled as a natural death.<sup>52</sup> Death investigators must know what to look for in order to actually find it, and this is all based on the medical portion of the medicolegal death investigation system. Proper forensic pathology training, and board certification, can give individuals proper training in what to look for when investigating a death. The autopsy is the last medical exam that an individual will experience, and it takes a medical mind to truly understand its proceedings and results. America cannot continue allowing death investigators to come from non-medical, non-certified, backgrounds if she wishes to advance her legal system in this world of ever growing technology and science. There must be a scientific, factual basis to every death investigation if anyone can expect to raise the rates of prosecuting the truly guilty and acquitting the innocent.

Lawmakers need to step back and truly examine the medicolegal death investigation in their jurisdiction. They need to analyze the effectiveness in regards to true scientific and medical facts. Policymakers must realize when elected officials are too preoccupied with becoming reelected rather than pursuing the ultimate truth. They must reexamine their budget to allow for greater opportunities for medical professionals to pursue death investigation, and for implementing technological improvements in this field. Nothing but good can come from a revision of the current medicolegal death investigation system. Improving the state of the system

will allow criminals to be caught, accidental deaths to receive the insurance funds that they deserve, and growth among those working in the medicolegal death investigation field.

## Endnotes

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