

# 9-1-1: What's our emergency? Diagnosing a struggling occupation serving a neglected system: a systematic literature review

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## ABSTRACT

In 2019, of all of U.S. states/territories, only twelve require the Emergency Communications Officer (ECO) to meet hiring (character) standards, only twenty-nine require basic training standards, only twenty-three require continuing-education standards, and only twenty-four require use of pre-arrival medical instruction protocols. Furthermore, the federal government misclassifies the profession within its Office and Administrative Support occupational grouping, as opposed to the Protective Service occupational grouping. There is substantial evidence of 9-1-1 failures in professionalism and proficiency, nationwide. This thesis seeks to answer the question: How could the nation's 9-1-1 system—specifically its ECO occupation—evolve to address problems and maximize advantages to public safety and homeland security? It is a policy analysis but includes some qualitative analysis. Professionalization and standardization need to occur within the system, beginning with an accurate occupational classification. Increased compensation commensurate with the work performed is also needed, and that should be accompanied with mandated hiring, basic training and certification standards, and requirements in the use of pre-arrival medical instruction protocols. Lastly, a termination of all jurisdictional misappropriation of 9-1-1 fees, updated and sustainable funding streams, and adequate investment in technological enhancements necessary to improve the system's efficiency, proficiency, redundancy, and resiliency need to occur.

## INTRODUCTION

One caveat is in order at the outset: this paper should not be viewed as a generalization of conditions existing at all Emergency Communications Centers (ECC) or among all of this nation's Emergency Communications Officers (ECO). The extent of professionalization and degree of standardization within the emergency communications system can differ greatly from one agency to the next, and from one U.S. state or territorial jurisdiction to the next. The outstanding dedication and services provided by this occupation, most of the time, is highly appreciated and admired by this author. Still, the findings presented in this project demonstrate the degree to which the 9-1-1 system and its practitioners need an intervention with the status quo.

The discipline of emergency communications has entered a period where dramatic and transformational change in technology and duties is occurring. Over fifty-one years ago the first 9-1-1 call was made in Haleyville, Alabama, and an occupation subsequently emerged that was eventually deemed by the Office of Management and Budget (OMB) to be a clerical type of service providing important communication between the emergency caller and first responder. Over the years, that practitioner has become the forgotten member of the public safety enterprise. Today, the duties of the ECO are far more complex than merely collecting and disseminating information between the public and field responders.<sup>1</sup> The ECO frequently communicates with people who are under severe duress and uses various technical systems in the performance of those duties. This project is a call to action regarding professionalization and standardization of the ECO occupation, nationwide.

Action begins by the OMB reclassifying the occupation to the Protective Service Occupational classification. A bill in the U.S. House of Representatives was introduced on March 7, 2019, the 9-1-1 SAVES Act (H.R. 1629), which directs

the OMB to execute the reclassification, and on April 3, 2019, the Senate introduced a companion bill (S. 1015).<sup>2</sup> Both bills are stalled within committees. Next, policy makers and public safety institutions need to address systemic ECC staffing and funding deficiencies. The recruitment and retention of skilled ECO staff is a daunting challenge, and it is further exasperated by the fact that the nation's emergency communications system faces declining funding due to a combination of outdated and/or declining revenue streams, routine misappropriation of 9-1-1 fees by numerous states and territories for numerous years, and insufficient investment. Policy makers and public safety institutions need to aggressively address these matters, including ensuring that compensation and benefits are commensurate with the local market and the demands of the work performed by the ECO practitioner.

Finally, public safety institutions and policy makers need to enact systemic professionalization and standardization regulations of the occupation, by way of mandating consistent hiring (character) standards, basic training and certification or licensing standards, continuing education standards, and proper use of established pre-arrival medical instruction protocols. Far too much anecdotal evidence exists that amplifies this need, but none more egregious than that of Denise Amber Lee.

The purpose of this literature review is to evaluate sources that diagnose the state of the ECO profession operating in the neglected 9-1-1 system. More narrowly, it examines sources on existing conditions, practices, and policies regarding the profession that may result in vulnerabilities to public safety and the homeland security project. The assumption is that systemic professionalization of the ECO and standardization within the ECC, needs to occur in order to mitigate vulnerabilities to homeland security at large. The review of literature follows this structure: The OMB classification of the ECO occupation, the systemic staffing and funding challenges within the 9-1-1 system, and the theories and processes surrounding professionalization and standardization.

## Background

On January 17, 2008, Denise Amber Lee, a 21-year-old wife and mother of two little boys, was kidnapped from her southwestern Florida home by a stranger later known to be Michael King.<sup>3</sup> The ECC in both Charlotte County, and Sarasota County, Florida received five 9-1-1 calls related to her kidnapping. The first call was from her husband, Nathan, who reported her missing. The second call was from Denise herself, who surreptitiously used King's cell phone while blindfolded and bound in the back seat of his green Camaro.<sup>4</sup> Denise placed her call at 6:14 p.m. hoping it would lead the ECO and police to her.<sup>5</sup> The call was disconnected when King discovered that she had his phone. At 6:30 p.m., Jane Kowalski called 9-1-1. Kowalski was traveling south on U.S. Highway 41. She reported what she thought was a screaming child banging on a window of a dark-colored Camaro next to her.<sup>6</sup> Kowalski remained on the phone with the Charlotte County Sheriff's Office ECO for nine minutes, providing updated location

information, as she continued driving close to the Camaro.<sup>7</sup> No fewer than four marked police cars were within one mile of Kowalski's final location update, and dozens more were within a ten-mile radius.<sup>8</sup> When King turned north onto Toledo Blade, Kowalski lost sight of him.<sup>9</sup> Two days later, Denise's body was located in a shallow grave with evidence of brutal rape, approximately six miles from her last reported location.<sup>10</sup>

For Denise's dad, Sheriff's Sergeant Rick Goff, one of the hardest realities to face is that the very agency with which he spent his career bore liability for King's success at killing his daughter.<sup>11</sup> Sergeant Goff told Dateline, "She was beating on the window so hard and screaming, trying to get help. Which is the smart thing to do because by that time she knows she probably wasn't coming back. And as far as I'm concerned, we blew it. And I say 'we' because I'm part of that sheriff's office."<sup>12</sup> Denise's family and investigators believe she planted evidence of her being in the Camaro.<sup>13</sup> In the back seat of King's Camaro, detectives found some of Denise's hair which had been removed by the root.<sup>14</sup> A heart-shaped ring that Nathan had given Denise around their first Valentine's Day was also found in the seat.<sup>15</sup>

The case reflects a cascade of failures in handling the 9-1-1 call. The details collected from Kowalski's call were never transmitted to the police by the Charlotte County Sheriffs Office's ECC. The ECO who took Denise's call was ill-prepared for that pivotal moment, asking meaningless and upsetting questions.<sup>16</sup> She was also the ECO who took Kowalski's call and had reportedly earned the nickname of "liability Millie" by her peers; she loathed using the agency's computer aided dispatch (CAD) system while on the phone with callers. Her preferred method was to write the details of the call, and then enter them later into the CAD system. She wrote down the details of Kowalski's call and handed them off to a peer ECO who refused to broadcast the information until it appeared in CAD, which never happened. Besides this, no ECO or the ECC supervisor knew how to patch multijurisdictional radio channels quickly, and wasted precious time trying.<sup>17</sup> The ECC's leadership seems to have tolerated systemic workplace dysfunction that contributed to the outcome of this horrific incident.

Initiatives are under way to enhance technological processes and systems within the 9-1-1 system, yet in 2019 only twelve of the fifty-six U.S. state and territorial jurisdictions mandate a hiring (character) standard. Twenty-nine of those fifty-six jurisdictions mandate a basic training standard. Twenty-three of those fifty-six jurisdictions mandate a continuing education standard, and twenty-four of those fifty-six jurisdictions mandate that their ECCs use and train their ECOs on industry-accepted, pre-arrival medical instruction protocols. Some jurisdictions and stakeholder organizations seem uninformed or apathetic about these various issues, resisting professionalization and standardization initiatives for reasons such as being an unfunded mandate, or the mandate may cause an undue financial or personnel burden, or they may be hesitant to relinquish regulatory control. Some simply view the ECO job as less significant than that of a field responder. Professionalization and standardization can go

a long way to addressing these problems and maximizing advantages to public safety and the homeland security project, and should precede enhancement initiatives of 9-1-1 technological systems and processes.

## DISCUSSION

### 1. ECO Job Classification

This classification contributes to the ECO profession's struggles to be not only appropriately recognized, compensated, and benefitted commensurately with the life-safety services it performs, but also adequately credentialed, equipped, and trained appropriately for the work. The ECO—previously and variously known as “call-takers,” “emergency dispatchers,” “communications officers,” and “public-safety telecommunicators”—are officially classified by the OMB under the “Office and Administrative Support Occupation,” as a “Dispatcher—Public-Safety Telecommunicator.”<sup>18</sup> A significant public safety industry effort was launched in 2014. This effort included bipartisan and bicameral political support that grew through late 2017, arguing that the OMB should reclassify these practitioners from the “Office and Administrative Support Occupations,” a clerical type of job, to the major group “Protective Service Occupations,” a first responder or care-taking type of job. The OMB declined the proposal, reasoning that,

The work performed is that of a dispatcher, not a first responder. Most dispatchers are precluded from administering actual care, talking someone through procedures, or providing advice. Moving the occupation to the Protective Services major group is not appropriate and separating them from the other dispatchers would be confusing. Also, dispatchers are often located in a separate area from first responders and have a different supervisory chain.<sup>19</sup>

The OMB assigns the ECO to the broad occupational classification section of “Dispatchers” within its “Office and Administrative Support Occupation” major group category, a broad section that includes taxicab, trucking company, tow-truck, or train dispatchers.<sup>20</sup>

In its 2016 response to public safety industry proposed OMB revisions, the Association of Public-Safety Communications Officials (APCO) asserted that the work performed by ECO practitioners goes beyond being conduits for information between the public and first responders.<sup>21</sup> Instead, as the International Academies of Emergency Dispatch point out, an ECO provides life-and-death instruction to people facing dire emergencies, collects critical information from often traumatized callers, attempts to dissuade a suicidal caller from self-destruction, and a plethora of other things, all of which is often performed by following established industry protocols and procedures.<sup>22</sup> Indeed, the criticality and difficulty of the position is precisely why some jurisdictions, such as Idaho, recognize these professionals by more appropriate titles like ECO.<sup>23</sup> Roberta Troxell, in her doctoral thesis for University of Illinois at Chicago, posits that the ECO is a professional performing critical functions as a true first-

responder and that their role is not realized by many because the ECO does not physically respond to emergencies.<sup>24</sup> She concludes that this failure of realization, validated by OMB's current occupational classification, is a deficiency that needs to be corrected to curb staffing challenges and ensure ECC operational effectiveness.

### 2. ECC Staffing and Funding

Nationwide, ECCs are grappling with the recruitment and retention of ECOs, often resulting in staffing shortages, mandatory overtime, and ECO burnout, according to Officer.com.<sup>25</sup> The 2007 Officer.com article partially attributes this situation to an increasingly technical job for pay that does not correspond with the skills required.<sup>26</sup> It reports three adverse consequences: to ECO health, to public safety, and an increased cost to taxpayers due to mandatory ECO overtime.<sup>27</sup> An APCO Project RETAINS (Responsive Efforts to Address Integral Needs in Staffing) study indicates that 97 percent of ECOs fail to stay in the profession long enough to retire, and most of their retirement plans require the ECO to work several years longer than their first responder counterparts.<sup>28</sup> Sarah Krouse, reporter for the Wall Street Journal, depicted the same issue as a dire problem in 2018, citing numerous ECCs across the country that are not attracting applicants for understaffed centers, and are overworking the ECOs they do have.<sup>29</sup> She reports that, “A daunting situation for emergency call centers has turned urgent.”<sup>30</sup> Echoing her urgent call, Barry Furry, a public safety communications consultant, recently wrote that first responders should no longer assume an ECO is solely dedicated to their emergency event because the ECC may not have enough ECOs.<sup>31</sup> He highlights that uniform, regulatory standards do not exist and he sharply disagrees with OMB's refusal to reclassify the occupation, implying that the ECO needs better pay, benefits, staffing, and technology to curb staffing deficiencies.<sup>32</sup>

Nationally, ubiquitous funding deficiencies plague many 9-1-1 systems. In 2010, Bob Smith, director of strategic development for APCO wrote, “While there are myriad challenges facing the 911 industry today, the biggest are funding, training and staffing disparities between different agencies across the United States.”<sup>33</sup> Many Americans assume that 9-1-1 is a robust, seamless service always ready for their emergency, but Smith admits that policymakers do not view the ECO as equally important among emergency response personnel. Such emergency programs consequently under-train the ECO and often 9-1-1 is not a budget priority.<sup>34</sup> Smith also reports that several states raided more than \$200 million in cellular and landline 9-1-1 fees between 2007 and 2009 for things like road repairs and vehicle purchases.<sup>35</sup> In 2018, the Federal Communications Commission (FCC) reported that states collected over \$2.9 billion in 9-1-1 fees, with nearly \$285 million of it being siphoned off for initiatives unrelated to 9-1-1.<sup>36</sup> According to the FCC, a number of jurisdictions have participated in the illegal diversion of FCC fees for several years.<sup>37</sup>

Two bills have been introduced in the U.S. Congress to address both the occupational reclassification and the

misappropriation of 9-1-1 fees. Introduced in the House on March 7, 2019, the 9-1-1 SAVES Act (H.R. 1629) directs the OMB to place the ECO occupation in the Protective Service Occupation classification, and on April 3, 2019, the Senate introduced a companion bill (S. 1015).<sup>38</sup> Both bills are currently stalled. The 9-1-1 Fee Integrity Act (H.R. 6424) aims to better regulate jurisdictional uses of 9-1-1 fees, but despite being introduced in the House on July 18, 2018, it appears to have stalled within the House Committee on Energy and Commerce.<sup>39</sup>

**3. Professionalization and Standardization**

Literature arguing against professionalization and standardization of the ECO position is scarce. As noted earlier, the OMB declined a reclassification effort that began in 2014, but that refusal had to do with its disagreement about the nature of work of the ECO. Bill McDaniel, former Plant City, Florida Police Chief, does include three responses to his survey (found in his Appendix E, and in Table 1) of law enforcement leaders in Florida who opposed ECO certification requirements.<sup>40</sup>

and author Stephen Ackroyd posits that an argument can be made for two main types of theorizing about professions, with the first being functionalism/institutionalism and the other being conflict theory.<sup>44</sup>

According to the functionalism/institutionalism theory, professionalism is environmentally inspired, consensual, and met with innovation to better serve the stakeholders. In conflict theory, professionalism generally occurs as a result of threats or opportunities stemming from group activities that are politically or economically motivated.<sup>45</sup> It focuses on the regulations or practices of certain professions that are believed to be designed to restrict supplies, services, or even the number of skilled practitioners.<sup>46</sup> Thus, a conflict theorist would posit that professionalizing the ECO occupation is likely motivated by self-interests in elevating the occupation’s social status and increasing its salaries.<sup>47</sup> Functionalism/institutionalism theory focuses on the regulations or practices of inter and intra-related organizations, the putative characteristics of those organizations, and their applicability

to professionalism, including similarities and continuities.

Following the theory of functionalism/institutionalism, public safety interest in professionalizing and standardizing the ECO occupation seems to have begun around the early to mid-1990s.<sup>48</sup> In 1996, Dr. Jeff Clawson, Robert Martin, Bill Lloyd, Mike Smith, and Geoff Cady, researchers and writers for the *Journal of Emergency Medical Services*, pointed out that the ECO is not recognized as a professional

Agency type (size)	Response #	Response
Police (356 officers)	18	“My opinion is that dispatcher training is best handled at the local level. While it is recognized that many tasks that dispatch personnel perform are similar among agencies, there is vast differences in operational, instructional and policies within the state. However...a state sponsored basic academy may be appropriate for smaller agencies.”
Police (91 officers)	31	“There is too much difference between departments, different computer aided dispatch programs, methodology, etc.”
Sheriff (301 deputies)	10	“Statewide standardization presumes...a standardization of equipment, systems and methodology. Differential (sic) agencies with respect to size, funding and mission would probably create hardships for some jurisdictions relative to meeting any comprehensive standards. We have found little relationship between any prior experience with other agencies and the acceleration of progress in our own training program. A minimum standard would guarantee very little.”

**Table 1.** Public Safety Opponents of Professionalization and Standardization Policy<sup>41</sup>

Those opposition comments assert that training is best handled at the local level because a statewide standard presumes a standardization of equipment, systems, and methodologies.<sup>42</sup> McDaniel’s study concluded in 1996 and contained the only documented, explicit arguments against the professionalization and standardization of the ECO position. Professionalization of an occupation generally includes training and qualification enhancements that result in improved competence and service, in turn leading to stakeholder recognition of the occupation as a profession. Brett Williams, Associate Professor Andryns Onsmann, and Dr. Ted Brown, Australian researchers, argue that a vocation becomes a profession through a process that is incremental, staggered, and inevitably complicated, and only after a sufficient number of people recognize it as a profession.<sup>43</sup> In *The Routledge Companion to the Professions and Professionalism*, professor

because they hold an ambiguous role that is primarily viewed as clerical and lacks a certification standard.<sup>49</sup> This judgment of the ECO’s work being clerical in nature comports with the OMB’s longstanding assessment. Clawson et al. go on to surmise that ECO professionalism can be demonstrated once they receive ongoing training, certify and recertify in the use of certain life-safety protocols, maintain a customer-service mindset, and uphold the highest level of respect for the human conditions for which they serve, supporting the premise of Williams, Onsmann, and Brown. Scholars seem to agree that professionalization of an occupation not only includes increased hiring, training, and performance requirements, but also follows cultural recognition of it as a profession resulting from improved services.

Unfortunately, an event or incident that highlights a deficiency often inspires change. McDaniel references

several poorly-handled 9-1-1 calls from the mid-1990s and explains how certification requirements for law enforcement were implemented in Florida in the late 1960s to improve professionalism and standardization, as he builds his argument for the same outcome of the ECO occupation.<sup>50</sup> He points to a meeting held on October 25, 1991, by the Florida Department of Law Enforcement's Criminal Justice Standards and Training Commission, where the issue of ECO training and certification standards was discussed and ultimately dismissed.<sup>51</sup> McDaniel posits that the role of the ECO is just as complex and critically important to the public safety system as the law enforcement officer, and laments that mandated minimum training standards have been widely overlooked or ignored. Minnesota's Legislative Audit Commission published a report in 1998 asserting that the ECO is an equal partner to first responders in providing public safety.<sup>52</sup> It also noted a different quality of service among the state's 112 ECCs and stated that the ECO needs to receive comprehensive and continuing training, something the state had not mandated at that time. This report inspired little regulatory change because, in 2019, Minnesota still lacks laws or rules mandating ECO certification and minimum training requirements. Freelance writer David Raths' article highlights the need for policymakers to comprehend a need fully, often inspired by a catastrophe, before they are inspired to fulfill it.<sup>53</sup> Countless examples of deficient service provided by an ECO should be sufficient and abhorrent enough to clarify that need and inspire policymakers into action, but in too many jurisdictions it still has not.

Neither the states nor the nation has consistent standards in certification, training, and continuing education for the ECO. In 2013, according to APCO, approximately 20 states did not require a certification process, including training and continuing education.<sup>54</sup> Among the 30 states that did, the standards were inconsistent. Only 18 states mandated the training and use of Emergency Medical Dispatch (EMD) protocols that equip the ECO with life-saving medical instructions for callers awaiting Emergency Medical Service (EMS) units to arrive.<sup>55</sup> The website 911.gov argues that the ECO should be required to meet standards related to the job because the public expects professional and competent emergency communications service when calling an ECC.<sup>56</sup> The National 911 Program (911.gov) has facilitated a project designed to establish those agreed-upon standards, but they are nothing more than recommendations.<sup>57</sup> ECCs are at the tip of the homeland security spear, a place where consistent professionalization and standardization should be pervasive and obvious. In 2019, the nation still formally views the ECO as fulfilling a clerical support function where professionalization and standardization remains largely discretionary.

Focus on professionalization and standardization of the ECO position has accelerated since the Denise Amber Lee tragedy. Stacy Banker, standards program and APCO consulting services manager for APCO International, quantifies the acceleration of professionalization and standardization by pointing out that APCO has eight published standards for personnel employed within an ECC (dispatcher, trainer,

supervisor, manager, etc.).<sup>58</sup> The National Emergency Number Association (NENA) is another national 9-1-1 organization that has also developed numerous recommendations, best practices, and published standards paving the pathway to professionalization and standardization within the ECC.<sup>59</sup> While positive developments have continued to occur, the ECO occupation still has gaps in professionalism. For example, Boston Globe journalist Peter DeMarco writes about the tragic and unnecessary death of his asthmatic wife right outside a Boston area hospital's emergency room door while on her phone with an ECO who was unsuccessful determining her exact location.<sup>60</sup> ABC News journalist Emily Shapiro writes about teenager Kyle Plush suffocating to death in the back of his family's minivan while making two 9-1-1 calls requesting help that never arrived.<sup>61</sup> Both of these tragic examples, and many more, have been attributed to failures by an ill-prepared ECO or technological limitations within the neglected ECC system, or both.

The OMB argues that the ECO's work is more consistent with those in the Clerical and Administrative Support occupations, while public safety affiliated organizations assert the ECO's work is commensurate with those in the Protective Service Occupational classification. The 9-1-1 SAVES Act (H.R. 1629) could force the classification change to the Protective Service Occupational classification but delineating the true nature of work of the ECO remains essential to the argument for universal professionalization and standardization.

## CONCLUSION

The occupation suffers from high turnover rates, applicant recruitment challenges, inconsistencies in training and hiring standards, and works within a system that is underfunded and largely encumbered by antiquated technological systems. Literature arguing against professionalization and standardization is nearly non-existent, but the failure of many states to mandate hiring standards, training standards, or the use of established pre-arrival medical instruction protocols demonstrates profound apathy about this issue. Also, the apparent need for bipartisan, bicameral legislation directing change to the ECO occupational classification further illustrates the systemic misunderstanding or dismissal of the ECO's work.

## ACKNOWLEDGEMENTS

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