

SUPPORTING STATEMENT – Part A

CMEC 2018 Census of Medical Examiner and Coroner Offices (CMEC)

Overview

The Bureau of Justice Statistics (BJS) seeks clearance to implement the **2018 Census of Medical Examiner and Coroner Offices (CMEC)**. The survey builds on the previous iteration of the CMEC data collection that used 2004 as its reference year. Like the 2004 CMEC data collection, the 2018 project includes all known medical examiners and coroners offices in the United States that conduct medicolegal death investigations (MDIs). BJS plans to field the 2018 CMEC from May through November 2019.

In the United States, medical examiner and coroner offices are responsible for investigations of deaths involving injury or violence, or are of a suspicious, unusual, or unnatural nature in accordance with state statutes. There are important differences between medical examiners and coroners. Generally, coroners hold elected positions while medical examiners are appointed or hired by a state or local government. In most cases, medical examiners are trained physicians, while coroners do not need to have any medical or forensic science training. Through the CMEC, BJS collects data on the expenditures, workload, records and evidence retention policies, and resources of the approximately 2,200 MEC offices operating in the United States. The CMEC also gathers information on administrative characteristics of MEC offices, including the type of office (e.g., coroner or medical examiner), staffing levels and titles (e.g., forensic pathologists, specialists, or support personnel), specialized death investigations, and size and type of jurisdiction the office served.

For the purposes of the 2018 CMEC, a coroner or medical examiner’s office is eligible for participation if the following criteria are met—

1. the office investigates to determine a cause and manner of death;
2. the coroner or medical examiner or forensic pathologist within the office signs death certificates; and
3. the office determines when autopsies should be performed, even if the autopsy is performed outside of the office.

CMEC is part of BJS’s law enforcement statistics program. Consistent with BJS’s authorizing statute (34 U.S.C. § 10132; **Attachment 1**), BJS is expanding statistical activities related to forensic science and medicolegal death investigations (MDI), critical components of the criminal justice system. MECs examine all violent deaths and bridge the realms of forensic science and law enforcement. The forensic sciences are a key element of MDI as they aid the determination of causes and manners of death and the toxicology and pathology of cases investigated by MEC offices. The CMEC complements BJS’s Census of Publicly Funded Forensic Crime Laboratories (OMB #1121-0269), which gathers information about the organizational structure and operations of forensic crime laboratories, including personnel, budgets, caseload, equipment, policies, and technology.

The CMEC will gather information on staffing, employee training, and certification; resources, including budget, information technology, and examination capabilities; workload; policies and procedures for investigations and disposition of remains; participation in information sharing efforts; accreditation status; autopsy and toxicology outsourcing costs, policies, and practices; and access to databases, trainings, and support services.

BJS has modified the format and design of several survey items from the 2004 survey to improve measurement and ease respondent burden. Central questions concerning budget, staffing, and caseload were modified to increase clarity based on expert panel and cognitive interview feedback with an eye toward preserving our ability to compare 2004 and 2018 results. The 2018 instrument has increased emphasis on assessing “access” to resources (staffing, technology, and services) with yes/no questions based on expert panel feedback to reduce burden and improve responses. Moreover, BJS has refined questions and response options to reflect 2018 operations, nomenclature, and relevant, emerging topics. See the discussion of the differences in the instruments in “Section 5. Efforts to Minimize Burden”.

The design of the 2018 CMEC survey instrument is consistent with best practices of survey design including several design elements intended to increase the ease of reading and understanding the questionnaire. First, related questions are grouped together in topical sections. In addition, the survey instrument begins with the most salient items, as respondents can sometimes lose focus and attention towards the end of a questionnaire. Questions and instructions are presented in a consistent manner on each page to facilitate comprehension. On both web and paper survey administrations, proper alignment and vertical spacing are used to help respondents mentally categorize the information on the page and to aid in a neat, well-organized presentation.

The design uses informative section headers to assist respondents in recognizing different sections of the survey. Clear instructions regarding skip patterns assist the respondent in navigating the survey. These skip patterns are programmed into the web instrument. Finally, in choosing a method for asking questions, the use of complex matrices has been minimized. When a matrix-type question cannot be avoided, it is presented simply and with straightforward directions to help ensure that respondents understand the question being asked and the available answer choices.

In collecting the 2018 CMEC data, BJS will use a multi-mode approach in which respondents are directed to a web-based format as the primary mode of data collection. BJS prefers a web-based collection to increase response rates, expedite the data collection process, simplify data verification, enhance data quality by using validation checks, reduce burden by using automated skip logic, and facilitate report preparation. Due to the project team’s strong encouragement to respond using the web-based data collection tool, BJS expects that most agencies will use this option for the 2018 CMEC. However, hard copy questionnaires will be available to agencies as an alternative mode for response.

RTI International, BJS’s data collection agent for the 2018 CMEC, is a well-established federal contractor that has successfully conducted several BJS surveys including fielding the original CMEC with a reference year of 2004 and the recent 2016 Law Enforcement Management and

Administrative Statistics (OMB #1121-0240). RTI International is also the data collection agent for the ongoing 2018 Census of State and Local Law Enforcement Agencies (OMB #1121-0346) and 2018 Census of Law Enforcement Training Academies (OMB #1121-0255) surveys.

A. Justification

1. Necessity of Information Collection

Under Title 34, United States Code, § 10132, the Bureau of Justice Statistics (BJS) is authorized to collect and analyze statistical information concerning the operation of the criminal justice system at the federal, state, tribal, and local levels. The CMEC furthers the Department of Justice's mission by providing insight into the nation's MDI system process and infrastructure to identify trends and challenges.

MDI is a critical operation in the criminal justice and public safety systems that investigates all suspicious or violent deaths, determines whether to pursue criminal investigations surrounding deaths, and acts as an early warning system of instances of increased mortality related to drug overdoses, biological or chemical terrorism. As such, MECs operate alongside and within the criminal justice system to ensure justice and public safety. These agencies are also a key contributor to statistical data on the medicolegal death investigation infrastructure. They contribute to federal data collections such as the Centers for Disease Control's (CDC) National Violent Death Reporting System (NVDRS), the National Vital Statistics System (NVSS), State Unintentional Drug Overdose Reporting System (SUDORS), the Enhanced State Opioid Overdose Surveillance (ESOOS), and the National Highway Traffic Safety Administration's (NHTSA) Fatality Analysis Reporting System (FARS). Notably, BJS is the only federal agency to collect administrative, budgetary, staffing, and related information from MECs, which other federal agencies, such as the Centers for Disease Control and Prevention and others within the Department of Health and Human Services, use for context to inform public health statistics.

Thus, the 2018 CMEC will provide the only systematic basis to produce national estimates of personnel, resources, policies, and practices of MECs. Key findings from the 2004 CMEC showed that MEC offices employed an estimated 7,320 fulltime employees and had an estimated annual budget that totaled \$718.5 million, for an average of \$387,000 per office. Moreover, the 2004 CMEC data illuminated that MECs nationwide were referred 956,000 deaths, of which 487,000 were investigated by their offices (Hickman, Hughes, Strom, & Roper-Miller, 2007). The final project report also highlighted that there were about 4,400 unidentified human decedents each year, of which an estimated one fifth remain unidentified after 1 year (Hickman, Hughes, Strom, & Roper-Miller, 2007).

Although national data are sparse regarding caseload, local evidence suggests that the caseloads of MECs are increasing substantially in comparison to operational capacity. For example, in September 2016, the Cuyahoga County Medical Examiner (CCME) reported¹ there were 330 fatalities from January 1 through the Labor Day weekend compared to a total of 228 deaths in all

¹ Please see the following press release from the Cuyahoga County Medical Examiner's Office: <http://executive.cuyahogacounty.us/en-US/A/DozenFatalitiesThruLaborDay.aspx>.

of 2015. By April 2017, the CCME Office was at risk for losing its National Association of Medical Examiners (NAME) accreditation because its three pathologists performed more autopsies than allowed (MacDonald, 2017).² Notably, fewer than 100 of the nation's 2,200 MEC offices can achieve and maintain accreditation through NAME.³

There are three main goals for the 2018 CMEC: 1) generate statistics that will help develop a detailed understanding of the U.S. MDI system; 2) gather information that will help address training, staffing, or jurisdictional coverage needs in the MDI system; and 3) further develop the understanding of the relationship between law enforcement agencies and MEC offices.

Design of the 2018 CMEC Survey

BJS will use CMEC data to gain a basic understanding of the national caseload of deaths that require medicolegal death investigations, as well as the staffing, infrastructure, and resources that are available to process these cases. It is expected that since the 2004 CMEC, MDIs will have gained access to and use technology that has since emerged to investigate deaths, such as advanced imaging techniques (e.g., computed tomography and magnetic resonance) in forensic radiology to identify injury and disease prior to autopsy; and high-resolution mass spectrometry to identify newer psychoactive substances (e.g., synthetic opioids and cathinones) which require sensitive, modern technologies to overcome analytical challenges. Notably, the 2018 CMEC will also document the status of the MEC's case management and laboratory information management systems, which have been slower to transition to automated systems compared to other forensic agencies. It is not known the extent to which MECs have adopted these technologies, testing practices, and reporting and evidence tracking capabilities.

Based on the 2004 survey and feedback from an expert panel convened in April 2018, the topics for the 2018 CMEC include the caseloads of offices, including tribal lands cases; MEC accreditation status; certification status of investigative staff; expanded and refined office functions and responsibilities (e.g., next of kin communications); autopsy and toxicology outsourcing costs, policies, and practices; the number of unidentified human remains in the custody of each office; access to databases, trainings, support services, and resources; expenses; specialized investigation teams; and participation in emergency drills.

The 2018 CMEC data will allow for needed comparisons with the 2004 CMEC. The proposed 2018 CMEC instrument (**Attachment 2**) has been revised to include modifications and new items stemming from expert and methodological reviews as well as cognitive testing of the survey instructions, question wording, and hard copy format. BJS will evaluate all comments and suggestions for improvement provided by respondents to the 2018 CMEC for possible incorporation into the next CMEC survey. The instrument has 63 items that fall into 6 sections—

² MacDonald, E. (2017, April 21). Cuyahoga County Medical Examiner's Office seeks \$200k budget increase due to overdose epidemic. Cleveland.com, Metro News. Retrieved from

http://www.cleveland.com/metro/index.ssf/2017/04/cuyahoga_county_medical_examin_6.html

³https://www.thename.org/index.php?option=com_mcdirectorysearch&view=search&id=12295#/

1. Section A – Administrative (A1–A13)

This section collects information on the type of office being surveyed (coroner, sheriff-coroner, medical examiner, etc.), the level of government they represent, the type of agency or government body the office reports to, geographic jurisdictions served, accreditation and certification, and number of employees. This information will be used for future frame development and allows BJS to make comparisons between types of offices and to link the population of jurisdictions back to the office that serves them.

2. Section B – Budget and Capital Resources (B1–B5)

This section collects information on overall budgets available to offices, budgets designated for personnel, and sources of funding for offices.

3. Section C – Workload (C1–C16)

This section collects information on the number of cases reported to offices, the number of cases the offices accepted and investigated in 2018, including from tribal lands, the number of autopsies the office conducted, whether procedures and functions are conducted within the office or contracted to an external agency, and which personnel perform which duties. Information from this section will allow BJS to describe the amount of work MEC offices undertook in 2018, and the policies and procedures surrounding this work.

4. Section D – Specialized Death Investigations (D1–D11)

This section collects information on the number of unidentified human remains in MEC offices, policies surrounding the remains, and procedures and policies concerning infant deaths. This information will allow BJS to produce an estimate of how many unidentified decedents were in MEC at the end of 2018. BJS will also be able to describe how many offices use specific diagnoses such as Sudden Infant Death Syndrome (SIDS) and Sudden Unexplained Infant Death (SUID).

5. Section E – Records and Evidence Retention (E1–E6)

This section asks respondents about their ability to track cases, their use of computerized case management systems, policies for record retention, and storage of case records. With varied office types, needs, and populations served, MEC offices have varying capacities of electronic case management. This section will allow BJS to summarize how and where offices store their records and evidence.

6. Section F – Resources and Operations (F1–F12).

This section asks about what resources and technologies are available to MEC offices, whether directly through their office, through their relationship with an external office or agency, or not at all. It also asks about various programs and federal data collection

efforts that these offices might participate in, such as the National Missing and Unidentified Persons System (NamUs).

BJS plans to conduct a census rather than a sample survey for the 2018 CMEC. The universe of training MECs is small (about 2,200) relative to the size needed for a representative sample with stratification dimensions needed to address variations by agency type, size, and jurisdictional characteristics. Interest among other federal, state, and local agencies in data collected through CMEC relies on the study to ascertain the basic needs of MECs nationwide since these data have not been collected since reference year 2004. Since the last CMEC, there is a known crisis within MDIs given the shortage of forensic pathologists and medicolegal death investigation staff nationwide.⁴ However, the extent of the problem as measured by national caseload is largely being based on the 2004 CMEC. A significant goal of the 2018 Census is to identify the national caseload of death investigation cases and the staffing in place to address this caseload. Caseload data are even more imperative given the opioid epidemic which has stretched the resources of MECs nationwide with record-breaking overdose deaths. With a census design, these data will comprehensively inform national, state, and local policy-making and budget planning.

The 2018 CMEC will update and document any changes in MEC programs that have occurred since the 2004 CMEC. Information generated by the 2018 CMEC will help to improve our national understanding of MECs and their operations. The information will be useful for federal, state and local governments to assess the areas in which additional resources for development, improvement, or expansion of criminal justice death investigation capabilities may be necessary.

2. Needs and Uses

BJJ/OJP/DOJ Needs and Uses

Since 2002, BJS has conducted two surveys that inform forensic sciences: the Census of Publicly Funded Forensic Crime Laboratories (OMB # 1121-0269) and the CMEC (OMB # 1121-0296). The CMEC complements the Census of Publicly Funded Forensic Crime Laboratories as both MECs and Forensic Crime Laboratories serve as primary support agencies to law enforcement agencies and their operations. Through the 2004 CMEC, which achieved an 86% response rate, BJS documented the number of MECs conducting MDIs in the United States and provide key statistics regarding their operations, infrastructure, and resources. BJS's report on the 2004 CMEC, published in 2007, remains the only comprehensive source of basic data about the U.S. MDI system and made clear that the MDI systems varied widely across all measures (e.g., jurisdiction size and type, caseload, staffing, procedures performed, record retention, use of national databases, operation and budget).

Information collected by the CMEC concerning caseload, staffing, and certification of MDIs and accreditation of MEC offices nationwide will inform the national need for pathologists and supporting staff, as well as support and inform national efforts currently underway by the National Institute of Justice (NIJ) to provide funding that will facilitate MECs to achieve

⁴ Committee on Identifying the Needs of the Forensic Sciences Community, National Research Council. (August 2009). *Strengthening Forensic Science in the United States: A Path Forward*. National Academies Press, Washington D.C. <https://www.ncjrs.gov/pdffiles1/nij/grants/228091.pdf>

accreditation status and entice more forensic pathologists to the field via fellowship awards through its *Strengthening the Medical Examiner-Coroner System Program* (see <https://nij.gov/funding/documents/solicitations/NIJ-2018-13743.pdf>). The 2018 CMEC will also provide needed data to inform the development of current and future Department of Justice funding programs to provide assistance where needed. For example, NIJ's Paul Coverdell Forensic Science Improvement Grants Program aims to improve the quality and timeliness of forensic science and medical examiner and coroner services by providing funds to implement new technologies, train forensic pathologists, and help eliminate backlogs. Having updated data will help inform NIJ about the most efficient areas to target its grant funding, as well as to inform their forthcoming needs assessment of the MDI.⁵

The Department of Justice's Office of Justice Programs and the Department of Health and Human Services formed the Medicolegal Death Investigation (MDI) Federal Interagency Working Group (MDI-WG; <https://ojp.gov/resources/ojp-hhs-mdi-wg.htm>) in March 2018 to coordinate federal initiatives to strengthen the MDI system and support death investigation services practiced by medical examiner and coroner offices across the United States. The MDI-WG has identified several important goals, including—

- Developing technologies/systems to facilitate information/data sharing between MEC offices; toxicology laboratories; and federal, state, and local entities;
- Addressing the shortage of forensic pathologists;
- Coordinating MDI research priorities;
- Strengthening drug death investigations;
- Strengthening drug death data reporting mechanisms; and
- Supporting post-mortem toxicology screening and analysis, particularly for novel synthetic drugs.

The 2018 CMEC supports this effort by providing data that will speak to many of these areas (see the comprehensive list of topics that will be covered in the 2018 CMEC in the *Overview* section) and provide relevant data to inform the working group of appropriate next steps in terms of budgets, planning, needs, and areas for program growth and outreach. The key types of information that the CMEC will make available include—

- Number and types of MEC offices
- Number of full-time and part-time personnel and their responsibilities and roles
- Average total operating budgets
- Caseloads and autopsies performed
- Policies and procedures regarding autopsies and medicolegal death investigation.

BJS will use the data gathered by the 2018 CMEC to disseminate information about the MDI system to the public. A past BJS report using CMEC data was *Medical Examiners and Coroners' Offices, 2004* (<https://www.bjs.gov/content/pub/pdf/meco04.pdf>).

⁵ Justice for All Reauthorization Act of 2016, Pub. L. No. 114-324, 130 Stat. 1948 (2016).

Uses of the CMEC by others

Because medical examiners and coroners are situated at the crossroads of public health and safety, information generated from CMEC is highly relevant to the work of law enforcement practitioners, the professional research community, and public health agencies as the collection provides authoritative statistics on the staffing, budget, resources, and infrastructure in place to investigate questioned deaths.

Officials from federal, state, and local agencies have used the 2004 CMEC for comparative statistical purposes and benchmarks for funding or resources. The 2004 CMEC also provided needed benchmarks for comparisons, such as the average operating budget for MECs by jurisdiction size. Although the 2004 Census data are outdated, the first CMEC's impact on the field endures: the collection remains highly cited and is frequently used by the government, research, public health, and MDI communities because it remains the definitive source regarding the state of the MDI system. For example—

- An April 2018 NIJ journal article⁶ focused on the National Missing and Unidentified Persons System (NamUs) program and referenced the CMEC's findings regarding the 4,400 unidentified decedents in 2004. Moreover, the 4,400 estimate is also an unattributed reference on the NamUs main webpage (<https://www.namus.gov/>).
- In November 2017, the Congressional Research Service⁷ published a report on missing adults for the United States Congress. In addition to referencing the CMEC's finding about the 4,400 unidentified decedents, the authors highlighted the findings associated with the MDI's lack of infrastructure to fully investigate these unidentified or unclaimed deaths, including x-rays, DNA, and fingerprints as well as a lack of record retention among large jurisdictions.
- The National Science and Technology Council's 2016 seminal *Strengthening the Medicolegal Death Investigation System: Improving Data Systems* report to the White House used the CMEC data to report on the national death caseload from 2004 because it remains the best estimate for the U.S. caseload for death investigations.
- Dr. Andrew Baker, former National Association of Medical Examiners president and Chief Medical Examiner of Hennepin County, MN, referenced the CMEC 2004 data to highlight caseload and workforce numbers in his keynote address at the 2018 Society of Forensic Toxicologists in Minneapolis, MN in October 2018.
- Dr. Michael Murphy, former forensic pathologist for the Clark County Coroner's Office, NV, used the map from the BJS report "Medical Examiners and Coroners' Offices, 2004" to show the U.S. states by type of MEC system during his presentation at the 2018 International Association of Coroners and Medical Examiners (IAC&ME) in Las Vegas, NV in July 2018.

⁶ Weiss, D., Schwarting, D., Heurich, C., & Waltke, H. (2018). *Lost but Not Forgotten: Finding the Nation's Missing*. *NIJ Journal*, 279. <https://nij.gov/journals/279/Pages/lost-but-not-forgotten.aspx>

⁷ Fernandes-Alcantara, A.L. (November 2017). *Missing Adults: Background, Federal Programs, and Issues for Congress*. Congressional Research Service, Washington, DC. <https://crsreports.congress.gov/product/pdf/RL/RL34616>

“Medical Examiners and Coroners’ Offices, 2004”, published by BJS in 2007, is referenced frequently in the scientific literature:

- Lowder, E.M., Ray, B.R., Huynh, P., Ballew, A., & Watson, D.P. (2018). Identifying Unreported Opioid Deaths Through Toxicology Data and Vital Records Linkage: Case Study in Marion County, Indiana, 2011–2016. *American Journal of Public Health*, e1-e6.
- Parks, Connie L. & Monson, K.L. (2018). Automated facial recognition of manually generated clay facial approximations: Potential application in unidentified persons data repositories. *Forensic Science International*, 133-136.
- Castle, I.J., Yi, H.Y., Hingson, R.W., & White, A.M. (2014) State Variation in Underreporting of Alcohol Involvement on Death Certificates: Motor Vehicle Traffic Crash Fatalities as an Example. *Journal of Studies on Alcohol and Drugs*, 75(2), 299-311.
- Gershon, R. R. M., Orr, M. G., Zhi, Q., Merrill, J. A., Chen, D. Y., Riley, H. E. M., & Sherman, M. F. (2014). Mass fatality preparedness among medical examiners/coroners in the United States: a cross-sectional study. *BMC Public Health*, 14, 1275.
- Davis, G., Warner, M., Paulozzi, L., Nolte, K., & S. Nelson, Lewis. (2013). State Variation in Certifying Manner of Death and Drugs Involved in Drug Intoxication Deaths. *Academic Forensic Pathology*, 3, 231-7.

The 3-year usage of the public use file archived at the National Archive of Criminal Justice Data (NACJD) show that the CMEC public use file is frequently downloaded. From November 2015 to November 2018, NACJD shows that the CMEC data were downloaded 316 times across 75 unique users (including university faculty and staff, undergraduate and graduate students, and anonymous users).⁸

3. Use of Information Technology

The 2018 CMEC plans to use a multi-mode design in which respondents are directed to a web survey through mailed and emailed instructions. The web survey will be hosted by BJS’s data collection agent RTI International (RTI).

The CMEC instrument has been designed for online data collection and will export survey data and paradata in various data formats specified by BJS. This software will allow RTI to send an email to respondents explaining the CMEC program and containing a hyperlink to the questionnaire. Respondents will have a unique Personal Identification Number (PIN) and password provided by RTI to access the website to complete the census form.

The web survey application will include data validation and logic checks to help ensure responses are consistent, within range, and follow proper skip patterns as necessary. If a respondent provides an answer that seems out-of-range or inconsistent with answers elsewhere in the survey, they will be prompted to verify their answers as accurate. These processes will help improve data quality and minimize respondent burden by reducing the need for extensive data verification follow-up contact. Respondents will be able to start the survey, break off, and resume the survey from where they left off. The software allows for real-time online tracking of

⁸ See the NACJD CMEC usage report: <https://pcms.icpsr.umich.edu/pcms/reports/studies/20342/utilization>

respondents thereby allowing BJS to track the completion of each office's responses. The software supports exporting survey response data and paradata in formats specified by BJS.

Agencies may have several reasons why they do not respond via the internet; for example, some might not have reliable internet access and others might find it difficult to complete the CMEC online because of the complexity of the requested data or the need to involve multiple people in preparing the response. Respondents will also be able to respond to the survey using mobile devices, such as tablets. Agencies that request printed versions of the census form will have multiple methods of receiving paper versions of the instrument. A paper copy of the questionnaire will be mailed in a reminder mailing to nonresponders. In addition, agencies will be able to download a PDF version of the survey from the survey website that can be printed or e-mailed to MEC staff. Respondents can then complete the survey by hand and transcribe it into the online survey instrument, scan and return the completed form via email, or return the completed form via mail. Completed hardcopy questionnaires will be data entered by RTI staff.

The dataset and supporting documentation will be made available without charge at the National Archive of Criminal Justice Data at the Inter-University Consortium for Political and Social Research (ICPSR). The BJS-produced findings from the 2018 CMEC will be provided to the public in electronic format (e.g., Microsoft Excel or comma delimited files). The survey reports will be available on the BJS website as PDF files.

4. Efforts to Identify Duplication

Based on our knowledge of the federal statistical system in general, and medical examiner/coroner surveys in particular, BJS has determined that, by and large, the 2018 CMEC does not cover topics found in surveys conducted by any other federal agencies. This is mainly due to the fact that CMEC is an agency survey that is designed to gather data on the "business" and operations aspects of the MDI. Other federal agencies that collect data from MECs are interested in collecting information about the deaths the MECs investigate and process. Examples of these latter collections include the Centers for Disease Control and Prevention's (CDC's) National Violent Death Reporting System (NVDRS), the National Vital Statistics System (NVSS), and the Enhanced State Opioid Overdose Surveillance (ESOOS), the Sudden Death in the Young Case Registry (SDY), and the National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS). All of these collections are designed to collect information about the deaths themselves rather than about the work of MEC offices.

BJS's other data collection concerning forensic sciences, the Census of Publicly Funded Forensic Crime Laboratories (CPFFCL) (OMB #1121-0269), was last fielded in 2014 and included 14 MEC offices. In certain jurisdictions, an MEC office may be within a forensic crime laboratory, or conversely, a crime laboratory may be located within an MEC office. The CMEC will specify that we are interested only in information related to the MDI portion of the office and in those personnel who are assigned to MDI related roles and duties. The CPFFCL asks questions relevant to a broader array of forensic sciences while the CMEC asks questions related specifically to MDI personnel, policies, and practices. BJS plans to field the next CPFFCL in 2020. CMEC and CPFFCL are designed to complement each other.

BJS's Census of State and Local Law Enforcement Agencies (CSLLEA) (OMB #1121-0346) includes sheriffs' offices. Some of these offices, notably in California, are also coroner offices. In the 2004 CMEC, 44 offices, largely concentrated in California, were sheriff-coroner offices. While there is a small overlap in the offices included in both studies, the questions asked in the CMEC are different from CSLLEA. The CSLLEA includes items on the number and sex of law enforcement officers employed by law enforcement agencies, and duties performed by the officers. This study does not ask about MDI personnel or practices. The CSLLEA launched in September 2018 and data collection will be completed by May 2019.

The only survey identified that includes a small set of overlapping data collection items is the Drug Enforcement Administration's 2017 National Forensic Laboratory Information System (NFLIS) Medical Examiner/Coroner Office survey, which was primarily focused on obtaining toxicology-related policies and requesting practices from MECs nationwide in 2017. The 4-month 2017 NFLIS MEC survey data collection yielded a 47% response rate for complete surveys and a 61% response rate for critical item response (i.e., caseload).

BJS identified six potential areas of overlap between CMEC and NFLIS:

- Type of office – NFLIS asked respondents to indicate the type of office in which they work (State medical examiner, district/regional medical examiner, etc.). CMEC, on the other hand, asks two questions: 1) what best describes the death investigation office (coroner or medical examiner) and 2) what level of government best describes the office (city, county, district, state). Although both data collections ask about the type of office, it is a very low burden for offices to answer, and it is crucial to identify the type of office surveyed. Asking this question consistently will allow for analysis of any changes in the type of office operating and provide important context for the office's data (e.g. caseload).
- Jurisdiction(s) served – Both CMEC and NFLIS ask respondents to identify (via an open text field) which jurisdictions they serve (e.g., Illinois, Los Angeles County, New York City, First Judicial District). While NFLIS also asked respondents to identify the size of the population they serve, CMEC does not. BJS needs to collect this information in order to link population size estimates to the office based on what jurisdictions it serves. It is also important to obtain an up-to-date understanding of jurisdictions served because this may change over time. Most coroners are elected officials. In counties in which the coroner's elected position is unfilled, it is common to outsource coroner responsibilities to a neighboring jurisdiction. Keeping this information up-to-date is necessary to link the population served information to reasons for potential increases or decreases in caseload and budget.
- Accreditation by NAME and IAC&ME – Both CMEC and NFLIS include nearly identical measures regarding accreditation status through the National Association of Medical Examiners (NAME) and the International Association of Coroners & Medical

Examiners (IAC&ME). Since the 2017 NFLIS survey (referencing 2016), two notable circumstances have changed. The ongoing opioid epidemic has made it difficult for some agencies to achieve or maintain accreditation. For example, NAME-accredited MECs only allow pathologists to perform 250 autopsies per year, yet the rising number of lethal drug overdoses in some areas has challenged MECs to maintain this ratio, particularly in light of the national forensic pathologist shortage. Secondly, the National Institute of Justice released the *Strengthening the Medical Examiner-Coroner System* program which provides funding to help agencies achieve accreditation status. NIJ also supports accreditation through its Paul Coverdell Forensic Science Improvement Grants Program. In FY2015-2016 alone, Coverdell funding was used by MEC jurisdictions across 47 awards to support new accreditation or maintenance fees. Obtaining more updated information about accreditation status, as well as plans for accreditation status if none is currently held, supports the federal government's push for increased accreditation among the MEC community as a whole by providing updated statistics.

- Caseload – Both CMEC and NFLIS ask about the number of cases (deaths) referred to offices, accepted by offices, and autopsies performed by offices. CMEC also asks how many referred and accepted cases came from tribal lands. While both collections may collect the same data point, it is necessary that CMEC ask this to be able to understand the context in which cases from tribal lands are referred to and accepted by MEC offices.
- Use of computerized management system – NFLIS focused on the office's use of laboratory information management systems (LIMS) with probing questions on data fields, file types, and specific software used for the information management system. CMEC asks more broadly whether offices have a computerized management system (CMS) beyond spreadsheet software (e.g. Excel) and whether the CMS is networked so that it is available to all authorized users.
- Participation in federal data collection efforts – Both NFLIS and CMEC ask whether MEC offices participate in several federal data collection efforts. However, only two of the data collections are mentioned in both instruments, the Fatality Analysis Reporting System (FARS) and the National Violent Death Reporting System (NVDRS). CMEC asks about six specific data collection efforts, and NFLIS asks about only these two specifically.

The NFLIS had a reference year of 2016. CMEC will use a reference year of 2018. The answers to most of these questions, especially those of caseload, use of computerized management systems, and participation in federal data collection efforts may have changed in the intervening years. Collecting this information with a different reference year affords BJS and others the ability to analyze more current data. BJS understands that NFLIS will be fielded again in 2021.

5. Efforts to Minimize Burden

The proposed 2018 CMEC instrument was designed to minimize response burden in several ways. First, based on feedback received from the agencies through an expert panel and cognitive interviews, the new instrument features questions that have been refined to increase clarity and improve response options where needed. Second, the 2018 CMEC was modified for a web-based data collection and includes built-in skip patterns and data checks. It was designed with best-practice web layouts including matrices where appropriate. The 2018 CMEC was also designed to have more yes/no questions to obtain information about access to resources based on expert panel feedback that suggested dire basic needs within the community.

For the 2018 CMEC BJS consulted with an expert panel that was composed of medical examiners and coroners from various states and sized agencies. BJS incorporated feedback from this panel and cognitively tested a revised version of the instrument with 14 respondents (7 coroners and 7 medical examiners) under BJS's generic clearance (OMB # 1121-0339). The resulting instrument represents a thorough redesign. See **Attachment 24** for the complete cognitive testing report, including the protocol for testing the instrument. The changes are summarized below—

- Section A. Cognitive testing resulted in changes to five items and the addition of two items. Three questions received an additional response row, one received a wording change in its response options and two received wording changes in their question stems and an additional response row in each. Item A8, which asks for the number and types of employees in several roles, received additional clarification instructions and definitions, a new personnel role, and a new column for 'on-call' employees. Both through the expert panel review and cognitive testing, participants expressed interest in getting information on salaries of personnel in MEC offices. To this end, the project team added a new question (A9) to ask for starting minimum and maximum salaries of autopsy pathologists, coroners/non-physicians, death investigators, and forensic toxicologists. An item asking whether all, some, or none of the autopsy pathologists employed by the office are certified by the American Board of Pathology (ABP) was also added.
- Section B. Cognitive testing resulted in the addition of one item, changes in wording for two questions, and the removal of three items. BJS added a question to ascertain the end date of respondents' fiscal years. For two questions, BJS changed the phrasing to make questions more clear. Two items (average cost for conducting a full autopsy and average cost for conducting forensic toxicology testing per case) were dropped because respondents had difficulty answering, particularly if they performed these procedures in the office rather than contracting them out. Further review within BJS resulted in the removal of the question asking whether staff in respondent offices spent any of their personal money on training, supplies, equipment, or other items needed to conduct their work.
- Section C. Question wording throughout the section changed as a result of cognitive testing. In several items the reference to the specific fiscal year date of June 30, 2018 was dropped due to confusion it caused respondents. Instead, the questions begin with "In

2018...” to prompt respondents to provide answers for the calendar year. BJS also added clearer definitions to questions throughout section C. Respondents asked that C12, which contains a matrix of response options, be further broken out into smaller categories. BJS added the requested categories to this item and split the item in two for ease of reading and answering on the web survey.

- Section D. Throughout this section, reference date of June 30, 2018 was changed to December 31, 2018 to prompt respondents to answer for the calendar year. BJS also revised wording for several questions to make items easier to understand. Item D10 was seen as double barreled, so the wording was changed to be more easily understood and a sub item was added to ask respondents whether they routinely perform toxicology tests to confirm results from drug screening tests performed at earlier stages of investigation.
- Section E. Items E3 and E6 each received an additional response row. Item E7 which asked respondents to specify what other locations their records were kept at was dropped.
- Section F. Six items in section F were changed and two were dropped. Questions F2, F3, F7, and F10 asked respondents whether they can access several types of resources internally or externally with two response options: yes or no. After testing and discussion on the goal of the questions, it was decided that the question will have three response options: “Yes, we have direct access”, “Yes, we can ask as partner agency”, and “No”. Question F7 received additional response rows. Question F5 was originally asked in a matrix question, but was split into two items to allow for more clarity in answers. A question which asked respondents to indicate to what extent (ranging from “not at all” through “to a great extent”) a variety of resources were needed to improve their ability to complete cases was dropped due to inconsistent understanding of the question and evidence that it was not capturing what was intended. An open ended question that asked about what other technologies not included in the survey that offices have access to was also dropped.

We expect that many respondents will complete the survey online. Web-based system functions will be in place to ease the burden of survey completion. RTI uses an intelligent log-in program for data collection, which will store MEC office information and responses, allowing for multi-session completion of the survey instrument. Since many offices, particularly the larger ones, will need to seek multiple information sources within their organizations to answer different sections, this will reduce burden by facilitating data entry from different sources. It will also reduce burden by allowing respondents to stop response entry pending confirmation of information from others in the office.

Since some respondents will complete the CMEC using paper forms, survey methodologists have evaluated the questions and layout to ensure that the instrument is formatted appropriately for what is being asked of respondents. This includes ensuring that instructions and questions are clear, adjacent to one another, and definitions for terms are provided as necessary and placed near the question to which they refer. This evaluation, along with feedback from expert panelists and cognitive interview participants, has helped refine the current survey instrument.

RTI will also provide assistance by phone and email. A toll-free help line will be established and staff will be available during regular business hours. When staff are not available, calls will be routed to voicemail. Messages will be responded to within 24 hours. A dedicated CMEC help email address will be provided with all written materials and emails. Phone numbers and email addresses will be provided to respondents to ensure timely communications.

6. Consequences of Less Frequent Collection

Based in part on recommendations from the National Research Council (Groves and Cork, 2011), BJS has determined that it is necessary to improve the timeliness of the publications flowing from its law enforcement data collections. For CMEC, the collection was last done 14 years ago. BJS anticipates that the CMEC will be fielded every 4–5 years and will be staggered with the Census of Publicly Funded Forensic Crime Laboratories so that the two never field in the same year.

Notably, BJS traditionally fields its data collection efforts more regularly (e.g., 3–5 years) compared to the current 14-year gap for the CMEC. BJS understands from the field leadership—i.e., leadership from the National Association of Medical Examiners, International Association of Coroners & Medical Examiners, and the American Board of Medicolegal Death Investigators—that there is great interest and support of the CMEC to update our national understanding of the state of the MDI since the 2004 findings continue to be used so prevalently by MDI stakeholders.

More frequent data collection efforts will allow BJS and federal, state, and regional governments to examine more timely data and changes in trends. As discussed elsewhere, the CMEC complements the BJS’s Census of Publicly Funded Forensic Crime Laboratories (CPFFCL). BJS plans to field the CPFFCL in August 2020 with a reference date of 2019. Keeping these collections on a similar schedule will allow BJS and others to examine trends in the fields of forensic sciences more broadly. Should the 2018 CMEC not be fielded, the 2004 data will remain—at least in the short term—as the most comprehensive information about the MDI system. These data are dated and provide little insight into the access and use of new forensic technologies that have been developed and evolved since the 2004 CMEC. Moreover, federal programs aimed to support the MDI system through a funding—e.g., NIJ’s *Strengthening the Medical Examiner-Coroner System Program*—will continue to base some of the funding and programmatic needs on these old, outdated data.

7. Special Circumstances

No special circumstances have been identified for this project.

8. Federal Register Publication and Outside Consultation

An expert panel of practitioners was gathered to assess the instrument used for the 2004 CMEC. These panelists included practitioners from both medical examiner and coroner offices. Panelists were provided with the survey instrument and materials from BJS and RTI introducing the project and BJS’s goals in conducting the census. Panelists were asked to assess the survey form for clarity of the questions, relevance of the questions to the field, and to provide the project

team with updates from the field that ought to be included in the form. BJS, RTI, and the expert panelists gathered for a one-day meeting to discuss the form item-by-item. Feedback from this expert panel was used to inform instrument design for cognitive testing discussed above. Expert panelists are included in Table 1.

Table 1. Expert panelists

| Panelist | Office |
|---|--|
| Ms. Karla Knight Deese Coroner | Lancaster County Coroner South Carolina |
| Mr. John Fudenburg Coroner | Clark County Office Nevada |
| Ms. Kelly Keyes Deputy Coroner | Orange County Coroner California |
| Dr. Robert Mitchell, MD Chief Medical Examiner | District of Columbia Office of the Chief Medical Examiner |
| Ms. Bobbi Jo O’Neal Deputy Coroner | Charleston County Coroner’s Office South Carolina |
| Dr. Deborah Radish, MD Chief Medical Examiner | North Carolina Office of the Chief Medical Examiner |
| Dr. Ruth Winecker, PhD Chief Toxicologist | North Carolina Office of the Chief Medical Examiner |

The research under this clearance is consistent with the guidelines in 5 CFR 1320.6. The 60-day notice for public commentary was published in the Federal Register, Volume 83, Number 238, page 63909 on Wednesday, December 12, 2018 (**Attachment 4**). The 30-day notice for public commentary was published in the Federal Register, Volume 84, Number 35, pages 5501–5502, on Thursday, February 21, 2019 (**Attachment 5**).

9. Paying Respondents

Neither BJS nor RTI will provide any payment or gift of any type to respondents. Respondents will participate on a voluntary basis.

10. Assurance of Confidentiality

According to 34 U.S.C. § 10134, the information gathered in this data collection shall be used only for statistical or research purposes, and shall be gathered in a manner that precludes their use for law enforcement or any purpose relating to an private person or public agency other than statistical or research purposes. The data collected through the 2018 CMEC represent institutional characteristics of MECs. Information collected from these organizations is considered within the public domain. The fact that participation in this survey is voluntary and that information about individual agency responses will be available to the public will be included on the first page of the survey instrument. However, it will also be made clear to them that BJS and RTI will not release the names, phone numbers, or email addresses of the actual persons responsible for completing the 2018 CMEC instruments.

11. Justification for Sensitive Questions

There are no questions of a sensitive nature in the proposed 2018 CMEC.

12. Estimate of Hour Burden

BJS has estimated the respondent burden for the proposed 2018 CMEC Survey at 3,575 hours. The 2018 CMEC burden estimate was calculated using an estimate of 1.5 hours per respondent for the completion of the 16-page, 64-question questionnaire being completed by an estimated 2,200 MECs. In addition, BJS plans to conduct data quality follow-up with approximately 1,100 offices at 15 minutes per call, totaling 275 hours.

The 90-minute estimate is based on feedback received during the administration of the 2004 CMEC instrument, the input of the expert panel, and estimates provided during cognitive testing for the 2018 CMEC. This includes the time needed by responding agencies to research the information being requested on the form.

Table 2. Estimated Burden Hours for the CMEC

| Collection | Sample size | Average time to complete form | Average time pre- and post-survey | Total average time | Reporting hours |
|-------------------------|--------------------|--------------------------------------|--|---------------------------|------------------------|
| 2018 CMEC, All Agencies | 2,200 | 0.75 | 0.75 | 1.5 | 3,300 |
| Data Quality Follow-Up | 1,100 | .25 | n/a | .25 | 275 |
| Total | | | | | 3,575 |

Based on results from the 2004 CMEC, it is expected that 95% of the approximately 2,200 MECs will be eligible for the 2018 CMEC data collection and will respond with a completed survey.

13. Estimate of Respondent's Cost Burden

Approximately 2,200 agencies will be asked to participate in the 2018 CMEC. Assuming a pay rate approximately equivalent to the GS-12 / 01 level (\$63,600 per year), the estimated agency cost of employee time would be approximately \$30.58 per hour. Based on the estimated time burden per response and employee pay rate, the total respondent employee time cost burden to complete the census form is estimated at \$100,914. Additionally, BJS estimates that in about half of the cases, we will conduct data quality follow up, taking approximately 15 minutes to complete. The additional estimated respondent employee cost burden for the 275 data quality follow-up hours is \$8,410. There are no anticipated costs to respondents beyond the employee

time needed to complete the survey and participate in data quality follow up. Therefore, the total cost burden to respondents associated with this clearance request is \$109,324.

14. Costs to Federal Government

The total expected cost to the federal government for this data collection is \$1,062,360 to be borne entirely by BJS. This work consists of planning the project, developing the questionnaire, preparing the materials, collecting the data, evaluating the results, and generating the data reports. The budget for this project is shown in table 3:

Table 3. Estimated costs for the 2018 CMEC

| Category | Cost |
|---|--------------------|
| BJS costs | |
| Staff salaries | |
| GS-12 Statistician (25%) | \$20,400 |
| GS-15 Supervisory Statistician (3%) | \$4,000 |
| GS-13 Editor (10%) | \$10,000 |
| Other Editorial Staff | \$5,000 |
| Front-Office Staff (GS-15 & Directors) | \$3,000 |
| Subtotal salaries | \$42,400 |
| Fringe benefits (28% of salaries) | \$11,872 |
| <i>Subtotal: Salary & fringe</i> | \$54,272 |
| Other administrative costs of salary & fringe (15%) | \$8,141 |
| Subtotal: BJS costs | \$62,413 |
| Data Collection Agent (RTI) | |
| Personnel (including fringe) | \$487,046 |
| Travel | \$5,555 |
| Supplies | \$0 |
| Other – outreach, call center, computer expenses | \$101,223 |
| Total indirect | \$406,123 |
| Subtotal: Data Collection Agent Costs | \$999,947 |
| TOTAL COSTS | \$1,062,360 |

15. Reason for Change in Burden

No change in burden is expected for the 2018 CMEC from the 2004 CMEC. The burden estimate for the 2004 CMEC was 90 minutes, and we estimate the 2018 burden to also be 90 minutes.

16. Project Schedule and Publication/Analysis Plans

Pending OMB approval, the 2018 CMEC data collection is scheduled to begin in May 2019 (see **Attachment 2** for the paper instrument and **Attachment 3** for example screen shots of the web

version of the survey instrument). The data collection period (see Table 4) is scheduled to end in November 2019.

Table 4. Project Schedule

| Contact | Type of respondent | Timing | Attachment number(s) |
|---|---------------------------|---------------|-----------------------------|
| Survey Pre-notification Letter | All | Day 1 | 6 |
| Survey invitation letter (with URL and login instructions), endorsement letters | All | Week 2 | 7, 22, 23 |
| Email invitation (with URL and login instructions), endorsements letters as attachments | All | Week 3 | 8, 22, 23 |
| First reminder – letter and email | Non-respondents | Week 6 | 9, 10 |
| Telephone prompting for incomplete responses begins and data quality follow-up | Partial respondents | Week 8 | 16, 17 |
| Second reminder – postcard | Non-respondents | Week 11 | 11 |
| Third reminder – email or letter | Non-respondents | Week 14 | 12, 13 |
| Fourth reminder – letter with questionnaire and business return envelope | Non-respondents | Week 17 | 14, 2 |
| Telephone and email non-response follow up begins | Non-respondents | Week 19 | 18 |
| Fifth reminder – postcard | Non-respondents | Week 20 | 15 |
| End-of-study email/letter reminder | Non-respondents | Week 22 | 19, 20 |
| Completion thank-you | All | Variable | 21 |
| Close data collection | Non-respondents | Week 25 | -- |
| Analysis | N/A | Months 8-15 | -- |
| Reports | N/A | Months 12-15 | -- |

The dataset and supporting documentation will be made available for download without charge at the National Archive of Criminal Justice Data at the Inter-University Consortium for Political and Social Research (ICPSR). It is expected the data will be available to the public for download in July 2020. Around the same date as the archiving of the data, BJS plans to release at least one report presenting findings from data gathered from this collection. Access to these data permits analysts to identify the specific responses of individual MECs and to conduct statistical analyses.

17. Display of Expiration Date

The expiration date will be shown on the survey form, both in web and paper format.

18. Exception to the Certificate Statement

BJS is not requesting an exception to the certification of this information collection.