Email Management in the U.S. Federal Executive Departments and Agencies:
What Progress Have They Made Towards Meeting the 2012 Managing Government Records Directive?

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Master's Thesis: Archival Studies

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August 2016

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Chapter 1: Introduction

Problem

As email has become ubiquitous in today's society, the need to manage and archive it properly is important for businesses, organizations, and governments. The United States government has laws that regulate what a federal record is and thus what needs to be permanently saved and also how to save it. The ability to properly save records is important to ensure transparency and accountability in government. In 1992 the Congressional Research Service estimated that 96% of federal information begins on a computer. Over 20 years later, this has only stayed the same or increased.[1] With the amount of emails and electronic records it is important that they are being properly managed and archived. However, there is no easy solution. The National Archives and Records Administration (NARA) in the United States has long recognized its problems with preserving digital-born records. In a 2001 article Kenneth Thibodeau of the NARA said, "The difficulty of digital preservation is further accentuated in NARA's case because of its authority and responsibility for life-cycle management of the records of all three branches of the Federal Government."[2] As will be further explained in a later section, there are new regulations in the US relating to email managements that government agencies and departments must follow by the end of 2016. The federal departments and agencies are complying with the regulations in various ways and they are in different stages of preparation and implementation. This paper will examine these various email management programs to document the different ways the departments are complying with the regulations and if, in fact, they are.

Literature Review

The difficulties and issues associated with email archiving have been discussed since nearly the beginning of email. In 1994 and 1995 David Bearman wrote two articles about these problems and they are still relevant today. He wrote that since email is often seen as a more informal means of communication that "views that would not be expressed in other documents are likely to find their way into the record with dangerous implications."[3] This could mean that private information or information detrimental to the organization could be saved. Linda Koontz of the United States Government Accountability Office would agree with this. She wrote that oftentimes emails replace phone calls and phone calls were never recorded in order to be saved as records.[4] Carpenter et. al. also agree that email is often seen as more informal than written documents. They wrote that within the UK Government, when paper-based records are created they take on a more "formal" approach as they are seen as official records and document. They represent a more selective account of what occurred. Whereas email has a much more colloquial usage about it and so there is likely to be a more accurate representation of the activities and

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[1] Kenneth Thibodeau, "The Electronic Records Archives Program at the National Archives and Records Administration" *First Monday* 12, no. 7, (2007).

[2] Thibodeau.

[3] David Bearman, "Archival Strategies." *American Archivist* 58 (fall 1995): 412-413.

[4] Linda, Koontz, "Federal Records: Agencies Face Challenges in Managing E-Mail". United States Government Accountability Office (April 23, 2008): 2-3.

decision making happening at that time. This could allow a much truer and more interesting historical insight into government issues.[5]

The fact that there may be more personal and/or confidential information in email than in written records means that organizations have to take this into consideration when creating an archival policy. Many people argue that email is not much different from written correspondence and so the reasons for archiving email and what to archive have not changed. It is just that the methods of archiving email are different. In her article "Correspondence as a Documentary Form" Jane Zhang discusses the history of sending and saving correspondence in the US. The United States Postal Service was created in 1775 which enabled letters to be sent and received much easier. Businesses organized their correspondence in the best way for their business. Often copies were made of external correspondence so that the sender could save it. At first it was hand written copies and later they could be copied with a letter press. They were normally organized chronologically. The incoming and outgoing letters were usually filed and organized separately. Carbon copies made it easier to organize them together since now the outgoing copies were also on loose sheets instead of copied into a book. Instead of organizing chronologically correspondence could now easily be organized alphabetically by sender or recipient organized by subject. Email was developed in the 1970s which allowed users using computers on the same network to send and receive email. Email systems make it easy to search through your own email messages but not necessarily to archive those messages.[6] The same way that businesses could save their correspondence as it best suited their business (either by date or sender or subject), the same should be available in email archiving programs so that the person or organization can choose what fits their needs. Zhang claims that email messages share the same "persistent representation features" as traditional mail, such including a date, sender, receiver, and similar subject matters. This also means that the reasons for saving email messages are the same as why traditional correspondence has been saved for centuries.[7] Elsayed and Oard also wrote about the transition from written correspondence to email messages. They wrote:

> Those who seek to understand the distant past rely on two types of primary sources; documentary evidence that is (generally) intentionally retained by some official body (e.g., the National Archives) and informal communications (e.g., personal letters) that are (typically) serendipitously preserved. Preservation of persistent informal communications declined markedly with the advent of the telephone. The widespread use of email and the declining cost of long-term storage have the potential to dramatically reverse that trend, however, opening an important new window on our society that future scholars will surely wish to exploit.[8]

By not being able to adequately archive emails, there could be a lack of resources for future researchers and scholars to study, for example, decisions made by government officials. Bearman also agrees that the reasons for saving email are no different than the reasons for saving written correspondence. Bearman wrote that while the reasons are the same, "the functional

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[5] Lisa Carpenter, Thomas W. Jackson, Graham Matthews, David Thomas, and Amanda Spencer. "The Role of IT in Email Preservation and Archiving." Presented at the 18th International Conference on Automation and Computing at Loughborough University in Leicestershire, UK. 8 September 2012.
[6] Jane Zhang. "Correspondence as a documentary form, its persistent representation, and email management, preservation, and access." *Records Management Journal* 25:1 (2015): 81-92.
[7] Zhang, "Correspondence as a documentary form," 93.
[8] Tamer Elsayed and Douglas W. Oard. "Modelling Identity in Archival Collections of Email: A Preliminary Study" 2006: 1. https://terpconnect.umd.edu/~oard/pdf/ceas06elsayed.pdf

requirements are different."[9] This means that the way we archive email is different than paper records because emails are software dependent. Brugger also argues that web documents are not necessarily new types of documents and that if that new media is not vastly different from already existing media then there doesn't have to be new methods and theories for managing them.[10]

One problem with archiving email is that many organizations are taking the same passive approach to email records that they took and sometimes continue to take with paper records. For paper records it may not be too damaging if they are left for 20 years but after 20 years electronic records could be irretrievable or the software or hardware could be corrupted.[11] Paper records can be saved and not much has to actively be done to preserve them whereas email (and other electronic records) must be actively preserved, one of the reasons being because they are software dependent. For example, in 1975 only two computers could still read the 1960 census. In a span of 15 years those records were almost lost because the new technology could not read them.[12] Stielow wrote that, "The computer industry has vested interests in producing new and proprietary products with little continuity or thought of preservation—the obverse of an archival perspective. Too many buyers have picked up the industry's habits and the excitement of "cutting-edge" products with little or no thought about time and future consequences." (Stielow, 334) This means that it is the users that must take into consideration how they want to be able to archive their emails and when it comes to choosing hard- or soft-ware organizations need to include an archivist or other employee who looks into the preservation and archival capabilities of the system.[13]

Koontz wrote that there are four main problems of email archiving. The first is that the way information is transmitted in emails is not uniform. Various documents or pictures can be attached and things can be embedded in an email. The second is that transmission data (sender, receiver, date) must be captured in order for the emails to be understood. The third is that emails are often exchanged between different departments or branches and a decision has to made about who is responsible for archiving them. The fourth is that the large number of emails makes processing them all difficult. NARA says the existence of emails means more records are being created than in the past.[14] However, NARA estimates that only 5% of federal government records need to be permanently saved and ultimately transferred to NARA.[15] By electronically managing emails the second problem would be fixed. If emails are printed out in order to be archived, that transmission data may not be saved.[16] Bearman wrote that there are four critical factors for success when managing email. They are to properly identify and communicate what constitutes a record, employees must be told what records are the property of the organization and should not be destroyed, record managers and archivists must communicate clearly with

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[9] Bearman, David. "Managing Electronic Mail." *Archives and Manuscripts* 22: 1 (1994): 181. http://www.archimuse.com/publishing/electronic_evidence/ElectronicEvidence.Ch6.pdf
[10] Brugger, Niels. "Web Archiving, Between Past, Present, and Future." In *The Handbook of Internet Studies,* edited by Mia Consalva and Charles Ess, 24. Oxford: Blackwell Publishing Ltd, 2011.
[11] Bearman, David. "Archival Strategies." *American Archivist* 58 (fall 1995): 413
[12] Frederick J. Stielow, "Archival Theory and the Preservation of Electronic Media: Opportunities and Media Below the Cutting Edge." *American Archivist* 55 (Spring 1992): 333
[13] Stielow, 341.
[14] Koontz, 2-3
[15] NARA. "White Paper on the Capstone Approach and Capstone GRS" April 2015. http://www.archives.gov/records-mgmt/email-management/final-capstone-white-paper.pdf
[16] Koontz, 7.

employees good record-keeping practices, and employees must understand how the organization's email system works.[17] These four factors are still very important today, 20 years after that article. Forrester Research wrote a Best Practices of Email Archiving based off of interviews with vendors and organizations. Some of the most important things to do regarding email management are to make sure the hardware and software are up to date and establish retention policies to ensure that only the necessary emails are being saved and the organization doesn't have unmanageable growth. Email that isn't set to be archived should be deleted after a certain number of days. A "cross-functional team" with members from multiple departments for input on the archiving system should also be created.[18] This allows input from a variety of employees so that the archiving practices work with all the employees and tasks that the organization carries out. This would help solve the problem that Koontz wrote about when it is unclear which department is responsible for archiving emails when multiple departments are involved.

Another problem with adequately managing email is that one common way for companies to manage email is to set inbox limits. One study showed that for a mid-sized company 31% of email costs go towards storage and archiving which is big reason to impose inbox limits. Staff has to either delete or archive their emails to stay within the limit. If there is a not a good archiving system then inbox limits can cause emails to be deleted that should have been saved and archived.[19] Brogan and Vreugdenburg also wrote about the problem inbox quotas impose. In a 2008 survey 65% of respondents had email quotes. 66% said they store some of their email outside of the company email system so in their home or personal accounts so that they do not lose email due to the quota.[20] For certain organizations or agencies this could mean that confidential email could be compromised if someone is storing email on a personal email account that does not have the same security standards as the organizations email program. It could also mean that if an employee leaves the organization, emails that important to the organization are also gone.

Electronic records have necessitated a change in the role of archivists. Ciaran Trace wrote that managing electronic records requires different appraisal and selection strategies than managing traditional paper records.[21] With paper records, the selection and appraisal traditionally took place at the end of a record's life. With electronic records that selection and appraisal has to happen much earlier in a record's life. The retention and destruction of records must be decided upon near the time of creation so that the large amount of records is manageable.[22] One way to do this is for archivists to be involved in the development of electronic records management systems so that "appraisal decisions [can be] built into systems

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[17] Bearman, "Managing Electronic Mail," 188-189

[18] Jo Maitland, "Best Practices: Email Archiving." Forrester Research (October 17, 2008): 5-8.

[19] Lisa Carpenter Thomas W. Jackson, Graham Matthews, David Thomas, and Amanda Spencer. "The Role of IT in Email Preservation and Archiving." Presented at the 18th International Conference on Automation and Computing at Loughborough University in Leicestershire, UK. 8 September 2012.

[20] Mark Brogan and Sue Vreugdenburg. "You've Got Mail: Accountability and End User Attitudes to Email Management." In *Proceedings of the 4th International Conference on E-Government,* edited by Dan Remenyi, 65. 2008.

[21] Ciaran Trace, "On or Off the Record?: Notions of Value in the Archive," in *Currents of Archival Thinking* edited by Terry Eastwood and Heather MacNeil, Libraries Unlimited: Santa Barbara, 2010.

[22] Nicole Convery, "Information management, records management, knowledge management: the place of archives in a digital age." In *The Future of Archives and Recordkeeping, a reader*, ed. Jennie Hill. Facet Publishing: London, 2011: 204.

before records are even born."[23] Convery wrote that archivists should also "concentrate their efforts and expertise on making sense of the increasing amount of disconnected digital information through the provision of sub-texts and linking narratives."[24] This is an important part of dealing with electronic records because it would make them easier to find and find relations between records. Better email management is also needed to ensure smooth transitions when new employees come in. Francis Blouin is the director of the University of Michigan's Bentley Historical Library. He asked the administrative officers at the university how many had to call their predecessor to get access to an important email. They all said they had to. In the past there would have been central files with paper records.[25]

Records managers, archivists, and IT workers have written articles about various programs they have created to manage and archive email. Perer and Schneiderman from the University of Maryland developed a program to make searching through an email archive easier. It can be difficult to determine when email conversations start and end. Sometimes it is easy to see because of the subject line and reply-chain information. But other times it becomes more difficult when users forward other messages or create new email chains that continue the same discussion with the either the same person/people or new people. With the tool they created when a researcher is at a message, other possibly interesting messages are also shown based on the time period and the people involved in the message. It creates a visual table of the people involved, when the messages were sent, and who the senders and receivers were.[26] Researchers at Columbia University developed the Email Mining Toolkit (EMT) which "computes behavior profiles or models of user email accounts." It can automatically sort emails. It can also map the various users and groups of users that an email user often communicates with.[27] Stanford University Libraries developed a program called ePADD (email: Process, Appraise, Discover, and Deliver). It is a way to better process email archives and include the creators and donors in that process. The developers wrote that email archives are often being collected but not processed. This is often because of the size of the collection and the amount of private and confidential information in emails can make them difficult to process and release to the researchers. They wrote, "The potential of email archives remains under-tapped and they are often listed as a single series or sub-series in a "Finding Aid" in special collections, with no further information about their contents. This fact makes it very hard for researchers to make practical use of the archives."[28] This small sampling of ways to manage email shows that there is no one, right way to do it. Many factors go into deciding upon how to archive email including the size of the organization, number of emails, retention policy, and how you want to be able to use and search through the archived email.

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[23] Trace

[24] Convery, 205

[25] Francis X. Blouin, "Email as Archives: You have to have it before you worry about it." *Symposium: Digital Archives: Navigating the Legal Shoals* (2010): 45.

[26] Adam Perer and Ben Schneiderman. "Beyond Threads: Identifying Discussions in Email Archives." Human Computer Interaction Lab, Department of Computer Science, University of Maryland (2005), http://hcil2.cs.umd.edu/trs/2005-26/2005-26.pdf

[27] Salvatore J Stolfo, Wei-Jen Li, Shlomo Hershkop, Ke Wang, Chia-Wei Hu, And Olivier Nimeskern. "Detecting Viral Propogations Using Email Behavior Profiles." Columbia University. http://www.cs.columbia.edu/~wl318/papers/TOIT-EMT-101603.pdf.

[28] Sudheendra Hangal, Peter Chan, Vihari Piratla, Glynn Edwards, Chaiyasit Manovit, and Monica S. Lam. "Historical Research Using Email Archives." Stanford University. http://mobisocial.stanford.edu/papers/chi2015.pdf.

Based on the literature presented here, I have determined that the main issues that must be addressed when it comes to email management is deciding what constitutes a record and necessitates archiving, ensuring that all critical information, such as metadata, is retained, educating employees on email management practices, and ensuring that soft- or hard-ware updates or changes in programs do not compromise the emails.

Departments and Agencies

There are 15 federal executive departments and dozens of agencies. The heads of the departments and most of the agencies are appointed by the president. The heads of the 15 departments form the president's Cabinet and act as his closest advisors. The Cabinet act as advisors to the president and each member is titled "Secretary", except for the head of the Department of Justice who is titled "Attorney General." The departments and agencies employ over 4 million people. Congress writes legislation and the President can sign it into law, but it is the responsibility of the departments and agencies to enforce these laws.[29] This paper will look at a mix of departments and agencies. These departments and agencies were chosen based on how much information was available about their email management. For the purpose of this paper, "agencies" refers to both the departments and agencies.

In general, agencies have not managed their email records in a sustainable and appropriate way. In 2011 NARA issued a report based on questionnaires sent out to departments and agencies. They found that many do not preserve their email records in a records management system, ensure that staff is complying with policy regarding email, and use a print and file method to preserve email. When it comes to records management training, most agencies used computer-based training or agency-wide emails to instruct staff. Only 14% of the agencies reported that all staff receives formal records management training. NARA also found that many agencies have a records officer that does not perform records management duties full-time. Three agencies who had more than 10,000 full time employees reported that no one performed records management duties full-time.[30]

The National Archives and Records Administration

The purpose of the National Archives and Records Administration (NARA) is, in its own words, to ensure "continuing access to the essential documentation of the rights of American citizens and the actions of their government."[31] NARA keeps the records of the federal government that are deemed important enough for preservation, which is 1-3% of all records created by the federal government. It was established in 1934 by President Roosevelt but it has records dating back to 1775 and has a staggering amount of records in its collection including 100 billion pages of text and 133 terabytes of electronic data. The main building of NARA is in Washington D.C. but there are locations in 17 states.[32]

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[29] The White House, "The Executive Branch," https://www.whitehouse.gov/1600/executive-branch (Accessed 16 October 2015).

[30] NARA. "Records Management Self-Assessment Report: An assessment of records management programs in the federal government." Page 9-10. February 22, 2011. http://www.archives.gov/records-mgmt/pdf/rm-self-assessmemt.pdf.

[31] NARA. "About the National Archives of the United States."

[32] NARA. "About the National Archives of the United States."

There are various laws relating to NARA, its duties, and the responsibilities of other government department and agencies to NARA. Many of these are in the United States Code.[33] Section 2102 of the US Code chapter 21 established the National Archives and Records Administration. Its responsibility is to collect and archive federal records. The head of the NARA, the Archivist of the United States, is appointed by the President with the consent of the Senate. The Archivist of the United States is allowed to change and issue regulations to ensure that records are transferred in an orderly manner. If records are of public interest as determined by the Archivist, then they are to be transferred to the NARA. The Archivist is also responsible for ensuring that classified records in its possession are not accessed by unauthorized people and ensure that records are not damaged or destroyed.[34]

Before the abundance of digital records the NARA would simply collect documents that government employees had filed for preservation. Journalist Fred Kaplan describes the process of preserving memos, which one can say e-mails are the modern day version of:

> In the old days, before the mid-to-late 1980s, Cabinet officials and their assistants and deputy assistants wrote memos on paper, then handed them to a secretary in a typing pool. The secretary would type it on a sheet of paper backed by two or three carbon sheets, then file the carbons. Periodically someone from the national archive would stop by with a car and haul away the carbons for posterity. Nobody does this today. There are no typing pools to speak of. There are few written memos.[35]

This was a well-ordered way to handle the large amount of memos created by government officials. Today, when a researcher is studying the policies of past administrations the memos are available to help them understand the decision-making process.

Before the 1990s the NARA preserved electronic records by "routinely migrating them to current, more stable preservation and access technologies." However, by the 1990s they realized this was not a sustainable practice with the increasing amount of electronic records.[36] The amount of digital-born records was becoming too large for the NARA to handle. One of the ways employees saved their emails for preservation was to print and file them and this was an acquisition method even in the past few years.[37] [38] This relied on each employee deciding which emails were considered government records and should be preserved. Relying on employees to select which of their own records should be preserved takes away from the role of the archivist

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[33] The US Code is "a consolidation and codification by subject matter of the general and permanent laws of the United States" (Office of the Law Revision Council. "United States Code." http://uscode.house.gov/search/criteria.shtml Accessed 8 April 2016.

[34] Office of General Counsel, National Archives and Records Administration. "Basic Laws and Authorities of the National Archives and Records Administration." (2016): 16-32. https://www.archives.gov/about/laws/basic-laws-book-2016.pdf. Accessed 8 April 2016.

[35] Fred Kaplan, "The End of History: How e-mail is wrecking our national archive," *Slate,* June 4, 2003. http://www.slate.com/articles/news_and_politics/war_stories/2003/06/the_end_of_history.html. Accessed May 28, 2015.

[36] NARA. "ERA Status and Accomplishments." http://www.archives.gov/era/about/status-accomplishments.html. Accessed June 1 2015.

[37] Michael S. Schmidt and Julie Hirschfeld Davis, "Emails Hillary Clinton Said Were Kept Could Be Lost," *New York Times,* March 13, 2015. [37]http://www.nytimes.com/2015/03/14/us/some-emails-sent-by-clinton-could-be-lost.html. Accessed June 10, 2015.

[38] Adam Mazmanian, "New Email Records Policy Takes Shape," *FCW,* May 27, 2015. http://fcw.com/articles/2015/05/27/email-records-policy.aspx. Accessed June 10, 2015. And NARA Bulletin 2013-02. August 29, 2013. http://www.archives.gov/records-mgmt/bulletins/2013/2013-02.html. Accessed June 1, 2015.

within the NARA. According to the Code of Ethics presented by the International Council on Archives "Archivists should appraise, select and maintain archival material in it historical, legal and administrative context, thus retaining the principle of provenance, preserving and making evident the original relationships of documents."[39] By allowing employees to carry out their own appraising decisions, the NARA is giving up that aspect of an archivist's job.

Law Background

There are various laws that relate to federal records, some specifically to email or other electronic records and others in a broader sense. Federal records are defined as "documentary materials that agencies create and receive while conducting business that provide evidence of the agency's organization, functions, policies, decisions, procedures, and operations, or that contain information of value."[40] The Records Management by Federal Agencies section of the United States Code mandates that the head of a federal agency is responsible for ensuring the preservation of federal records. He or she must cooperate with the archivist of the United States in ensuring the records are preserved properly. The head of an agency is also responsible for transferring records to the NARA records centers or, if approved by the US archivist, to a records center operated by the agency. The head of an agency must also ensure controls are in place to prevent the unauthorized destruction of records. If unauthorized destruction of records does occur then it is the duty of the head of the agency to notify the Archivist of the US. [41] The Code of Federal Regulations says with regards to emails, employees must be instructed to retain emails that qualify as federal records. The sender, receiver, and date must also be saved. If an agency allows employees to use personal email then the agency must ensure that the emails considered federal records are being appropriately saved.[42] There must also be controls in place to ensure that records have not been altered after the fact or to show that records have been altered.[43] Agencies must protect against technological obsolescence by ensuring that hard- and soft-ware is adequately updated and/or by moving records to a new system if a current system is being replaced.[44] The NARA defines email archiving as "applications that remove email from the mail server and manage it in a central location also known as an archive." It also notes that this should take little or no effort on the part of the user. Once the emails are archived, authorized users can search through them.[45] Complying with these laws is not a simple matter of departments passing policy. They must be pro-active in developing or purchasing email archiving technology and in training employees. The laws that the departments must follow address the same issues that were discussed in the literature review. The literature made it clear that these are not easy issues to address and there are a variety of programs that have been developed to address the difficulty of email archiving.

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[39] International Council on Archives, "Code of Ethics," September 6, 1996. http://www.ica.org/en/ica-code-ethics.
[40] NARA Bulletin 2013-03. https://www.archives.gov/records-mgmt/bulletins/2013/2013-03.html. Accessed 16 October 2015.
[41]NARA. "Records Management by Federal Agencies." 44 U.S.C. Chapter 31. http://www.archives.gov/about/laws/fed-agencies.html. Accessed 16 October 2015.
[42] US Government. "36 CFR 1236.22 What are the additional requirements for managing electronic mail records?" https://www.law.cornell.edu/cfr/text/36/1236.22. Accessed 16 October 2015.
[43] US Government 36 CFR 1236.10. https://www.law.cornell.edu/cfr/text/36/1236.10. Accessed 16 October 2015.
[44] US Government 36 CFR 1236.14. https://www.law.cornell.edu/cfr/text/36/1236.14. Accessed 6 October 2015
[45] NARA. "Bulletin 2011-03".https://www.archives.gov/records-mgmt/bulletins/2011/2011-03.html. Accessed 16 October, 2011.

Government officials are permitted to use private email accounts for government business. In November 2014, Congress amended the Federal Records Act and the Presidential Records Act to "prohibit the use of private email accounts by government officials unless they copy or forward any such emails into their government account within 20 days." Prior to that there was no time frame set if government employees were using private emails addresses. However, this is a practice that not everyone agrees with. In a speech to Congress David Ferriero, the Archivist of the USA, said, "The National Archives discourages the use of private mail accounts to conduct Federal business, but understands that there are situations where such use does occur."[46] The fact that all government business does not have to be conducted using a government issued email address could lead to problems if employees ignore the 20 day transfer law as it makes it very easy to avoid having emails saved as federal records.

In November 2011 President Obama issued a presidential memorandum regarding managing government records. It calls for agencies to examine their records management policies, especially when it comes to managing electronic records, and improve upon them. The memorandum said that "proper records management is the backbone of open government" and also reduces costs associated with records management.[47] The Office of Management and Budget and the NARA issued the Managing Government Records directive in August 2012 which provides an outline for records management so that agencies can comply with the 2011 presidential memorandum. By December 31, 2014 agencies had to establish records management training for "appropriate staff." The directive does not define which staff needs records management training. This gives leeway to departments and agencies to choose who to give records management training to. By 31 December 2016 federal agencies must "manage both permanent and temporary email records in an accessible electronic format" and by 31 December 2019 all permanent electronic records must be managed in an electronic format. The goal of this is to "promote openness and accountability and reduce costs in the long term." Each agency must also designate a Senior Agency Official (SAO) who has the responsibility of reviewing the agency's record management system and ensuring it complies with regulations. Agencies are free to make their own guidelines and retention schedules, as long as they are complying with federal guidelines relating to what are federal records. Agencies must develop records management training in order to inform all employees what is expected of them. The NARA, along with the Federal Records Council and other interested councils must "establish a Community of Interest (COI) to bring together leaders from the information technology, legal counsel, and records management communities to solve specific records management challenges. The COI will develop and propose guidance, share information, create training, and identify tools that support electronic records management."[48] The NARA says that recordkeeping systems for email must allow related messages to be grouped together, allow easy and timely retrieval of messages, allow for the messages to be transferred to the NARA, and preserve the transmission

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[46] Society of American Archivists. ""Statement on Use of Non-government Email Accounts for the Conduct of Public Business." March 23, 2015 http://www2.archivists.org/news/2015/statement-on-use-of-non-government-email-accounts-for-the-conduct-of-public-business. Accessed June 1, 2015.

[47] The White House. "Presidential Memorandum--Managing Government Records." November 28, 2011. https://www.whitehouse.gov/the-press-office/2011/11/28/presidential-memorandum-managing-government-records. Accessed 16 October 2015.

[48] Jeffrey Zients and David Ferriero. "Memorandum for the heads of executive departments and agencies and independent agencies." August 12, 2012. https://www.whitehouse.gov/sites/default/files/omb/memoranda/2012/m-12-18.pdf. Accessed 16 October 2015.

and receipt data.[49] In the directive there is no indication of what will happen if agencies do not meet these deadlines. I inquired about what would happen if agencies do not meet them and the response from NARA was not clear. Arian Ravanbakhsh, the supervisor for the policy and support team, wrote, "We have tried to communicate these as targets, not deadlines. Certainly, Congress and the public expect us to report where agencies are in regards to the directive and we will do so. But we hope to be able to emphasize the progress agencies are making as opposed to a mere list of agencies that did not."[50] He did not answer the question as to what exactly happens if they do not meet the targets or make progress.

The fact that a presidential memorandum had to be issued regarding electronic records management implies that the laws in the US Code were not sufficient in ensuring proper records management. For some federal departments and agencies it was still policy to print email and other electronic records in order to archive them as recently as 2014. This form of record keeping does not ensure that all relevant information is saved.[51] [52] [53] In 2014 the NARA issued a bulletin that said that printouts of emails are no longer accepted to be transferred to the NARA nor are emails that have been converted to other formats (such as word documents).[54] In 2015 the NARA issued guidance on what metadata must be included in the transfer of electronic records to the NARA. The NARA says that the following elements should be included at an item level: file name, record ID, title, description, creator, creation date, and rights. Most of these elements would already be included in records management system. But a description (defined by NARA as "A narrative description of the content of the record")[55] of a record would be something that an employee has to add in. NARA says that these elements are the minimum that they will accept when transferring records but it is hard to imagine agencies writing a description for each individual email message. In the late 1990s the Department of Defense (DOD) issued DOD 5015.02-STD which "established design criteria for automated systems used to manage information as records, incorporate records management requirements into Automated Information Systems development and redesign, and developed standard DoD system requirements for voice and e-mail records."[56] Requirements include what metadata is captured, retention scheduling, destruction scheduling, and security classification, among others. In order for a records management product to be used by the DOD it must be DOD-5015.2-certified. There are numerous vendors, such as HP, IBM, and Open Text, that have DOD-5015.2-certified products. In 2008 NARA endorsed the use of certified products for all federal agencies. Agencies

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[49] NARA Bulletin 2011-03.

[50] Arian Ravanbakhsh, Email to Karla Kavanaugh. June 13, 2016.

[51]Office of the Inspector General. http://energy.gov/ig/downloads/special-report-doeig-0945Special Report: The Department of Energy's Management of Electronic Mail Records. September 2015.

[52]NARA. 2013 Senior Agency Official (SAO) Annual Report: Executive Report. 2013. https://www.archives.gov/records-mgmt/agency/sao-executive-report-2013.pdf

[53]NARA. "Department of the Treasury Internal Revenue Service: Records Management Inspection Report." June 30, 2015. http://www.archives.gov/records-mgmt/pdf/irs-inspection.pdf

[54] NARA. "Bulletin 2014-04: Revised Format Guidance for the Transfer of Permanent Electronic Records" January 31, 2014: Appendix A. https://www.archives.gov/records-mgmt/policy/transfer-guidance-tables.html#email Accessed 17 October 2015.

[55] NARA. *NARA Bulletin 2015-04*. September 15, 2015. https://www.archives.gov/records-mgmt/bulletins/2015/2015-04.html.

[56] Joint Interoperability Test Command. "DoD 5015.02-STD: What's the Big Deal." http://jitc.fhu.disa.mil/projects/rma/stdbigdeal.aspx.

do not have to use certified products, but if they do then they know that it meets NARA requirements for transferring records.[57][58]

In 2011 Adrian Cunningham wrote, "Experience has taught archivists that, except for a small minority of exceptional cases, creating agencies cannot be relied upon to manage born digital archival value records over the long term."[59] This is what the government is allowing the agencies to do. The NARA provides guidelines for email preservation and there are laws about what emails need to be preserved, as there is for all government records, but ultimately it is still the responsibility of the creating agencies to implement strategies to save their records for eventual transfer to the NARA.

Research Question

The question that this paper will be answering is:

How are the federal departments and agencies in the United States of America complying with the 2012 Managing Government Records Directive to manage email electronically and therefore complete their legal duty of maintaining federal records?

This is only dealing with the directive that agencies must manage their email electronically by December 31, 2016; not the 2019 deadline to manage all electronic records electronically. As explained in previous sections, government departments and agencies must transfer federal records to the NARA. The Archivist of the United States can create regulations on how these must be transferred. The same four issues listed at the end of the literature review section are also the ones that departments have to address in order to adequately maintain federal email records. In order to comply with the laws, departments must ensure they know what a federal record is so they know what to save, make sure all information is saved (such as metadata), and make sure the records do not get lost due to technological problems. To achieve these three items, employees need to be trained on what a federal record is and how to appropriately save them.

Chapter 2: Capstone

What is Capstone

The NARA has created an approach to email management and retention known as Capstone to help agencies manage their email and comply with the 2016 deadline. It is not a records management system or email system but simply an approach, or idea, towards managing email. It is optional for agencies if they want to use it or not. If they do not use it they must still meet the 2016 deadline of managing email records electronically. If an employee's email account is designated as Capstone then all of their emails will be saved permanently while the emails of other employees will be saved temporarily. This is usually top-level officials but could also be lower-level employees if they are involved in important decisions. The agency can then create a schedule to classify the Capstone emails as permanent records for transfer to the NARA. Emails from accounts that are designated as Capstone are transferred to the NARA after 15 years or after

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[57] Stephanie Eaton, "DOD 5015: Where Does It Fit Outside the Department of Defense?." November 21, 2013. http://www.incontextmag.com/articles/2010/dod-5015--where-does-it-fit-outside-the-department-of-defense-.html.

[58] NARA. "Records Management Self-Assessment Report: An assessment of records management programs in the federal government." February 22, 2011. http://www.archives.gov/records-mgmt/pdf/rm-self-assessmemt.pdf.

[59] Adrian Cunningham "The Postcustodial Archive," in Jennie Hill, ed., *The Future of Archives and Recordkeeping: A Reader,* London: Facet Publishing, 2011, 183.

declassification, whichever is later. Emails from accounts that are designated as temporary are deleted after 7 years. Emails of support and/or administration staff are deleted after 3 years.[60] The NARA says that the 7 year retention of temporary emails should satisfy for legal defense because most statutes of limitation against the US are six years.[61] The NARA says they recognize "that placing the responsibility on employees to make decisions on an email-by-email basis can create a tremendous burden. As a result, the NARA recommends that agencies immediately begin to adopt automated or rules-based records management policies for email management, such as the Capstone approach."[62] However, departments and agencies can choose to use a mix of a Capstone approach and other email management techniques which would involve employees making decisions. For example, the Capstone approach can be used for the top officials and all of their emails are saved while other employees must still make decisions regarding which of their emails constitute federal records.

Capstone can be implemented on most software and technology already in use at the agencies. This "cuts down reliance on print-and-file, click-and-file, drag and drop, or other user-dependent policies." It takes the decision of what constitutes a record out of the hands of the individual employees.[63] It simplifies the appraisal process as there is no longer a need to decide if each individual email message is a government record that needs to be preserved. Instead if an employee is in a position that creates many emails that are government records that need to be preserved then their whole inbox will be preserved in the system.[64] The NARA said that relying on employees to make appraisal decisions about their own email was a "tremendous burden" on the employees.[65] However, with such a policy there is a big possibility that email that could be considered federal records will not be archived because the employee was deemed "not important enough" to have their account designated as Capstone.

Email that is designated as Capstone may still be culled and it is encouraged in order to remove personal or spam emails. The NARA defines culling as "any activity, whether automated or manual, that removes non-record and/or transitory material from an email account." [66]Culling can be manual, automated, or a mixture of both.[67] Another suggestion by the NARA is to automatically exclude emails from certain email accounts (such as family members of an employee) from being included with emails that would be considered records. These two suggestions do more to ensure that non-record emails are being needlessly saved which would be mean an increased cost to store them, a possibility of personal information becoming a public

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[60] NARA. "The General Records Schedule, Transmittal 25" September 2015. 6-8. http://www.archives.gov/records-mgmt/grs/grs-trs25.pdf. Accessed 17 October 2015.
[61] NARA. "White Paper on the Capstone Approach and Capstone GRS" April 2015. 12. http://www.archives.gov/records-mgmt/email-management/final-capstone-white-paper.pdf. Accessed 17 October 2015
[62] NARA. "NARA Bulletin No. 2014-06." September 15, 2014. https://www.whitehouse.gov/sites/default/files/omb/memoranda/2014/m-14-16.pdf.
[63] NARA. "Bulletin 2013-02." "Guidance on a New Approach to Managing Email Records". August 29, 2013. https://www.archives.gov/records-mgmt/bulletins/2013/2013-02.html. Accessed 17 October 2015.
[64] NARA. "Capstone Email Records Management Policy," http://www.archives.gov/records-mgmt/email-management/sample-capstone-policy-guidance.pdf. Accessed June 10, 2015.
[65] Executive Office of the President and NARA, "Memorandum For The Heads Of Executive Departments And Agencies And Independent Agencies," September 15, 2014. https://www.whitehouse.gov/sites/default/files/omb/memoranda/2014/m-14-16.pdf. Accessed June 10, 2015.
[66] NARA. "Capstone: A New Approach to Managing Email Records, Agency Workshop." 12 September 2013. 51. https://www.archives.gov/records-mgmt/email-management/capstone-workshop.pdf. Accessed 17 October 2015.
[67] NARA. "The General Records Schedule, Transmittal 25."

record, and creates more emails for researchers or others to have to search through.[68] Pre-accessioning is also encouraged which means agencies can transfer records to the NARA which will have physical custody of the records but the agency still has "legal custody and control over access to the records." According to the pre-determined schedule legal custody and access will be transferred to the NARA. This allows the NARA to "process electronic records early in the life cycle before potential loss of access and intellectual control due to technological and program change."[69] This is one way that agencies can ensure that the emails are not lost due to program or hard- or soft-ware changes. The NARA has more knowledgeable staff to help prevent that from happening.

Departments that use Capstone

Department of Agriculture

In 2011 the US Department of Agriculture (USDA) made the switch to a cloud-based system which could save millions of dollars a year. Prior to this the department had 21 different email systems.[70] From 2011 to 2015 the USDA used the program ProofPoint, which is part of Office 365 but in 2015 they switched to Microsoft On-Line Archiving System which performs the same functions but at a lower cost for the department.[71] The system archives email which is then available for search and retrieval. But it does not analyze the email or categorize it.[72] It is also not one of the DOD 5015.2-certified products.[73] Chris Smith, the USDA's Chief Information Officer, said that he believes they have "one of the most robust e-discovery capabilities" in the federal government.[74] The USDA describes their email retention system as follows: "There is an electronic archival-based email retention system in place within USDA (i.e., backup tapes, an archival system, and the cloud email solution). All emails are retained on a USDA-wide electronic archival-based e-data retention system. The official record emails (including all applicable metadata and attachments) are being electronically retained in their original native format on the USDA-wide electronic archival-based email retention system."[75] The USDA formed a Chartered Strategy for Digital Information Management Working Group to create the department's strategies for meeting the 2016 deadline. The group was composed of people from various backgrounds in the department, including records officers, lawyers, IT experts, and freedom of information officers. Their recommendation to the USDA Chief Information Officer was to implement Capstone for all employees. The USDA says that they will meet the 2016 deadline and implement Capstone by that time.[76] The Capstone retention periods can then be built into the Microsoft On-Line Archiving System that the USDA already uses.

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[68] NARA. "White Paper on the Capstone Approach and Capstone GRS."

[69] NARA. "Pre-accessioning." 4. https://www.archives.gov/records-mgmt/publications/pre-accessioning.pdf. Accessed 17 October 2015

[70] Vivek Kundra https://www.dhs.gov/sites/default/files/publications/digital-strategy/federal-cloud-computing-strategy.pdfFederal Cloud Computing Strategy. February 8, 2011. 20-21.

[71] US Department of Agriculture, "Senior Agency Official for Records Management, FY 2015 Annual Report." 2015. Pages 2-3 https://www.archives.gov/records-mgmt/agency/usda-sao-annual-report-2015.pdf

[72] Department of Agriculture. "Privacy Impact Assessment." 14 April 2011. http://www.usda.gov/documents/Proofpoint_PIA_USDA.pdf

[73] Joint Interoperability Test Command. "RMA Product Register." http://jitc.fhu.disa.mil/projects/rma/reg.aspx.

[74] Rutrell Yasin. "Move to Office 365 gives USDA robust e-discovery." 6 March 2012. *GCN.* https://gcn.com/articles/2012/03/06/usda-cloud-e-discovery-microsoft-office-365.aspx

[75] Department of Agriculture, "Senior Agency Official for Records Management, FY 2015 Annual Report," 5.

[76] Department of Agriculture, "Senior Agency Official for Records Management, FY 2015 Annual Report," 2-3.

Employees must use official email accounts for business but if there is a situation where they have to use a personal account then they have to copy or forward the message to their official account within 20 days.[77] The Office of the Chief Information Officer of the USDA trains records management officers throughout the agency. One of the duties of the records management officers is to provide records management training to all new employees within 90 days of hiring and yearly refresher training to all USDA employees.[78] [79] However, the sources do not say exactly what this training entails and if it is computer-based or in person.

Central Intelligence Agency

The Central Intelligence Agency was going to use a Capstone approach and in 2014 submitted a schedule to the NARA which was pending approval from the NARA. In their 2015 SAO report, the CIA said that this schedule was withdrawn due to "an Agency-wide reorganization."[80] However, the real reason seems to be public pressure on the CIA and NARA. The schedule would have included just 22 top officials whose emails would be saved permanently. The emails of all other employees would have been deleted within three years of an employee leaving the CIA. This is in contrast to the Capstone guidance which says the emails of non-Capstone accounts should be deleted after seven years of creation. Deleting email within three years of an employee leaving the agency could mean that an email message that is only a few days old is deleted if they decide to delete all the emails the day after the employee leaves. Steven Aftergood, the director of the Federation of American Scientists' Project on Government Secrecy, said that saving the emails of just those 22 officials would not be enough. He said, "There are many second- and third- and fourth-tier officials who are doing tremendously important and consequential work whose emails would, in many cases, just be destroyed." Congress members also expressed concern that important evidence could be destroyed.[81] A group of organizations which included the American Civil Liberties Union, Government Accountability Project, Human Rights Watch, and National Security Archive wrote a joint letter to the NARA expressing their concern about the proposed plan. The letter notes some top officials whose emails would not be saved, such as the Deputy Director of the National Clandestine Service, the head of the Counter Terrorism Center, and the head of the Counterintelligence Center. They wrote that these roles are involved in very important (and often secretive) activities, such as recruiting spies and supporting coups. The letter notes that the CIA has often had a narrow view of what constitutes a permanent record which means that crucial documents have been destroyed. The approval of the Capstone schedule would have just been a continuation of that practice.[82] On November 20, 2014 the NARA sent a letter to the CIA stating that they will reassess the proposed Capstone schedule because "we are concerned about the

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[77] Department of Agriculture, "Senior Agency Official for Records Management, FY 2015 Annual Report," 4.

[78] Department of Agriculture. "Records Management." http://www.ocio.usda.gov/policy-directives-records-forms/records-management.

[79] Department of Agriculture. Departmental Regulation 3080-001. May 23, 2013. http://www.ocio.usda.gov/sites/default/files/docs/2012/DR%203080-001%20Records%20Management.pdf.

[80] Central Intelligence Agency. "Senior Agency Official for Records Management FY 2015 Annual Report." 2015: 3, https://www.archives.gov/records-mgmt/agency/cia-sao-annual-report-2015.pdf

[81] Welna, David. "The CIA Wants to Delete Old Email; Critics Say 'Not So Fast.'" *National Public Radio*. November 20, 2014. http://www.npr.org/2014/11/20/365474273/the-cia-wants-to-delete-old-email-critics-say-not-so-fast

[82] American Civil Liberties Union, et. Al. "Letter to Margaret Hawkins." November 3, 2014. http://www.openthegovernment.org/sites/default/files/OpenTheGovernment.org et al comments on N1-263-14-01.pdf

scope of the proposed schedule and the proposed retention periods."[83] However, since then the CIA withdrew that schedule. The CIA must still submit a new schedule to the NARA for approval.

In the 2015 SAO report the CIA says that employees must save email records in the CIA electronic recordkeeping system or print and file them. The CIA say that it will meet the December 2016 deadline. However, if they are still telling employees that printing and filing is an appropriate method to manage email then they will not meet the deadline because email must be managed electronically.[84] The CIA does not have any information about records management training for employees. They also have not yet issued guidance regarding personal email accounts[85]

This shows one of the problems that can happen with the Capstone approach; if not enough officials are chosen to have Capstone accounts then there is a big risk of records being destroyed. The CIA doesn't disclose how many people work at the agency but it is estimated that it has about 23,000 employees.[86] [87] The fact that only 22 people would have had their emails saved and everyone else's would be deleted is a worrying prospect, especially when it took public pressure to get the NARA to withdraw its pending approval. The NARA is supposed to work to preserve the nation's records and allowing the CIA's schedule, which does not even conform to the Capstone guidance, to get to the pending approval stage should be seen as a failure in that regard.

Department of Commerce

The Department of Commerce (DOC) say that they will meet the 2016 deadline, however based on their report to the NARA this claim is questionable. Until 2015 the email archiving policy was to print and file. In the report there is little detail as to how they are planning on meeting the deadline. Throughout the 12 different bureaus of the departments there are nine email systems in use. In the report the DOC said the bureaus will "implement changes to their existing email systems and/or administration of the email systems, to meet a Capstone approach." The National Oceanic and Atmospheric Administration (NOAA) will implement an automated solution in their email system by the first quarter of 2017 while the rest of the bureaus will manage email through a mix of "automation and administrative processes." This information provides very little insight about what the department is going to do to move from a print and file method to a Capstone approach. In the report the DOC also said, "If NARA changes the size and scope of what Commerce applies for the Capstone schedule, or NARA delays approval, this will impede Commerce progress and ability to meet the deadline of December 2016." [88] None of the other department reports had a sentence like this in it. The fact that the DOC does seems as if they are preparing to blame the NARA if they are not able to implement Capstone before the

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[83] Wester, Paul M. "Letter to Joseph Lambert." November 20, 2014. http://www.fas.org/sgp/news/2014/11/nara-cia.pdf

[84] CIA. "Senior Agency Official for Records Management FY 2015 Annual Report." (2015)" 3-4. https://www.archives.gov/records-mgmt/agency/cia-sao-annual-report-2015.pdf

[85] CIA. "Senior Agency Official for Records Management FY 2015 Annual Report," 3

[86] CIA. "FAQs." https://www.cia.gov/about-cia/faqs.

[87] Barton Gellman and Greg Miller. "'Black Budget' Summary Details U.S. Spy Network's Successes, Failures, and Objectives." *The Washington Post.* August 29, 2013. https://www.washingtonpost.com/world/national-security/black-budget-summary-details-us-spy-networks-successes-failures-and-objectives/2013/08/29/7e57bb78-10ab-11e3-8cdd-bcdc09410972_story.html

[88] Department of Commerce. "Fiscal Year 2015 Senior Agency Official (SAO) Report." (2015): 2-4. https://www.archives.gov/records-mgmt/agency/doc-sao-annual-report-2015.pdf.

deadline. Commerce also says that they have implemented guidance on the use of personal email accounts but in their report they do not expand on what that guidance is.[89]

Department of Defense

The Department of Defense (DOD) says that it will meet the December 31, 2016 deadline. There are various components in the DOD, such as the Department of Navy and Missile Defense Agency. These components can have different email policies and systems and they have all implemented an email policy or are in the development process. A majority of the components have implemented or will implement a Capstone approach. The Department of the Army, the Air Force, and the Office of the Secretary of Defense will submit Capstone schedules to the NARA for approval this year.[90] The DOD uses an email system called Defense Enterprise Email (DEE) which provides cloud based email. It automatically moves messages older than 120 days into a message archive. There are two options for mailbox size. The basic class service is a 512MB mailbox with no archiving feature. The business class service is a 4GB mailbox with an archiving feature. Mailboxes can also be set up that so that every email and attachment from that account is saved. This is a feature that is very useful for the components that choose to use the Capstone approach. However, DEE is not mandatory for DOD components as they can choose to use another records management system for email.[91] The DOD recognizes the difficult of email management. In their 2015 report, they wrote:

> One area of challenge for meeting the Directive deadlines for managing email records and electronic permanent records is the sheer volume of information created and used across 11 the Department. Capstone provides a straightforward approach for managing email records. However, the ever increasing volumes of email in an organization the size of DoD or any of its large Components makes capture and storage of all emails, even for short periods of two or three years, financially unfeasible. Until auto-categorization technology is mature, dealing with the volume of email and electronic documents and files is challenging. In many areas, it continues to be manual, time-consuming and costly. Across the board, funding is the greatest challenge to achieving the 2016 and 2019 deadlines for electronic management of email records and permanent records."[92]

This recognizes one of the shortfalls of Capstone. It captures all email from the chosen accounts but some of what it is saving would not be considered records. This adds to the cost of a department's email management and it also makes it more difficult to search through the email messages when that need arises.

Employees are not allowed to use personal email for business use unless the DOD email system is down. If employees do need to use a personal email account then they must copy or forward it to their official email within 20 days.[93]

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[89] Department of Commerce. "Fiscal Year 2015 Senior Agency Official (SAO) Report," 3.

[90] Department of Defense. "Records Management Senior Agency Official Report 2015." (January 29, 2016): 2-5. https://www.archives.gov/records-mgmt/agency/dod-sao-annual-report-2015.pdf.

[91] Department of Defense. "DOD Enterprise Email (DEE)." http://www.disa.mil/Enterprise-Services/Applications/DoD-Enterprise-Email

[92] Department of Defense. "Records Management Senior Agency Official Report 2015." (January 29, 2016) 10-11. https://www.archives.gov/records-mgmt/agency/dod-sao-annual-report-2015.pdf

[93] Department of Defense. "Records Management Senior Agency Official Report 2015," 5.

Department of the Navy

The Department of the Navy (DON) has developed a system called Department of the Navy Tasking, Records, and Consolidated Knowledge Enterprise Repository (DON TRACKER). It will be implemented towards the end of 2016. DON TRACKER provides "lifecycle records management capability through creation, maintenance, use, and disposition in accordance with law, policy, and regulation." It also has the ability to search through all the records in the system. Prior to DON TRACKER the DON was using more than 20 records management systems.[94] A proposed Capstone schedule has been submitted for approval. DON is still in the process of identifying Capstone officials but it will include at least the Secretary and Under Secretary of the Navy, the Chief and Vice Chief of Naval Operations, and the Commandant and Assistant Commandant of the Marine Corps.[95] The DON trains records management staff and has check-out procedures for senior staff which is a way to ensure that records are not lost when someone leaves their job.[96] The DON has yearly records management training for employees. However this training is just sending out a 5 page paper for employees to read. It has helpful information about email management but there is no hands-on or in-person training or even a guarantee that employees have read the paper. [97]

The Office of the Secretary of Defense

The Office of the Secretary of Defense (OSD) submitted a proposed Capstone schedule this year and is continuing "to identify tools that can augment existing systems to better manage email records electronically." They currently use their own email system to archive email records and search through the archive. OSD is also improving training of senior staff.[98] The OSD has requirements of how email records must be saved including that the transmission data is saved, records must be kept in an approved recordkeeping system, and a distribution list must be saved so that one can identify which email account belongs to whom.[99] This distribution list is important because sometimes staff have more than one email account. Most of the time their name is in the email account but sometimes for non-public email accounts, senior staff have other emails. All employees and contractors must receive records management training at least once a year but there is no information about what this training entails.[100]

Department of the Army

The Departments of the Army preserves every email for the head of the agency and other senior officials.[101] Since 2008 all email from senior staff has been journaled, meaning it is kept for up to 10 years and users are not able to delete or change any messages. The Department is in the process implementing a Capstone approach for permanent email records.[102] [103] The

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[94] Department of the Navy, "DON TRACKER."
http://www.public.navy.mil/spawar/PEOEIS/SWP/Documents/FactSheets/FS_DON TRACKER.pdf
[95] Department of the Navy. "DON Records Management Training Guide." June 2, 2016.
http://www.doncio.navy.mil/ContentView.aspx?id=1885.
[96] Department of Defense. "Records Management Senior Agency Official Report 2015," 4-6
[97] Department of the Navy. "DON Records Management Training Guide."
[98] Department of Defense. "Records Management Senior Agency Official Report 2015," 4.
[99] Office of the Secretary of Defense. "Administrative Instruction 15." 3 May 2013.
http://www.dtic.mil/whs/directives/corres/pdf/a015p.pdf
[100] Office of the Secretary of Defense. "Administrative Instruction 15."
[101] Department of Defense. "Records Management Senior Agency Official Report 2015," 6.
[102] NARA. "2013 Senior Agency Official (SAO)," 8

Department of the Army uses DEE. When the Department first started using DEE the mailbox size limits were not enforced. They started enforcing it on October 1, 2015. The Army said that while most users were within the limit, there were 75,000 users with more than 4GB. By enforcing the mailbox size, this can lower the cost and improve the function of the email system. The user will receive three warnings about their mailbox size. After that they no longer have the capability of receiving incoming mail. Users need to store email in personal files on drives in order to stay below the mailbox limit if they are close to it.[104] This is a good way of enforcing a mailbox size. Another way to do it would be to automatically delete emails from before a certain date if the mailbox is nearing its limit. The way the Army does it, it encourages users to move emails to the email archive and to separate their personal emails from business emails. This puts emails records less at risk of being lost than just blindly deleting them. The Army has numerous documents and power points on their website for training purposes. But they do not explain how often the training occurs and if these documents are sent to employees to read or if there is records management classes.[105]

Department of Energy

In 2015 the Office of the Inspector General evaluated some of the different email programs in use by the various components of the Department of Energy (DOE). It examined seven programs and three field sites. It was found that many of the components of the DOE were not adequately managing email. There was confusion as to whose responsibility it was to manage email records. Many components believed it was the responsibility of the Office of the Chief Information Officer (OCIO) while the OCIO said it was the responsibility of the components. Staff of the DOE were found to not be knowledgeable enough of the NARA requirements to determine which emails are federal records. The report noted that, "It was generally each individual user's responsibility to determine if email received were records and to manage them appropriately. However, only 8 of the 53 federal employees we spoke with during our inquiry acknowledged this responsibility." The DOE has also not provided the proper records management training. That's why so few employees acknowledge their responsibility of email management. Since 2014 training was delayed because of technical issues. It was supposed to start again in June 2015 but by the time the report was completed (September 2015) it had not started again. Only half of the employees the report spoke to had some type of records management training.[106]

Two of the sites were still using the print and file method to save emails. The retention periods varied widely between the different programs and sites. For example, in one program deleted email messages were permanently deleted after 14 days while in another all email messages were saved for at least five years. Only one program that the report examined had the ability to automatically identify and retain email. In all the others it was the responsibility of the

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[103] Department of the Army. "Enterprise Email Journaling." 11 November 2013. http://ciog6.army.mil/Portals/1/Policy/2013/CIO_G6 SIGNED JOURNALING MEMO 11Nov13pdf.pdf

[104] Department of the Army. "DISA to Enforce DOD Enterprise Email Mailbox Size Limits Starting September." August 3, 2015. https://www.army.mil/article/153167/DISA_to_enforce_DOD_Enterprise_Email_mailbox_size_limits_starting_September/

[105] Department of the Army. "Training and Program Management." https://www.rmda.army.mil/records-management/RMDA-RM-Training.html.

[106]Office of Inspector General. "Special Report: The Department of Energy's Management of Electronic Mail Records." (September 2015). http://energy.gov/ig/downloads/special-report-doeig-0945

employee. This was the Office of Energy Efficiency and Renewable Energy (EERE) which the OIG said can serve as an example to the rest of the Department of Energy. [107]

There was no proper records management system for email so users had to identify emails that were federal records and archive them within the email systems. The email systems the DOE used did not meet federal requirements for managing records, in part because they did not prevent modification or deletion of records. The report recommended that the DOE implement records management software applications and ensure that records management training is completed. The DOE needs to provide outreach to all the offices, programs and field sites within the DOE to ensure that email is being managed properly throughout the whole department. The DOE agreed with the findings of the report and said that improvements would be made by the end of 2016. [108]

The OCIO says that they will attempt an enterprise-wide system for email management but that some other email systems may remain in use within the department. There are currently 17 different email systems in use throughout the department. The DOE has decided to implement a Capstone approach says it will meet then December 31, 2016 deadline. The OCIO has hired new leadership to advance the email management. [109] [110] DOE is still creating guidance on the use of personal email accounts. [111] All new employees must complete records management training within 30 days of hire and other employees must have a yearly refresher course. [112] However there is not information about what this training entails.

In 2010 the OIG also did a report on the DOE's electronic records management. Many of the problems they identified in the report were the same ones they found in the 2015 report. [113] This is not a good sign if the DOE is expected to change their email management so that they meet the December 31, 2016 deadline. This is especially worrisome when it comes to the components that were still using the print and file method up through 2015. There is a lot of work ahead for them and based on the DOE's 2015 report it does not seem as if DOE has made great strides. The OCIO said they will attempt an enterprise-wide system. But it is doubtful that would be completed by the end of this year. This means it is up to the individual components to have email systems that are can be compliant with the mandate and with Capstone.

Health and Human Services

Until recently, the policy for email management for the Department of Health and Human Services (HHS) was for employees to print and file emails. [114] The website for HHS, however, still has outdated information. On a webpage with information for employees regarding federal

[107] Office of Inspector General. "Special Report: The Department of Energy's Management of Electronic Mail Records," 1-3.

[108] Office of Inspector General. "Special Report: The Department of Energy's Management of Electronic Mail Records," 3-6.

[109] Office of Inspector General. "Special Report: The Department of Energy's Management of Electronic Mail Records," 10-11

[110] Department of Energy. "Senior Agency Official for Records Management FY 2015 Annual Report." (2015): 2. https://www.archives.gov/records-mgmt/agency/doe-sao-annual-report-2015.pdf

[111] Department of Energy. "Senior Agency Official for Records Management FY 2015 Annual Report," 3.

[112] Department of Energy. "Records Management Program." March 11, 2013. http://energy.gov/sites/prod/files/2013/03/f0/DOE%20O%20243%201b_0.pdf.

[113] Office of Inspector General. "Special Report: The Department of Energy's Management of Electronic Mail Records," 5.

[114] Department of Health and Human Services. "HHS Policy for Records Management for Emails" (15 May 2008). http://www.hhs.gov/ocio/policy/2008-0002.html

records it says: "Before deleting any e-mail message, ask if it meets the definition of a Federal record. If it does, the email and related attachments must be retained by: printing it out and filing the record with related information in accordance with your office's recordkeeping methods and systems or moving it to an approved electronic recordkeeping system"[115] In the last two years HHS has implemented a Capstone approach for all political appointees and senior executives and some other employees so that their emails are saved permanently. Other employees must still decide on an email-by-email basis if their messages are records and upload them to the recordkeeping system. All email is managed in an "accessible electronic format" using Office 365 Exchange Services for email management in most divisions. Some of the divisions have not yet changed to the Office 365 program but the programs they are using still keep email in an accessible format. HHS says that they will meet the December 2016 deadline. HHS is planning on expanding Capstone to all employees so employees that are not designated as Capstone accounts will no longer have to evaluate emails on an email-by-email basis.[116] [117] HHS employees are not allowed to use personal email accounts unless in extraordinary circumstances and they must copy or forward the email to their official account.[118] There is not information on their records management training.

HHS lists of variety of reason why they chose a Capstone approach. One of the reasons is because they say it "eases the burden of email management on the end-user." Another is that makes eDiscovery and Freedom of Information Act requests easier to fulfill.[119] It is true that it makes these things easier. All of the email messages are saved in one spot and are easier to search through. However, the emails of most employees are not being saved. This means that there could be emails being deleted that might have been released in a Freedom of Information Act Request.

National Archives and Records Administration

The NARA uses a Capstone approach and it applies to all email since January 23, 2013. Prior to this the NARA had a print and file policy.[120] It is a bit shocking that just a few years ago, the NARA was itself using a print and file method. In a 2011 NARA report, the NARA received 10 points out of 15 for electronic records management and 4 points out of 30 for records management training.[121] They are the archives of the United States government and should be leading by example how to properly manage all types of records. It is also worrisome that they only give themselves 4 points out of 30 for records management training when this is the agency that is supposed to be preserving the nation's records. One reason for the low score could be that

[115] Department of Health and Human Services. "Federal Emails are Records."
http://www.hhs.gov/ocio/policy/recordsmanagement/federalemailsarecordshtml.html
[116] Department of Health and Human Services. "Senior Agency Official for Records Management FY 2015 Annual Report." (January 27, 2016): 2-4. https://www.archives.gov/records-mgmt/agency/hhs-sao-annual-report-2015.pdf
[117] Hirschfeld-Davis, Julie. "Vague email rules let federal agencies decide when to hit save or delete" The New York Times. March 13, 2015. http://www.nytimes.com/2015/03/14/us/politics/vague-email-rules-let-federal-agencies-decide-when-to-hit-save-or-delete.html?_r=0
[118] Department of Health and Human Services. "Senior Agency Official for Records Management FY 2015 Annual Report," Pages 3-4.
[119] Department of Health and Human Services, "Email and File Retention for Senior HHS Officials (Capstone). http://www.hhs.gov/ocio/policy/recordsmanagement/recordsmanagement-capstone.html
[120] Ferriero, David. "NARA Email Records Management." Page 1. February 5, 2015. https://www.archives.gov/records-mgmt/email-management/directive.pdf
[121] NARA. "Records Management Self-Assessment Report: An assessment of records management programs in the federal government," Index 16.

most of the employees of the NARA have experience or an educational background in archives or records management so they do not need as much training as employees from other agencies without that background. But it is still important to ensure that employees knowledge stays up to date and they know the standards of the NARA. It is no wonder that other agencies have also been behind the times when it comes to email management. It is the duty of the Director of Corporate Records Management to designate email accounts as Capstone and provide training to the NARA staff on Capstone. Information Management Officers must keep up to date on personnel changes in their departments and information the Director of Corporate Records Management if it is relevant to a Capstone account designation. The Capstone approach, as explained by the NARA, means that "email records [are managed] based on the role of the email account user rather than on the content of each email record." If an account is designated as Capstone, meaning that the email messages will be retained permanently, the user still has the ability to mark individual email messages as "temporary" if he/she decides they are not permanent records. If an account is not designated as Capstone but the user believes he/she has records then the user has the ability mark individual email messages as permanent.[122]

The NARA uses ZL Technologies Unified Archive (UA) and Gmail for records management. ZL Unified Archive is a DOD 5015.2-certified product.[123] However, it does not appear to be very user friendly. The NARA has a user guide that is nearly 40 pages long explaining to employees how to manage their email. Automatically all email from Capstone officials are retained and those of non-Capstone officials are deleted after 7 years. If an employee wishes to manage their email by marking emails as records (if they're designated as a non-Capstone account) or marking email as temporary (if they're designated as a Capstone account) then that is what this user guide is for. Users first have to install a ZL UA app on their Gmail account. With the app installed, users can now see their email archive and choose how email is classified within the archive. It is also possible for authorized users to use e-discovery and place legal holds on other users' email messages. This means that those messages cannot be deleted or changed.[124] If the NARA wants employees to mark their emails as permanent or temporary records then they should make it an easier system for their employees.

The NARA employees are told to use their official email for all agency business. But if they need to use a personal email account then they have to cc it to their official email account.[125] The NARA does not have specific information on what training their employees receive. They do have information about what training they offer for employees across the federal government. They have online classes, in person classes, and employees can receive a Certificate in Federal Records Management Training. These are not the mandatory trainings that employees have to complete but are meant for employees involved in records management as an additional training.[126]

The purpose of Capstone is to ensure that the emails of top officials are being retained correctly. But with the system the NARA is using, many emails of top officials could be deleted

[122] Ferriero, David. "NARA Email Records Management." February 5, 2015: 2-3. https://www.archives.gov/records-mgmt/email-management/directive.pdf

[123] Joint Interoperability Test Command. "RMA Product Register." http://jitc.fhu.disa.mil/projects/rma/reg.aspx.

[124] NARA. "User Guide: Managing NARA Email Records with Gmail and the ZL Unified Archive." September 2013. https://www.archives.gov/records-mgmt/email-management/sample-agency-user-guide-for-managing-email.pdf

[125] NARA. "Senior Agency Official for Records Management FY 2015 Annual Report." (2015): 3. https://www.archives.gov/records-mgmt/agency/nara-sao-annual-report-2015.pdf.

[126] NARA. "National Records Management Training Program." https://www.archives.gov/records-mgmt/training/.

after a certain time period because they were designated as temporary by the user. It seems as if this contradicts the purpose of Capstone. It evens seems to go against the NARA's own advice. The NARA says that it is a burden on employees to make decisions about individual emails and agencies should institute automatic systems or policies such as Capstone.[127] By encouraging their employees to set up their email so that they can mark email records goes against that recommendation.

Social Security Administration

The Social Security Administration (SSA) does not have a good record of managing email. In a report released by the Office of the Inspector General (OIG) in 2016 it was noted that only 17% of permanent electronic records were managed in an approved electronic records management system. 21% of permanent electronic records were printed and filed. The rest were either managed within the email system or stored in a personal file on a computer or drive.[128] SSA uses Microsoft Exchange 2013 as their email server and does not have an electronic records management system in use across the entire agency. They tested software that could automatically manage emails but it did not achieve the desired success rate of 70%. After that it was decided that the SSA would implement a Capstone approach. Emails of top officials will be retained for 15 years and then transferred to the NARA while other employee's emails will be deleted after seven years.[129] The report says that they will manage email within Microsoft Exchange but that is just an email system, not a records management system. It's unclear from the SSA's annual report if they will be implementing an electronic records management system in the near future. The SSA says that by June 30, 2016 they will implement Capstone.[130] Within Microsoft Exchange all deleted emails are permanently deleted after 30 days. This does not give much time if the SSA needs to recover an email or if an employee realizes he/she has accidentally deleted an email.[131] The SSA has a records management training video but does not have information on how often employees get training or if it applies to all employees.[132]

If an employee uses a personal email account then they must copy or forward it to their official email account within 20 days.[133] However, it is only in the past year that SSA has issued guidance relating to the use of personal email accounts. At the time the OIG ended its inspection of the SSA (August 2015), the SSA did not have any guidance on personal email. They also did not have the proper safeguards in place to lower the chance of employees leaving the SSA bringing email records with them. There is an exit form that managers must follow for departing

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[127] NARA. "NARA Bulletin No. 2014-06." (September 15, 2014): 2. https://www.whitehouse.gov/sites/default/files/omb/memoranda/2014/m-14-16.pdf.

[128] Office of the Inspector General. "Audit Report: The Social Security Administration's Management of Electronic Message Records." (February 2016): 7. https://oig.ssa.gov/sites/default/files/audit/full/pdf/A-14-15-25025.pdf

[129] Social Security Administration. "Senior Agency Official for Records Management FY 2015 Annual Report." (2015): 3. https://www.archives.gov/records-mgmt/agency/ssa-sao-annual-report-2015.pdf

[130] Office of the Inspector General. "Audit Report: The Social Security Administration's Management of Electronic Message Records," B-3.

[131] Office of the Inspector General. "Audit Report: The Social Security Administration's Management of Electronic Message Records," 7

[132] Social Security Administration. "Summary of Efforts Made to Achieve the Managing Government Records Directive." March 2014. https://www.ssa.gov/records-management/Summary_of_PRMD_Efforts_(Public).pdf.

[133] Social Security Administration. "Senior Agency Official for Records Management FY 2015 Annual Report." Page 4. https://www.archives.gov/records-mgmt/agency/ssa-sao-annual-report-2015.pdf

employees but it did not include any questions about email records.[134] The SSA has a records management training video which is mandatory for all new employees and other employees must complete it every other year. It addresses the importance of saving email but, according to the OIG, is inadequate in providing information on how employees need to do that.[135]

Department of State

The State Department only started to automatically archive the emails of senior officials in February 2015.[136] This lack of email management has been a problem for the State Department. In March 2015, it was revealed that during her four years (2009-2013) as Secretary of State, Hillary Clinton used a private email address instead of a government email address for government business and there was no process to preserve her emails during that time. In a letter to the NARA Margaret P. Grafeld of the State Department wrote that in October 2014 the State Department asked former Secretaries of State Clinton, Powell, Rice, and Albright to provide any federal records in their possession, including emails from personal email accounts, to the Department of State. This was in order to comply with new guidelines issued by the NARA on managing email. Albright said she did not use an email account during her time as Secretary of State (1997-2001). Rice said that during her time (2005-2009) she only used her government email for government business. Clinton and Powell (2001-2005) said that they did use a personal email for government business. Powell, however, said that he did not save any of his emails nor print any.[137]

In January 2015 Clinton's advisers gave her emails to the State Department to comply with federal record-keeping practices. But they also deleted many emails that they deemed personal before they turned them over.[138] A spokesperson for Clinton said that Clinton apparently thought that the emails would be saved since she always communicated with other government officials on their government email accounts. But he did not address what she thought about her correspondence with foreign leaders and people in the private sector whose emails would obviously not be preserved by the government.[139] The State Department reported that they do not have reliable back up records of Clinton's correspondence with officials whom she communicated with on their government emails.[140] Jason R. Baron, former director of litigation at the NARA from 2000 to 2013, said, "I can recall no instance in my time at the National Archives when a high-ranking official at an executive branch agency solely used a personal email account for the transaction of government business."[141] The fact that one of the

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[134] Office of the Inspector General. "Audit Report: The Social Security Administration's Management of Electronic Message Records," 4-5.

[135] Office of the Inspector General. "Audit Report: The Social Security Administration's Management of Electronic Message Records," 10.

[136] Julie Hirschfeld-Davis. "Vague email rules let federal agencies decide when to hit save or delete" The New York Times. March 13, 2015. http://www.nytimes.com/2015/03/14/us/politics/vague-email-rules-let-federal-agencies-decide-when-to-hit-save-or-delete.html?_r=0

[137] Grafeld, Margaret. Letter to Paul M. Wester. April, 2 2015. http://www.archives.gov/press/press-releases/2015/pdf/state-dept-response-to-wester-04-02-2015.pdf. Accessed June 1, 2015.

[138] Michael S. Schmidt, "Hillary Clinton Used Personal Email Account at State Dept., Possibly Breaking Rules," *New York Times,* March 2, 2015, http://www.nytimes.com/2015/03/03/us/politics/hillary-clintons-use-of-private-email-at-state-department-raises-flags.html?_r=0. Accessed June 10, 2015.

[139] Michael S. Schmidt, March 2, 2015.

[140] Michael S. Schmidt and Julie Hirschfeld Davis, March 13, 2015.

[141] Michael S. Schmidt, March 2, 2015.

top US government officials was not properly preserving government records and no one realized it until a few years later demonstrates the need for a better system of email preservation.

After the information about Hillary Clinton's emails was revealed, the State Department announced that prior to February 2015 it had no way of routinely saving employees emails. Instead they relied on the employees themselves to decide which emails need to be preserved and either move them to a special record-keeping server (State Messaging and Archive Retrieval Toolset (SMART)) or print them out and manually file them. The State Department recognized that this was an "imperfect" system. Starting in February the State Department implemented system that saves the emails of the highest ranking officials .The emails of Secretary of State John Kerry have been saved since he took office in 2013.[142]

In 2009 SMART was introduced throughout the State Department. It allows employees to preserve their emails without having to print and file them. But this was not used within the Office of the Secretary and the accepted method was still to print and file email records.[143] Records that were printed and filed were usually not indexed so it is nearly impossible to find an email. The report uses this example: "As an illustration, almost 3,000 boxes, each filled with hundreds of pages of documents, would have to be reviewed manually, on a page-by-page basis, in order to identify and review all printed and filed emails from the Office of the Secretary since 1997."[144]

The State Department established the E-Records Management Working Group (ERMWG) in order to meet the December 31, 2016 deadline. In February 2015 the Department started journaling the email of some senior officials.[145] In 2015 the State Department started using the Capstone Approach. In September 2015 about 200 senior officials had Capstone accounts. All other employees must still use SMART for emails that they believe are records.[146] If an email is a record then the user must put it in the archive in SMART and add a classification to it. Emails that are not records can be kept in MS Outlook Email.[147] The ERMWG has proposed that the State Department purchase software for email management but the State Department first needs the funding for it.[148] This would mean that users wouldn't have to use two programs, SMART and MS Outlook Email, to manage their email. SMART has not yielded good results. The Office of the Inspector General noted that, "Department employees enter relatively few of their emails into the SMART system and that compliance varies greatly across bureaus, in part because of perceptions by Department employees that SMART is not intuitive, is difficult to use, and has some technical problems."[149]

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[142] Michael S. Schmidt and Julie Hirschfeld Davis, March 13, 2015.

[143] Office of the Inspector General. "Office of the Secretary: Evaluation of Email Records Management and Cybersecurity Requirements." (May 2016): 8. http://assets.bwbx.io/documents/users/iqjWHBFdfxIU/ro9mhq3oKXQI/v0. Accessed 26 May 2016.

[144] Office of the Inspector General. "Office of the Secretary: Evaluation of Email Records Management and Cybersecurity Requirements," 14.

[145] Department of State. "Senior Agency Official for Records Management FY 2015 Annual Report," (25 February 2016): 2-3. https://www.archives.gov/records-mgmt/agency/state-sao-annual-report-2015.pdf

[146] Office of the Inspector General. "Office of the Secretary: Evaluation of Email Records Management and Cybersecurity Requirements," 8.

[147] Department of State. "5 FAM 1200: State Messaging and Archive Retrieval Toolset (SMART). https://fam.state.gov/fam/05fam/05fam1210.html

[148] Department of State. "Senior Agency Official for Records Management FY 2015 Annual Report," 3.

[149] Office of the Inspector General. "Office of the Secretary: Evaluation of Email Records Management and Cybersecurity Requirements," 14.

The State Department says that personal email accounts can only be used in exceptional circumstances. If a personal email account is used then the employee must copy or forward the email to their official account within 20 days. There is not information on what the training for State Department employees entails. In the 2015 SAO report it says that the ERMWG will develop training strategies for records management.[150]

Even though the State Department is using a Capstone approach, employees whose emails are not saved permanently still must decide if they have emails that are records. One of the problems with Capstone is that there is a risk of records not being saved simply based on who sends or receives them. The approach that the State Department is using could be seen as an improvement on a strictly Capstone approach. However, it still puts a burden on employees to decide what constitutes a record and as the OIG found in its report, not many employees are using SMART which probably means that records are not being properly preserved.

Department of Treasury

The Department of Treasury (DOT) will implement a Capstone approach and say they will meet the 31 December 2016 deadline. The department said "This approach was developed in recognition of the difficulty of practicing traditional records management approaches on the overwhelming volume of email that Treasury produces."[151] [152] The DOT has submitted a General Records Schedule for Capstone to the NARA for approval. They are also currently developing email management training for senior staff.[153] The DOT does not have a department-wide email system. The different bureaus and offices decide that themselves. But Capstone can be implemented on all of the systems.[154]

Employees can use a personal email account in exceptional circumstances but they have to copy the message to their official email account. The Department is still developing training for Capstone. [155] Employees must complete annual records management training. The DOT offers several online courses to satisfy that requirement.[156]

Some bureaus will implement a three-folder inbox. Users will have to sort their email into three categories: Working, Personal, and Provisional. Emails in the working folder will be kept permanently for Capstone accounts and for seven years for other accounts. Personal emails will be kept for 90 days. The provisional folder is "for emails that are subject to special circumstances (e.g., an administrative or litigation hold) that require retention beyond the standard retention period."[157] This means that employees have to know about those holds and understand what emails are included in a hold. This type of system does not take the burden of email management away from employees. Capstone is supposed to be a way to determine which positions create the most federal records and save all of the messages. With this three inbox system, employees still have to make decisions about the types of email messages in their inbox.

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[150] Department of State. "Senior Agency Official for Records Management FY 2015 Annual Report," 4.

[151] Department of the Treasury. "Treasury E-Gov Act Report." https://itdashboard.gov/drupal/sites/itdb/files/015.pdf.

[152] Department of Treasury. "Senior Agency Official for Records Management FY 2015 Annual Report," (2015): 2. https://www.archives.gov/records-mgmt/agency/treasury-sao-annual-report-2015.pdf

[153] Department of Treasury. "Senior Agency Official for Records Management FY 2015 Annual Report," 3.

[154] NARA. "Department of the Treasury Records Management Program: Records Management Inspection Report." (February 29, 2016): 7. https://www.archives.gov/records-mgmt/pdf/dotr-inspection.pdf

[155] Department of Treasury. "Senior Agency Official for Records Management FY 2015 Annual Report," 4.

[156] Department of Treasury. "Chapter 600-Mission Support." July 1, 2015.

[157] Department of Treasury. "Senior Agency Official for Records Management FY 2015 Annual Report," 5.

Internal Revenue Service

The Internal Revenue Service (IRS) is a bureau of the Treasury Department. In 2015, the NARA released a report regarding the IRS's records management. One of the main concerns was that email and other electronic records were not always being managed electronically. There was also concern that saved emails were vulnerable to loss. Many emails were saved on employee's hard drives which meant that a problem with the hard drive would mean the emails were lost. Some senior staff did have their emails saved on network locations to minimize this risk. The IRS says they do no automatically delete emails but each employee has an inbox limit and must delete emails themselves so that they do not go above that limit. The NARA recommended that the IRS stop storing emails on hard drives and instead store them in an electronic records management system. This will better serve the employees and is consistent with NARA regulations. The way the IRS used to archive email was to print and file.[158] The Archivist of the United States, David Ferriero, told the House Oversight Committee that this was an example of a larger government problem when it comes to emails. Ferriero said "This is 2014, and we're printing and saving? This is embarrassing." The IRS has had problems with storing emails on hard drives. Former IRS official Lois Lerner saved all of her emails on the hard drive of her computer. Her computer crashed in 2011 and the IRS failed to report that her emails were lost.[159]

The IRS is attempting to improve their records management. They established the Enterprise eRecords Management Team (EeRMT) to implement new records management for emails and other electronic records. This is how they will meet the 31 December 2016 deadline set in the directive. The IRS is also implementing a Capstone approach. The proposed retention schedule is permanent retention for 32 Capstone employees. These employees have already been identified and been trained in the Capstone approach. Non-Capstone employees who are executive or senior management would have their emails saved for 15 years, of which there are 290. The last group is the remaining 90,000 employees whose emails would be saved for seven years. The process of identifying and training the employees was completed in April 2015.[160] [161] Email is not deleted or transferred to the National Archives once it reaches exactly the end of the retention period. Instead all email from one fiscal year is deleted or transferred at one time. For example, email created between October 1 2015 and September 30 2016 (Fiscal Year 2016) would be deleted in Fiscal Year 2024 if the account had a 7 year retention period since the "youngest" records would have reached the 7 year retention point at the end of Fiscal Year 2023. This records schedule was approved in 2015 by the NARA.[162]

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[158] NARA. "Department of the Treasury Internal Revenue Service: Records Management Inspection Report." (June 30, 2015): 6-7. http://www.archives.gov/records-mgmt/pdf/irs-inspection.pdf

[159] Bernie Becker. "Archives official: IRS didn't follow law on missing emails" *The Hill* June 25, 2014. http://thehill.com/policy/finance/210362-wh-lawyer-i-didnt-know-about-missing-lerner-emails

[160] NARA. "Department of the Treasury Internal Revenue Service: Records Management Inspection Report," 15.

[161] Internal Revenue Service. "Written Testimony Of The Internal Revenue Service Before The House Oversight And Government Reform Committee On Irs Records Management Procedures" 11 February 2016. http://docs.house.gov/meetings/GO/GO00/20160211/104489/HHRG-114-GO00-Wstate-KillenE-20160211.pdf

[162] Internal Revenue Service. "Request for Records Disposition Authority." 21 October 2015. https://www.archives.gov/records-mgmt/rcs/schedules/departments/department-of-the-treasury/rg-0058/daa-0058-2015-0001_sf115.pdf

Chapter 3: Other Programs

Department of the Interior

The Department of Interior (DOI) is the only executive department that will not use a Capstone approach. Before 2012, there were several problems with email and electronic records management within the DOI. One problem was that there was no department-wide system. There were 13 email systems spread throughout the nine bureaus of the DOI. Each bureau also had its own records schedule. There were over 200 different records schedules and 2330 retention periods throughout the department. There were also too many documents which were retained as records due to inadequate classification. Both of these problems also created high costs for the department.[163][164] John Montel, the deputy of the Information and Technology Management Division of the DOI, said this also led to costly litigation and a loss of records.[165]

In 2012 the DOI launched the Email, Enterprise Records and Document Management System (eERDMS). The company OpenText was chosen to provide the software for it and Open Text has multiple products that are DoD 5015.2-certified.[166] There are 5 components to eERDMS: Enterprise eArchive Systems (captures emails, including attachments), Enterprise Content System ("provides record and content support"), Enterprise Forms Systems ("centralizes, standardizes and automates all internal and external forms"), Enterprise Dashboard System ("reports key statistical information"), and Enterprise Fax System ("provides desktop faxing capabilities").[167] It is capable of supporting the department's 92,000 employees, with the capacity to support an additional 30,000.[168] The Enterprise eArchive System (EES) captures and archives about 800 million email messages, and their attachments, each year. It uses a form of artificial intelligence to determine if an email message is a record and how long it should be retained. Most messages are deleted after a few years, based on the classification as determined by the artificial intelligence. Documents with important keywords can be tagged to stay in the system and not be deleted. There is also a powerful E-discovery search tool so that employees can quickly find records for, for example, Freedom of Information Act requests, congressional inquiries, and other outside requests for information.[169][170][171][172]

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[163] Department of the Interior. "No Excuses E-mail Management: DOI's Proactive Approach." (August 20 2014): 4-7. http://www.digitalgovernment.com/media/Downloads/asset_upload_file343_5265.pdf.

[164] "Agencies Have Identified 78 Systems Migrating to the Cloud." (2012). https://cio.gov/wp-content/uploads/downloads/2012/09/IT_Reform_Agency_Cloud_Migrations_FINAL.pdf

[165] John Montel. Email to Karla Kavanaugh. 22 April 2016.

[166] Joint Interoperability Test Command. "RMA Product Register." http://jitc.fhu.disa.mil/projects/rma/reg.aspx.

[167] Department of the Interior. "Email Enterprise Records and Document Management System (eERDMS), Enterprise Form Systems (EFS) Component System Overview" (27 June 2013): 3. https://www.doi.gov/sites/doi.gov/files/migrated/ofas/support_services/upload/JOHN_eERDMS-EFS-Transportation-Subsidy-Session-2.pdf.

[168] "U.S. Department of the Interior Deploys OpenText Cloud-based Enterprise Content Management Solution" July 18 2012. http://www.opentext.com/who-we-are/press-releases?id=D7D55237959549F89FA6445E7898C9A4.

[169] Department of the Interior. "No Excuses E-mail Management: DOI's Proactive Approach."

[170] Konkel, Frank. "Interior takes records management to the cloud" FCW July 2 2013. https://fcw.com/Articles/2013/07/02/interior-cloud-records-management.aspx?Page=1

[171] NARA. "2013 Senior Agency Official Annual Report: Executive Report."

[172] Open Text. "U.S. Department of the Interior Deploys OpenText Cloud-based Enterprise Content Management Solution," (July 18 2012) . http://www.opentext.com/who-we-are/press-releases?id=D7D55237959549F89FA6445E7898C9A4

The EES replaced the 13 different email systems with just one. There is also now one department-wide retention schedule and 189 retention periods.[173] [174]According to Montel these two improvements will save the department tens of millions in dollars and will save time due to a decreased need to manually file, classify, or archive records.[175] The way records are classified by the system is as follows. First, different models were created for various types of records and their retention periods. For example, administration records with a 5 year retention period or legal records with a permanent retention period. Each model has 200 representative documents and is then tested with a small set of emails to assure accuracy. To sort emails, the system gives each one a precision rating as to which classification it is. If an email message has a precision rating of less than 75% percent then the records officer must review it and determine if the system put it into the correct classification or move it into another. Those emails with a low precision rating are then added into the model so that the accuracy of classifying records will improve over time. Other than those records officers, other employees no longer classify email records; they are fully reliant on the program.[176] Most employees are also satisfied with it. In a survey, 69% of employees rated the email system as "very easy" or "easy" to use.[177]

Employees may use personal email accounts in exceptional circumstances but they must be forwarded or copied to the employee's official email accounts within 20 days.[178] The DOI has a few webpages with information for their employees about what a federal record is and how to manage them. They say the three reasons for records management are service, profit (reducing operating costs), and social responsibility (legal and moral duties). The creator of a record has the responsibility of "ensuring the safety, timely availability, and proper retention and/or transfer of information in your custody." They have also copied the text of the US Code that relates to what makes a federal record onto their website. They also say that "files that directly support the agency mission or administration" are the most important records to keep. It is the duty of information systems managers and records officers to "establish recordkeeping requirements including a retention period and to implement authorized disposition instructions for system information and documentation."[179] One webpage has information on what constitutes a personal paper. This can include personal correspondence, community service records, diaries, and calendars. The DOI says employees should file personal papers separately from records and label them as personal. However, this is not mandatory.[180] DOI employees must have yearly training in records management. The training is online and afterwards they must pass a test in order to receive the records management certificate. In 2015 the DOI had a compliance rate of 99%. There is also more advanced training for employees with records management duties.[181]

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[173] US Department of the Interior. "No Excuses E-mail Management: DOI's Proactive Approach."

[174] Department of the Interior. "Agencies Have Identified 78 Systems Migrating to the Cloud."

[175] Open Text. "U.S. Department of the Interior Deploys OpenText Cloud-based Enterprise Content Management Solution."

[176] John Montel. Email to Karla Kavanaugh. 22 April 2016.

[177] Department of the Interior. Report of the Implementation of the E-Government Act. 2013. https://www.doi.gov/sites/doi.gov/files/migrated/ocio/egov/upload/FY2013AnnualReport.pdf.

[178] Sylvia Burns. "OCIO Directive 2015-003." May 21, 2015. https://www.fws.gov/policy/m0376.pdf.

[179]Department of the Interior. "Records Management Questions" https://www.doi.gov/ocio/policy-mgmt-support/information-and-records-management/records-management-questions.

[180] Department of the Interior. "Personal Papers Brochure" https://www.doi.gov/ocio/policy-mgmt-support/information-and-records-management/personal-papers-brochure.

[181] Department of the Interior. "Senior Agency Official for Records Management FY 2015 Annual Report." https://www.archives.gov/records-mgmt/agency/doi-sao-annual-report-2015.pdf.

Environmental Protection Agency

The Environmental Protection Agency (EPA) is one of the few agencies that will not be using a Capstone approach. Since 2013 the EPA has used the EZ Email Records Tool. The EPA uses both Lotus Notes and Microsoft Outlook for email. The EZ Email Records Tool can be used in both of those email systems. It allows staff to identify a record with one click. It is then saved in a records repository where records can be searched and retrieved and eventually transferred to the NARA. All records assigned to the records repository are considered permanent. However, the EPA is currently working on implementing auto-categorization to the repository to distinguish between permanent and temporary records. Records management specialists will assist to ensure that records are being properly categorized by the auto-categorization tool. The EPA says that in the future they may implement a Capstone approach as well but they are exploring multiple options right now for better email management.[182]

Employees are strongly discouraged from using personal email accounts but if they do they have to copy or forward the email within 20 days to their official email account.[183] The EPA also has a program called the National Records Management Program (NRMP). The purpose of this is to provide training and guidance on records management for EPA employees. This program also distributes publications regarding records management and best practices. There is a helpdesk for employees to contact for any questions they have about the EPA record policy.[184] Having a program such as this helps to ensure that employees are aware of what documents, including emails, they need to be saving as records.

Departments and Agencies Not Included

The reason that some departments and agencies were not included in this paper was because of a lack of information available about their email management. However, there are a few that should be briefly mentioned. The Department of Homeland Security (DHS) is the only department to not have the 2015 SAO Report available online. This could be because they didn't complete it or they had a good reason for not wanting it shared publicly. The most recent information about email management from the DHS that I could find was from 2003.[185] This is much farther back than for any of the other departments and agencies that I researched or attempted to research. The National Reconnaissance Office (NRO) is one of the few agencies that reported that they would not meet the December 2016 deadline. In early 2017 the NRO will implement the Intelligence Community Information Technology Enterprise (ICITE) and use a Capstone approach.[186] They will still meet their obligation of managing email electronically but they will meet it a few months late. Based on some of the reports from other agencies, it seems as if some of the agencies that say they will meet the deadline may not meet it. For example, as of January 2016, the Department of Labor (DOL) was still establishing "policy and procedures"

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[182] Environmental Protection Agency, "Senior Agency Official for Records Management FY 2015 Annual Report." 2015. https://www.archives.gov/records-mgmt/agency/epa-sao-annual-report-2015.pdf

[183] Environmental Protection Agency, "Senior Agency Official for Records Management FY 2015 Annual Report."

[184] EPA. "Contact Us About Managing EPA Records." https://www.epa.gov/records/forms/contact-us-about-managing-epa-records

[185] Department of Homeland Security. "DHS E-mail Usage" 1 March 2003. https://www.dhs.gov/sites/default/files/publications/mgmt_directive_45001_dhs_email_usage.pdf

[186] National Reconnaissance Office. "Senior Agency Official for Records Management FY 2015 Annual Report." 2015. https://www.archives.gov/records-mgmt/agency/nro-sao-annual-report-2015.pdf.

for implementing Capstone. The DOL says they will meet the December 2016 deadline.[187] However, it would seem as if there is quite a bit of work ahead for the agency so that they are able to meet the deadline.

Chapter 4: Analyzing the Email Management Practices

Is Capstone the right choice?

The majority of the departments and agencies are already using or will be implementing a Capstone approach. But is this the right choice? The 2012 mandate says that "Federal agencies must manage all email records in an electronic format."[188] But if agencies are only looking at the top officials to produce records then they are potentially ignoring thousands of records created by employees whose Capstone classification is temporary. If that's the case then they are not managing those records electronically because they are not even being evaluated to determine if they are records; most of them will just be deleted after seven years. This problem was seen when the CIA submitted its Capstone schedule proposal. With only the email of 22 employees out of an estimated 23,000 being saved, it would be inevitable that a large amount of emails that should have been considered permanent records would be destroyed after their temporary retention period was over. Attention was brought to the CIA case and the CIA said that they would create a new Capstone schedule (which they have not yet done). There has not been a similar response to the Capstone approach as implemented by other agencies. One of these reasons is probably because no other agency has so few Capstone permanent accounts and the email temporary accounts are saved for seven years, unlike the CIA where the emails from temporary accounts would have been deleted within three years of the employee leaving the CIA. Another reason could be because of the history of record keeping at the CIA, as mentioned in the letter sent by various organizations to the NARA. By its very nature the CIA is a secretive organization and this has affected its records management. They have often destroyed or lost records that could have shown illegal activities, such as interrogation videos. It is quite well known that the CIA does this.[189] When the CIA said that they would only save the emails from 22 people, it was seen as just a continuation of trying to hide their activities.

There are two different ways that agencies are implementing Capstone. The first approach is what I will call Capstone for some. It means that the top officials are given a Capstone classification of having all of their email messages saved as permanent records. The rest of the employees are still responsible for identifying records within their emails and transferring it to the records management system. This is what the Department of State, the NARA, and some bureaus in the DOT use. The second approach is what I will call Capstone for everyone. This means that all employees are given a Capstone classification of either permanent or temporary records. Employees are not responsible for marking any email messages as records. All the email messages of employees with a temporary classification will be deleted after the stated retention period. This is what the majority of the agencies listed in this paper are using or will be using.

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[187] Department of Labor. Senior Agency Official for Records Management FY 2015 Annual Report. Page 3. 17 February 2016. https://www.archives.gov/records-mgmt/agency/dol-sao-annual-report-2015.pdf
[188] Jeffrey Zients and David Ferriero." Memorandum for the heads of executive departments and agencies and independent agencies."
[189] American Civil Liberties Union, et. Al. "Letter to Margaret Hawkins," 6.

There are risks with both of these approaches to Capstone. With the Capstone for some approach, employees are still being relied upon to identify records. In order to do this properly, they need sufficient records management training. With the Capstone for everyone approach, there is a big risk of records being marked as temporary simply based on who created or received the email message. With this approach records are not being selected based on their content as has been the historical norm in the appraisal and selection of records. Historically, records have been appraised and selected by the creator or by a trained archivist based on their content. With the amount of electronic records the strategies of selection and appraisal are changing.[190] With a Capstone approach, records are not being appraised based on their content at all. While it's true that traditional records management strategies have to adapt to a digital world, I am skeptical that Capstone is the correct approach. The Capstone for some approach mitigates that concern because the creators of records are still able to appraise the records based on content. That is much better than assuming that only a very small percentage of employees create permanent records and deleting all the emails of other employees.

What are the alternatives?

There are very few agencies that are choosing to go the non-Capstone route. In this paper the EPA and DOI were discussed and they have very different approaches to email management. However, both of them evaluate messages at content level which is what makes it so different from a Capstone approach. EPA relies completely on employees to decide which email messages are records. If it is a record then they mark it in their email and it gets saved in the records repository where it is designated as a permanent record. The EPA hopes to implement auto-categorization to decide which are temporary and permanent records. But employees would still have to mark their email message as a record in the first place. This could be seen as a step down from the Capstone for some approach. With the Capstone for some approach it at least ensures that the emails of top officials are being saved which is where many records are found. With the EPA approach there is no guarantee that employees are even appraising their email messages. If top officials, especially, are not being vigilant about appraising their email then there will be a lot of lost records within the EPA.

The DOI has decided to use auto-categorization for email management. This almost completely eliminates human decisions in appraisal and selection decisions. Out of the other approaches written about in this paper, this is the most modern and up-to-date. Employees do not have to do anything with regards to appraisal or moving messages to a records management system. The only human intervention is if the EES gives a document a precision rating of 75% or less. Then a trained records officer reviews the document to decide how to classify it. This approach means that all email messages are evaluated based on their content. It eliminates the need of employees who are untrained in records management to make records management decisions. But it allows for trained records officers to ensure that the system is correctly classifying records. John Montel, of the DOI, was critical of Capstone. In an email to me he wrote, "Capstone is subjective only and does not take into account legal holds, FOIA, Ethics, Cybercrime and other preservation needs. Further, it does not align in how the government manages business which is really within the federal lines of business. My personal belief is that Capstone is not applicable to how the federal government needs to manage records and a reason why it's not readily adopted by other agencies."[191] He is, however, wrong on that last part as seen

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[190] Ciaran Trace
[191] John Montel. Email to Karla Kavanaugh. 22 April 2016.

from the 2015 SAO reports in which a majority of departments and agencies reported that they are using or will be implementing Capstone.

What training do employees get?

Agencies are required to give records management training to employees but the standards for this training are not clearly spelled out in laws or the Managing Government Records Directive. (Jeffrey Zients and David Ferriero. "Memorandum for the heads of executive departments and agencies and independent agencies.") Most of the agencies have training for new staff and annual training for all staff but most of this is not in the form of in person classes. Agencies often use videos, websites, and documents as their training. There is often not a mention of a way to ensure that employees even read or watch the training materials. The DOI was the only agency to mention a required test that employees have to pass after they reviewed the training materials. This type of training with a test could be very helpful to the agencies that require employees to decide which email messages are records. It ensures that they are actually reading or watching the training materials which is important so that they are aware of their records management duties and so that know how to properly classify their documents and records.

How do agencies address the use of personal email accounts?

The majority of agencies comply with the 2014 amendment to the Federal Records Act and have issued guidance regarding the use of personal email accounts. The agencies that have issued guidance all discourage employees from using personal email accounts for official use but recognize that there are exceptional circumstances that may necessitate an employee using their personal account. If they do use their personal account then they must Cc or forward the email to their official account within 20 days. It has been two years since the amendment to the Federal Records Act and there are still agencies, such as the CIA and DOC, that have not yet issued guidance to their employees. It is important for employees to be aware of the fact that they must have all official email messages in their official email accounts so that they are properly retained.

Will agencies meet the deadline?

By far, the majority of agencies report that they will meet the December 31, 2016 deadline (or target date as the NARA has also called it). However, as of January 2016 many of them still had to send schedules to NARA, receive approval from the NARA, and/or implement Capstone. It is questionable if these agencies will have successfully implemented the needed changes by December 31, 2016. The fact that nothing will happen to the agencies if they do not implement changes by that date means that there is no real incentive for reluctant agencies to be finished by that date. Public pressure worked to change NARA's decision about the CIA proposed schedule. If NARA updates Congress and the public on the progress of the agencies, then maybe Congressional or public pressure on the failing agencies will encourage those agencies to improve upon their records management and meet the goals of the directive.

The Role of the National Archives and Records Administration

NARA should be an example in records management to the rest of the federal government. But this has not been the case. Up until a few years ago they were using the print and file method to retain email. In 2011 they gave themselves. As seen in the DOI, it is possible to go a fully automatic route for classifying records. It seems as if the 2012 Managing

Government Records Directive was a missed chance for NARA to really improve upon their email management and encourage other agencies to do the same. While it is true that with the Capstone approach and an electronic records management system that emails are being managed electronically there is still human intervention (with the Capstone for some approach) and a chance that records will be lost (with the Capstone for everyone approach). This is also the fault of the directive. It is just one paragraph in which it says that email records must be managed electronically and does not give any specific information or regulations about how to do it.
It is also questionable how much NARA is willing or able to stand up to agencies whose records management policies are sub-par. This was noticeably seen in the CIA case. When they gave the proposed schedule pending approval, they had to have known that 22 people out of 23,000 employees would not be sufficient to ensure that all or most records were captured. The proposed schedule even went against the advice of NARA by only saving the emails of other employees for up to three years after they left instead of saving messages for seven years. If records management is going to improve within agencies then NARA has to be willing to disapprove policies or schedules that go against the recommendations of NARA.

NARA should also be an example in records management training for other agencies. They have courses for records officers across the federal government, and theoretically they should be properly training their own staff in records management. This is why it is worrisome they only graded themselves 4 points out of 30 for records management training. How are they supposed to train people across the federal government if they cannot even train their own staff.

What can be done in the future?

As auto-categorization within electronic records management systems improve, hopefully agencies will implement those in the future. As seen from the SSA's attempt at testing auto-categorization, the technology is not completely reliable for the needs of all agencies. Several departments listed lack of funds as a reason for not improving upon their record management system. The problem of funding for electronic records management has been known to NARA and other government agencies since at least 2005. A 2005 report for the NARA wrote that many federal agencies said that a lack of funding was a main reason agencies were not implementing better electronic records management systems. The report noted, "As long as agencies must make choices between funding what they consider core mission programs and records management, RM will consistently be short-changed. Electronic records management will only receive the required resources if it does not have to compete with other priorities." The proposed solution in the report was for the government to provide funding to agencies with the sole purpose of implementing electronic records management systems.[192] It has been 10 years and this not happened. There is an "E-Government Fund" with the goal of making it easier for the public to apply for benefits, and receive services, and making it easier for agencies to share information with each other. There is no mention of being able to use the fund specifically to improve electronic records management. This fund is also something that agencies have to apply for and have their project approved; it is not in the regular annual budget.[193] If the federal government really wants to take steps towards advancing their electronic records management

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[192] Lee Strickland, "Best Practices in Electronic Records Management: A Survey and Report on Federal Government Agency's Recordkeeping Policy and Practices, Prepared for National Archives and Records Administration," (December 19, 2005): 62-63. https://www.archives.gov/records-mgmt/initiatives/umd-survey-main.pdf
[193] US Government, "44 U.S. Code 3604- E-Government Fund," https://www.law.cornell.edu/uscode/text/44/3604

then they have to supply the funds to agencies to ensure that the agencies are able to take those steps forward.

Chapter 5: Conclusion

By the end of 2016 most departments and agencies will be managing their email in an electronic format. Whether it will be managed correctly is another question. Most agencies are complying with the 2012 directive by using the Capstone approach. However, solely using a Capstone approach does not ensure that all email records are retained and, in my opinion, does not ensure that the agencies are completing their legal duty of maintaining federal records. NARA has not acted as an example in electronic records management to the rest of the federal government. DOI is the only department embracing auto-categorization technology in order to minimize the need for human intervention in records classification. This is what other agencies should look to as an example. DOI is also the only one that says they have a records management test for employees. This is also something that other agencies should look to emulate. The steps most agencies have been taking is definitely an improvement upon the print and file method so popular just a few ago. However, agencies should not stop at the Capstone approach and should continue improving upon their management of emails and look towards examples outside of NARA.

Note: Some parts of this paper were also used in a paper I wrote called "The National Archives and Email Preservation in the Digital Age" in Spring 2015 for the course "Understanding the Archives."

Attempt was made to contact through e-mail the CIO and/or SAO for all of the departments. I received a reply from the SAO's of the Department of the Interior, Department of the Navy, and NARA. The response from the DOI was very helpful. The SAO from the DON said that he could not answer my questions because most things have not been fully finalized yet. The reply from NARA was also not very helpful.

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