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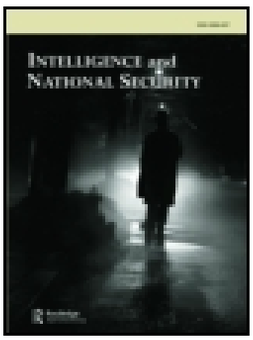
DOI
10.1080/02684527.2020.1772539

Publication date
2020

Document Version
Final published version

Published in
Intelligence and National Security

Citation (APA)
Cayford, M., & Pieters, W. (2020). Effectiveness fettered by bureaucracy–why surveillance technology is not evaluated. *Intelligence and National Security*, *35*(7), 1026-1041. https://doi.org/10.1080/02684527.2020.1772539



Intelligence and National Security

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/fint20

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To cite this article: Michelle Cayford & Wolter Pieters (2020): Effectiveness fettered by bureaucracy – why surveillance technology is not evaluated, Intelligence and National Security, DOI: 10.1080/02684527.2020.1772539

To link to this article: https://doi.org/10.1080/02684527.2020.1772539

Published online: 12 Jun 2020.

INTELLIGENCE AND NATIONAL SECURITY
https://doi.org/10.1080/02684527.2020.1772539

Routledge
Taylor & Francis Group

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Michelle Cayford and Wolter Pieters

ABSTRACT

The evaluation of the effectiveness of surveillance technology in intelligence agencies and oversight bodies is notably lacking. Assessments of surveillance technology concerning legal compliance, cost, and matters of privacy occupy a solid place, but effectiveness is rarely considered. Bureaucracy may explain this absence. Applying James Q. Wilson's observations on bureaucracy reveals that effectiveness is minimally treated because it is more difficult to evaluate than budget assessments and legal compliance, and because intelligence outcomes are unobservable and difficult to oversee. Effectiveness evaluation is thus fettered by bureaucracy. Considerations of bringing in effectiveness assessment must appreciate the realities of bureaucratic constraints to be successful.

Introduction

Surveillance is a necessary function of any intelligence agency. Through surveillance intelligence services strive to know the intentions and capabilities of potential adversaries without themselves being known. Surveillance is also, however, a controversial topic with some stakeholders railing that certain surveillance measures are too invasive, while others declare they are necessary for effective security. Intelligence agencies seek to carry out their mission of defending the nation, while parliamentary bodies pass laws to ensure intelligence services are accountable and kept in check. The public demands its privacy be protected, at the same time expecting effective surveillance practices to deliver security. It appears, however, that no one is assessing if, in fact, the surveillance technology employed is effective in achieving its security goal.

Previous studies reveal that effectiveness is minimally treated by both intelligence practitioners and oversight bodies.[1] Additionally, intelligence agencies' goals often clash and practitioners appear to pass the buck on proportionality, asserting that proportionality judgments are not theirs to make.[2] These and other findings beg for explanation. Why do these institutions operate in this way? Why is effectiveness evaluation of surveillance technologically so absent? Is it impotent politicians unable to develop policy, poor oversight, or government officials who just do not care if surveillance is effective? This article seeks to dive below the surface to seek out the underpinning explanations.

These institutions operate in the context of a democracy, ultimately being beholden to the people to carry out specific mandates, while following the law and limitations laid down by a democratic government. A possible explanation to the questions posed above is that democratic bureaucracy is itself to blame. A bureaucracy that is required by we, the people. The manner in which the effectiveness of surveillance technology is handled could be related to the bureaucratic constraints under which these institutions operate. That is, the bureaucratic system itself, necessary for the operation of democratic government, may be a root cause. To test this hypothesis, this article analyzes James Q. Wilson's book, *Bureaucracy*,[3] in the context of evaluating the effectiveness of

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surveillance technology. This study looks at how government practice in surveillance can be interpreted in light of Wilson's observations and explanations on the workings of bureaucratic government.

This article proceeds with a brief review of key findings on the evaluation of the effectiveness of surveillance technology, followed by a presentation of pertinent elements from Wilson's observations on bureaucracy. These elements are then analyzed in the context of the key effectiveness findings. Finally, a discussion section considers differences between American and European bureaucracy and draws on additional theories and literature from economics and governance to further develop the article's findings.

Previous research

The lack of effectiveness evaluation is reflected in the broader surveillance discussion with existing surveillance literature minimally touching this subject. Authors have written about the intersection of privacy and modern technology and the challenges that arise,[4] on mission creep,[5] and the success of intelligence oversight.[6] Existing studies on effectiveness tend to be counterterrorism centered[7] or focused on specific technology.[8] Effectiveness has also been discussed in the context of cost-benefit analysis.[9]

This article takes its place in this broader discussion by examining the overall picture of the government's handling of effectiveness in relation to surveillance technology and its root causes.

The authors' larger research study, of which this article forms a part, focused on intelligence agencies in the US and UK, and the surveillance technology they employ.[10] It examined the question of how the effectiveness of surveillance technology is treated by stakeholders, as well as how considerations of cost and proportionality figure in their assessment. The term 'surveillance technology' included a broad range of technologies, including drones, satellites, wiretaps, cameras, etc. In the data analyzed the majority of the technology under discussion was that dealing with communications data, such as surveillance systems monitoring internet activity, phone calls, etc.

Effective in this study was defined as, 'an impact that is desirable and can be observed as contributing toward the sought-after security goal.' This differs from *performance* which refers to the technology's ability to function correctly. Effectiveness is never determined in a vacuum. Officials determine to use or not a particular technology, not based solely on strict effectiveness, but on considerations of cost and/or proportionality. Because these factors play a role in any evaluation, how they are treated was also analyzed. This study refers to these three elements as overall effectiveness (composed of strict effectiveness, cost, and proportionality).

According to one understanding of proportionality, effectiveness could be considered as included in assessments of proportionality. That is, proportionality is an assessment of balance between the expected harms (privacy intrusion, economic cost) and benefits (security and economic gains). This is particularly pertinent as regards the UK, where law enforcement is required to perform a proportionality assessment prior to the deployment of any surveillance technology. Using this understanding it could be argued that is already assessed, in the context of security benefits.

This article and its greater study does not take this approach for several reasons. Firstly, effectiveness is an important element and deserves to be evaluated on its own. The danger of considering it only within the context of proportionality is that it is immediately obscured by the question of privacy. It is no longer a question of whether it is effective, but whether it is effective vis-à-vis privacy. This risks drowning out many important questions. Assessing effectiveness is complex, raising questions such as how is it evaluated, against which measures is it assessed, who is judging and determining effectiveness, what is the threshold of effectiveness, are different measures used for strategic versus tactical operations, and how to evaluate technology used for multiple purposes. These questions risk being lost or over simplified if effectiveness is only treated as a security benefit in the context of proportionality. Secondly, effectiveness and proportionality are potentially conflicting elements. They are both desirable and sought after goals, and yet a technology may be

effective, but not proportional, and vice versa. As such, effectiveness should be evaluated independently before being assessed in the context of proportionality. Finally, focusing strictly on effectiveness necessitates a security goal. To determine effectiveness a technology must be measured against the specific goal it is meant to achieve. Addressing effectiveness only by including it in assessments of proportionality makes it easier for the security goal to be overlooked and to gravitate toward broad and general statements, such as a program 'increases security' or this is an 'effective agency.'

The larger research study focused on three intelligence agencies in the US and the UK – the NSA, CIA, and GCHQ. These countries and agencies were chosen due to the attention they received following the Snowden leaks and the consequent availability of data. The study investigated how three different groups of stakeholders view and evaluate the effectiveness of surveillance technology. Firstly, statements of intelligence practitioners were examined to gain insight into their criteria for determining effectiveness. The second group studied was oversight bodies and their determinations of effectiveness. Finally, surveys were conducted to discover how the public views questions of effectiveness.

The first paper of this study examined intelligence practitioners' statements to determine how they treat effectiveness.[11] An obvious challenge to this endeavor is the secrecy surrounding intelligence bodies. Consequently, the study analyzed public statements made by intelligence practitioners of the CIA, NSA, and GCHQ, and conducted eight interviews. On the one hand, public statements are of limited value since they contain no classified information. On the other hand, insights can be gleaned from this information regarding how intelligence pracitioners treat the question of effectiveness. There is value in bringing these insights from a largely unseen world, more clearly into the public view.

For this first paper, statements of NSA, CIA, and GCHQ directors in the time period of 2006 to 2016 were analyzed. These included speeches, articles, books, and congressional/parlimentary testimonies. Additionally, eight interviews were carried out of officials involved in the output of intelligence. The results of this research found that strict effectiveness is spoken of very little. Much more talked about is privacy in relation to proportionality; security gains in the context of proportionality are addressed in very broad terms, such as 'increasing security.' Although practitioners rarely directly addressed effectiveness, analyzing the statements in depth unearthed seven measures of effectiveness that officials value: attacks thwarted, lives saved, criminal organizations destroyed, output (e.g. reports produced), context (i.e. a surveillance program complementing other intelligence tools), support (rendered to other agencies), and informed policy maker. There was no evidence of official evaluations of effectiveness found, but these measures were identified as ways pracitioners (officially or unofficially) assess surveillance programs.

Other significant findings of this first paper included that cost appears to be more of a driver of official evaluations than effectiveness, and that when effectiveness is spoken of it is often in the context of cost – i.e. a program is evaluated in terms of whether it is worth the resources being spent. When it comes to questions of proportionality, intelligence practitioners point to the law as setting these boundaries and not as decisions that they themselves make. Simultaneously they recognize that human beings make judgments of proportionality within these boundaries. Importantly, officials also make a distinction between bulk data collected by algorithms, and the limited selection of this data seen by human eyes.

The second paper in this larger study examined intelligence oversight bodies and how they evaluate the effectiveness of surveillance technology.[12] It studied the public documents of seventeen oversight mechanisms that oversee the intelligence agencies examined in the first paper – the CIA, NSA, and GCHQ. Oversight bodies were found to compartimentalize their assessments, focusing on either funding, legality, privacy, or rarely, effectiveness. As a whole, oversight focuses mostly on reviewing spending and legal and privacy issues, calling on the intelligence agencies themselves to assess strict effectiveness. In the few instances in which oversight bodies did address effectiveness, the measures of effectiveness they valued were very similar to those of intelligence practitioners. No evaluations were found in which all three elements of overall effectiveness – strict effectiveness, cost, and proportionality – were simultaneously discussed. These three elements present a trilemma of three desirable yet conflicting goals. It is impossible to simultaneously address all three, so any evaluation only focuses on one or two of the three at a time, in order to successfully evaluate. This results in a sort of trade-off approach of giving more priority to one element than another at a given time.

Our third paper examined the public's views on the effectiveness of surveillance technology.[13] Surveys were conducted of Dutch undergraduate students and their parents. The survey questions explored public views on effectiveness and its relationship to privacy, as well as any correlation between perceptions of effectiveness and the acceptable cost of surveillance technology. These research findings indicate that the public does not engage in trade-off, either between effectiveness and privacy, nor between effectiveness and cost, but rather expects all three elements to be successfully and simultaneously delivered. This finding supports other studies which show that the public is divided into groups of trusting or concernced – i.e. trusting the entity/technology involved is effective and protecting their privacy, or concerned that it is delivering neither. A new discovery of our paper was that these groups appear to be age dependent. The parent group fit into these groups of trusting or concerned, while the students were not uniformily trusting or concerned.

The findings of these three papers evidences two differing perspectives regarding the effectiveness of surveillance technology: one recognizes a trilemma and that all three elements cannot be delivered at once; the other rejects a notion of trade-off. This difference of perspectives between the public and government agencies causes one to search for the source of this log jam. Further, one would expect government agencies to evaluate effectiveness and yet there is a remarkable lack of such assessment.

This article seeks elucidation for the following key findings:

(1) Effectiveness of surveillance technology is minimally addressed in intelligence agencies.
(2) Oversight bodies rarely evaluate effectiveness, but rather call on the intelligence agencies to do so.
(3) Intelligence agencies appear to have conflicting goals of performing effective surveillance, at low cost, with minimal privacy intrusion.
(4) Intelligence officials consider proportionality to be addressed by the law and not a decision that they themselves must make.
(5) Oversight bodies and intelligence agencies do not simultaneously address effectiveness, cost, and privacy, inherently recognizing a trilemma; the public, however, does not perform a trade-off but expects all three to be simultaneously delivered.

This article hypothesizes that these findings can be explained by bureaucracy and the restraints it places on government institutions.

Observing bureaucracy

To test this hypothesis, this article turns to James Q. Wilson's seminal work on the bureaucratic nature of democratic government – *Bureaucracy*.[14] In this book Wilson examines how bureaucracy works, explaining why government agencies function the way they do, often in a seemingly inefficient and/or inept manner. This book was chosen due to Wilson being the most authoritative figure on bureaucracy. According to Google Scholar *Bureaucracy* has been cited 6478 times. Pietro S. Nivola of the Brookings Institute states that this book is 'Still widely regarded as more or less the last word on the subject'.[15] Additionally, what Wilson does mirrors what this paper seeks to do – explain why a government institution behaves the way it does. Wilson, of course, studies and explains the behavior of many bureaucratic offices, while this article focuses on five aspects in one area of bureaucracy. The advantage of this is it allows for the examination of intelligence agencies against the key features of bureaucracy, as opposed to perhaps concluding that any findings are bureaucratic features unique to intelligence bodies. One potential limitation to this book choice is that Wilson focuses on US bureaucracy, while our research examines both US and UK government agencies. However, the five key findings cited above apply to both the US and the UK. Thus, if this current article finds that Wilson's work helps explain these previous findings vis-à-vis the US, this could hold true for the UK as well. This point is further discussed in the Discussion section of this article.

Reading through Wilson's enlightening book, naturally, not every point, although interesting, is relevant to this present study. Specific elements were chosen from *Bureaucracy* for analysis here, based on their ability to shed light on the evaluation of surveillance technology in government agencies. This section presents these factors, and the following section analyzes them in light of effectiveness evaluation of surveillance technology.

Goals

Wilson observes that government agencies are likely to have 'general, vague, or inconsistent goals'.[16] For example, the Department of State's goal is to 'Promote the long-range security and well-being of the United States'.[17] And within the Department of Housing is the goal to 'Develop viable urban communities by providing decent housing and a suitable living environment'.[18] These general, vague, or inconsistent goals exist because people disagree not only on the meanings of words (what does 'security' or 'advantage' mean?), but also on how these goals should be attained. Should other goals be sacrificed to reach these ones? For example, should 'decent' housing be provided regardless of the cost?[19]

Wilson argues that in the absence of clear and specific goals, employees' work will be shaped by circumstances (as well as by personal beliefs and experiences). Circumstances include the clients' behavior and the tactics available to the worker. Regardless of what the agency's goals are, these factors will shape what the workers will do. Even with clearer goals, the situation can define a worker's tasks if a certain way of performing the job seems easier.[20] Wilson cites the Occupational Safety and Health Administration (OSHA) as an example. OSHA was created to protect worker safety and health. At the time of its creation, dangers to worker health (e.g. scores of workers dying due to exposure to hazardous chemicals) was considered to be a greater threat than occasional injury due to safety issues. But in the years since its formation OSHA has focused much more on rules surrounding safety rather than health. This is because it is easier. It is easier to assess the cause, cost, and solution to a worker falling and breaking a leg, than to do the same for a worker who develops cancer after years of working at a chemical plant.[21]

Government agencies are brought into existence to serve certain goals. However, an agency is expected not only to serve its primary goal but also *contextual* goals. These define the context, or state of affairs, the agency must maintain while seeking its primary goal. For example, a police department's primary goal is to prevent crime and arrest criminals, but it must also protect the rights of the arrested person, ensure its records remain confidential, and provide health services to those arrested.[22]

In addition to an agency's primary and contextual goals, the government overseeing and directing it often has a plethora of its own objectives. Discussing the case of the US Postal Service, which was previously under Congress and the president, Wilson points out that Congress' goal was not simply to speedily deliver the mail at the lowest possible cost. Rather, it wanted to satisfy different categories of mail users, as well as constituency demands to maintain many small post offices, address wage increase demands, and respond to public dissatisfaction with the mail service.

> Congress could not provide a consistent rank-ordering of these goals, which is to say that it could not decide on how much of one goal (e.g. keeping prices low) should be sacrificed to attain more of another goal (e.g. keeping rural post offices open). This inability to decide is … the inevitable consequence of Congress being a representative body whose individual members respond differently to different constituencies.[23]

Constraints over tasks

Government agencies operate under a considerable number of constraints: their revenues cannot legally benefit the organization's members, they must serve goals that the organizations themselves have not chosen, and they cannot allocate resources according to their preferences.[24]

All these constraints and the contextual goals mentioned above have an effect on the *management* of public agencies. Managers have reason to be more concerned with constraints than tasks. This means that the process becomes more the focus than the outcome. While outcomes are often 'uncertain, delayed, and controversial[,] procedures are known, immediate, and defined by law or rule. It is hard to hold managers accountable for attaining a goal, easy to hold them accountable for conforming to the rules'.[25]

Constraints also result in fairness becoming more important than efficiency. This is because fairness is easier to judge than efficiency. For example, it is easier to judge whether every student got the same textbook than it is to judge whether the students were educated.[26]

Standard operating procedures (SOPs) are a very tangible result of constraints. In order to ensure that constraints and contextual goals are not violated, SOPs are put in place. According to Wilson, these rules are a way to hold agencies accountable to constituencies, punishing those who upset the constituencies.[27]

Visible output and invisible outcome

Wilson classifies government agencies into four groups according to whether the employees' activities (output) and the results of those activities (outcome) is observable or not to managers. We argue that two of these categories apply to intelligence agencies – coping organizations, in which neither the output nor the outcome is observable to managers, and procedural organizations, in which outputs are observable, but not outcomes. With regard to agents in the field an intelligence agency is a coping organization, with neither the agent's daily actions nor the outcomes of his/her actions visible to management. Intelligence analysts, however, work in an office under the observation of the manager. But it is still difficult for the manager to know whether the analyst's actions gave the country strategic advantage over its adversaries. According to Wilson, in procedural organizations, what becomes more important is *how* the employees do their jobs, rather than whether the execution of the job results in the desired outcomes.[28] When the results of the work are unseen or hard to determine then it is difficult to convince others that what the agency is doing really works or is effective. In this case, rules take on more importance – SOPs become 'pervasive' – while managers seek to convince political superiors that their agencies are faithfully following the rules.[29]

Rules without trade-offs

According to Wilson, delivering a public service can either be improved by rules or contracts. It is rules and not contracts that pervade agencies because government institutions find rules to be more rewarding. A rule appears to immediately respond to a constituent's grievance. And it usually does not have to be reconciled with other rules, freeing political institutions from having to make difficult choices among contending goals. Government bodies imposing the rules do not need to address issues of feasibility. A contract, by contrast, has to reconcile at least some major tradeoffs – time and money, cost and quantity. Political actors, however, do not consider trade-offs. They want to see all of their interests protected.[30] And the government itself 'is required to act as if all preferences can be accommodated simultaneously'.[31]

Political environment

Wilson points out that much of the difficulty of bureaucracy arises from the fact that the government is a democracy. It is not simply a management problem, but a governance problem.[32] A government agency must maintain political support. A typical agency, however, is not in an easy position to gain political support as it often:

> must do something that is unpopular (e.g., collecting taxes) or difficult (e.g., managing foreign affairs) and that a half dozen other agencies are doing (e.g., gathering intelligence or catching drug dealers), and it must do these

> things under the watchful and critical eyes of countless subcommittees, interest groups, and journalists. It faces inadequate budgets, complex tasks, several rivals, and many constraints.[33]

To 'fix' these problems – grant a simple and clear mission, minimize constraints, judge officials on outputs rather than inputs, etc. – political actors would have to function contrary to their own interests. They would have to relinquish seeking to expand their own influence, turn down influential constituents, and seriously consider the feasibility and political popularity of any proposed new program. This scenario seems highly unlikely both because politicians have no incentive to bring it about and because 'there are certain tasks a democratic government must undertake even if they cannot be performed efficiently'.[34]

The bureaucracy of government is a result of the political system and of we, the people, who require it to be so.[35] Democratic government must gather intelligence and perform surveillance, it must respond to the demands of its constituents and their differing goals and preferences, and it is required to operate under numerous constraints imposed by the people. Constraints rather than the tasks themselves become the focus, fairness takes priority over effectiveness, and circumstances rather than goals shape employees' work. Bureaucracy comes part and parcel with democracy and has a direct effect on effectiveness evaluation.

Analysis

These identified elements from *Bureaucracy* shed light on some of the key findings of this larger study's research on the evaluation of the effectiveness of surveillance technology. This section interprets these findings in light of Wilson's observations on bureaucracy. A summary of previous research findings explained by Wilson's concepts is found in Table 1.

Goals (in intelligence agencies)

Applying Wilson's concepts to key finding #3 (Intelligence agencies appear to have conflicting goals of performing effective surveillance, at low cost, with minimal privacy intrusion) one observes that intelligence agencies are also clearly affected by the goals of elected officials in the legislative body. Because politicians have a vast constituency and seek to please all their constituents, they do not just

Table 1. Wilson's concepts applied to research findings.

Research finding	Applicable concept from Wilson	Interpretation of finding using Wilson's concept
Intelligence officials consider proportionality as addressed by law	Contextual goals	*Proportionality is a contextual, not primary goal*
Conflicting goals in intelligence agencies	Conflicting goals of elected officials	*Legislative body cannot decide which goal has priority resulting in intelligence agencies having conflicting goals*
Effectiveness minimally treated	Workers choose easiest way to perform task Managers evaluate more easily measured elements In procedural organizations outcomes are difficult to evaluate	*Effectiveness is more difficult to evaluate than measuring accordance with rules and budget* *Outcomes of analysts' actions are unobservable resulting in compliance reports but not effectiveness reports*
Oversight bodies do not evaluate effectiveness	Procedural organizations are difficult to oversee – oversight says how job should be done, but does not evaluate if it's done well	*Intelligence oversight is unable to judge the success of agencies' tasks*
The public does not perform a trade-off between effectiveness, cost, and privacy	Congress has multiple, un-prioritized goals, due to representing many constituencies	*Surveillance finds itself in an impossible trilemma of needing to simultaneously meet three conflicting demands*

have one goal, but many conflicting goals – effective surveillance technology, low cost surveillance, protected privacy. As a collective body, elected officials cannot decide which goal has priority, and which goal should be sacrificed at the cost of another. The result is that intelligence agencies themselves pursue conflicting aims.

In recent years, intelligence agencies' surveillance practices have been under fire on grounds of privacy and proportionality.[36] Intelligence officials consider proportionality to be addressed by the law and not by themselves (key finding #4). Wilson's observations bring understanding to this finding – protecting innocent civilians' privacy is not a primary goal of intelligence agencies – it is a contextual goal. They cannot perform surveillance willy-nilly – the condition under which they must keep the nation secure is that their surveillance must be carried out in a proportionate manner. This sheds some light on how intelligence practitioners treat proportionality. It is not their primary goal because protecting the privacy of citizens is not the agency's mission. But it is a contextual goal under which they must carry out their primary goal of securing the nation. Intelligence practitioners view questions of proportionality and privacy as addressed by the law and not by themselves. That is, the law and oversight bodies establish parameters for what is proportional, and they act within these limits. For intelligence practitioners, their job is to provide intelligence, while operating within the legal framework, and not to make judgments on proportionality. This is in keeping with proportionality being a contextual goal. A further point to consider is that if this was an additional primary goal it would conflict with the goal of securing the nation, which would arguably lead to agency paralysis.

Observations on goals help explain why intelligence officials' handle privacy and proportionality as being treated by the law and not by themselves – it is a contextual, not primary goal. They also reveal the effect on intelligence agencies of elected officials having conflicting goals – no one goal is given priority. Because proportionality is a contextual goal and not a primary one, intelligence services avoid paralysis. But the fact that the contextual goal still conflicts with the primary goal nonetheless introduces an aspect of impossibility of attempting to satisfy conflicting goals.

Effectiveness minimally treated

Intelligence officials were found to minimally treat the question of effectiveness (key finding #1). Intelligence agencies appear to not formally evaluate the effectiveness of surveillance technology; evaluations that do consider effectiveness focus on intelligence agencies as a whole, rather than particular surveillance programs or technologies.[37] Compliance reports, on the other hand, do clearly exist. Intelligence agencies must regularly report if there have been any breaches of compliance, what these breaches are, and what they have done to remedy the problem.[38]

Several of Wilson's observations explain this phenomenon. The first explanation concerns circumstances shaping employees' work, particularly when goals are vague or general. In this scenario workers will perform a task in the way that seems easiest. This principle can be applied to intelligence agencies in a broad sense. Effectiveness is difficult to evaluate. Is the surveillance technology considered effective if it provides X amount of information? How is 'X' determined? Or if it only leads to one key piece of information? Did that information play a key role in dismantling a criminal organization? Was the information crucial to informing policy? It is easier to judge legal issues and cost than if, or to what degree, particular technology has contributed to effectiveness. Whether a surveillance program has stayed within budget or is too costly, or whether its use has complied with legal requirements is much easier to judge than whether or not it has contributed to meeting a said security goal.

Similarly, the constraints under which managers in government agencies operate result in fairness becoming more important than effectiveness because it is easier to judge than effectiveness. This aspect of managers tending toward the more easily measured element applies to intelligence agencies. In managing surveillance programs, it is easier to pay attention to following rules (law) and budget than to judge effectiveness. For both workers and managers, judging effectiveness is

more difficult than paying attention to rules and budget. Consequently, effectiveness is minimally treated.

A third explanation relates to Wilson's classification of four types of government organizations. Intelligence agencies move between two of the categories – coping and procedural – depending on the type of employee. Analysts' work is observable to managers, while agents' work in the field is not. This paper focuses on the work of analysts because the principle kind of surveillance technology discussed in the greater study was that dealing with communications data. Analysts are the employees that handle this data. Their administrators can observe how the analysts use the surveillance technology. Determining the outcome of their work or the effectiveness of using a particular technology, however, is more elusive. In some cases it may be clear that certain actions contributed to the successful outcome of a tactical operation. More often, however, it may be difficult to determine if the use of the technology resulted in the dismantling of a criminal organization. And for strategic operations it may be impossible to measure if the action resulted in strategic advantage or a change in government policy. What or how much of an outcome to attribute to a particular technology is difficult to evaluate. Wilson classifies agencies in which the employees' work is observable, but the outcome of their work is not, as procedural organizations. Because this greater study focused on surveillance technology used by analysts, for the purposes of this paper – that is, in this particular context – intelligence agencies are classified as procedural organizations.

According to Wilson, standard operating procedures (SOPs) pervade procedural organizations. This may be less the case with intelligence agencies since they are not exclusively procedural organizations, but this does explain why compliance reports seem to exist in abundance, while effectiveness reports do not. The use of surveillance technology, particularly in regards to internet-related surveillance, is observable and therefore is subject to procedural rules. Analysts must follow strict guidelines in their use of this technology. Compliance reports are produced on a fixed-term basis, documenting instances in which the rules were breached and correctives taken.

Minimal treatment of effectiveness in intelligence agencies is explained by the fact that both employees and managers tend toward the more easily measured elements of cost and legality, as well as by intelligence agencies being (in part) procedural organizations, in which analysts' actions are observable, but not the result of their actions, leading to an abundance of compliance reports.

Complex oversight

This study's research on oversight bodies found that intelligence oversight bodies rarely, if ever, evaluate effectiveness (key finding #2). Instead, they push the intelligence agencies to do so. Intelligence oversight concentrates on matters of cost and legality, calling out agencies and programs that have gone over budget or who have had breaches of law. But it does not evaluate effectiveness within these procedural organizations. Wilson points out that procedural organizations present an oversight problem. Oversight bodies can and do put rules and procedures in place to direct how tasks are carried out. But they do not help in evaluating how well the job has been done. For example, the US Congress required the Marine Corps to change its training methods after determining the training was too abusive. But it could not evaluate which training method produced the best marines.[39] This matches the findings of this greater study's research on intelligence oversight bodies: they were found to rarely evaluate effectiveness – or how well the job was done – themselves.[40]

This suggests that the difficulty with intelligence oversight is not only, as so many claim, that intelligence agencies operate in secret, but also that they are (in part) procedural organizations in which the outcome cannot be judged. It is difficult to oversee and fully hold accountable, an organization which performs tasks, the success of which is difficult to determine.

Operating under politics in a democracy

Discussions surrounding surveillance are well-known for the discourse of trade-off: if more effective surveillance is desired, some privacy must be given up and vice versa. This study's article on the public investigated its view of the concept of trade-off off between effectiveness and privacy, and effectiveness and cost. The findings suggest that people do not perform this kind of trade-off, but rather want effectiveness, cost, and privacy delivered simultaneously. All three elements appear to be given equal priority by the public (key finding #5).

It is, perhaps, sometimes forgotten that intelligence agencies are also influenced by politics. As Wilson points out, parliamentary bodies have many constituents with many differing views, and each politician wishes to satisfy his/her constituency. Politicians and officials seek to be reelected and to influence policy making. Consequently, Congress (or Parliament) itself has multiple goals, and it is unable to prioritize which of these goals is most important. In the case of surveillance technology, which goal should have priority – that the technology is effective, that it is low cost, or that it is proportional in its invasion of privacy? Congress cannot arrive at a unanimous decision. This may not be just a result of some people wanting effectiveness to be prioritized while others want privacy first, but of citizens wanting it all.

Further, as Wilson highlights, there are some tasks a democracy must perform, even if it cannot do so efficiently (or effectively). It must carry out intelligence operations using surveillance. In a democracy the people demand effective security, that the carrying out of that security not waste their tax money, that it is kept within certain bounds and not abused, and therefore that oversight is put in place, and that the public's privacy is not infringed upon at the expense of that security. Hence, surveillance finds itself in an impossible trilemma of needing to simultaneously meet these conflicting demands, as a result of being part of a democracy. A democratic government must perform surveillance and must strive to meet its constituents' conflicting demands. Congressional bodies are unable to prioritize one goal over another, both because they represent many constituencies and because the public appears to not prioritize one goal over another.

Discussion

Differences across the pond?

Wilson's work focuses on US bureaucracy. This study has centered on both American and British intelligence agencies and their oversight bodies. This arguably leaves room for some of Wilson's observations to not be applicable to all of this research. The elements drawn from Wilson for this article, however, have more applicability on both sides of the pond than not. These countries are both democracies, meaning they are subject to the rule of the people and their institutions are influenced by politics.

In discussing accountability and transparency in a European context, Christiansen and Lodge employ Wilson's categorization of government agencies into four groups (production, procedural, craft, and coping).[41] The authors examine three different types of government agencies – intelligence, flood defense, and food safety – across five European countries (UK, Germany, Denmark, Sweden, Norway). They argue that with intelligence agencies it is difficult to measure outputs and outcomes. This is according to Wilson's categorization system. It is also one of the classifications we have given intelligence agencies – that is, a coping organization. In their analysis, the authors found that variation occurs related to the type of organization and its tasks, rather than according to the countries. This suggests that despite differences in government types, the agencies across these countries and their ways of operating are more similar than not. This finding, in addition to the authors' use of Wilson's categorization of agencies in a European context, supports the applicability of Wilson's work to the UK portion of our larger research study.

Wilson himself addresses differences between American and European bureaucracy. One difference he highlights is that European government agencies are beholden to fewer contextual goals

than their American associates.[42] This research, however, analyzed the contextual goal of proportionality. Proportionality is a clearly stated contextual goal for British intelligence services.[43]

While the US and the UK are both democracies, they are of different types. The US is a presidential democracy while the UK is a parliamentary democracy. In a parliamentary democracy the authority to make and implement policy is concentrated in the hands of the executive. The prime minister and parliament are not rivals. In the US the executive and legislative branches *are* rivals, each trying to limit the other's power while increasing their own, and serving as a check and balance to one another. In a presidential democracy Congress has power independent of the president, while Parliament has little authority and cannot investigate agencies if the prime minister objects.[44]

British oversight bodies, then, are under the command of the prime minister, while the American ones are divided between the executive and legislative branches. One could imagine the Congressional oversight bodies to be more critical and strict than their British counterparts, as they seek to keep in check the executive branch, under whose direction the intelligence community lies. For example, one might suppose that Congress would conduct evaluations of effectiveness to 'prove' or 'disprove' that certain surveillance actions are effective. As this article underlines, however, this is not the case.

Conversely, one could imagine that the reason British oversight bodies do not evaluate effectiveness is that the intelligence agencies are beholden to the prime minister, who does not want to bring to light below par performance. According to this logic, however, all oversight bodies across the whole government would be pointless, as they would not be holding agencies accountable. Furthermore, the intelligence oversight arms of the Interception of Communications Commissioner and the Intelligence Services Commissioner (now grouped under one Investigatory Powers Commissioner) investigate and report on compliance and proportionality issues. These reports are annual, accessible to the public, and can be critical of transgressions committed by the intelligence services.[45] Therefore, it is not likely due to differences in government structure that effectiveness is not evaluated in the UK, but more probably that Wilson's observations about US bureaucracy analyzed in this article are also applicable in the UK.

Further dimension added by additional theories

Wilson's observations reveal that the structure and nature of bureaucracy is a large factor in the lack of effectiveness evaluation of surveillance technology. Theories from other domains further explain why this lack exists. These theories provide explanation from other angles. Bureaucratic elements are perhaps the most fundamental reason; these additional theories provide increased depth as to why effectiveness evaluation is so elusive.

Intelligence agencies and oversight bodies do not seek to simultaneously evaluate and obtain the three conflicting goals of effectiveness, cost, and proportionality not only because of bureaucracy, but also because it is impossible. The trilemma concept from macroeconomics states that only two of three conflicting goals can be simultaneously achieved.[46] Monetary independence, exchange rate stability, and financial integration are all desirable goals in open economies, yet it is impossible to simultaneously achieve all three. Therefore, policymakers must decide which one of the three they will give up. This same reality exists in the security realm, and is reflected particularly by oversight bodies. The impossibility of obtaining effectiveness, cost, and proportionality simultaneously leads to addressing a maximum of two goals at a time.

To avoid engaging in a trade-off, oversight bodies are compartmentalized to deal with specific issues. Steenhuisen found that oversight bodies distance themselves from trade-offs.[47] This study's findings support this argument, concluding that intelligence oversight bodies are either created to deal with only one of the three elements of effectiveness or if they are tasked with overseeing all three elements, only evaluate one or possibly two at a time. Examples include the Privacy and Civil Liberties Oversight Board, which as the name suggests, focuses on protecting the privacy of Americans in matters of surveillance; the UK Intelligence Services Commissioner produces yearly

reports on the legality of warrants issued; the Dutch oversight body, CTIVD (Intelligence and Security Services Review Committee), states explicitly that it does not evaluate effectiveness. This research found no oversight reports that dealt with evaluating the effectiveness, cost, and proportionality of surveillance programs simultaneously. Having a compartmentalized approach allows oversight bodies to avoid engaging in a trade-off and successfully address the issue at hand, rather than having to enter into the impossible trilemma. Oversight's distance from trade-offs is an additional feature of bureaucracy – one not specifically addressed by Wilson.

The concept of trade-off is also found in governance literature, which discusses values and value conflict. Graaf and Wal argue that effective governance and ethical governance clash; that public governance cannot reach its objectives while being 'good.' 'Truthfulness, decency, and transparency do not characterize the spirit of effectiveness. What is more, infractions such as rule-bending, selective honesty, and the resetting of agendas allow those in power to "get things done."'[48] An example the authors cite is the Dutch Minister of Finance acquiring ABN AMRO Bank in 2008 without informing Parliament. This was against the law, but time was short due to the impending credit crisis. In order to effectively govern, the minister broke the law. His governance was effective, but not ethical. If he had been ethical, he would not have been effective.[49] This same clash of values appears in matters of surveillance. What is more important – effective surveillance technology that obtains the needed information to thwart criminals and inform policy makers or protecting the privacy of unconcerned civilians to the extent that needed information is potentially missed? And what takes priority – keeping the cost of such technology low or spending more taxpayer money to invest in technology that better protects privacy and/or more effectively supplies needed information? The value conflict reveals a further dimension – while policy makers struggle with the bureaucratic aspect of satisfying diverse constituents, they and society as a whole also struggle with these three elements as conflicting values and which to give priority.

These different theories, along with Wilson's work, shed light on why there is so little evaluation of the effectiveness of surveillance technology, why any evaluation that is done is performed almost exclusively by the intelligence agencies themselves, why legislative bodies are unable to give one goal priority, and why these agencies are caught in this trilemma of being called on to equally address these three elements of effectiveness, proportionality and cost and yet are forced to perform a trade-off. The structure and nature of bureaucracy is a large contributor, while the trilemma theory states that achieving all of three conflicting goals is impossible, and the trade-off concept argues that public governance must be either ethical or effective, but cannot simultaneously be both. These support what Wilson identifies as an inherent problem with governments and governing – desirable, yet conflicting values and the government's duty to meet them all despite the fact that they are incompatible. This suggests that certain elements of effectiveness evaluation will not change since surveillance cannot extricate itself from bureaucracy.

Implications for the surveillance debate

This article's findings impact the broader surveillance discussion by revealing that government behavior related to surveillance effectiveness is not something that can just be changed by a new law or new prescriptive directives. Realizing that there are bureaucratic constraints that obstruct evaluating overall effectiveness, influcences the discussion. The surveillance discussion should take this factor into account, thinking in innovative ways to include effectiveness evaluation, while at the same time realizing there will always be bureaucratic elements to contend with (e.g. elected officials who report to their constituencies, intelligence agencies with primary and contextual goals, the unobservable outcomes inherent in intelligence work). More research is needed that addresses this overarching question of evaluating the effectiveness of surveillance technology in intelligence agencies. Future work could explore how effectiveness can realistically be assessed alongside considerations of privacy issues and cost. Possibilities could include investigating how intermediaries, such as private companies or individuals, might be employed as independent third parties to

assess effectiveness. An example is the case of David Anderson Q.C. in the UK – Independent Reviewer of Terrorism Legislation – who was asked by the Home Secretary to evaluate and report to the prime minister on the effectiveness of four bulk powers.[50] The Reviewer is completely independent from the government, and has a high-level security clearance, providing access to classified information. As the title indicates, the UK Independent Reviewer's role is to review and inform on terrorism legislation, not surveillance technology per say. However, in this particular report Anderson was asked to review the effectiveness of surveillance programs. A powerful element of Anderson's report is that it is designed to inform the public. It is not a classified document with only portions made public. A drawback it that it explicitly excludes considerations of proportionality. Future work could consider such an independent type review of effectiveness that includes proportionality and cost considerations. Moving the issue of effectiveness evaluation outside the government to an independent third party may help free it from some of the encumbering bureaucratic elements.

Wilson's conclusions regarding effectiveness being difficult to evaluate are, of course, applicable to all procedural government institutions, not just intelligence agencies. Wilson himself does not specifically discuss intelligence agencies. This paper has applied his discussion of bureaucracy and effectiveness directly to intelligence agencies. The realm of intelligence is often perceived as a black hole by the public and merits having a direct link made with Wilson's discussions of bureaucracy and effectiveness.

Conclusion

Evaluating the effectiveness of surveillance technology in intelligence work appears to be nearly non-existent both by the intelligence agencies themselves and by their oversight bodies. Why is this so? And why do intelligence agencies have apparently conflicting goals, and intelligence officers speak of proportionality as a goal they themselves do not address? This article began with a hypothesis that the concept of bureaucracy could shed light on these findings. To test this hypothesis, it examined several observations about bureaucracy in James Q. Wilson's book *Bureaucracy*. Applying these concepts to this larger study's previous research findings revealed that intelligence agencies have conflicting goals because the legislative bodies who direct them cannot decide which goal, among a multitude, to give priority. Effectiveness is minimally treated because intelligence agencies are procedural organizations in which outcomes are difficult to evaluate, and because both workers and managers tend toward what is easier to perform and to measure (e.g. cost and legality rather than effectiveness). Intelligence agencies being procedural organizations also means that they are difficult to oversee. Oversight bodies put rules and procedures in place regarding how to perform tasks, but they do not help in evaluating how well the job has been done. Intelligence oversight, therefore, has a fundamental problem of not assessing the effectiveness of a completed task. Lastly, politics in a democratic government play a role. Parliamentary bodies represent constituencies with various and opposing views and therefore cannot arrive at a consensus regarding which goal should be given priority. Further, a democracy must carry out certain tasks, including conducting surveillance. The public demands that it does so effectively, at low cost, while protecting privacy. Being beholden to meet these conflicting demands is a result of operating in a democracy.

The current status of evaluation and lack of evaluation of the effectiveness of surveillance technology will likely continue as the status quo. Democratic bureaucracy will continue to be in deadlock over which goals take priority, oversight bodies will persist in avoiding the difficult task of assessing effectiveness, as well as in avoiding making trade-offs, workers and managers of intelligence agencies will continue tending towards the more easily measured elements of cost and legality, and security will remain as a primary goal of intelligence agencies while proportionality remains contextual. The necessity of making a trade-off and of not being able to simultaneously address all three elements of overall effectiveness will remain. These are the fetters of bureaucracy.

This is not to say that all is hopeless static. There are perhaps certain adjustments or changes that could be made to improve or make possible evaluations of effectiveness, which future research could explore. However, it should be done knowing that intelligence agencies operate in a democracy, and that, therefore, certain elements of bureaucracy are at play, which cannot be altered.

Notes

1 Cayford and Pieters, "Effectiveness of Surveillance Technology"; and Cayford et al., "Plots, Murders, and Money."
2 Cayford and Pieters, "Effectiveness of Surveillance Technology."
3 Wilson, *Bureaucracy*.
4 Greenwald, *No Place to Hide*; Berghel, "Through the PRISM Darkly"; Morgan, "Security Vs. Liberty"; Monahan, "Built to Lie"; and Bigo et al., "National Programmes for Mass Surveillance."
5 Regan and Monahan, "Beyond Counterterrorism"; and Monahan and Palmer, "Politics of DHS Fusion Centers."
6 Ford, "Intelligence Demands in a Democratic State"; Ott, "Decline of Intelligence Oversight"; Zegart and Quinn, "Congressional Intelligence Oversight"; and Dietrich, "Blind Guardians and Blunt Swords."
7 Lum et al., "Counter-Terrorism Evaluation Research"; van Dongen, "Break It Down", *The Science of Fighting Terrorism*; van Um and Pisoiu, "Effective Counterterrorism"; and Jonas and Harper, "Role of Predictive Data Mining."
8 Lingel et al., 2012; Willis et al., 2010; and Tsvetovat and Carley, 2006.
9 Stewart and Mueller, "Airline Passenger Security Screening"; and Mueller and Stewart, *Terror, Security, and Money*.
10 See note 1 above.
11 See note 2 above.
12 Cayford et al., "Plots, Murders, and Money."
13 Cayford et al., 2019.
14 See note 3 above.
15 Nivola, "Learning from James Q. Wilson."
16 Wilson, *Bureaucracy*, 26.
17 Ibid, 32.
18 Ibid.
19 Ibid, 33.
20 Ibid, 42.
21 Ibid.
22 Ibid, 129.
23 Ibid., 125.
24 Ibid., 115.
25 Ibid., 131.
26 Ibid, 132. Wilson speaks of *efficiency*. Although *efficiency* and *effectiveness* have two different meanings, in this context effectiveness could be used in place of efficiency. That is, it is easier to judge matters of fairness (every student getting the same textbook) than to judge whether the education system is effective in educating students.
27 Ibid, 133.
28 Ibid., 164.
29 Ibid.
30 Ibid., 363.
31 Ibid., 364.
32 Ibid., 376.
33 Ibid., 181.
34 Ibid., 376.
35 Ibid., 133.
36 e.g. Greenwald, *No Place to Hide*; Bergen et al., *NSA's Bulk Surveillance Programs*; and Berghel, "Through the PRISM Darkly."
37 See note 2 above.
38 See note 12 above.
39 Wilson, *Bureaucracy*, 245–6.
40 See note 12 above.
41 Christensen and Lodge, "Accountability, Transparency and Societal Security."
42 Wilson, *Bureaucracy*, 130.
43 See note 12 above.

44 Wilson, *Bureaucracy*, 298.
45 See note 12 above.
46 Aizenman and Ito, "Trilemma Policy Convergence Patterns"; and Obstfeld et al., *The Trilemma in History*.
47 Steenhuisen, *Competing Public Values*.
48 de Graaf and van der Wal, "Managing Conflicting Public Values," 625.
49 de Graaf et al., "Coping with Public Value Conflicts."
50 Anderson, "Report of the Bulk Powers Review."

Disclosure statement

No potential conflict of interest was reported by the authors.

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