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**Policy Goals, Political Reality, and IT Problems: The Influence of
Politics and Policy-making on the Launch of Healthcare.gov**

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Abstract

Policy Goals, Political Reality, and IT Problems: The Influence of Politics and Policy-making on the Launch of Healthcare.gov

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Successfully designing and delivering a large-scale information technology (IT) system to meet new organizational objectives is a difficult undertaking in any context. The failure of the federally-facilitated online health insurance exchanges – known most commonly by their website address Healthcare.gov – to properly function when they opened for operations in 2013 provides a case study in how politics and policy-making can uniquely complicate IT projects in the public sector. Analysis reveals several instances where the legislative and regulatory process contributed to the project’s initial failure: from the project’s inception, elected representatives oversold the familiarity and simplicity of the site; statutory and regulatory law amplified the underlying technological complexity of the exchanges; partisan tensions extended the uncertainties around project scope until much too late in the process; legal and political concerns for maintaining stated delivery deadlines came at the cost of adequate testing and site functionality when it first opened; and the team appointed to oversee the project was more sensitive to political challenges than technological ones. Based on these findings, several

recommendations are provided to help future representatives and government administrators minimize the negative toll that politics and policy-making can exact on a public sector IT project's success. These include actively managing expectations, increasing information flow, simplifying functionality, providing fluid but reasonable delivery timelines, and appointing independent and technically savvy project leadership. Using Healthcare.gov as a case study on the effects politics and policy can have on developing IT systems can better prepare legislators and the public for future challenges of developing and implementing technology solutions in the public sector.

Table of Contents

INTRODUCTION	1
Healthcare.gov and the Dilemma of Policy and Technology	1
Policy Goals and Technology Problems	2
Research Scope and Purpose	5
POLICY GOALS, PRECEDENTS, AND ANALOGUES	7
Policy Goals	8
Massachusetts Health Connector and Other Exchange Precedents	11
“Travelocity For Health Insurance”	15
FINAL LEGISLATION, GUIDANCE, AND IT REQUIREMENTS	18
State-Based Model	18
Timeline	21
Insurers and Qualified Health Plans	23
Eligibility, Enrollment, and Expectations	25
THE FOURTH P: POLITICAL EFFECTS ON THE PEOPLE, PROCESS, AND PRODUCT OF HEALTHCARE.GOV	32
People.....	33
Process	37
Product	39
ANALYSIS AND RECOMMENDATIONS	41
CONCLUSION	48
WORKS CITED	50

INTRODUCTION

Healthcare.gov and the Dilemma of Policy and Technology

On October 1st, 2013 Healthcare.gov, the website for the federally-facilitated state health insurance exchanges, was formally opened for public use. Eligible citizens would now be able to access an online marketplace and search for, compare, and enroll in their state's Medicaid program or other private, and possibly subsidized, health insurance plans of their choice. Yet three years after the 2010 Patient Protection and Affordable Care Act (ACA) authorized establishment of the health insurance exchanges, the site's inaugural users encountered errors almost immediately. Only 36,000 of the 3.72 million unique visitors who attempted to register on the site completed enrollment in a plan in the first week (Pierce). The rest were met with long wait times, system outages, and error messages (Ford).

For an online platform that cost over \$400 million, had three years to be designed and built, was a signature component of an expansive new government social program, and had been marketed as a simple one-stop-shop for purchasing health insurance online, the very public failures of go-live led many observers to question what happened and who was to blame (Pear et al.). Was the scope of work beyond the abilities of the private contractors hired to build the underlying information technology (IT) systems critical to the site's functionality? Had government administrators at the Department of Health and Human Services (HHS) and Centers for Medicare and Medicaid Services (CMS) – the department and its operating division charged with oversight of the exchanges – managed the project poorly? Or had the vociferous politicking for and against the original health care legislation obfuscated the strategic and operational challenges of designing and implementing a complex IT platform?

No easy answer remains. Several states that had elected to build and manage their own health insurance marketplace, including Kentucky, California, Rhode Island, and Connecticut, among others, delivered online portals that met the operational goals of enrolling eligible citizens in their state (Vestal and Ollove). Others, including Maryland, Massachusetts, Nevada, and Oregon opened their state-based exchanges with many of the same enrollment errors that first plagued Healthcare.gov (Haberhorn and Cheney). Meanwhile, just two months after Healthcare.gov's troubled debut, administrators at CMS were able to work with their contractors to decrease the frequency of errors and crashes in the enrollment portal from 57 percent to just 10 percent of the time (Somashkhar and Sun). By April, over 5 million people were able to use the website to enroll in Medicaid or other private health insurance plan (Ornstein). Almost a year later, a second round of open enrollment through Healthcare.gov launched relatively successfully (Pear). Given these diverse outcomes, the more pragmatic question for concerned citizens, bureaucrats, and elected officials was whether the failure of Healthcare.gov's launch was one of politics and policy and not just project management and implementation.

Policy Goals and Technology Problems

The varying successes and failures of developing and deploying the health insurance exchanges at the federal and state level illustrate both the opportunities and challenges of implementing IT solutions in public policy. When a system works as intended, policy goals such as enrolling individuals in health insurance plans and reducing the rate of uninsured citizens can be addressed through a technology that can be accessed from almost anywhere. When the system fails, lawmakers, administrators, and

contractors must scramble to troubleshoot a complex network of data and code while agitated citizens, political opponents, and the media are left to question whether or how tax dollars were squandered in building a website that did not at first function as promised.

This politicized atmosphere is obvious yet easy to overlook. For a private corporation, the differences between success and failure in releasing a functional technology may hinge on delaying the go-live date, adding personnel to the project team, or additional systems testing to troubleshoot potential errors. At worst, the fallout is limited to shareholders, employees, and potential customers.

In the public sector, however, where tax dollars are used to finance the development and management of the technology, everyone becomes a stakeholder regardless of whether they use the final product. Even when a portal works the majority of the time, political opponents could still highlight the initial errors to discredit the larger law. Lawmakers might be more apt to make bold pronouncements about a given technology to win public support of the law that uses it. They might also ignore the practical challenges of actually developing and building that technology for mass public use. Equally problematic, policy makers might assume that just because a given technology has worked as a public or private sector solution in one specific context, it can then be adapted, repurposed, and replicated to meet unique policy goals in another one.

The challenges of developing the federally-facilitated health insurance exchanges are not unique. Indeed, the experience embodies many debates on the capabilities of government, public sector contracting, and IT project management in general. In 2013 the United States federal government awarded nearly \$461.9 billion to prime contractors for various goods and services (General Services Administration). Historical data and other evidence suggest that state and local government agencies are not far behind in the

aggregate amount spent on private contractors (Kettl 16; Enchautegui et al.). Moreover, as early as 1992, reports indicated that government expenditures on IT contracts in the United States accounted for more than 50 percent of overall government spending (Globerman and Vining 578). As more and more information is stored, processed, and shared electronically, IT increasingly serves as the backbone for many government functions, making its successful implementation critical to the day-to-day operations of the public sector.

The role of IT in public policy is here to stay. Yet, IT project success is incredibly uncertain. A 2012 survey found that only 39 percent of all IT projects were successful in being on time, on budget, and having the required features and functions. Another 43 percent were at least late, over budget, or did not meet the required scope. The remaining 18 percent were described as failures, having been cancelled prior to completion or never used at all (Standish Group International 1).

Given these low success rates, the flawed outcomes when rolling out Healthcare.gov become less surprising. The project exhibited a high degree of task complexity, had low contestability of qualified vendors, and required highly specific and dedicated resources, including time, money, and human capital. Put another way, the exchange was technically difficult to build, not many people or contractors were capable of building it, and it required large amounts of sunk financial, labor, and temporal investments to deliver (Globerman and Vining 582). Political concerns aside, these features made successfully building the federal healthcare exchange a challenging endeavor from the outset of passing the Affordable Care Act. Adding political context back to the equation, the launch of the online exchanges built by the federal government becomes all the more interesting. The standard IT project management concerns aside,

how did politics and the policy-making process affect the success or failure of meeting the go-live date for a functional online health exchange?

Research Scope and Purpose

This report intends to explore whether and how politics and the policy-making process affected the development and rollout of the federally-facilitated online health insurance exchanges. That is, where were the gaps between how lawmakers conceived of the healthcare exchanges and made decisions regarding their policy goals while possibly ignoring or complicating the practical requirements of building the exchanges themselves in the process? By examining the political environment, policy choices, and project execution of the federal government, concerned citizens, lawmakers, contractors, and administrators might draw lessons on the divide between policy-making and policy implementation whenever the application or development of IT systems are involved.

Listed below are several questions this report will break apart and address. Each captures a component of the politics and process involved in developing the online health exchange.

1. What were the stated policy goals for the exchange?
2. What were the precedents and analogues for an online exchange both in the public and private sector?
3. As written in the final legislation and subsequent policy guidance, what would the exchange be required to do?
4. What was the timeline for project execution?
5. Who were the personnel in charge of managing delivery of the exchange?
6. What was the expected scope and potential number of users for Healthcare.gov?
7. Which features and functions complicated delivery of a functional website?

In sum, these questions should provide a broad survey of where politics and policy might have complicated the development of Healthcare.gov. They should also offer some

guidance for future policy makers considering how IT can be applied to achieve certain policy goals. If some of the classical IT mistakes can be considered as a function of people, process, product, and technology, then this report will examine how politics and policy-making further complicated these dimensions (McConnell Ch. 3-3).

Politics and policy decisions are amorphous. A politician might say one thing to gain public support all the while intending do just the opposite. Less insincerely but just as impactful, they might vote for and work to support a law that they publicly championed without fully knowing whether that law will have its intended consequences. The impact of an administrative choice can be just as ambiguous: it is very hard to prove that one decision on budget, personnel, or timelines, for example, could have a given effect on a law's implementation several months later.

That said, insofar as political context and policy decisions can be observed, compared, and documented, it is worthwhile to note their role on the final delivery of policy implementation even if the relationship is only circumstantial and not causal. If politics and policy-making are responsible for which laws get passed and how they are administered, then, at some level, they should also be held responsible for how they are manifested in various mediums, IT included. Given that this report focuses only on the development and rollout of an IT solution in the public sector, it might be possible to pinpoint at least some of the complications that politicking can have on developing IT systems for government in the future.

POLICY GOALS, PRECEDENTS, AND ANALOGUES

Understanding the origins, analogues, and evolution of Healthcare.gov is critical to discerning to what degree politics and the policy-making process influenced the site's final development and rollout. Government programs like an online health insurance market are born out of a series of ideas about addressing a particular problem. Often times, those ideas enter the conversation based on their efficacy in another context, the idea being that if it works in one scenario it might work in the other. The intersection of new ideas with competing ideologies and interests during the legislative process further shapes those ideas before being finally, if ever, committed to law. Interpreting, executing, and lastly realizing the written legislation then becomes another exercise in negotiation and planning.

For Healthcare.gov, the evolution from ideas to law, law to an online health insurance exchange had three effects on how the website would be realized. First, it defined which policy goals would be achieved through the creation of an online health insurance marketplace. Second, it shaped how elected representatives would view and sell the very idea of an online exchange to the public. The marketplaces were likened to other e-commerce marketplaces like Travelocity or Expedia as if building and using a website for airline tickets would serve as a useful analogue for purchasing health insurance (Shirky). Third, the fact that Massachusetts had previously implemented a health exchange of its own was touted as a model for the rest of country, despite that model being much smaller in scale and varied in its scope and requirements. Combined, these policy goals, precedents, and analogues would set expectations for how Healthcare.gov would function while in many ways ignoring the actual practicalities of designing and building it.

Policy Goals

In 2009, the Democratic Party controlled the White House as well as both houses of Congress, including a filibuster proof majority in the Senate. Seeking to capitalize on their unified government and the relatively limited opportunity for Republican opposition, they sought to pass legislation that had long eluded them: comprehensive health care reform that would begin to address access to, quality, and costs of health care across America. Common among many of the ideas and initiatives proposed during that time was the creation of health insurance exchanges.

These exchanges would function as organized and regulated marketplaces where individuals or small businesses could purchase health insurance. Creating the exchanges would help realize a number of policy goals. First, it would act as a hub of competition amongst health insurance companies that would increase transparency and information about plan options and enable interested customers to more readily search for, compare, and select amongst a number of plans listed on the exchange (Jost). That increase in competition among health plans would in turn make health insurance cheaper and more accessible (Enthoven, “Building a Health Marketplace”). Second, creating an easily accessible exchange with a sufficient number of users would increase the size and diversity of the enrollee risk pool. A larger risk pool could reduce the risk of insurers cherry picking amongst the healthiest individuals and the risk of only the sickest individuals actually purchasing coverage. Third, the exchange would further reduce insurance costs by simplifying the marketing of plans and reducing risk-based underwriting because of the larger risk pools. Fourth, it would allow the government to introduce more regulatory measures to improve the quality of plans and accountability of insurers competing on the exchange. Lastly, the exchange could possibly serve as a

channel to execute other features of health care reform such as expanding Medicaid and the Children's Health Insurance Program (CHIP), providing premium subsidies for low-income individuals, or enforcing individual or employer mandates requiring coverage (Jost).

For the purposes of building an exchange, three features demand some consideration from an IT perspective. First, the exchange must be able to handle large volumes of users if it is to sufficiently function as a viable mechanism for increasing the enrollee risk pool. Second, users of the exchange would not be a homogenous group. Instead, they would be very diverse in terms of their risk profile and eligibility for premium subsidies based on income. The combination of scale and diversity would make the possible combinations of user options to account for exponentially more complex. This complexity is increased when one considers the third feature: allowing for a back-end portal by which insurers could enter their qualified plans on the market and thereby sell them to users according to their eligibility for certain plans.

Noting the complexity of these features early on is important as the early debates on the exchange scope and administration would eventually inform the final legislation, policy, and system requirements. Among these debates was whether an individual mandate should exist that would compel almost all citizens not already insured to sign up for health insurance or be subject to a tax or fine. The amount of that penalty, along with determinations on income thresholds for premium subsidies and Medicaid and CHIP eligibility, would affect the number and constitution of people accessing the exchange.

A second debate on the size and administration of the exchange would also have critical affects on what the final exchange – or exchanges – would look like. A version of the health law in the House established a national exchange that would then allow states to opt out and establish one themselves. Conversely, the version in the Senate would

require states to establish exchanges on their own or default to having their exchange run by the federal government (Rovner). Whichever model was adopted would have implications for both the total number of exchanges in the country, their size, and the responsibilities of their governing bodies.

In both the House and Senate versions, whichever body established the exchange – be it the states or the federal government – would be fully responsible for their marketplace’s “eligibility and enrollment; plan management; consumer assistance, outreach, and education; and financial management” (Dash, Monahan, and Lucia). While this delegation of authority provides project management with more autonomy, it also places a greater burden on them to successfully deliver major components of the final exchange. The coordination and effort required to build the eligibility and enrollment and plan management features alone would be immense. The final system would need to network with a host of other databases to verify an individual’s income against national and state qualifications for Medicaid or premium subsidies and then display plans that were appropriate for them.

These were not the only debates that affected the final legislation and requirements for the exchange (Jost). However, there is already some evidence to suggest how seemingly straightforward policy goals – expanding access to and creating more competition within the health insurance market – can impose greater complexity on an IT system as additional technical requirements are added in order to realize them.

Despite, or possibly because of, this complexity, policy makers often pointed to some precedents and analogues that could demonstrate how such a system would work if successfully developed. It is worth reviewing a few of these to see if those comparisons were apt or whether they provided a false sense of confidence in what could be delivered.

Massachusetts Health Connector and Other Exchange Precedents

The model for what became Healthcare.gov was born out of previously regulated group markets for purchasing healthcare at both the federal and state level. The concept of “managed competition” itself dates back to the 1970’s. In the 1990’s, initiatives for purchasing cooperatives with policy goals very similar to modern health care exchanges were pushed via legislation and adopted by American businesses and community groups (Enthoven “History and Principles” 29). The long-running Federal Employees Health Benefits Program and the California Public Employees’ Retirement System even had online tools to allow users to compare available plans (Jost).

Still, the precedent most often cited when discussing what the proposed exchanges would do and look like was the Massachusetts Health Connector. As such, it is worth examining to understand what, if any, applications it had for the development of the online enrollment functions being discussed as part of the new exchanges.

In April 2006, under the leadership of a Republican governor and Democratic legislature, Massachusetts passed comprehensive health care reform that, among other initiatives, established the Massachusetts Health Connector, a new online marketplace for purchasing and selling subsidized and unsubsidized private health insurance to individuals not otherwise qualified for the state’s expanded public health insurance programs. To help ensure the economic viability of the exchange, the state also adopted an individual mandate (KFF “Massachusetts Health Care Reform”). The new online marketplace would have to have an informational and interactive website that enabled users to browse and purchase appropriate health insurance coverage; offer affordable insurance plans from six insurers that met the state’s minimum standards for coverage,

value and quality; and have a functional customer service center for enrolling and billing users selecting plans through the exchange.

Upon passage of the law, the governing body for the exchange – the Commonwealth Health Insurance Connector Authority – spent months preparing the requirements for the online exchange while also conducting outreach, negotiating with insurers, and establishing and enrolling individuals in its expanded state-run insurance programs. By December 2006, nearly 9 months after the law was passed, the technology firm CSC had been selected to serve as a full-service business and technology solutions provider and commenced work on the project (CSC).

Working towards an ambitious May 2007 deadline set by the Connector Authority, CSC worked closely with a state team to build a functional website that would incorporate the concerns and interests of some of the project’s largest stakeholders: payers, providers, brokers, the public, employers, and consumer advocacy groups (DeBor and Turisco). In so doing, they had to narrowly define the essential functionality of the website to ensure that it was successful at go-live. This included:

1. Providing information on health insurance requirements and the Connector in general, access to printable forms such as waivers and exemption requests for the individual mandate, and a “Frequently Asked Questions” section
2. The ability to search for an insurance plan customized according to age and region, plan type (by amount of premium, deductibles, and co-pay amount), and a COBRA continuation of coverage option
3. Allowing users to select and compare up to three health plans side-by-side with additional details like whether mental health or vision were covered
4. Enabling users to enroll in a plan online (DeBor and Turisco 5)

The limited five month timeframe for launching the website necessitated the prioritization of these features as essential upon go-live. Other features critical to both the user experience and effectiveness of the exchange were left out. This included the ability to pay for premiums online or enroll in an automated billing service that deducted

premium costs from their bank account (DeBor and Turisco 4). Instead, customers would have to mail in a check or call the customer service center to complete their purchase of a plan after enrollment. Though the payment and billing is integrated into the website's functionality now, at the time the impact was minimal: in a 2009 interview, the CIO of the Massachusetts Health Connector, Bob Nevins, noted that nearly 80 percent of users were still using the website to make their purchases instead of calling the customer service center (DeBor and Turisco 5).

Compared to what was expected for the new exchanges established under the ACA, the Massachusetts Health Connector was much more limited in its front-end and back-end functionality. Specifically, the state maintained separate enrollment and eligibility determinations for its publicly run insurance programs and the new subsidized and unsubsidized plans available through the Health Connector. Doing so avoided having to coordinate between the state Medicaid agency and the exchange to ensure individuals were signing up for the appropriate insurance plan. This noticeably differs from the ACAs requirement that online exchanges have a 'no wrong door' system whereby users are electronically directed to whichever program they are eligible for regardless of which portal or webpage they started from (KFF "Massachusetts Health Care Reform"). Moreover, the Health Connector's eligibility determinations utilized existing state data sources without having to interface with other federal networks (Urff).

Though a pioneering and innovative program, it is important to note the scale and market size for the Massachusetts Health Connector. In 2006, a relatively low 10.9 percent - or 70,1654 - of Massachusetts 6,437,193 residents were uninsured (KFF "Massachusetts Health Care Reform" and United States Census). By comparison, right before the health care exchanges created under the ACA were set to go live in 2012, nearly 48 million Americans lacked health insurance (United States Census and KFF

“Massachusetts Health Care Reform”). The Massachusetts Health Connector thus demonstrated only that a minimal exchange could be set up in a given time but perhaps not with the scale or capacity required for a national rollout.

Noted the conservative leaning Heritage Foundation upon passage of Massachusetts health reform in 2006:

The plan enacted by the Massachusetts legislature and signed by the governor is not a program that can simply be replicated in other states. The political, economic, and social conditions of the states vary greatly, as do their patterns of health care delivery, including the number of uninsured, the pattern of health care costs, the ratio of public- private health care coverage, and the level of regulation and government control over the system (Moffit and Owcharenko).

To be sure, the authors here were commenting generally on the applicability of all of Massachusetts’s reforms to other states and not specifically on the functionality of the online exchange itself; however, the observation is still noteworthy for how it encompasses some of the salient characteristics that make replicating and scaling an IT project difficult in the public sector. This includes the political context surrounding support for the program and how its most public facing functions – in this case the online enrollment website – would be received; as it was established with bi-partisan support, neither party had an incentive to politicize the website’s successes or failures. Also, the number of people expected to access the site was vastly smaller for Massachusetts Connect than it would be for a site like Healthcare.gov. In 2008, Massachusetts Connect could support a peak demand of 80 concurrent page views per second (CSC). By comparison, on the day before it was set launch for open enrollment, Healthcare.gov could only handle 1,100 of the expected 50,000 to 60,000 concurrent users before suffering delayed response times. That is to say nothing of the nearly 250,000 simultaneous users that had actually accessed the site the next day and led to the site failures described at the beginning of this report (Johnson). Nor does the scaling of users

account for the increased volume of information being channeled from the users to other federal and state databases required for a ‘no wrong door’ experience.

Noting the differences between the Massachusetts Health Connector and the federal and state exchanges established under the ACA is not intended to discredit any successes of the Massachusetts experience or suggest that other governments could not replicate it. Instead, because of the differences in scale, political context, and functionality it serves as a lesson in assuming that because an IT solution worked in one scenario it will work in another. Indeed, staff at the primary contractor CSC noted in 2008 that “scalability and expandability should be high priorities” moving forward as more users access the system and additional features are added (DeBor and Turisco 7). Though written two years before the ACA passed, it was a prescient observation: when the Massachusetts Health Connector re-launched on October 1, 2013 with the expanded enrollment and eligibility functionality required by the ACA, users began experiencing many of the same chronic failures and freezes that had characterized the rollout of Healthcare.gov (Kliff). What was once a model for champions of the online health insurance exchange had in some ways become a victim of its own success.

“Travelocity For Health Insurance”

A popular refrain heard when explaining how the online health insurance exchanges would function was that it would be like buying airplane tickets online. A piece written in early 2013 advised readers to think of Orbitz and Expedia when conceptualizing the “feel” of the site (Associate Press). On October 1, 2013, the day the exchanges opened for enrollment, President Barack Obama himself remarked “Just visit HealthCare.gov, and there you can compare insurance plans, side by side, the same way

you'd shop for a plane ticket on Kayak" (Shirky). Even the executive director of the Commonwealth Health Insurance Connector Authority, Jon Kingsdale, boasted in early 2010, "We're a little bit like Travelocity for health insurance" (Rovner).

Using Travelocity as just one example, it is worth examining how well these comparisons hold up. Sabre Interactive, a division of the AMR Corporation, started Travelocity in 1996 as a research and development project. At that time, the AMR Corporation also owned American Airlines as well as its own proprietary reservations system. Travelocity's management leveraged these internal networks and their accumulated staff experience to develop its new IT platform with only a small team in a short timeframe (Gast). Despite that relative ease, Terry Jones, the company's founder and now chairman of Kayak, has noted the technological, financial, managerial, stakeholder, and user-experience hurdles the company had to overcome before becoming a recognized success (O'Neil).

These challenges were not unique. Rich Barton, the founder of rival Expedia and also the real estate listing site Zillow, recalled the similarities between launching Zillow in 2005 and Healthcare.gov today: "Launching anything that gets 3 million-plus visitors on the first day is really hard...The day we launched Zillow, about that many people all tried to come to the site at once, and we crashed for like 18 hours" (Maney). Given the success of Expedia at that time, one might expect its founder to manage the launch of a similar website for real estate without hitch. And because of Zillow's achievements today – it gets 60 million unique visitors a month – that initial failure is looked at as “badge of honor” and testament to the sites popularity (Maney). No matter how successful and error-free the exchanges might become, it would be hard to imagine anyone appointing any complements to its initial start.

On its own, drawing analogies between an unprecedented government IT initiative and a commonly used commercial website is fairly innocuous. After all, the concept of Healthcare.gov and the other state-based exchanges had to be explained to the public somehow. Yet given the regulatory and IT complexity of the exchanges, simplifying it too much has obvious risks. After months of hype, it might lead end users to expect that same level of functionality and consistency when they finally use the system. Equally problematic from a managerial perspective, it might blind the lawmakers using such comparisons from the reality of what is actually being built. That President Obama championed the online travel retailer comparison the very day Healthcare.gov was set to open – known website flaws and all – provides some evidence that this delusion is real. Moreover, because a public sector IT project like Healthcare.gov is necessarily the result of the political process and is intended to operate in the service of a greater public good, its perceived success or failure may owe more to political rhetoric than the actual functionality of the project itself. For this reason, comparisons to successful private sector initiatives – no matter how simple, well intentioned, or pedantic – might hurt the project's delivery more than help it.

FINAL LEGISLATION, GUIDANCE, AND IT REQUIREMENTS

President Obama signed the Patient Protection and Affordable Care Act on March 23, 2010 (Smith). After over a year of legislative and public debate, the creation of the healthcare exchanges was now codified into law. Far from determining the oversight, functionality, and design of the exchanges, however, the law provided only a legal basis for their existence, goals, funding, and subsequent regulatory guidance by the Secretary of Health and Human Services. Such broad parameters can allow flexibility in achieving a final and functioning project but also drive complexity by introducing more variability in what that functionality will look like. Reviewing some of the legal parameters as well as subsequent guidance is useful in comprehending the scale of what the IT system serving as the backbone for the exchange would have to accomplish and by when.

State-Based Model

As written, the ACA vision for the exchanges aligns most closely with the state-based governance model proposed in the Senate version of the bill. With the support of federal planning and establishments grants, the law directs states to demonstrate progress towards establishing a functional exchange within a then undetermined timeframe. The legislation explicitly refers to the state's responsibility in adhering to the guidelines for the exchange set forth in the law and subsequent regulations at numerous points throughout the legislation. Should the Secretary of Health and Human Services determine that a state has failed to build an exchange with the required functionality or failed to exhibit sufficient progress towards doing so, the ACA permits the federal government to "establish and operate such Exchange within the State and...take such actions as are necessary to implement such other requirements" (Patient Protection and Affordable Care

Act §1321.c.1.B). Thus if the states failed to execute the federal government's requirements for the exchange, the federal government could step in, build, and run the exchange for them.

Conversely, a system whereby the Federal government leads the establishment of the exchanges and allows states to opt-in would provide more centralized control of the project from the very outset. In many respects, this is what the House version of the bill would have facilitated. During the debate between the two models, the law professor Timothy Jost observed:

It [the Senate version] seems to me to be a much more complicated process that has a lot more room for failure and, frankly, I think a lot less accountability...Because if the state fails to do it, then the federal government is supposed to step in, but I think it's going to be difficult for the federal government to step in — to say to a state, 'You failed; we're taking over' (Rovner).

Put another way, the enacted legislation for the exchanges proposes a hub and spoke model for delivering the final projects that presupposes that the spokes — i.e. the states — would be willing and capable partners. While such an agreement would seemingly place the burden of establishing the exchanges on the individual states and incentivizes them to do so through the availability of federal funds, it also requires the federal government to be prepared in the event that a state fails or elects not to build the exchange themselves.

Jost was not the only observer concerned about the managerial and procedural implications of the state-based model for building the exchanges. Writing in July 2013 about the ongoing implementation challenges of the ACA, economist Alice Rivlin noted:

Federalism complicates...[the] creation of the exchanges, which are the heart of the ACA. It would have been simpler to put the federal government in charge of creating exchanges — indeed, that was an early plan. However, insurance is regulated at the State level and varies greatly across the country, so states had to be heavily involved in any case, and some wanted to set up their own exchanges (Implementing the Affordable Care Act).

While Rivlin shares with Jost a similarly favorable opinion of the federally administered exchanges offered in the House version, she also provides a pragmatic political and policy rationale for why the states were eventually charged with building the exchanges: the Federalist relationship for delineating power between the states and federal government had previously provided states with broad regulatory authority over their insurance markets. For both political reasons – namely winning the support of some states for the ACA – and policy reasons – like acknowledging the regional nuances of insurance markets – it made sense at the time to charge the states with leading the creation of their own exchanges.

This analysis does not intend to judge those decisions as poor or misguided. Indeed, without being witness to the legislative negotiations in 2010 between the House, Senate, White House, state governors, and lobbyists, it is impossible to know exactly why the Senate version for state-run exchanges emerged more intact in the reconciliation process of the two bills. Moreover, it is important to reiterate that some states have had very successful exchanges and reported minimal errors when they opened their exchanges for the first open enrollment period. Even the project team for Healthcare.gov was eventually able to resolve many of the initial problems that plagued the site's first month.

Still, political and policy decisions can have long-term consequences on the IT systems that are designed to execute them. In this case, because the ACA legislation gave states so much control over creating their own exchanges early on, it would inadvertently affect the scope, complexity, and timelines for successfully delivering what would become the federally-facilitated exchanges operating through Healthcare.gov on time, on budget, and with the expected functionality.

As numerous states proved incapable or unwilling to build their own exchanges, the federal government had to step in and create them for the states. This expanded the breadth of work CMS and its contractors were responsible for. It also added to the complexity of the project by requiring increased data and systems integration with state insurance agencies and insurance companies. The combination of building more federally-facilitated exchanges than anticipated along with the associated complexity of coordinating information between states would greatly stress the ability of the federal government to meet the original legislative deadlines set forth in the ACA for having each exchange – and consequently Healthcare.gov – fully operational.

Timeline

The failure of Healthcare.gov to fulfill its goals of enrolling people beginning October 1, 2013 is a metric many observers have used to judge the success of the federally-facilitated exchanges. That it took two more months for the site to achieve some measure of operability speaks to the potential optimism or naiveté of the timeline set forth in the legislation and subsequent guidance. If being delivered on time is in fact one measure of project success, then it is worth reviewing the timelines established and any rationale for choosing them.

Section 1311(b)(1) of the ACA mandates that states establish a functional exchange by January 1, 2014. Per Section 1321(c), the federal government may establish an exchange for the states should they prove incapable – or unwilling as the case was – of doing so themselves. Section 1501(d) dictates that the individual mandate provisions requiring most individuals to be enrolled in some sort of basic health plan begin the first day of 2014 as well.

Insurance companies generally require 15 days to process new enrollees before starting their coverage (Alonso-Zaldivar). To accommodate this delay and ensure that individuals seeking coverage through the exchange would have coverage by the start of 2014, the exchanges would have to be functioning for an open enrollment period that began much earlier than January 1, 2014.

Notably, the ACA itself does not mandate the beginning of open enrollment. Instead, under section 1311(c)(6)(a), by July 1, 2012, the HHS Secretary is directed to have established a date for the initial open enrollment to commence. On July 15, 2011, nearly one year before this deadline, HHS proposed the October 1, 2013 date that was eventually adopted ("Election To Operate an Exchange After 2014, Proposed Rule"). In its final guidance issued on March of 2012, HHS notes that almost all commentators supported the October 1st launch, with only one state agency suggesting "it was unrealistic to expect Exchanges to be operational prior to January 1, 2014, given the systems development challenges ahead" ("Establishment of Exchanges, Final Rule"). HHS held firm on the proposed date and did not acknowledge the technological challenges, instead maintaining that "individuals and families need time to explore their coverage options and QHPs [Qualified Health Plans] need time to process plan selections" ("Establishment of Exchanges, Final Rule").

The rationale for setting an open enrollment date in advance of the mandate for individual coverage appears grounded in both practical and legal concerns. Not doing so would unfairly punish the very individuals the law was trying to help get covered by forcing them to look outside the exchanges for potentially more expensive, unsubsidized plans. However, establishing the start dates for both full exchange functionality and the start of the individual mandate for many individuals within the text of the ACA itself would have a cascade effect on establishing other deadlines and limit HHS's flexibility

from the outset of the project. Individuals working on Healthcare.gov referred to the launch date as “the tyranny of the October 1 date,” underscoring their understanding that the delivery deadline was fixed despite the known difficulties in meeting it without hitch (Sun and Wilson).

Insurers and Qualified Health Plans

From a political, policy, and IT perspective, insurance companies are necessarily key stakeholders in helping realize the overall success of the exchange. In order to fulfill its policy goals of expanding coverage and introducing greater competition, a critical requirement of an exchange is to match uninsured individuals with the health plans for which they might be eligible. Importantly, it seeks to enroll individuals or families not already ensured through an employer or public benefit program like Medicare, CHIP, or Medicaid into private health plans offered by insurers operating within a state. At an operational level, participating insurers must also meet the legal and technical requirements of selling plans on the exchange.

In order to improve the quality of health insurance coverage and guarantee some measure of accountability, standardization, and security in the private coverage sold through the federally-facilitated exchange, insurance companies would only be able to offer Qualified Health Plans (QHPs) reviewed and approved by HHS in consultation with a state’s insurance regulatory body (HHS *Frequently Asked Questions on Exchanges* 3). To be certified as a Qualified Health Plan, an insurer would have to submit an electronic application for each plan specifying not only the level and costs of coverage but also compliance with the CMS guidelines for electronic transfer of information (HHS *Affordable Exchanges Guidance* 38).

Concomitant with this approval process is the planning necessary to ensure that the electronic information can be transferred quickly and securely; the plans listed are up to date; and that insurers are provided with information on those enrolling in their plans. The exchange and issuers of the QHPs would have to exchange electronic files regarding new enrollees, updates to existing enrollees, and plan cancellations at least once a day. Furthermore, the data exchange would also include information on federal cost-sharing reductions and premium tax credits whenever an individual is determined to be eligible for such a benefit. Once a month, HHS and insurers would reconcile their files electronically to detect and remedy any discrepancies in enrollee information. Though an individual who enrolls in a QHP would make their premium payments directly on the QHP issuers website, the exchange must be configured to direct the consumer to the insurance companies payment page so they can complete their purchase of coverage. Data verifying that the individual has paid their premium would then be sent back to the exchange (*HHS Affordable Exchanges Guidance* 36 - 42).

Highlighting the role of insurers and the process of approving, uploading, and exchanging information on QHPs and their enrollees should suggest the degree of coordination and complexity built into the process of creating a successful exchange. It should also demonstrate how important having accurate data is across all parties. The failure of an electronic file transfer on a new enrollee to arrive intact and on time for example has implications for both the financial operations and risk management of the insurers and also the viability of the exchange itself as a market for enrolling in health insurance. For the federal government or any entity, building just one system that can facilitate such regulated transactions would be difficult. As the case was, that difficulty increased when Healthcare.gov became the central portal for many more federally-facilitated exchanges than expected.

Eligibility, Enrollment, and Expectations

As mentioned previously, the ACA introduced a “no wrong door” policy to coordinate enrollment between Medicaid, CHIP, and the new premium tax credits and subsidies for purchasing low cost coverage through the exchanges (Families USA). As the third “door” of this program, the new exchanges – whether run by the state, federal government, or through a partnership – would have to determine the eligibility of an applicant and/ or their family member and funnel them to the appropriate portal to complete their application for coverage. Individuals or families not eligible for Medicaid or CHIP would be able to purchase a QHP through the exchange directly and use their premium tax credits or other available subsidies to do so whenever the exchange determines that they qualify based on their income. Moreover, individuals applying for coverage through the exchange must be lawful residents of the U.S. and the state they are applying and may not be felons (CRS 14-15)

The combination of guidelines for determining eligibility, enrollment, and achieving a no wrong door policy are designed to protect against fraud and abuse and guarantee that lawful individuals receive the coverage they qualify for. In an attempt to map out the three phases of exchange eligibility and enrollment into a QHP, subsidy or cost reduction program, or Medicaid or CHIP, the Congressional Research Service’s analysis of the ACA and subsequent guidance on the exchange requirements has been summarized in Table 1 below. Though it is not necessary to review each requirement individually, scanning the list in its entirety helps provide a sense for the intricacies required in designing a functional exchange.

Table 1: Eligibility and Enrollment through a Federally-Facilitated Exchange

Criteria For Determining Eligibility for Enrollment in a QHP

<p>Individual May Enroll in a QHP if:</p>	<ul style="list-style-type: none"> • Citizen, national, or noncitizen who is lawfully present in the United States • Not incarcerated, other than pending the disposition of charges • Meets applicable state residency standards
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Criteria for Determining Eligibility for Subsidies Through an Exchange

<p>Individual May Receive Payment of Premium Tax Credits (Premium Subsidies) if:</p>	<ul style="list-style-type: none"> • Meets the criteria for QHP eligibility • Not eligible for minimum essential coverage other than <ul style="list-style-type: none"> ○ through the individual health insurance market; or ○ employer-sponsored insurance that is “unaffordable” or does not provide “minimum value” • Is part of a tax-filing unit • Enrolls in a QHP offered through an exchange • Has household income that either <ul style="list-style-type: none"> ○ is between 100% and 400% Federal Poverty Line (FPL); or ○ is not greater than 100% FPL and is an alien lawfully present
<p>Individual May Receive Cost-sharing Subsidies if:</p>	<ul style="list-style-type: none"> • Meets the criteria for QHP eligibility • Meets the criteria for eligibility for advance payment of premium tax credits • Enrolls in a silver plan through an exchange • Has household income between 100% and 400% FPL

(Continued from Table 1 on previous page)

Criteria for Determining Eligibility for Medicaid or CHIP through an Exchange

Individual May Enroll in Medicaid If:	<ul style="list-style-type: none">• Meets the non-financial criteria for Medicaid for populations whose eligibility is based on modified adjusted gross income (MAGI)• Has a household income that is at or below the applicable Medicaid MAGI-based income standard• Is either a pregnant woman, under the age of 19, a parent or caretaker of a dependent child, or is under age 65 and not entitled or enrolled in Medicare Parts A or B• Adheres to state Medicaid agency’s final determination of applicant’s eligibility
Individual May Enroll in CHIP If:	<ul style="list-style-type: none">• Meets the requirements for children to enroll in CHIP• Has a household income at or below the applicable CHIP MAGI-based income standard• Adheres to state CHIP agency’s final determination of applicant’s eligibility

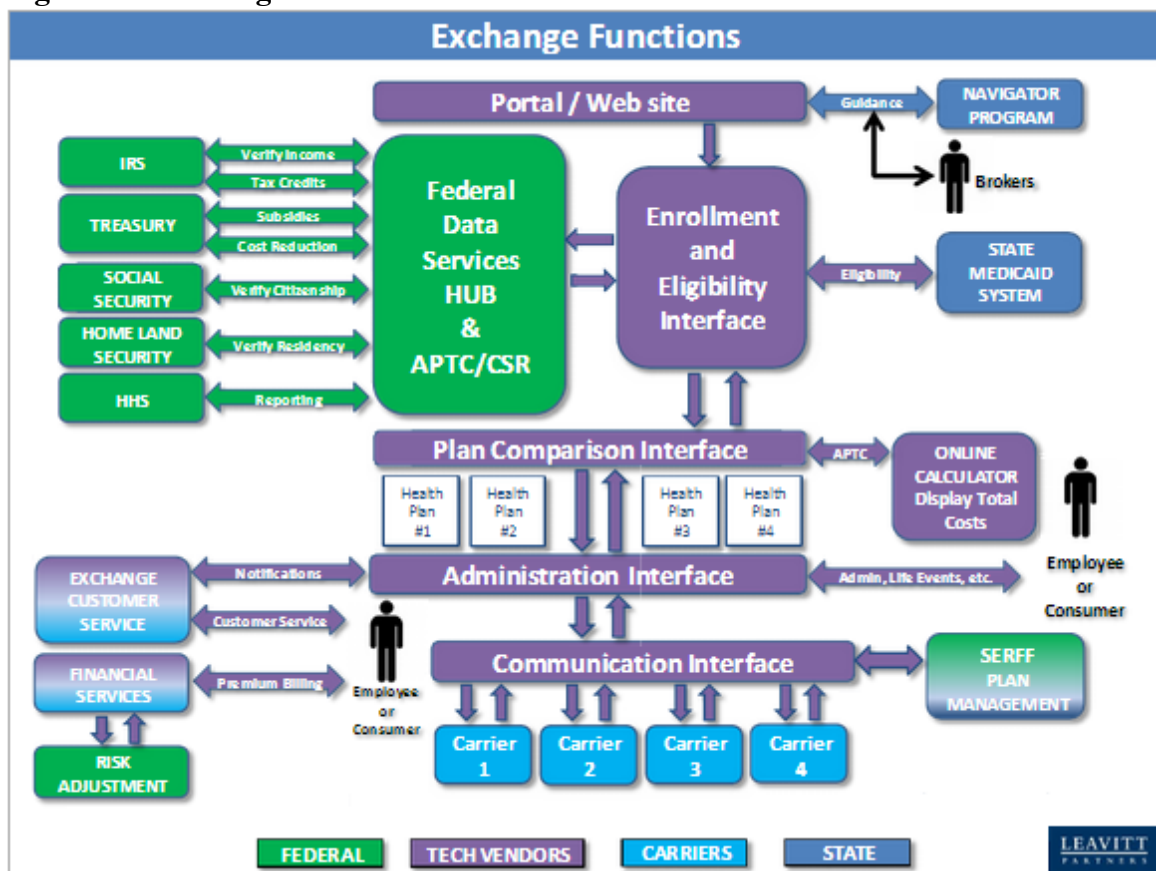
(CRS 15-19)

On their surface, these guidelines make sense politically and logistically. Stringent eligibility guidelines can limit fraud and abuse in the system and prevent individuals from unknowingly enrolling in a coverage option when they might already be covered through their employer. The no wrong door policy facilitates the ACA’s goals of expanding health insurance coverage.

Translated into functionality requirements for the exchange, however, such guidelines become much more complex by requiring the networking and integration of many previously disconnected data sources. To qualify for premium subsidies, for example, an individual must have a household income between 100 and 400 percent of the Federal Poverty Line. For an exchange to verify this it would have to securely connect with databases at the U.S. Treasury. Similarly, the requirement that applicants be

lawful residents of the United States would necessitate a secure connection with the Department of Homeland Security. Ensuring that an individual is not already covered through a government agency like the Peace Corps or Department of Veteran Affairs would require integration with those agencies' benefits systems. These requirements, among many others, represent an incredible challenge to translate law and policy into IT processes and code. They also require a great degree of coordination between various stakeholders including the federal government, states, contractors, and insurance carriers. Figure 1 illustrates the volume and diversity of interfaces required for a functional exchange:

Figure 1 – Exchange Functions



(Schuyler and Leavitt Partners)

The graphic helps convey how the public-facing website that is Healthcare.gov is in fact a gateway into an almost byzantine network of back-end transactions that eventually leads an individual without insurance to some sort of coverage option for which they are eligible. As the public, media, and most political observers only interface with Healthcare.gov, the full complexity of the online exchanges is hidden from their view.

Moreover, accounting for the full range of possible rules and exceptions in determining eligibility is itself a non-linear process. To take one example, consider the case of individuals who claim to be lawful residents but cannot be verified as such through the federal data services hub or the Department of Homeland Security. In such scenarios, the system would undertake a process to resolve the inconsistency internally and/ or possibly request additional information from the applicant. The applicant would then be enrolled in a QHP for a conditional 90 day period while the exchange undertakes electronic and manual processes to review additional information submitted by the applicant or found through existing data sources. During that time, a final determination for QHP eligibility would be made depending on what information was available across all data sources (*HHS Marketplace Faced Early Challenges* 5-6).

A large volume of inconsistencies across multiple applications would indeed stress the capabilities of the exchange in terms of IT capacity and human resources. As it were, this did occur and either the system itself or strict adherence to the eligibility guidelines would have to give. A report released by the HHS Office of the Inspector General found over 1.2 million inconsistencies pertaining to citizenship, national status, or lawful presence in the U.S. were unable to resolved (11). This was due in some part to outages in the federal data services hub, errors in the CMS eligibility hub, and the resulting backlog of switching to a manual verification process conducted by staff (*HHS Marketplace Faced Early Challenges* 15-16). While the findings do not mean that 1.2

million individuals were unlawfully enrolled in QHPs, the inability to reconcile inconsistencies in the eligibility systems represents another failure – real or perceived – of Healthcare.gov’s IT infrastructure to function as expected by lawmakers and other stakeholders.

The scale of the complexity inherent in the exchanges is partly a result of the ACA’s and CMS’s thoroughness in attempting to troubleshoot the many practical challenges of building an economically viable health insurance marketplace. It also represents the efforts to appease diverse stakeholders like citizen advocacy groups wanting a user friendly experience; insurance companies seeking updated information on individuals electing to enroll in their plans and the possible subsidies they might be using to do so; and concerned legislators seeking to eliminate fraud and inconsistency in the provision of any public benefits to unqualified or illegal U.S. residents.

The complexity is also apparent in how unique and unprecedented the technological requirements are for the exchanges. Two experts in the healthcare and insurance industry, Paul Howard and Stephen T. Parente, commented in 2011 on the uniqueness of such a large undertaking:

For the first time, secure data feeds from the Departments of Homeland Security (establishing legal immigrant or US citizen status), Justice (for felon history), Treasury (for tax return information to impute income) and the Social Security Administration (establishing that the recipient is not deceased) would have to be combined. These data feeds would then have to be securely coordinated by the Department of Health and Human Services. There is no history of these agencies ever bringing their data together at this scale. It would qualify as the largest IT integration project in U.S. history...all while seamlessly shifting millions of recipients back and forth between private insurance and public programs like Medicaid and CHIP; allocating subsidies; and collecting insurance premiums (Howard and Parente).

Appreciating the enormous challenge of building the healthcare exchanges makes clearer the effects that political and policy ambition can have on a final product. The ACA’s

aspiration for the exchanges to help reform health care markets through public and private sector mechanisms contributed to the challenges of building a functioning exchange at the federal level.

As highlighted at the onset of this report, Healthcare.gov failed to meet the expectations set forth by lawmakers, proponents of the ACA, and perhaps an anxious public that it would successfully enroll individuals and families into insurance plans for which they qualify beginning October 1, 2013. Having surveyed the inherent complexity and challenge of building the federal exchanges, however, it is reasonable to wonder if those expectations were realistic to begin with. That is not to excuse the failed launch of Healthcare.gov and the decisions that hastened that failure. The proceeding section will examine if and how politics and policy affected the actual management, process, and IT considerations of building the federally-facilitated exchange. But it is important to note how the cost of each additional eligibility guideline, enrollment process, or user-friendly feature is ultimately increased complexity in designing an IT system that can accommodate them. By appreciating the complexity of constructing an online portal to enroll individuals in a variety of public and private health insurance programs and reconsidering any expectations of complete project success, policy makers and the public might be better prepared to consider the end results of early political and policy choices in the future.

THE FOURTH P: POLITICAL EFFECTS ON THE PEOPLE, PROCESS, AND PRODUCT OF HEALTHCARE.GOV

Up to this point, this report has focused on both the political events and considerations predating passage of the ACA and the inherent complexity in building the exchanges as set forth by the legislation and subsequent guidance. In order to understand the full extent to which politics and policy decisions influenced the challenges in launching Healthcare.gov, it is also worthwhile to examine how the development of the IT itself was managed.

In his book *Rapid Development*, the software developer Steve McConnell offers a useful framework for pinpointing some of the classic mistakes organizations make in developing IT systems. Often times, he notes, the failures can be attributed to the people, process, product, or technology itself. An unorganized and unmotivated project team might be symptomatic of a failure in people. Overly optimistic delivery schedules or inadequate product testing, for example, could cause a breakdown in process. Product mistakes may relate to expanding the scope of the project or adding too many features. Lastly, a failure in the underlying technology in place relates less to its actual functionality and more to its applicability in solving the business problem for which it was initially developed or implemented (McConnell Ch. 3-3).

The specter of politics and policy decisions necessarily factors into such an analysis of the possible failure points for an IT project like Healthcare.gov. The site is, after all, the technological result of a political process. And while it might be too early to know whether there were underlying technological fallacies in selecting an online health insurance exchange to help achieve the goals of expanding coverage and reducing costs through competition, it is still possible to examine the political effects on the remaining three project pillars: people, process, and product. Were inexperienced political

appointees or incapable contractors selected to manage the development process? Did political events affect the implementation timeline? Or did ambitious policy goals or misguided politics inadvertently stress the envisioned capacity of the site? The political context for Healthcare.gov thus becomes the “fourth P.” In what follows, key decisions and events shall be explored in further detail to better understand how and if those politics and policy decisions affected the success of the people, processes, and product requirements for Healthcare.gov.

People

The management experience, technical expertise, team dynamics, and motivations of a project team can greatly influence the success of a project, even as scope is added and deadlines are tightened. The project team for Healthcare.gov broke down on two fronts. First, there are indications that political concerns clouded the authority and accountability of senior officials within the White House and CMS and constrained their responsiveness to challenges in managing the project. Moreover, the process by which private vendors were selected to help develop Healthcare.gov exposed CMS to a lot of contract risk arising from mismatched project incentives.

An earlier discussion in this report on the comparisons of Healthcare.gov to a commercial websites like Travelocity or Expedia underscored the possible misconceptions the public and policy makers had about the complexity of setting up a functioning online exchange. That disconnect is not only limited to the public pronouncements about the website. Internally, there were early concerns about the ability of the government to realize such a large and unprecedented project.

David Cutler, an outside healthcare consultant, expressed his initial reservations on HHS and CMS personnel to members of the executive branch in May 2010: “The agency is demoralized, the best people have left, IT services are antiquated, and there are fewer employees than in 1981, despite a much larger burden” (Cutler). Fresh from an incredibly prolonged and controversial legislative process that had put its very mission up for public debate, CMS was now tasked with undertaking an ambitious implementation process for which it was potentially ill prepared or incapable of.

Finding the right leadership would be critical. Yet the Obama administration ignored the advice of Cutler and others to appoint an independent health reform “czar” with demonstrated experience in business, insurance, and technology to manage the project. Instead, it is reported that he had already decided on appointing an advisor from the inner circle of health policy experts that were intimately familiar with the legislation itself and had helped in its passage (Eilperin and Goldstein). Looking back in 2013, Cutler would observe:

They were running the biggest start-up in the world, and they didn’t have anyone who had run a start-up, or even run a business...it’s very hard to think of a situation where the people best at getting legislation passed are best at implementing it. They are a different set of skills (Eilperin and Goldstein).

Cutler worried that individuals selected to oversee implementation of the healthcare law had been better suited for the political challenges of crafting and passing the ACA and lacked the project management expertise to actually deliver it.

That concern has merit. Though it is beyond the scope and intent of this report to scrutinize the countless managerial decisions related to Healthcare.gov, accounts by people familiar with the project suggest that many implementation choices were made with deference to politics rather than project execution. In 2011, early efforts by CMS officials to publish conceptual blueprints that would demonstrate to stakeholders at the

state level how the federal exchange would function were reportedly discouraged by the White House. They feared that the concepts would be seized on by Republicans and mocked for their complexity (Eilperin and Goldstein). That same year, the White House pressured CMS to alter the technical specifications being developed for the IT contractors building the exchange (Eilperin and Goldstein). Specifically, the number of states that might utilize the federal exchange, their market sizes of potential enrollees, and the resulting complexity that would add to the system requirements were omitted from the scope of work (GAO *Highlights*). The worry this time was that opponents of the law would cite the potential size of the federal exchange as evidence of a “feared federal takeover of the health-care system” (Eilperin and Goldstein). In another politically motivated move, CMS was forced to delay the release of regulations on the essential health benefits covered by QHPs and premiums until after the 2012 presidential elections (Eilperin and Goldstein).

Even as the leadership charged with developing the federally-facilitated exchanges changed – there were three appointees in as many years – that political sensitivity continued. Within HHS itself, a culture of secrecy existed under the dual pressures of successfully launching the exchanges and also be held responsible should it fail. Just a week before open enrollment would begin, Frank Baitman, the Chief Information Officer of HHS, complained to a colleague about the lack of information he had on the project’s completion: “[a]s with all large enterprise systems, there are certain to be bugs, dead-ends, or incorrect calculations. I’d like to know about them before we go live the following week!” (*Behind the Curtain* 3). Such officials were then reticent or perhaps just too uniformed to share updates with members of congress and even senior White House officials, including the president (Eilperin and Goldstein). As a result there

was less project scrutiny by the press and other observers of healthcare reform and only more anticipation for its final release.

The role of politics not only affected the decisions of personnel working within government. The tight deadlines and uncertain scope also impacted the procurement process for selecting and overseeing vendors to build the IT systems themselves. A GAO report examining the acquisition and contract management process for Healthcare.gov found that:

CMS contracting officials explained that meeting project deadlines was a driving factor in a number of acquisition planning activities, such as the selection of a cost-reimbursement contract, the decision to proceed with the contract award process before requirements were stable, and the use of a new IT development approach. These actions increased contract risks, including the potential for cost increases and schedule delays, and required enhanced oversight.

Insofar as the timelines set forth in the ACA and subsequent guidance were the result of the political and policy concerns, those timelines effects on assembling the right team of IT contractors can also be attributed in part to the role of politics and policy-making.

As noted earlier, CMS failed to include the number of states potentially utilizing the federal exchange in the scope of work for IT contractor solicitations because of political sensitivity to the potential complexity revealed by doing so. Guidance outlining how the exchanges would function was delayed due to a similar concern (Eilperin and Goldstein). Because of the unsettled requirements for building the exchange and eligibility guidelines, contracting officials at CMS utilized cost-plus-fixed-fee contracts with the primary vendors developing the federal exchange itself and the federal data services hub that would serve as a back-end eligibility database. While perhaps reasonable given the uncertainty and complexity of the project, the GAO report found that using such contracts introduced instability and additional risk in managing the contractors as they were compensated for all allowable costs incurred while performing

on the project, regardless of whether the work was actually completed (GAO *Healthcare.gov* 14 – 15). As the project continued, such risks were realized as CMS officials became increasingly concerned with the performance of CGI Federal – the primary contractor for developing and integrating the exchanges into Healthcare.gov – and their ability to meet deadlines (GAO *Healthcare.gov* 31).

Much more can be written on the failures of the contract acquisition and management process. The GAO report on the contracting process for Healthcare.gov offers a robust analysis of how normal protocols were broken throughout the process. Some of these failures are divorced from political or policy choices. However, wherever protocols were broken due to project complexity and uncertainty and to facilitate timelines that were politically expedient and necessitated by subsequent policy choices, the contracting failures can be partly attributed to the politics and policy of the ACA. The challenges of managing the primary contractors were only exacerbated by internal power struggles and communication breakdowns between officials at the Whitehouse and CMS.

Process

This report has highlighted several instances of how politics and policy affected the selection of delivery timelines and release of critical regulations determining exchange functionality. By defining those timelines, the politics involved in executing the law would also affect the process by which administrators could plan for the size and scope of the federal exchanges. Furthermore, partisan-led court challenges against the ACA would inject the entire process of building Healthcare.gov with more uncertainty as the legal underpinnings holding up the establishment and functionality of the exchanges was at stake.

As envisioned by the architects of the ACA, most states would choose to build their own exchanges rather than let the federal government build one for them. This was the ambition of the Senate version of the bill that ended up in the final legislation (Rovner). Per Section 1321(c) of the ACA, states would have until January 1, 2013 to demonstrate themselves capable and willing to build their own exchange or else the federal government would operate one on their behalf. Though the federal government would already have begun work on the federal exchange and data services hub, from the outset, the legislation provided them less than a year to increase the scale of the project to accommodate states that could not or would not build their own.

Even an attempt to incentivize more state ownership of the exchanges had the effect of constraining the development of Healthcare.gov. In guidance issued after passage of the law, a state-federal-partnership model for developing the exchanges was introduced to allow states more flexibility and ownership of the plan management and consumer assistance operations in their region. Yet the deadline for states to declare their intent and submit plans for partnering with the Federal government was pushed back to February 2013 (GAO Healthcare.gov 5). While seven states would eventually apply and receive approval for such a partnership, this process would also extend the uncertainty concerning CMS's final responsibilities for another two months (GAO *Status* 9-10).

Upon passage of the law, adoption of the state-based exchanges and formal partnerships largely broke down along party lines. Democrats held majorities in the legislatures of 17 of the 22 states including Washington D.C. that established their own exchanges or partnered with the federal government. They also held 18 of the governorships in those same states including the mayorship of Washington D.C. Conversely, of the remaining states defaulting to the federal establishment and operation

of their states exchange, 25 had Republican governors and 23 had Republican majority legislatures (Desliver).

That partisan divide speaks to the effects politics had on the process of planning for and ultimately developing the federal exchange. Had the White House, CMS administrators, and other policy makers anticipated the partisan hostility to implementing the law – despite Republican platforms that generally favor greater state control – they might have been able to obviate some of the complications that arose from adding additional scope to the project requirements as a greater number of states than anticipated defaulted to the federal exchange. Further, the Republican-led legal challenges to the law during that period, which culminated in the Supreme Court case *National Federation of Independent Business et al v. Sebelius*, cloaked the very existence of the law in a lot of uncertainty. The ruling from that case, while keeping the individual mandate in place and thereby preserving the economic viability of the exchange, also determined that Medicaid expansion should be voluntary (Angeles). As with the adoption of the state-based exchanges, Medicaid expansion become an uncertain partisan issue that would in turn affect the final eligibility requirements in place for each state’s exchange operated by the federal government.

Product

Having examined the legislation and policy guidance concerning the development of federally-facilitated exchanges, it is clear how much they drove the complexity inherent in the IT systems necessary to support the exchange. Intricate eligibility standards, including the “no wrong door” functionality to improve the sites utility across

enrollee populations, would make Healthcare.gov a much more difficult project to deliver without hitch and on time.

The product development of Healthcare.gov suffered in other ways. For example, “a late decision requiring consumers to register for an account before they could browse for insurance products” complicated the process by which users would actually search for, compare, and shop for insurance plans and resulted in backlog of users trying to access at the same time (Buchanan et al.). However, there is no indication that such a decision was the result of political calculations or certain policy choices.

That said, politics did affect the number of users that would be using Healthcare.gov. Noted Todd Park, a technology advisor to the White House, “At lower volumes, it would work fine...at higher volumes, it has problems” (Pear and Shear). When Republican-controlled states defaulted to federal establishment and operation of their exchanges, the number of users accessing the system necessarily increased. Yet, because CMS did not know which states would be using the federal exchange until just nine months before it would launch for open enrollment, CMS staff and their contractors had limited time to add capacity to the site and conduct proper testing. Coupled with the high anticipation for the site’s launch that resulted from advocacy campaigns and publicity in political debates, it is not surprising that a site designed to handle 50,000 to 60,000 concurrent users became overwhelmed by the 250,000 simultaneous users that would actually access it on the first day of open enrollment (Johnson).

ANALYSIS AND RECOMMENDATIONS

In many regards, politics and policy made the development and launch of Healthcare.gov akin to competing in a race and trying to design the racecar at the same time. The legislation demanded certain deadlines in delivering the exchange. Political compromises and assurances made the actual legal requirements in the ACA difficult to translate into software code. The deeply partisan reaction to the law would unexpectedly swell the scale of the effort and overwhelm the initial capacity of the system to function as intended. Sensitivity to that reaction would lead public officials to mask the complexity of the undertaking and raise the public's expectations for the site by likening it to superficially similar precedents and analogues like the Massachusetts Health Connector or Travelocity. Perhaps more damaging, politics trumped managerial and technical concerns when selecting project leadership and shaping the culture of project personnel.

Based on the previous analysis of Healthcare.gov, Table 2 offers a framework for identifying how politics and policy-making can influence the three observable pillars of an IT project's success.

Table 2: Summary of Political and Policy Risks to IT Project Success

	People	Process	Product
Politics	<ul style="list-style-type: none">• Appointing politically-sensitive officials without necessary independence or technology experience• Blocking management transparency and accountability	<ul style="list-style-type: none">• Deadlines are determined by political concerns not technical feasibility• Introducing legal uncertainty into project's implementation	<ul style="list-style-type: none">• Setting unrealistic performance expectations• Complicating project scope for political compromises and objectives
Policy-Making	<ul style="list-style-type: none">• Increasing technical requirements of project beyond capabilities of political appointees• Incentivizing risky contracting procedures and requiring more vendor management	<ul style="list-style-type: none">• Mandates rigid delivery timelines	<ul style="list-style-type: none">• Increasing project complexity to accommodate policy mandates• Translating intricate regulations and user features into software code

As noted previously, it is too early to analyze whether there are underlying technological fallacies in selecting the online exchange to meet all of the stated policy objectives of the ACA. That said, it is clear that the remaining three success factors – people, process, and product – can be uniquely and negatively affected by political and policy choices.

At a theoretical level, the challenges of successfully launching Healthcare.gov for open enrollment were inevitable from the moment the legislation was being negotiated. The technology writer Clay Shirkey offered the following observation in his analysis of the project's implementation:

...if you want certain features at a certain level of quality, you have to move the deadline. If you want overall quality by a certain deadline, you have to simplify, delay, or drop features. And if both the feature list and the deadline are fixed,

quality will suffer, and you have to launch and fix after the fact. This is the worst of the three options – and the one CMS, the overmatched agency in charge, mistakenly chose (Shirky).

What Shirky misses in his criticism of CMS's decision is that political circumstance offered limited flexibility in making an optimal choice. Had the agency moved back the timeline for the enrollment, it would limit many individuals ability to comply with the individual mandate requirement in 2014. Pushing that date back would be legally difficult as well as politically scrutinized. Relaxing the enrollment and eligibility features might have funneled individuals towards plans or programs not suitable for them.

That said, it is not necessarily the case that all government IT projects are doomed by the politics that give rise to them. Based on the preceding analysis of Healthcare.gov as well as some best practices culled from academic research, several recommendations are provided below that should help legislators, bureaucrats, contractors, and other project stakeholders in the future.

These recommendations do not promise to anticipate and resolve all potential project risks. The complications politics and policy can impose on building IT systems will remain for any technology project in the public sector. Rather, these suggestions provide a framework for acknowledging the effects politics and policy can have on IT delivery at various stages of the legislative and implementation process. Recognizing the variances in political environments, stated policy goals, bureaucratic constraints, as well as in the underlying technology itself should better situate such recommendations for addressing the particular challenges of each project.

Manage Expectations: The launch of Healthcare.gov failed in part because elected representatives and the public expected it to succeed. The success of the Massachusetts exchange was both a technological and policy achievement. Yet, lawmakers seized on the applicability of the latter while failing to acknowledge the scalability issues associated

with the former. A relatively simple online insurance exchange with limited integration and user features worked well for a small state. To replicate that success at the national level while also adding additional eligibility and enrollment functionality between states and the federal government would not be a straightforward process.

Moreover, continually employing analogies likening Healthcare.gov to an online marketplace for travel purchases unnecessarily raised and skewed expectations for how the exchange would function. Making a one-time purchase of travel tickets does not require the same degree of information and systems integration as enrolling in regulated private or government-run health insurance programs. Those differences in the back-end system requirements are lost when such comparisons are made. For this reason, policy makers should not presume that a given technology that was developed in the private sector would easily transition into the public administration environment. New levels of political scrutiny and bureaucratic complexity are introduced and complicate what had once seemed like a simple process. This is not to say that a private sector concept cannot be implemented successfully in the public sector; rather, it should be recognized and sold as just a concept and not the solution itself.

Moving forward, legislators would be wise to consider how they sell the functionality of an IT system before it is launched. Making bold pronouncements about a technology's previous success or applicability to a given policy problem can help win support during the legislative process. Yet continually doing so during the product's development can blind lawmakers and the greater public to the implementation challenges ahead.

Transparency and Managing Information Flow: Many governments choose to conceal their problems with large IT projects (Globerman and Vining 583). The failed rollout of Healthcare.gov unfortunately illustrates this phenomenon well: despite internal

warning signs that the project was not on schedule, senior officials in the executive branch as well as the media and larger public were completely unaware of the site's potential problems. As a result, the widespread registration errors that occurred during the first week of go-live came as a shock and disappointment to many. Had more status updates and performance information been related to senior officials and the public, a greater degree of accountability would have been brought on both CMS and their contractors. Certainly, those resources that were deployed to troubleshoot the system after the rollout might have been provided earlier.

In such a high profile environment, managers might act opportunistically to withhold information from superiors or elected officials for fear of job security. Less suspect, they might simply be overwhelmed by the amount of information they are receiving and fail to disclose the relevant data both to contractors and to higher-level bureaucrats. Starting dialogues early and often to apprise elected officials of a contract's nuances and challenges is one recommendation to address this possibility (Kettl 189-190, 211). Scheduling progress updates and incentivizing information exchange between contractors and client agencies can be another. Such disclosure might seem politically risky. Opposition could seize whatever information is available as evidence of a program's failures. Yet a system that is expected to have some problems and then later functions as expected offers a better public relations challenge than trying to explain why something had failed after the fact.

Simplifying functionality: The challenge of building the federally-facilitated exchanges was in part driven by the enormous systems integration required to execute the complex eligibility and enrollment features outlined in the ACA and mandated in subsequent guidance. Such requirements were necessary to execute the laws vision of expanding affordable health insurance to previously uninsured populations. It was also

necessary to codify such requirements into law to shield them from changing political majorities in the future. Further defining technical requirements in regulatory guidance helped standardize exchanges across the states.

That said, translating the intricacies of laws and regulation into software code becomes exponentially more difficult with each additional rule or data verification protocol. Building the federal data services hub to support the eligibility requirements required the networking and integration of many previously disconnected data sources within the federal government. And while those rules can help protect against a possible problem like fraud, for example, they only do so when the underlying technology is functional.

To the greatest degree possible, lawmakers should try and establish the simplest guidelines possible for a given technology solution. While it is easy to write numerous requirements into a law in order for it to win broad support, actually realizing those requirements can be very difficult. Outlining the IT goals and providing more autonomy and flexibility to responsible agencies can help reduce the risk that a technology fails to meet its legal obligations.

Providing fluid but reasonable delivery timelines: Establishing deadlines is critical to motivating work and coordinating policy programs. Yet, from the moment they are established, delivery timelines limit flexibility in the project (Shirkey). It is not unreasonable to wonder if many of the failures of launching Healthcare.gov could have been avoided had the provisions for the individual mandate been delayed a few months. Because that deadline was set forth in the law and subsequent policy guidance had to facilitate that timeline, administrators were necessarily racing against time from the very beginning. Given the enormous and unprecedented challenge of building the IT infrastructure necessary to support the exchanges, it is right to wonder why the

lawmakers thought it would be ready in only three years. More damaging, by providing states with so much time to establish their own exchanges when many of them had little intention of doing so for political reasons, policy makers at the federal level became victims of the very flexibility they tried to provide states. As it became apparent that Republican-led states had no intention of creating their own exchanges, CMS officials and contractors were left with little time to expand the scope and capacity of their efforts.

Moving forward, policy makers should provide adequate attention to setting timelines and mapping out contingency plans as the scope of the project increases or certain deadlines are missed. If possible, timelines should be set forth only after the full scale and complexity of the project are understood. More importantly, they should be set with regard to operational objectives and not politics.

Appoint Independent Project Leaders with Technology and Business Experience: Contracting with private companies did not abdicate CMS of their responsibility to remain accountable for the development of Healthcare.gov. They still share a significant burden in understanding and describing the need of the contracted good or service and monitoring successful delivery of it (Kettl 210 - 211).

For this reason, it is critical to appoint managers with experience and understanding in technology and business. Doing so has two distinct advantages. First, it ensures that the government's needs are accurately written into the solicitation documents, ensuring that potential contractors are aware of what they are expected to provide. Second, it facilitates a more accurate exchange of information between parties prior-to and during the contract implementation to ensure that questions and concerns are properly understood and resolved. While some might argue that contracting with private vendors is an efficient mechanism for retaining technical expertise, such efficiencies can

only be realized if the government remains an informed, knowledgeable, and active manager of such services.

In addition, project leadership should remain independent from elected leadership. Political appointees injected the development of Healthcare.gov with too much political sensitivity. Distance from such concerns is critical if project management is to sufficiently focus on the IT challenges. Moreover, it incentivizes their commitment to building a product that actually functions as intended and not just publicly appears to do so.

CONCLUSION

In any context, building a system as complex as an online marketplace for purchasing health insurance would be a daunting technological and managerial challenge. What is unique to Healthcare.gov is the political and policy circumstances that affected its development, rollout, and public perception. Ultimately, the system functioned largely as intended: despite some reported errors, the second round of open enrollment through Healthcare.gov launched successfully in November 2014. Most individuals were able to find plans and subsidies for which they were eligible (Pear). Yet the fact that continued scrutiny remains on the site's functionality illustrates how persistent the memories of the failed launch in 2013 are.

This is justifiable. Healthcare.gov features as the most visible and ambitious program of the Affordable Care Act. It also did not function as promised when it went live. Citing the success of the Massachusetts exchange and the similarity to online travel purchases, legislators oversold the familiarity and usability of the site from the outset. This raised the public's expectations and perhaps their own for what the site would be

capable of on day 1 of open enrollment. Policy compromises increased the complexity of the technological requirements necessary for the site to function as mandated in legislation. Politics also increased and extended the uncertainties around project scope and the anticipated number of users until much too late in the process. Establishing ambitious and rigid delivery deadlines in policy guidance came at the cost of adequate testing and the site working at full capacity when it opened. Such dilemmas were compounded by the fact the team overseeing the project was more sensitive to political challenges than technological ones.

More and more everyday activities are conducted through information technology systems. Government must utilize these new technologies and technological mediums to meet tomorrow's public policy changes. However, the promise of new tools will not evade the scrutiny of the laws they are helping to execute. The same political and policymaking problems that hindered the development and launch of Healthcare.gov will persist for technology projects in the future. Managing expectations, increasing transparency, reducing regulatory complexity, setting realistic delivery timelines, and appointing independent, tech-savvy leadership will remain challenges for elected representatives then as they do now. By learning from the political and policy-making mistakes of designing and implementing Healthcare.gov, the risk of failure posed by such challenges can be reduced. And as more IT projects are launched in the future, lawmakers – and the public – will be better prepared for them.

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