One of the most enduring images from Hurricane Katrina is of U.S. Coast Guard helicopters, surrounded by water and destruction in all directions, lowering baskets to rescue survivors from the roofs of their submerged houses. What was not evident from those images was that many of those helicopters were nearing the end of their life span. The Coast Guard was in the process of modernizing its fleet and logistical capabilities using a contracting process that was, at first, considered a model for future government contracting, and is now a cautionary tale. That is the setting in which authors Brown, Potoski, and Van Slyke write their compelling book, Complex Contracting.

The authors effectively use the Coast Guard as the canvas to draw the associations between the concepts in the book and recommendations pertaining to contract management. The Coast Guard’s Project Deepwater provides a “how-not-to,” illustrating the consequences of mismanaged complex contracts. Drawing from more than 125 interviews from all perspectives on the failed contract, the authors are consistently evenhanded, discussing failures on the part of both the Coast Guard and their private-sector contractors.

The book begins by setting the scene for Project Deepwater, an ambitious project to modernize the Coast Guard’s antiquated assets. The Coast Guard, historically, receives neither the attention nor funding of the other branches of the armed forces. As a result, by the time Project Deepwater commenced in the early to mid-2000s, the Coast Guard’s assets were dangerously outdated, held together by impromptu patches. Project Deepwater was structured as an Indefinite Delivery/Indefinite Quantity acquisitions contract between the U.S. Coast Guard and Integrated Coast Guard Systems (ICGS), a joint venture between the two giant defense contractors Lockheed Martin and Northrup Grumman. The original estimate for the contract was $17 billion over 25 years, but the dynamic nature of the contract meant that the true cost and duration of the contract was ultimately indeterminate.

Project Deepwater sought to replace a number of key components integral to the Coast Guard’s missions: ships, boats, helicopters, communication logistics, and more. Some key projects include: (1) the National Security Cutter (NSC), a 418-foot cutter, replacing the aging 378-foot cutters in service since the 1960s; (2) the 123-foot patrol boat, a refit of active 110-foot boats—the refitted boats would serve as stopgaps until the structurally unsound 110-foot boats could be replaced; (3) C4ISR, a communications integration system abbreviated from Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance. All three of these large projects, perhaps the most complex parts of a complex contract, ultimately resulted in failure.

Deepwater was somewhat unique in that it utilized a system where ICGS both built and assembled the system. The authors describe three ways for governments to procure products and services: build it, buy it, or assemble it. Within assembly, there are two ways to assemble the final product. First, the government can assemble it (acting as their own general contractor), or, second, they can choose someone else to act as a general contractor. The Coast Guard chose ICGS to assemble the product. This alone, however, does not make Deepwater a complex contract.

A complex contract, according to the authors, is distinguished by two features. The first is uncertainty. The buyer is not able to fully explicate what the final product will look like. The authors liken this to paper clips versus houses: contracts can fully describe a paper clip. When building a house, however, it is difficult to describe
all of the dimensions of size, shape, drapes, and trim in a single contract, though you can typically provide a rough outline of what a finished house should look like. In the Coast Guard’s case, however, they could not even describe the house; they knew their mission, but were not clear about the mix of ships, boats, and systems required to best fulfill their mission. This meant that the initial contract was merely the starting point for an ongoing dialogue between the Coast Guard and ICGS.

The second feature of a complex contract is specialized investments, on the part of both the buyer and the seller. Specialized investments increase the likelihood of “lock-in.” Lock-in is a two-sided problem. For the seller, it is the risk that the buyer will back out, making investments into specialized equipment a sunk cost. Buyers can also exploit the seller by demanding price concessions once specialized investments have been made. For buyers, the seller’s specialized investments means it is difficult to switch sellers. The seller can then “gold-plate” the proverbial toilet seat or cut corners more generally—even if the buyer catches on, gold plating might still be cheaper than switching contractors mid-project. Uncertainty and lock-in in complex contracts can create the classic prisoner’s dilemma. Once expensive and uncertain investments have been made, it benefits each side to defect. The authors argue, convincingly, that the key to managing complex contracts is to induce “consummate” behavior (cooperation) and to avoid “perfunctory” behavior (defection), a win-win.

The remainder of the book examines some of the ways the complex contracts can be structured so that consummate behavior trumps perfunctory behavior. In chapter 2, they discuss the role of rules versus relationships, where rules are divided between product rules and exchange rules. They argue that because of the product uncertainty complex contracts must focus more on exchange rules: rules about resolving uncertainty, who makes decisions, and how third parties will mediate disputes. They also stress the importance of managing relationships. In their view, it appears that the Coast Guard’s largest failings were in setting governance rules in the original contract. For example, integrated product teams were much delayed by having no guidance on how they were to make decisions and no clarity on who had ultimate decision authority. Each team had to invent their own governance rules, delaying production and causing cost overruns.

Chapter 5 focuses on the performance-based contracting in Project Deepwater. Astonishingly, the performance elements of the contract took a year and a half to finalize after the initial contract agreement and included a number of senseless performance outcomes. For example, the performance agreement included rewards for increased performance in drug interdiction. Rewards would be determined by the change in drug interdictions that could be attributed to the performance improvements of the assets designed and procured by ICGS. In other words, the contract sought to causally assign probabilistic performance changes to actions that are separated by time and lack a valid counterfactual. This demonstrates some of the deep silliness of performance-based management when taken to an (il)logical extreme.

In the last chapter of the book, the authors do an excellent job of detailing some of the behaviors that ultimately “sunk” the Deepwater Program, resulting in the termination of the contract. They also remind us that we truly know little about structuring and managing complex contracts in a way that ends with a win-win for both buyers and sellers. They point out, rightly, that we often assume perfunctory behavior on the part of public-sector contractors. However, we tend to ignore the black eyes sustained by contractors, as ICGS experienced after the failure of Deepwater and as a result of whistleblowing within their ranks.

Throughout the book, the authors detail the fallout, both political and economic, that resulted from the failure of Project Deepwater. Both Coast Guard and ICGS officials were grilled by Congress. The Coast Guard scrambled to reassign the
acquisition of important assets. ICGS lost the contract, and faith, of the Coast Guard. However, its parent organizations remain the largest defense contractors in America.

Perhaps the largest cautionary tale from this book is how unprepared the current workforce is for managing complex contracts. Core management courses in Master of Public Administration or Policy programs often focus on managing people, and offer contract management as an elective. However, as the typical federal worker reaches the retirement age, there is an opportunity to train a new generation of “smart buyers” with sophisticated methods for crafting rules and curating relationships. Drawing from the book, individuals who can effectively manage complex contracts would be:

- Individuals who understand the risks and uncertainties of contract features like cost-reimbursement versus fixed price contracts.
- Individuals who know how to write terms of governance, setting the rules for positive future interactions.
- Individuals who can signal consummate behavior to sellers and are able to signal knowledge of sellers’ perfunctory behavior.
- Individuals who can coordinate communication between many diverse project teams as they work toward contract milestones.

Although this book was packed with details about the missions and assets of the U.S. Coast Guard, as a reader, you are left with a lasting sense that somehow the structure of the contract failed, not the people. That is, there is little written about the particular actions of the people in moments of organizational failure. Partly, it appears, this was to maintain the consummate evenhandedness of the book. Perhaps interviews revealed competing narratives that could not be rectified with facts in evidence. In either case, the result was a narrative that details a contract and the failure of that contract but omits much of the conflict in between. For example, on pages 173–178, the authors describe decisions that lead to acrimony between the Coast Guard and ICGS regarding the quality of the 123-foot patrol boats. The section begins with quotes from interviewees signaling their initial trust in the other side. The section ends with the authors speculating that the problem was an inability by both sides to signal consummate behavior. How?

Despite minor shortcomings, this book teaches broad and important lessons about managing complex contracts, which necessitates a place on the shelf of any public manager who seeks to understand the complexity of managing in the coming century. It also deserves a place in the syllabi of those who hope to train such managers. Because every chapter provides its own unique lesson, readers can glean useful information about complex contracts in every chapter, making this an ideal book for instruction.