UNDERWRITING INNOVATION
How Information Technology and Pay for Success Contracting Can Transform Public-Sector Outcomes

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The San Diego Workforce Partnership (SDWP) had a problem. As a recent recipient of a Pay for Success demonstration grant to increase employment outcomes for youth involved in the justice system, SDWP was excited to work with Third Sector Capital Partners, Inc. (Third Sector) to develop an innovative, outcomes-based service model for its hardest-to-serve youth. The problem was not the intervention, partnership, or SDWP's willingness to pay for results. It was their data. Measuring success meant knowing how youth in the program avoided jail, got jobs, and earned good, living wages years after. But SDWP had no access to justice data or wage data to see if their programs resulted in increased wage growth for youth over time. Worse still, the data SDWP needed were marbled throughout various state databases, provider Excel spreadsheets, and balkanized case management systems, and none of the organizations in that information network had the funding or strong incentive to change or improve their own data infrastructure to support SDWP's, new programmatic model. Without access to quality data across a fractured ecosystem of stakeholders, how could SDWP procure outcomes and ensure they were delivered for these young people?

San Diego is not alone. Across the country, nonprofit and government service providers are experiencing a wave of interest in moving from funding programs to funding outcomes. But many of these jurisdictions are facing the same chicken-and-egg problem: To enable outcomes contracting, you need data and information technology (IT) infrastructure that yields meaningful metrics across information silos; but to develop and support the appropriate data and IT infrastructure, you need new contract structures and revenue sources that can justify the added cost across a distributed information network.

For government to achieve outcomes, it needs to solve the dual problem of how it procures information technology and how it contracts for services. Our two organizations, BrightHive (focused on digital infrastructure) and Third Sector (focused on social services contracting), have spent the past half-decade helping organizations become outcomes-oriented. When we began working together, we realized that the principles of outcomes-oriented IT infrastructure and Pay for Success contracting are incredibly similar and highly complementary. They are both fundamentally about shifting government procurement processes from focusing on cost and compliance to delivering value. This chapter offers a guidebook for how to think about integrating these reforms as part of a comprehensive strategy to drive public-sector outcomes.

PRINCIPLES OF OUTCOMES-ORIENTED INFORMATION TECHNOLOGY PROCUREMENT

IT procurement is a dark art, and every state and locality has its own byzantine navigation rules that complicate the picture. These rules, more often than not, get in the way of procuring technology that supports improved outcomes in services. But there has been a sea change in recent years in the thinking and practice of government IT procurement. This change is most apparent in guidance provided by U.S. Digital Service, Code for America, and the U.K. government's Digital Service Standard.[1] At its heart, smarter IT procurement focuses on ensuring that technology is helping, not hindering, the delivery of better services. Some of these principles are discussed below.

People are the most important part of your digital infrastructure. Good people, not fancy technology, are your greatest asset in the hard work of creating outcomes-oriented digital infrastructure. Over the years, BrightHive has found that motivated, empowered, and properly trained data engineers can work around just about any technical hurdle if they are given the tools and leadership support they need to build workarounds. These unsung data superheroes have been at the heart of every data-driven organization we've worked with. So if you are deciding between signing

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1 U.K. Government, "Digital Service Standard," Government Service Manual, available at https://www.gov.uk/service-manual/service-standard; Code for America, "How We Do It," available at https://www.codeforamerica.org/how/#principles; U.S. Digital Service, "Digital Services Playbook," available at https://playbook.cio.gov/.

a new $300,000 licensing contract with an enterprise vendor and hiring a technologist looking to make a difference, choose the new hire over the new tool every time.

Make it smaller; make it modular. An important lesson from the Healthcare.gov fiasco was that the general contractor model of government IT procurement is broken. Instead of a massive RFP issued to a single vendor for a system that does everything, break up your procurement of digital services into pieces made up of simple, well-contained services. This "microservices" approach to IT procurement may require a bit more upfront thinking and coordination, but it pays off in making government IT infrastructure more flexible and resilient.[2]

Insist on interoperability. A majority of existing government IT systems, by design, don't have a way to communicate with systems and services outside the walled garden of their product suite. This is good for the vendors, but bad for governance. Outcomes-oriented governance relies heavily on integration of data across systems and service providers. Government agencies must use their purchasing power to enforce data interoperability. Procure only systems that have well-documented application programming interfaces, or APIs.

Default to open-source software. Open-source software, historically the pariah of government IT procurement, is quickly becoming the darling. This makes a lot of sense. It's philosophically aligned: Public digital infrastructure investment should both benefit from and contribute to the public good. But it also makes for better technology. Open-source software is a more secure, more interoperable infrastructure that empowers technical staff to build on and improve the system directly and has a robust community of developers who offer and support solutions built on top of it. Because the software is open, it is often easier for other software vendors to integrate with it.

Ban black boxes. As more IT systems and data services come with integrated analytics, algorithmic transparency is increasingly important. Avoid

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the words "proprietary algorithm" like the plague. Machine-learning algorithms can have inherent biases that can lead to disastrous consequences for the people they are meant to serve. Imagine if SDWP used a proprietary algorithm to identify youth for whom to provide employment supports and unintentionally racially profiled individuals. If you can't open up the hood to know how a targeting algorithm is working, you can't guarantee that the processes being informed by those algorithms aren't inherently biased. Insist on algorithmic transparency and make sure that vendors show you a robust set of tests for bias using your data before you sign on the dotted line.

Following these principles will help your organization or agency build a solid technical foundation for running as a data-driven organization and work more easily within the ecosystem of service providers, funders, and data stewards that can benefit from transforming data to outcomes for communities. However, IT infrastructure in itself will not drive outcomes. There needs to be a simultaneous shift in how data are used to inform contracts and procurement in social services.

MOVING FROM ADMINISTRATIVE DATA TO "WORKING DATA" WITH OUTCOMES CONTRACTING

Pay for Success contracting, as well as other types of outcomes contracts, build on the principles of IT infrastructure procurement. At its core, Pay for Success is about incorporating an outcomes-oriented process into how the government spends its money, though its focus is services versus IT. While there is a spectrum of ways in which Pay for Success contracts may be structured or funded, the basic principle is using data to build an information feedback loop to inform government spending. By incorporating the collection, review, and interpretation of data as a byproduct of social services contracts, Pay for Success projects allow government to focus on the results of services versus the services themselves. However, this reality means that an outcomes-oriented IT infrastructure is a critical part of making Pay for Success contracts possible. The quality of government databases determines if and how you can procure for outcomes.

Government administrative data are essential for Pay for Success contracting because they "underwrite" all processes for the efficient

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2   The state of California, with the help of Code for America and 18F, just demonstrated how to do this right with a major RFP overhaul of the child welfare system: Amanda Ziadeh, "California's Step-by-Step Solution for Its New Child Welfare System," *GCN Magazine* (February 2, 2016), available at https://gcn.com/articles/2016/02/02/california-agile-procurement.aspx.

operation, ongoing evaluation, and learning and improvement within Pay for Success programs. Some of these processes include:

- Identifying the programmatic areas and target populations with the highest need and largest potential benefit;
- Development of intervention hypotheses, initial pricing, and contract terms;
- Basic performance reporting and ex-post evaluation; and
- Use of data as an ongoing performance feedback loop with providers and government to learn and improve.

The last process—use of data for ongoing performance—is a distinction of Pay for Success programs, which are giving administrative data the chance to become "working data" by truly developing a feedback loop between service providers and the contracting government entity. This means that instead of submitting one annual report to SDWP about how many youth were served, providers in the youth employment contract may be able to review data about their effectiveness on a monthly basis. This gives them the opportunity to learn from their data and refine their work to maximize the chance that the young people being served become employed in meaningful career paths. By using live working data, both the provider and SDWP see meaningful results for their investment, and most important, more young people are gainfully employed.

Because data are so essential to Pay for Success, the way government agencies and service providers collect, store, analyze, and report that data can determine the success or failure of a Pay for Success initiative. Without the right kinds of systems and processes in place, Pay for Success contracting will remain difficult or impossible in many jurisdictions. Many have realized this and are working to solve the many and varied challenges. Yet this important problem-solving is happening completely separate from the administrative data community, which has also begun to coordinate efforts on improving local and national integrated data systems for better research and performance reporting. With both IT and outcomes-contracting movements proposing to "take government into the twenty-first century," why aren't they working together?

WHAT IT TAKES TO DRIVE PUBLIC-SECTOR OUTCOMES

To understand how IT and outcomes contracting can work together, it is necessary to consider what drives public-sector outcomes today. Breaking down the incentives across multi-agency systems, it quickly becomes clear that technology and contracting are not enough to drive outcomes. You also need policy that incentivizes funding outcomes and programs that are able to deliver results for America's most vulnerable populations. And you can't forget that people run these systems. The capacity of both government and nonprofits to implement performance contracting is in many cases the largest limiting factor to measurably improving lives. It is the combination of technology, contracting, policy, and capacity that can drive systems change.

Yet jurisdictions are continuing to take an agency-level approach to what is a cross-cutting government process and system—perhaps, in part, because it is easier to re-procure one large IT contract than to consider all social services contracts and change procurement policies across agencies. The result of this thinking is that public IT capital is under increased scrutiny as it spends billions on databases to support efficiency and compliance. But little energy is spent on deploying that data to get better results from contractors. Technology is being upheld as increasing government effectiveness simply because it is changing the face of it. But technology itself is not the answer. At the end of the day, the technology SDWP uses to identify and track the success of its youth is a tool; it does not directly result in employment or self-sufficiency outcomes in itself.

That is why driving public-sector outcomes will require systems innovation across policy, technology, contracting and implementation capacity, with each of these levers relying on providers and government to drive change management processes to ongoing results for communities.

CHALLENGES TO COMBINING TWENTY-FIRST-CENTURY TECHNOLOGY AND TWENTY-FIRST-CENTURY OUTCOMES

There are two major challenges facing both IT infrastructure and outcomes contracting reform. Each highlights the difficulty of the public-sector systems to properly incentivize their people and processes to be able to fund and build evidence for programs that measurably improve lives.

Current information technology and outcomes contracts are too bespoke. At this point, Third Sector, BrightHive, and those in the outcomes contracting field for IT or services are working on bespoke projects. Each of these has made important progress for individual agencies, yet falls short of jurisdiction-wide change. Projects are helping to build the case for systems change but are limited in their reach because of structural challenges to the procurement process, federal budgeting requirements, data-sharing agreements, and culture. Our work relies on those public servants willing to prioritize innovation and creativity and spend political capital to measurably improve lives. These everyday heroes are providing promising examples to inform policy, but they are expending immense energy, resources, and political capital on each project.

The very bureaucracy that was put in place to protect people is, in some cases, failing them. For example, those who qualify for food stamps have to muddle through paperwork to receive services. Data are used for compliance, not to learn if the program delivered the intended results. It then comes as little surprise that data created as a byproduct of compliance requirements are insufficient to underwrite outcomes contracts. Whatever your politics, it is clear America is unable to efficiently meet the needs of its most vulnerable, making it difficult to reduce demand for remedial services.

Yet while some write off ineffectiveness as an intrinsic quality of government, this is not the case. Government is still the largest funder of social services in this country, delivering trillions of dollars in health care, employment, and basic services to millions of Americans. The good news is that people join the public sector with a commitment to serve communities, and bureaucracy was never intended to prevent results. There is structural inertia that makes a culture of innovation both elusive and incredibly scalable if we are able to drive that inertia toward outcomes for the largest organization in service of humanity.

So what would it take to create a culture of innovation in government? We need to transform the processes across policy, technology, contracting, and implementation capacity if we are going to unlock innovation and drive better results for our communities. We also need to recognize that technology is not the answer—nor is a contract. It's about the ongoing conversation that both create amongst people within these institutions about the outcomes a government wants to achieve. The conversations can lead to a demand for continuous improvement to ensure every American gets equal opportunity.

PRINCIPLES FOR OUTCOMES CONTRACTING

Treat social-sector-outcomes contracting the same as information technology capital infrastructure. Organizations have come to view the cost of updating IT infrastructure as a capital outlay that pays for itself in the productivity gains of employees and the quality and efficiency of services. This model of a capital improvement project can be applied to updating the technical, legal, and human infrastructure necessary to procure services based on outcomes. A relatively small upfront investment can ensure outcomes across social-sector contracting. Take the time to not only procure an exceptional case management system and integrated data warehouses, but also to hire or train operational staff and management on new processes and metrics that will help drive the agency's outcome goals. It's an investment that will pay off in spades.

Ensure information technology infrastructure enables third-party access and front-end software innovation for tools for both government and service providers. Businesses have real-time data on products sold. Why doesn't SDWB have real-time data on whether their youth have jobs and whether they get raises after their training programs? Providers need access to these data just as much as government. Government doesn't have to build these provider tools. It can enable their creation by supporting modern data services on top of administrative data. This often means tackling privacy and data-sharing agreements in ways that protect people but also enables government to get the best results for its investment. However, emerging national standards for individual data-sharing consent put the power directly in citizens' hands to control their own data. They also allow the organizations supporting them to have access to the information they need to do their jobs better.

Develop new federal technical assistance models to support governments to embed data for decision-making. It will take significant resources to change the culture of government. Federal funding to technical assistance providers who can support change management within jurisdictions will

be essential to create a culture of performance management within the public sector.

Use enabling legislation, incentives, and mandatory spending on outcomes as a way to ensure that government funding incentivizes a focus on ongoing results over time versus "silver bullet" programs or earmarks for specific interventions.

Revise federal regulations to ensure compliance is about outcomes. What if, instead of compliance and burden being yoked together, compliance became synonymous with outcomes and learning? The federal government should engage in true procurement reform by reviewing OMB federal circulars and legislative guidance on spending streams. State and local governments are often afraid they may be punished for moving away from funding programs to funding outcomes. America's jurisdictions need a strong, proactive message from federal budget and procurement offices that outcomes are encouraged—and required.

If we can use the power of federal bureaucracy to set compliance principles for innovation and provide incentives for outcomes, we can then let local governments define the spectrum of what they want to achieve for communities. This structure will unleash the power of local governments by empowering those that know their communities best to define success with them—not for them—and use data to spur public-sector innovation, ensuring improvement and results over time.

CONCLUSION

We have the opportunity to ignite a public-sector innovation revolution in our lifetime if we can deploy data for improved outcomes. Make no mistake, innovation of this sort isn't easy. The existing technological and contractual inertia in state and local government is difficult to overcome, and San Diego continues to face an uphill battle with the state to implement innovations. Even with the ongoing advocacy of institutions like Third Sector and BrightHive, paradigm shifts require persistence and constant pressure. But combining IT infrastructure and outcomes contracting empowers public servants to make decisions that measurably improve lives and ensures that government is truly working for its people. As communities collectively invest in combining administrative

and operational data, they bring power back to constituencies and usher in transparency and accountability. But success is far from guaranteed, particularly if we do not complement technological innovations with systemic changes to procurement and compliance; that is, if we do not use our data to change how we deliver services to the people who need them most. Yet if we are thoughtful about this revolution, every contract in IT and social services may become an opportunity to move the needle on social problems and to make data underwrite outcomes for America's communities.

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