# The Opportunity Project

10 Years of Open Data and Agile Development

Joel Gurin and Matt Rumsey Center for Open Data Enterprise (CODE)



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## FOREWORD

On behalf of the IBM Center for The Business of Government, we are pleased to present this new report, *The Opportunity Project: 10 Years of Open Data and Agile Development,* by Joel Gurin and Matt Rumsey of the Center for Open Data Enterprise (CODE).

The Opportunity Project (TOP) has emerged as a pioneering initiative that leverages open government data and agile development practices to address a broad array of public needs. Since its inception in 2015, TOP has continually evolved, adapting to changing circumstances and expanding its influence across various sectors. This report delves into the significant impact of TOP over the past decade, highlighting the project's role in fostering collaboration among government agencies, civil society, and the technology industry to create innovative solutions to problems identified by agencies.

TOP traces back to a White House pilot project aimed at improving economic mobility through the application of Census and other data. Launched in 2016, TOP has since moved to the U.S. Department of Commerce and has become a model for developing agile approaches in government. Through 12-14 week technology development cycles ("sprints"), TOP has facilitated the creation of hundreds of digital tools that address critical issues in areas such as education, workforce development, environmental stewardship, and public health.

A key strength of TOP lies in its thematic approach to problem-solving. By organizing sprints around specific themes, such as financial and economic priorities, TOP has focused efforts on rapid prototyping of targeted solutions to pressing issues. This thematic organization ensures that strategies to address problem statements are well-aligned with the goals of key stakeholders, and fosters collaboration among participants working towards common objectives.

The impact of TOP extends beyond the development of digital tools. The program has educated a new generation of open government data users—building reciprocal relationships between government data stewards and user communities, and enhancing the accessibility and usability of large government data sets. Through a collaborative process, TOP has brought innovative strategies and agile methodologies to agencies, supporting a more flexible and user-centered government workforce.

This report also includes detailed case studies that illustrate the many ways in which TOP has made a difference, and demonstrate the tangible benefits of TOP's approach. The case studies highlight the program's ability to spark change and foster ongoing collaboration between government and nongovernment participants.



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This report builds on a previous IBM Center report, *Agile Problem Solving in Government: A Case Study of The Opportunity Project,* that provides lessons for governments on how agile problem solving can enable a public-private collaboration to help address the most significant mission-focused issues. The report also complements the Center's longstanding body of research on agile strategies for government (recent reports include *Leadership Framework for Agile Government* and *Digital Modernization in Government: An Implementation Framework*), which continues to proceed in collaboration with the National Academy of Public Administration's Agile Government Center.

The lessons learned from TOP's experience provide valuable insights for agencies seeking innovate approaches to address complex challenges. Through thematic sprint cycles, TOP serves as a catalyst for innovation and a model for agile problem-solving in government. This report not only records the progress of TOP, but also offers a roadmap for the continued evolution and growth of this and similar efforts in the future.

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## EXECUTIVE SUMMARY

In 2025, The Opportunity Project (TOP), a program of the Census Open Innovation Labs (COIL) at the U.S. Census Bureau, marks its 10th year. Over the past decade TOP has engaged "technologists, government, and communities to prototype digital products that solve real-world problems with open data."<sup>1</sup> TOP has run 79 technology development sprints to produce some 258 digital products drawing on more than 450 datasets.<sup>2</sup> Most of these products are available at the program's website.<sup>3</sup>

In 2018, the Center for Open Data Enterprise (CODE) closely followed several TOP sprints to understand the program's methodology and analyze the value of agile development and open data for improved government operations and public private collaboration. The result was a 2019 report for the IBM Center for The Business of Government, *Agile Problem Solving in Government: A Case Study of the Opportunity Project.*<sup>4</sup>

Now, for the 10th year of TOP, CODE has worked with TOP leadership and participants to look back across the last decade, analyze how TOP's methodology has evolved, and identify lessons learned for the future of the program. This new report includes four brief case studies, drawing on interviews with TOP participants and a review of program documents, that reflect TOP's value.

TOP has had a strong positive impact with participants from other federal agencies, companies, NGOs, academic institutions, communities, and individual tech volunteers. The program has educated a new generation of open government data users, kickstarted ongoing collaborations between government agencies and their stakeholders, built more reciprocal and less extractive relationships between government data stewards and communities, made it easier to access and use large government data assets, improved data discoverability and accessibility, enhanced usability, and helped commercial organizations support positive change with open data.

TOP has fulfilled its mission since its launch in December 2015 by evolving when necessary to meet changing circumstances. This paper closes with six recommendations, based on lessons learned through TOP's projects, to continue to strengthen TOP and increase the ability of this and similar programs to benefit communities through open government data over the next 10 years. Those recommendations are to:

- 1. Continue to focus on building trust and understanding between participants.
- 2. Encourage sprint leaders to tailor the ways they support participants.
- 3. Explore strategies to provide additional resources to participants.
- 4. Return to organizing sprints thematically.
- 5. Continue to evolve virtual and in-person convening models.
- 6. Engage with others promoting agile development in government.

<sup>1.</sup> https://opportunity.census.gov/about/.

<sup>2.</sup> Communication with TOP team.

<sup>3.</sup> https://opportunity.census.gov/.

<sup>4.</sup> https://www.businessofgovernment.org/sites/default/files/Agile%20Problem%20Solving%20in%20Government\_0.pdf.

## INTRODUCTON

In 2019, the IBM Center for The Business of Government published a CODE study of TOP to highlight the value of agile development practices and open data for improved government operations and public-private collaboration.<sup>5</sup> In the years since that original case study was published, TOP has continued to fulfill its mission, constantly expanding its group of partners—and the audience for open government data—inside and outside the federal government.

This paper continues to explore the value of agile practices and open data within government through the lens of TOP, with a specific focus on the TOP program's impacts on government and nongovernment participants. Through a series of interviews with the TOP team and TOP participants as well as review of various products produced or iterated during TOP sprints, CODE has developed four case studies exploring a different way that TOP has made impact over the past decade. Those case studies demonstrate both the value of TOP and the ways that TOP's processes have been effective.

#### **TOP Background**

The work that led to the Opportunity Project began in 2015 with a White House pilot that applied Census and other data to improve economic mobility. TOP then officially launched in 2016 as White House initiative, before being taken up by the U.S. Department of Commerce in 2017.<sup>6</sup>

TOP leverages 12-14 week technology development cycles, consisting of 2-week agile development sprints, to create innovative solutions through the close collaboration of government agencies, communities, and the technology industry. This process helps to empower people with technology, make government data more accessible and user-friendly, and facilitate crosssector collaboration to build new digital solutions. TOP sprints follow a cohort model, where many teams work on separate projects in parallel along the same timeline. (A note on terminology: TOP uses the term "sprint" to refer to a full 12-14 week development cycle for a specific project—rather than the 2-week tech sprints, with more narrowly defined and iterative goals, that are part of standard agile methodology.)

TOP convenes teams and leads them through technology development sprints to produce applications that address challenges in a broad range of public areas of need. TOP participants have produced hundreds of digital tools and the model has been replicated across the federal government over the past decade.

CODE'S 2019 report described the history of The Opportunity Project in detail. The program was conceptualized and launched with inspiration from the U.S. Department of Education's College Scorecard—a multi-stakeholder initiative to give parents and students predictive information on the financial value of degrees from different colleges. Drawing on that

<sup>5.</sup> http://reports.opendataenterprise.org/Agile\_Problem%20Solving\_in\_Government.pdf.

<sup>6.</sup> https://obamawhitehouse.archives.gov/the-press-office/2016/03/07/fact-sheet-white-house-launches-opportunity-project-utilizing-

open-data.

<sup>7.</sup> https://opportunity.census.gov/about/.

experience, in 2015 the White House and the U.S. Census Bureau, together with other federal leadership groups, developed the TOP methodology and launched the first TOP development cycle. This initial cycle, focused on economic mobility, was a success: it produced a dozen new tools that focused on eight different cities with technical teams from Zillow, Redfin, and several other companies and nonprofits.

In 2016, the same federal TOP leadership team reached out to other Federal agencies and invited them to develop their own problem statements—a process for federal agencies to conceptualize goals in ways that would help achieve their missions. These problem statements focused on citizen services such as education, workforce development, and healthcare through a user-centered approach.

The Opportunity Project continued to grow with support from the first Trump administration, which highlighted TOP as a model for the Federal Data Strategy, and from the Biden administration. In addition to developing an effective, replicable methodology, TOP has served as a model of agile methodology in government. TOP's website, https://opportunity.census.gov, provides an ongoing record of the program's work and the tools it has produced.

#### High-Level Insights from the Previous Study

CODE's 2019 paper for the IBM Center for The Business of Government explored TOP's first few years of existence and its success to that point. The paper found that "TOP has shown the value of agile principles and methods to help government agencies, communities, and the technology industry build digital tools and platforms using open government data."<sup>8</sup> CODE's authors wrote that TOP "represents a highly successful programmatic example of how open government data can rapidly be turned into applications with great public benefit . . . by combining three key elements: the power of open government data, public-private collaboration, and high-energy agile approaches to software development."<sup>9</sup>

The 2019 paper outlined TOP's methodology, identified TOP's core stakeholders and how the program benefits them, explored how several different teams approached TOP problem statements, analyzed a range of challenges and successes that emerged over TOPs first few years, and made 10 recommendations for TOP's future. These recommendations are described in more detail in the next section, along with a discussion on changes to TOP methodology since the last paper was published.

Ultimately, CODE's 2019 analysis found that "TOP does not only produce high-value applications: The collaborative process fostered by TOP brings federal agencies into the agile development methodology and exposes them to innovative solutions from data users across industry, nonprofits, academia, and the general public. TOP enables government agencies to think about data in different ways and supports the development of a more flexible and user-centered government workforce. . . . TOP also provides outside stakeholders with unique access to government data stewards, and connects data stewards with data users in a way that can help them prioritize data by user needs Those connections can remain well beyond the end of the program and have a positive impact going forward."<sup>10</sup>

<sup>8.</sup> Agile Problem Solving in Government, 6.

<sup>9.</sup> Ibid, 7.

<sup>10.</sup> Ibid, 34.



#### Goals of this Study

This paper explores how TOP has continued to produce those benefits over a decade of political change, public health crises, and all-around uncertainty. Each case study shows how TOP has impacted a specific government or nongovernment participant and why once organizations get involved in TOP many of them keep coming back.

The case studies highlight TOP's value as an educational tool, a point of leverage to improve the accessibility and usability of open government data, a way to nudge the private sector to make a positive impact, an opportunity to empower underserved communities, and much more.

# TOP's Evolution Since 2019

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CODE's 2019 paper identified ten steps that TOP could take to strengthen its own impact and how Federal agencies approach agile methodologies more broadly. The TOP team had already been considering or implementing a number of similar improvements and have continued to iterate their methodology, processes, and practices in the years since.

#### The 2019 paper's recommendations were to:

- 1. Improve the process for developing problem statements.
- 2. Align sprint cycles with a theme.
- 3. Ensure access to critical data during sprints and in the long term.
- 4. Share more information about the use of each agency's data.
- 5. Recruit participants and supporters strategically.
- 6. Further engage users and user advocates.
- 7. Build community through in-person convenings and focused, virtual meetings.
- 8. Focus on scalability and sustainability.
- 9. Consider additional measures of success.
- 10. Expand the methodology across government and beyond.

An iterative approach to its methodology has been a hallmark of the TOP program throughout the years. Thanks to that flexibility, many of these recommendations were already being considered by TOP at the time the original study was published and each one has been addressed to varying degrees in the years since. An interview with the TOP program team, as well as CODE's review of TOP products and interviews with TOP participants, highlighted three main areas that have been particularly relevant to TOP's work since 2019 and the program's future plans.<sup>11</sup>

#### **Problem Statements and Thematic Sprint Cycles**

TOP has continually improved the process it uses to develop problem statements. It has developed a community-driven process that provides ample time, guidance, and opportunities for collaboration. This approach, combined with hands-on guidance by the TOP team, helps ensure that TOP participants find value in the process and that problem statements are well aligned with the overall goals of sprint leaders, tech teams, user advocates, and other stakeholders.

Over the years, the TOP program has explored various approaches to generating problem statements, including developing them through roundtables and inviting selected Federal agencies to create problem statements based on their own priorities. Another approach, which TOP used particularly from 2018 through 2021, has been to organize sprints and problem statements by themes. TOP has organized sprints around thematic areas including the natural and built environment, workforce, financial and economic inclusion, and challenges facing Indigenous communities. In this model, different teams work on problem statements that are addressed independently but thematically related. TOP federal team members plan to return to this thematic approach in 2025.

<sup>11.</sup> Interview with current and former TOP federal team members, March 20, 2025.



#### TABLE: Examples of TOP Sprint Themes<sup>12</sup>

Year	Theme
2018	Education
2018	Geo-Cohort
2019	2020 Census
2019	Workforce
2020	Education
2020	Natural and Built Environment
2021	The World Post-COVID
2021	2020 Census
2021	Earth
2021	Opportunity

<sup>12.</sup> https://opportunity.census.gov/sprints.

The 2019 report recommended building on this thematic approach, and TOP sprints through 2021 were organized around themes as shown in the above table. In 2022, 2023, and 2024, TOP hosted more diverse sprints that were not as thematically organized, although they contained some related projects. (For example, 2024's sprints included two projects addressing the needs of Indigenous communities for the first time, while 2023 featured a dedicated sprint on Diagnostic Data Exchange led by the Food and Drug Administration (FDA).)

In their interview with CODE, TOP's leaders described the value of thematic sprints and the potential to return to a thematic approach in the future. TOP has found that problem statements organized around a theme resonate most strongly with sprint leaders and project teams and are easily aligned with agency policy priorities. This alignment has allowed TOP to stay relevant and continue to recruit strong participants. Themes have made it easier for TOP to organize diverse sets of collaborators and support high-impact communications.

#### In-Person and Virtual Convenings

TOP has always taken a hybrid approach to its program activities and convenings. The primary work of the sprints has always been done virtually to allow participants who may work at different organizations or even be located in different areas to collaborate. Demo Days and TOP's annual summit were initially held in person as well.

TOP started holding in-person user engagement workshops in an effort to understand if any in-person interaction before the public demo of sprint products would be valuable to team. This continued into 2019 and likely would have become the norm if not for the COVID-19 pandemic. Like many other organizations, TOP pivoted to a fully virtual model in response to the pandemic.

TOP initially found significant success with this COVID era pivot. They moved Demo Days, their annual summit, and workshops online and hosted a problem statement generation roundtable virtually in the early days of the pandemic. All of these events were initially met with great enthusiasm and participation, with the virtual approach opening certain events up to broad geographic distribution in new ways.

Moving out of the COVID era, as part of a general renewed interest in meeting in person, the TOP team is exploring in-person convening again. The team is also exploring the benefits of a hybrid approach, which could potentially reduce budgets while maintaining geographic diversity.

#### Recruitment

Over the years, the TOP team has prioritized hands-on engagement around recruitment. This has resulted in significant numbers of returning participants, who also encourage new participants to join. Participants from one year are likely to highlight the value of the idea to their colleagues. This sort of return and recommendation has helped participant numbers grow throughout the year.

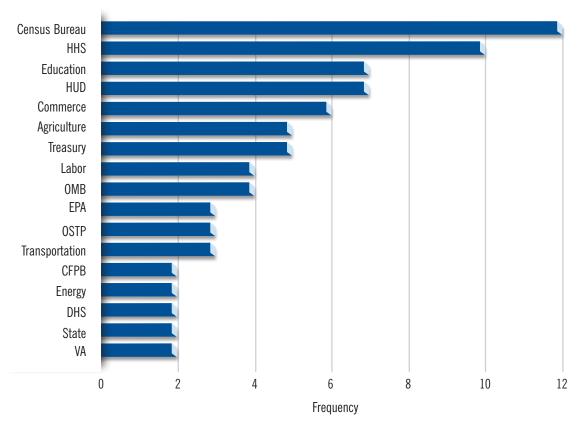
The COVID-19 pandemic also shifted how TOP approaches recruitment at the same time it impacted the program's approach to convening. Virtual convenings lead to virtual recruitment, and the TOP team has taken advantage of virtual events like their annual summit to lay the groundwork for the next year's recruitment. A primarily virtual approach also provided a wider range of opportunities for participation, with people who couldn't travel to the District of Columbia still able to participate.



## TOP Sprints and Products History, Trends, and Value

TOP provided CODE with a spreadsheet (see Appendix 2) of all TOP sprints conducted since the launch of the program in 2016. Details about the individual projects can be found at TOP's website: https://opportunity.census.gov/.

The record of TOP's work, and CODE's interviews with current TOP leadership, show both consistency and change over TOP's 10-year history. Throughout its history, TOP has worked with a broad spectrum of federal agencies. The 79 sprints completed through 2024 included the following U.S. departments and offices:



#### **TOP** Participation by Federal Entities

Note: Sprints shown as "Commerce" do not include those with the Census Bureau.

The large number of sprints conducted with the U.S. Census Bureau is not surprising: TOP is housed within the Census Bureau, and Census is the largest single provider of the kinds of public data that serves TOP's mission. Beyond Census, the large number of sprints held with the U.S. Department of Health and Human Services (HHS), Education, and Housing and Urban Development (HUD) shows TOP's focus on projects that serve Americans' essential needs.

This broad involvement of U.S. government agencies reflects the scope of TOP's sprints and products. From the beginning through the present, TOP has focused on issues including:

- Health and access to medical care
- Education and training for workforce skills and career growth
- Community economic development
- Reducing homelessness
- Environmental stewardship
- Improving data accuracy and usability and digital literacy
- Improving access to federal grants and federal spending accountability

These themes have remained constant, and TOP has applied them to timely issues that have emerged during its work. For example, TOP ran several sprints related to COVID-19 response in 2020 and 2021.

The biggest shift in TOP's work has been to broaden its collaboration model beyond federal agencies. In 2021, TOP worked directly with city governments—Coral Gables and New York City in that year—as well as the Minority Business Development Agency and American Statistical Association. Since 2022, TOP has also developed partnerships with several NGOs and academic institutions, including the National League of Cities, PolicyLink, Natives Count Coalition, National Urban Indian Family Coalition, and Harvard Business School. This strategy has enabled TOP to draw on a broader range of partners and experts to implement its sprints.

Most notably, beginning in 2022, TOP began a series of collaborations with the Government of Puerto Rico and a number of local organizations on the island. This work is the biggest example that CODE found of applying TOP's methodology for continued gains in a local setting. A separate section of this report, below, describes the work in Puerto Rico in detail.

From the beginning, tech companies have led sprint teams that engage volunteer and other groups to develop products addressing each sprint's problem statement. For example:

- mySidewalk developed a community resilience data guide as part of a TOP sprint.<sup>13</sup>
- Neighborhood Trust Financial Partners developed Bridge, a user-centric product that helps consumers move from predatory credit cards to the best balance transfer credit cards that they are eligible for.<sup>14</sup>
- ESRI developed a prototype for the Economic Developer GeoExplorer (EDGE) which provides users with valuable data driven insights to support better decision-making regarding grant applications, attracting investments at a local level, and more.<sup>15</sup>
- The National League of Cities created a Measuring Climate Risk and Resilience for Public Transit Tool which allows city and other local officials to assess how to best analyze risks and resilience indicators associated with public transit.<sup>16</sup>

<sup>13.</sup> https://reports.mysidewalk.com/93bdbee3fa.

<sup>14.</sup> https://opportunity.census.gov/showcase/?search=Bridge.

<sup>15.</sup> https://opportunity.census.gov/showcase/?search=Economic+Developer+GeoExplorer.

<sup>16.</sup> https://opportunity.census.gov/showcase/?search=Measuring+Climate+Risk+and+Resilience+for+Public+Transit.



By leveraging a combination of government partners, tech partners, and community leaders, teams in TOP sprints have produced a total of 258 digital products since its inception. TOP's leadership describes several categories that cover many of these products:

- Interactive data mapping tools: Tools mapping different federal and non-federal data sets together
- **Direct consumer decision making tools:** Digital tools that help users make decisions about jobs, housing, economic trends and other key factors leveraging data
- **Data visualizations/infographics:** Tools that are visually compelling and convey easy to understand representations of complex data insights
- **Interactive dashboards:** Tools that can include real time data monitoring and insights and to help analyze key metrics
- Al/algorithm tools: Tools leveraging Al for analysis, insights, automation

TOP's work over the past decade has had considerable public value. To estimate that value, CODE reached out to industry expert Bryan Lane, who is also deeply knowledgeable about TOP. Mr. Lane, the founder of DATA XD, a technology and analytics consultancy focused on data-driven decision-making, has been a TOP sprint participant since 2017 and developed the product advisor role for TOP sprints in 2018.

Mr. Lane's analysis, presented in Appendix 1, estimates the public value of TOP's decade of work at just over \$14 million. This figure represents not only the value of volunteer expertise to develop a huge portfolio of digital products, but the cost savings from avoiding traditional government procurement requirements.

As Mr. Lane points out in his analysis, "Unlike traditional government programs, TOP doesn't require industry participants to be government contractors. TOP lowers the barrier to entry through open innovation and civic engagement while connecting technology builders with government data stewards." This creative approach could be applied in other programs as a model for agile collaboration.



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# Case Studies of TOP's Sprints





The following case studies are based on interviews with government leaders or nongovernment participants in the relevant sprints, a review of documents provided by TOP and the interviewees, and publicly available documentation of the tools created during the sprints. If not stated otherwise, information in the Background sections was drawn from TOP documentation, and information contained in the Product or Story sections was drawn from interviews.

Each case study described in this section had a unique and strong impact, helping achieve policy goals and support the well-being of Americans. They also helped the TOP team identify process improvements that have made the TOP program stronger over time. These are described in the Lessons Learned section of each case study.

The Improving Access to Capital in Indigenous Communities through Data sprint, for example, helped clarify the importance of close collaboration with user advocates (UA) throughout the process. TOP added UAs to their methodology early on as a way to ensure that groups standing to benefit from TOP sprints would help guide the project teams' work. The Economic Development Administration (EDA), the sprint leader, worked closely with a core UA group to draft the problem statement and recruit strong teams. The UA group itself ended up pivoting and joining a tech team. Embracing close collaboration early in the process built trust and credibility in key user communities and helped the federal sprint leader better understand their stakeholders and their program.



Example of Impact: TOP is educating the next generation of open government data users.

The Sprint: Facilitating Sustainable Rural Economic Development (2020).

The Background: Small towns and rural communities face structural barriers to sustaining or rebuilding their economies. They have less access to financial resources and capital, technical capacity, data, broadband internet, and planning capabilities than their larger counterparts. Together, these factors can lead small towns and rural communities to make economic development decisions without relevant data or a broader strategy to ensure sustainability.

The TOP sprint on Facilitating Sustainable Rural Economic Development was designed to make it easier for rural communities to access and use "curated datasets and implementation strategies to support sustainable" community driven economic growth.<sup>17</sup>

**The Product:** As part of this sprint, a group of students from Columbia University developed R Story, a product designed to "provide small community leaders with relevant, digestible data to achieve economic development goals."<sup>18</sup> The tool was developed through engagement with community leaders, who helped the product team understand their pain points as well as their strengths. After the sprint ended, the product team continued to work on R Story by exploring a pilot community partnership program to engage with communities and build a user-friendly tool.



17. https://opportunity.census.gov/sprints/earth/#earth.

<sup>18.</sup> https://drive.google.com/file/d/1Rdossu-pB6rOTNyFTPPqKmClChROLQPj/view.

RSTORY	ls a provider of relevant, easy-to-use data for small communities' economic development	
COMMUNITY PARTNERS	Are community leaders with in-depth knowledge of a community's economic development goals Want to use more data in community's economic development	
PARTNERSHIP PROGRAM	A deep dive into your community's federal open data Discussions on use of data in economic development Access to R Story in your day-to-day work	

**The Story:** Columbia University has been a regular participant in the TOP process, using it to help masters students gain valuable practical experience. Broadly, this partnership has helped students build out their resumes, expand their skill sets, gain experience using government data, become comfortable working in agile environments, and ultimately become more attractive job candidates.

In the case of R Story, the team behind it went even further, keeping the project going beyond the sprint cycle and using their experience to attempt to launch a social venture based on the tool.<sup>19</sup>

**Lessons Learned:** A challenge throughout TOP's history has been maintaining the products developed through TOP in a sustainable way. This project provided one model for sustaining a product through ongoing collaboration between a committed tech team and community partners.

<sup>19.</sup> Interview with Elena Krumova, September 23, 2024.



**Example of Impact:** TOP is kickstarting ongoing collaborations between government and data users.

The Sprint: Tracking Federal Funding Impact in Puerto Rico (2023).

**The Background:** Compounding disasters have hit Puerto Rico over the past decade. At the same time, the island has not received the same level of investment or infrastructure development as the mainland United States. The process to direct federal funding to Puerto Rico is complex and related issues with data transparency and accessibility have "reduced Puerto Rican residents' ability to understand and participate in critical funding decisions that directly impact their communities." Despite advances in Federal spending transparency since the early 2010's, the flow of money from federal to state and local levels often remains opaque with fractured data access.

The TOP sprint on Tracking Federal Funding Impact in Puerto Rico was designed to bring "greater visibility and understanding of how federal funding is allocated and utilized at the state and local levels can significantly enhance community engagement and empower residents to actively participate in identifying and addressing critical needs and underserved populations."<sup>20</sup>



20. https://opportunity.census.gov/sprints/2023-sprints/#2023-sprints.

**The Product:** As part of the sprint, Sembrando Sentido, an NGO dedicated to bringing transparency to public funding with a particular focus on Puerto Rico, developed a Puerto Rico Federal Funding Data Source Catalog (Catalog). The Catalog is the first step in a more ambitious project to develop a Federal Funds Tracker "that categorizes data types and data sources on federal funds allocated to Puerto Rico, aiming to identify available information, analyze its quality, define opportunities and challenges to address in order to combine these data sources and increase transparency of spending and impact."<sup>21</sup>

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**The Story:** Through their participation in the TOP process, the team at Sembrando Sentido has strengthened existing collaborations and built new connections with key contacts at the federal level. Overall, the TOP process made it easier for Sembrando Sentido to connect with federal data stewards and understand the specifics of federal funding data.

Specifically, they have developed an ongoing relationship with the Department of Treasury team that works on federal spending data transparency, creating a virtuous cycle that should improve both teams' work. This relationship has also provided valuable leverage as Sembrando Sentido works with communities to bring state and local governments along with their mission of empowering Puerto Ricans with the data to understand how their tax money is being spent.<sup>22</sup>

**Lessons Learned:** Sembrando Sentido has continued to build on the results of this sprint to develop a larger project on federal funding with other nonprofit and government partners. This project demonstrated how sprint participants can benefit from TOP projects and use them as springboards for more ambitious work.

<sup>21.</sup> https://www.sembrandosentido.com/.

<sup>22.</sup> Interview with Issel Masses, September 10, 2024.



**Example of Impact:** TOP is building more reciprocal relationships between government and communities.

The Sprint: Improving Access to Capital in Indigenous Communities through Data (2023).

**The Background:** Indigenous communities in the United States have significant structural barriers that make it harder for them to thrive. This includes limited access to capital and financing from both public and private sources as well as the relevant technical assistance to ensure successful application of that capital.<sup>23</sup>

Furthermore, Indigenous communities have not been included in efforts to understand wealth disparities in America. A recent study by the Mountain | Plains Native CDFI Coalition found that most public studies of societal wealth gaps in America either completely excluded Indigenous communities or lacked relevant data about them.<sup>24</sup> Overall, there is a need for intentionally and collaboratively designed national financial data collection tools that include first hand insights from Indigenous communities and increase reliability of and access to data about those communities.

The Mountain | Plains Native CDFI Coalition received a \$45-million Build Back Better Regional Challenge (BBRC) "grant to reverse decades of historical disinvestment and institutionalized inequities impacting Native communities by increasing capacity of and investment in the Indigenous Finance Industry through an alliance of nine Native Community Development Financial Institutions (CDFIs)." The grant is supporting a new regional revolving loan fund (RLF), enhanced physical infrastructure assets, and increased capacity and is the single largest investment in the Native CDFI community since its founding in 1985.<sup>25</sup>

The TOP sprint on Improving Access to Capital in Indigenous Communities through Data was designed to include thought leaders from Indigenous communities in the process of generating ideas to include those communities in data driven assessments of capital access and financial capacity.<sup>26</sup>

**The Product:** Ultimately, members of the Mountain | Plains Native CDFI Coalition, led by Four Bands Community Fund and Indigenous Impact Company, worked together as a tech team to analyze relevant individual spending data and develop a "Thriving Wage" analysis for the Cheyenne River Reservation.<sup>27 28</sup> The analysis was designed to address systemic data barriers with more community oriented solutions.

25. Ibid.

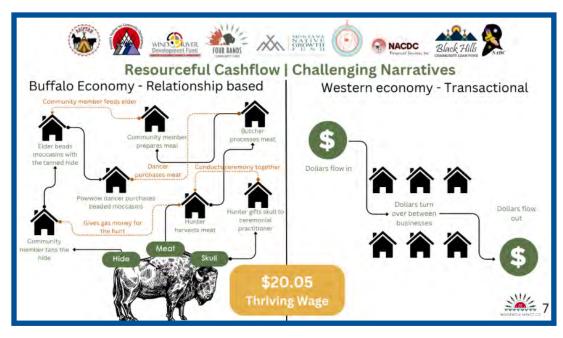
<sup>23.</sup> https://opportunity.census.gov/sprints/2023-sprints/#2023-sprints.

<sup>24.</sup> https://www.eda.gov/funding/programs/american-rescue-plan/build-back-better/finalists/four-bands-community-fund.

<sup>26.</sup> https://opportunity.census.gov/sprints/2023-sprints/#2023-sprints.

<sup>27.</sup> https://fourbands.org/.

<sup>28.</sup> https://www.Indigenousimpact.co/.



A screenshot from the Mountain | Plains Native CDFI Coalition's presentation on the Thriving Wage that they developed as part of the TOP cycle, showing key differences between the Western concept of the economy—which is transactional—and the "Buffalo" concept of the economy—which is relationship-based and interconnected.

**The Story:**<sup>29</sup> The TOP sprint on Improving Access to Capital in Indigenous Communities through Data was co-developed by members of the Mountain | Plains Native CDFI Coalition and the U.S. Department of Commerce's Economic Development Administration (EDA). It was the first native led and focused sprint in TOPs history.

This sprint was designed to include thought leaders from Indigenous communities in the process of generating ideas to include those communities in data driven assessments of capital access and financial capacity. The idea stemmed from conversations between the Mountain | Plains Native CDFI Coalition and the EDA after the BBBRC grant was awarded, during which it became clear that new policies and procedures were needed to adapt the RLF model to native markets and ensure that investment was actually reaching native communities.

In addition to helping develop the concept of the sprint, Four Bands and Indigenous Impact Company members of the Mountain | Plains Native CDFI Coalition ended up taking on the role of Sprint Participants. By doing this, they brought their cultural values—which in some cases conflicted with the urgent approach of the sprint process—relationships, knowledge of local contexts, and lived experience to the process. They leveraged the TOP process to identify the wage members of the Cheyenne River Reservation need to thrive, not just survive. The Thriving Wage is designed to be replicated in other communities, ultimately empowering Native CDFIs, businesses, tribal economic development departments, and families.

**Lessons Learned**: This sprint demonstrated the value of including user advocates—in this case, representatives of Indigenous communities—as a critical part of TOP sprint development and execution. Without genuine and deep engagement with those communities, this sprint would not have been successful or beneficial.

<sup>29.</sup> This section was based on interviews with Matt Knutson (October 8, 2024) and Jael Kampfe, Laraya Johnson, and Tommy Robinson (October 9, 2024).



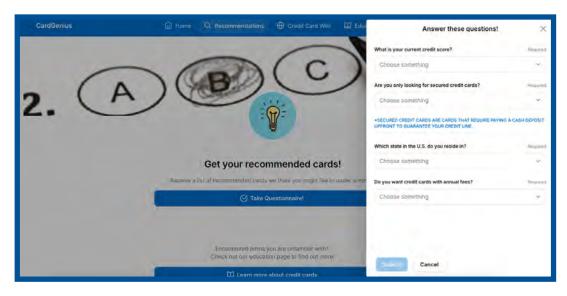
**Example of Impact:** TOP is helping market participants make positive change with open data.

The Sprint: Promoting Competition in the Credit Card Market (2023).

**The Background:** Shopping for credit cards is not a consumer-friendly activity. Popular comparison sites are incentivized to promote cards that make them money. Many cards are also advertised with vague details, requiring approval before sharing exact interest rates and credit limits. Americans pay roughly \$120 billion per year in credit card interest rates and fees and may be leaving money on the table thanks to limited access to information while shopping for credit cards.<sup>30</sup>

The TOP sprint on Promoting Competition in the Credit Card Market was designed to leverage data from the Consumer Financial Protection Bureau (CFPB) to bring new competition to the market for credit card shopping, ultimately empowering consumers to find credit cards that better align with their needs.<sup>31</sup>

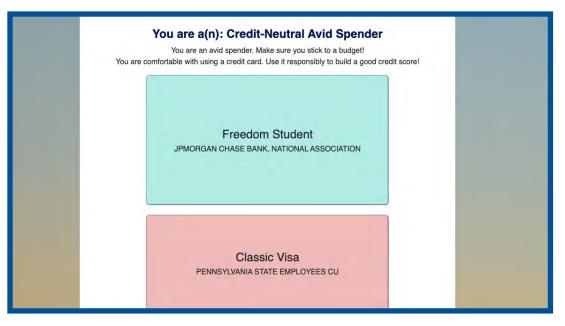
**The Product:** The TOP sprint on Promoting Competition in the Credit Card Market attracted interest from a number of groups that wouldn't traditionally be operating in the credit card comparison space including several university teams, a nonprofit financial services organization, and a company focused on helping individuals and organizations make better investment choices.



A screenshot from Card Genius, developed by a team at Columbia University

<sup>30.</sup> https://files.consumerfinance.gov/f/documents/cfpb\_consumer-credit-card-market-report\_2021.pdf.

<sup>31.</sup> https://opportunity.census.gov/sprints/2023-sprints/#2023-sprints.

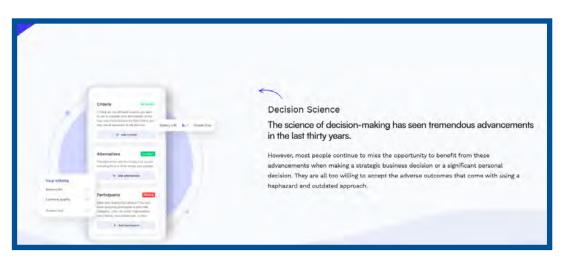


A screenshot from Limit, developed by a team at Rutgers University

**The Story:** The TOP sprint on Promoting Competition in the Credit Card Market successfully proved its thesis, showing that open data combined with better aligned incentives can nudge market participants to build more consumer-friendly products and tools.<sup>32</sup>

Many TOP projects amount to demonstration products, minimum viable products, or just the first step in a larger effort. However, the results of this sprint were integrated into at least one product, Definitive Choice, that is currently on the market, helping people make smarter decisions.

**Lessons Learned:** This sprint demonstrated how TOP products may be integrated into products with commercial potential. That opportunity, where it exists, provides both a route to product sustainability and an incentive for tech companies and entrepreneurs to participate in TOP sprints.



Screenshot from the Definitive Choice product page.

<sup>32.</sup> Interview with Nat Weber, June 12, 2024.



Learning from TOP: Three Programs That Have Scaled the Methodology

Beyond the successes of TOP's sprints, and the lessons learned from them, TOP has had a strong influence in serving as a template for independent programs that have adapted its methodology. Their success shows that the methodology is broadly applicable and scalable, both within and outside of the federal government.

#### U.S. Department of Health and Human Services: Health Tech Sprints

CODE's 2019 report described two HHS Health Tech Sprints, launched in the fall of 2018, that were the first example of a federal agency applying TOP's methodology on its own. This sprint cycle, led by HHS and the Presidential Innovation Fellow (PIF) program, included two parallel tracks. The first was an artificial intelligence (AI) track designed to improve clinical trial matching for patients.<sup>33</sup> The second, led by the HHS Office of the Chief Technology Officer, leveraged crowd- and patient-based insights to "Harness the power of collaboration, citizen science, and data for Lyme disease."

The AI project faced the challenge of developing a new AI application when no "AI ecosystem" for data existed. To meet that challenge, the project leaders departed from standard TOP methodology and released data at intervals on the sprint website, rather than all at once at the beginning of the project. This approach enabled the team to experiment iteratively with AI approaches, assess the value of different types of data for the project, and identify and improve high-value datasets as the project progressed.

The sprint focused on Lyme disease innovation and was led entirely by HHS with no involvement from the TOP team, other than featuring some of its work at the TOP demo day. This sprint "showcased how industry teams and innovators of all ages can create new digital tools and real-world value from federal open data."<sup>34</sup> The sprint was structured as a challenge, asking, "How can we address Lyme and other tick-borne diseases through emerging technologies by coupling the power of the crowd and patient insights with data?" The products created included an Al-driven tool to help doctors and patients identify and document symptoms, a learning game for middle schoolers, and a Tick Tracker app to report and track tick exposure.

#### The Opportunity Project for Cities

The Georgetown Beeck Center for Social Impact & Innovation, whose mission is to use "data, design, technology, and policy as instruments for equitable societal change," followed the TOP model to help cities manage the COVID crisis.<sup>35</sup> By 2021, tens of millions of Americans were estimated to be at risk of eviction, and possibly homelessness, following the loss of their jobs. In March of that year, the Beeck Center partnered with the Centre for Public Impact to launch The Opportunity Project for Cities, or TOPC for short.<sup>36</sup> <sup>37</sup> <sup>38</sup>

<sup>33.</sup> https://healthdata.gov/stories/s/Blog-Health-Tech-Sprint-Aims-at-Improving-Care-Acc/kbzc-42jx/.

<sup>34.</sup> https://health.gov/about-oash/io-programs-initiatives/innovationx/lyme-innovation/lyme-innovation-real-world-impact.

<sup>35.</sup> https://beeckcenter.georgetown.edu/.

https://beeckcenter.georgetown.edu/putting-people-first-topcities-works-to-co-create-solutions-to-covid-19-challenges-by-centeringresidents-and-local-data/.

<sup>37.</sup> https://centreforpublicimpact.org/.

<sup>38.</sup> https://beeckcenter.georgetown.edu/projects/topc/.



Initially, TOPC worked in San Jose, Calif. and St. Paul, Minn.—two cities with funding from the Knight Foundation, which also supported TOPC—to help them address the housing crisis. The San Jose team worked to improve rental assistance and assess the number of residents at risk with data analysis. The St. Paul team used data-driven solutions to connect their unhoused residents to support social and emergency services and shelter. Their solutions were showcased at a June 21 Demo Day, modeled on the public events TOP used to publicize its digital products.

Following this successful launch, the Beeck Centre and Centre for Public Impact have continued the TOPC program, working in seven American cities to date.<sup>39</sup> TOPC runs 20-week development sprints, slightly longer than federal TOP sprints, and provides a library, toolkits, and other resources for the cities it works with. The TOPC website describes its ongoing goals: collaborating with residents to tackle local issues, fostering cross-sector partnerships, and enhancing digital innovation capacity.

<sup>39.</sup> https://beeckcenter.georgetown.edu/projects/topc/.

#### Puerto Rico: An Ongoing Application of TOP's Methodology

Over the last several years, TOP has established an ongoing presence in Puerto Rico and laid the groundwork for continued data-driven work on the island independently of TOP. The work was launched with several TOP projects conducted in 2022 as part of a year-long theme:

- "Creating Opportunities for Parent/Caregiver Engagement in Puerto Rico Schools," conducted in partnership with the Puerto Rico Department of Education
- "Enhancing Children's Resilience to Adversity in Puerto Rico," conducted by HHS and the Instituto del Desarrollo de la Juventud
- "Supporting Island Communities' Transition to Renewable Energy," with the National Renewable Energy Laboratory and the Puerto Rico Negociado de Energia
- "Supporting Workforce Development in Puerto Rico," with HHS, the USDA, and the Puerto Rico Department of Economic Development and Commerce
- "Transforming Local Addressing Systems in Puerto Rico," with HUD and the Census Bureau

Following this successful launch, TOP conducted additional sprints in 2023 on financing for innovation and technology transfer, improving literacy, and tracking federal funding impact in Puerto Rico. In a recent interview, the TOP project team described both the challenges of bringing TOP to Puerto Rico and lessons learned from that ongoing work.<sup>40</sup>

TOP PR, as the Puerto Rico initiative is informally known, faced some unique challenges from the beginning. Puerto Rico is poorly represented in many national datasets, making it difficult to find the data needed for TOP applications. (This is why one of the earliest TOP PR projects focused on improving address data on the island.) Puerto Rico does not have the well-established collaborations between government, academia, and private industry that have supported TOP sprints in other areas. In addition, TOP did not initially have a simple system for conducting sprints bilingually in English and Spanish, although current AI technology may help solve that challenge.

Despite these obstacles, TOP PR has been an opportunity to bring to Puerto Rico a new type of collaborative approach. TOP PR has used in-person convenings to foster innovation and begin to build collaborations among diverse stakeholders. Continuing these and other efforts can begin to support new types of data governance and the infrastructure needed to strengthen data on the island.

Going forward, the Census Bureau is continuing to support data-driven innovation in Puerto Rico separately from TOP, but continuing to draw on TOP's methodology. In addition to other obstacles, funding remains a continuing challenge for working in Puerto Rico, particularly because small innovative tech companies may not be able to take the time to make significant in-kind contributions. Involving larger tech companies, as TOP has done in other sprints, may help fill the gap.

<sup>40.</sup> Interview with current and past members of the TOP program team.



## Opportunities to Further Refine the TOP Methodology

CODE's research for this report identified several opportunities for further growth and improvement in TOP's methodology. The following six recommendations highlight some of the most promising directions for TOP to explore, and are relevant to the effective operation of similar innovation programs across government.

- 1. Continue to focus on building trust and understanding between participants. TOP has carefully designed its user research phase to facilitate trust-building, understanding, and communication. In some cases, feedback from tech teams and user advocates has led to adjustments in project goals. For example, a problem statement focused on helping school districts serving youth experiencing homelessness was changed to focus on directly helping youth find shelter and resources.<sup>41</sup> Nevertheless, several sprint participants interviewed by CODE mentioned tensions that stemmed from a lack of trust, unclear communication, or unfounded assumptions about the communities and individuals that a sprint is designed to help. This can be particularly true when sprints address communities that have had bad experiences with government representatives or programs in the past. TOP can continue to monitor these issues and check in with sprint participants to address any issues that arise.
- 2. Encourage sprint leaders to tailor the ways they support participants. TOP sprint leaders and product advisors facilitate the team's work and can mentor team leaders as necessary. TOP's exit interviews with sprint participants show that this approach is largely successful. Still, CODE's interviews show some room for improvement, since some Interviewees noted that the TOP process can be overwhelming or confusing for teams that haven't participated before or that are facing resource constraints. One possible solution, which some sprint leaders have explored, is to offer office hours outside of the sprint milestones. In addition to making office hours part of the standard TOP methodology, TOP can also encourage sprint leaders to learn more about individual participants and tailor support to what they need.
- **3.** Explore strategies to provide additional resources to participants. Repeat TOP participants tend to come from companies or academic organizations that have ample resources to engage in the process. In contrast, participants from NGOs and community groups that CODE interviewed noted that committing to the sprint process can be difficult due to a lack of financial and time resources or staff. Providing additional resources could encourage more of these groups to join TOP sprints—an important goal, since TOP can have particular value for community groups that learn from its methodology. One option is to engage academic institutions to provide students to work on project teams led by NGOs or community groups. TOP can also explore public-private partnerships with technical or consulting firms, which can provide added resources and benefit from the talent pipeline that TOP develops.
- **4. Return to organizing sprints thematically.** From 2018 through 2021, TOP's sprints were mostly organized around themes that made it easier to align federal and non-federal partners around common goals in parallel projects. A thematic focus on projects in Puerto Rico even led to establishing an independent project to continue to apply TOP's methodology to data-driven work on the island. In general, thematic approaches enable TOP to do a deep dive on problems affecting specific topics and regions. Returning to a thematic methodology, as the TOP team now plans to do, will maximize the program's benefits.

<sup>41.</sup> Interview with TOP program team.

- 5. Continue to evolve virtual and in-person convening models. Over the years, TOP has experimented with both in-person and virtual convenings for sprint participants and other TOP stakeholders. Initially, TOP used virtual convenings to enable project teams to work together across the country, and held annual in-person Demo Days to showcase TOP projects and reach a broader community of interest. In response to COVID, TOP shifted to all-virtual convenings. According to TOP leadership, participants were initially enthusiastic about these virtual meetings—they provided a welcome way to connect with colleagues early in the COVID pandemic—but have recently been less eager to engage as years of "Zoom fatigue" has set in. With the pandemic over, TOP could now continue to adapt the hybrid model over time, using virtual meetings for collaboration on specific projects and in-person Demo Days to celebrate the results of each sprint and reach out to a broader community.
- 6. Engage with others promoting agile development in government. TOP deserves credit for demonstrating the value of agile development methodology for data and IT projects in the federal government. In recent years, several working groups or guidelines on agile development have launched both in the federal government and outside organizations that work on federal technology issues. Examples exist at the National Academy of Public Administration (NAPA), the IBM Center for The Business of Government, and the Government Accountability Office (GAO).<sup>42</sup> With an increased focus on improving government efficiency, tech leaders have also emphasized the importance of agile approaches.<sup>43</sup> COIL, the home department for TOP, has engaged with other agile groups in government. The Opportunity Project could also connect directly with other groups championing agile methodology, both to share TOP's experience and to learn from informed colleagues, to their mutual benefit.

### CONCLUSION

After 10 years, TOP's accomplishments are significant. It has produced hundreds of products, expanded the use and audience for open government data, created new and ongoing collaborations, empowered communities, and even fostered greater collaboration among private sector enterprises.

Many organizations join TOP sprints every year, and every person we interviewed said they would happily participate again in the future. More than anything, the people involved with TOP have ensured its success over the past decade and will keep it going for another 10 years.

<sup>42.</sup> See: https://napawash.org/agile-government-center, and https://www.gao.gov/products/gao-24-105506.

<sup>43.</sup> See for example Recoding America by Jennifer Pahlka.

### ACKNOWLEDGMENTS

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## **APPENDIX** 1

#### Estimating TOP's Public Value

To calculate CODE's value over the years, CODE reached out to an industry expert who is deeply familiar with TOP to perform an analysis. Bryan Lane is the founder of DATA XD, a technology and analytics consultancy focused on data-driven decision making. Bryan is an experienced program evaluator with over 20 years of service in the public and private sector, where he has been both a solicitor and offeror on government proposals. He has been a TOP volunteer since 2017 and developed the Product Advisor role for Top Sprints in 2018. As a TOP Product Advisor, he has mentored over twenty different TOP participant teams on intellectual property, product management, strategic partnerships, and go-to-market strategies. Here is his analysis.

#### Background

From its earliest days, The Opportunity Project (TOP) has had a unique model: It uses open data to address interagency problem statements and makes the IP available to industry and other partners with no money changing hands.

Speed and low overhead are part of the TOP value proposition. Vendors can engage government agencies, learn about the challenges they were facing to meet their mission, and build something to address those challenges—all while adding to their intellectual property portfolios. TOP brings together GovCon veterans and industry newcomers as they work through the 12-week process focused on human-centered design and rapid innovation.

Unlike traditional government programs, TOP doesn't require industry participants to be government contractors. By leveraging the unique data sharing authorities in Title 13 of the U.S. Code and the Foundations for Evidence-Based Policymaking Act of 2018, TOP lowers the barrier to entry through open innovation and civic engagement while connecting technology builders with government data stewards. This has an implied value but has not been priced out since the inception of the TOP program.

This analysis estimates the costs for the government and industry to engage in TOP if it were conducted as a traditional program using standard federal acquisition procedures. The sections below describe the analytic methodology used to build this estimate, assumptions about a hypothetical TOP acquisition, and an estimate of value delivered by executing TOP through open innovation as opposed to traditional acquisition. Sources for this analysis include buy.gsa.gov, the federal GS pay schedule, several government contracting websites, and personal experience in the private and public sectors.

#### Methodology

This section describes the methodology used to build up a value estimate for TOP. The value estimate is broken down into two parts: 1) cost avoidance related to using open innovation and civic engagement as opposed to traditional federal acquisition methods, and 2) development work performed by sprint teams throughout the year.

This method incorporates dedicated labor hours to both pre-award and post-award phases of contract management. This represents the transaction costs of entering into a contract with the government.

For program development and execution, this model considers the 12-week sprint to be the primary atomic unit. This estimate reflects multiple teams working on different aspects of a problem statement, as this is how TOP generally executes the program today. The buildup of annual development costs will reflect multiple teams working on multiple problem statements throughout the year.

This method does not attempt to match one-for-one the participation metrics of TOP since its inception but generalizes activities into a typical execution year over the span of the entire program.

#### Assumptions

Below are the assumptions made when calculating the cost avoidance associated with traditional or formal federal acquisition procedures:

#### Government

- The government would provide representatives from the program office, the acquisition office, and legal team to generate a solicitation.
- The time to generate the solicitation would span six months, with fewer hours dedicated in the early phases of requirements gathering and design.
- The later phases, including proposal evaluations and making an award decision would require more time.
- The solicitation would be published full and open, resulting in seven qualified offerors.
- The contract period of performance would span one base year and four option years.
- Labor hours dedicated to post-award contract management would be minimal, assuming no oversight or quality issues during the period of performance. Additionally, the labor hours slightly increase with quarterly and annual review activities.
- Of the seven offerors, four would be awarded the contract. This includes additional assumptions about leveraging a multiple award acquisition vehicle. For this model, additional acquisition strategies such as single award types or Basic Ordering Agreements were considered but not included in the estimate.
- Hourly rates ranged from \$65 to \$85.
- The total number of hours for pre-award activities is estimated to be 359.
- The total number of hours for post-award activity is estimated to be 87.
- The 10-year program estimate assumes one contract recompete at year five with seven qualified offerors and a small adjustment for inflation (3 percent).
- This model does not consider additional costs associated with records management, oversight, or auditing activities.

#### Vendors

- Vendors would respond to the solicitation using a mix of capture management, technical subject matter experts, and executive support for quality control.
- The time for the vendor to identify the opportunity and generate a response is 60 days. The first 30 days are dedicated to opportunity identification by the capture team. The final 30 days contain the bulk of the work, to include proposal response generation and quality reviews.
- Hourly rates ranged from \$80-\$250 and are not "fully loaded" with overhead and benefits.
- The total number of hours for proposal response activities is estimated to be 132 per vendor submission.
- This model does not consider contract administration overhead by the vendor team.

Below are the assumptions made when calculating the value of development activities following the TOP business process:

#### **Development Activities**

- 12-week TOP sprints are the atomic unit of measurement for work performed.
- Multiple sprint teams may work on a single problem statement in a sprint.
- In an average year, TOP will develop and execute against four problem statements or sprints.
- The average number of teams working on a problem statement simultaneously is five.
- A sprint team will consist of three people on average.
- The hourly labor rates range between \$150-\$180 and are "fully loaded" to incorporate overhead and benefits.
- This model does not consider government labor costs in TOP sprint execution.
- The total number of hours for proposal response activities is estimated to be 420 per sprint team.

#### **Estimation of Public Value**

Annual Acquisition Cost Avoidance (Pre-Award)	Government	\$25,645
	Vendors (7 offerors)	\$56,700
Annual Acquisition Cost Avoidance (Post-Award)	Government	\$26,220
Total Annual Acquisition Cost A	\$108,565	
Single Sprint Level of Effort	\$67,200	
Total Vendor Execution Costs (4	\$1,344,000	
Total Estimate of Public Value (Annual)		\$1,452,565
Total Estimate of Public Value (	\$14,063,587	

## APPENDIX 2

#### Problem Statements and Agency Leads

Year	Problem Statement Title	Agency Lead(s)
2016	Accessing Apprenticeships	U.S. Department of Labor
2016	Connecting Americans to Skills and Jobs	U.S. Department of Labor
2016	Identifying Equity Scores and Gaps	U.S. Department of Education
2016	Increasing Safety and Mobility Across the Nation	U.S. Department of Transportation
2016	Policymakers, and Front-Line Providers	U.S. Department of Housing and Urban Development
2016	Promoting Health and Well-Being Nationwide	U.S. Department of Health and Human Services, Office of the U.S. Surgeon General
2016	Small Town Resource Guide	U.S. Department of Agriculture
2016	Supporting Decision-Making for Student Sub-populations and their Families	U.S. Department of Education. Department of Housing and Urban Development
2016	Summer Food Programs	U.S. Department of Agriculture
2016	Veterans Suicide Prevention	U.S. Department of Veterans Affairs
2017	Engaging Communities in the Census	U.S. Census Bureau
2017	Making Federal Grants Data User-Friendly for Local Leaders	Office of Management and Budget, U.S. Department of the Treasury
2017	Veterans Homelessness and Employment	U.S. Department of Veterans Affairs
2017	Youth Homelessness	U.S. Department of Education
2018	Harnessing Data and Leveraging Digital Tools to Combat the Opioid Crisis	White House Office of Science and Technology Policy
2018	Helping States Develop Education Report Cards	U.S. Department of Education
2018	Helping Tribal, State, and Local Governments with Local Address Data Collection	U.S. Census Bureau, U.S. Department of Transportation

Year	Problem Statement Title	Agency Lead(s)
2018	Identifying and Strengthening Civic Environmental Stewardship	U.S. Forest Service
2018	Improving Access to and Management of Federal Grants	Office of Management and Budget, U.S. Department of the Treasury
2018	Increasing Government Accountability by Connecting Federal Spending and Performance Data	Office of Management and Budget, U.S. Department of the Treasury
2018	Promoting Access to and Interest in STEM Fields	U.S. Department of Education
2018	Using AI to Help Patients Find Clinical Trials	U.S. Department of Health and Human Services
2018	Using Geospatial Data to Help People Prepare for Disasters	Federal Emergency Management Agency, U.S. Department of Homeland Security
2018	Using AI to Connect Veterans with Registered Apprenticeships	U.S. Department of Labor
2019	Bridging the Digital Divide	U.S. Census Bureau
2019	Catalyzing Investment in Opportunity Zones	U.S. Department of Housing and Urban Development, White House Council of Economic Advisors
2019	Helping the American Workforce Leverage Multiple Pathways for Career Growth	U.S. Department of Education
2019	Increasing Digital Literacy	U.S. Census Bureau
2019	Modernizing Talent Discovery for High Growth Entrepreneurship	U.S. Economic Development Administration
2019	Promoting 2020 Census Jobs	U.S. Census Bureau
2019	Reaching Hard-to-Count Communities	U.S. Census Bureau
2019	Resources to Unleash American Entrepreneurship	White House Office of Science and Technology Policy
2020	Aiding Agricultural Decision-Making	U.S. Department of Agriculture
2020	Assisting Recently Resettled Refugees	USA for United Nations High Commissioner for Refugees

Year	Problem Statement Title	Agency Lead(s)
2020	Developing Markets for Recycled Materials	U.S. Environmental Protection Agency
2020	Economic Self-Sufficiency for Low-Income Families	U.S. Department of Housing and Urban Development
2020	Facilitating Sustainable Rural Economic Development	U.S. Environmental Protection Agency
2020	Increasing Awareness of Emissions' Effects on Air Quality	U.S. Environmental Protection Agency
2020	Reducing Plastic Pollution in Oceans	U.S. Department of State, The Wilson Center
2020	Reimaging Civics Education for a New Generation	U.S. Department of State
2020	Tracking Impact of Disaster and Emergency Funding	Office of Management and Budget
2021	Analyzing Equity in Federal COVID-19 Spending	U.S. Department of the Treasury
2021	Analyzing Housing and Migration Trends Post-COVID-19	U.S. Department of Housing and Urban Development
2021	Assisting Businesses, Community, and State/Local Government Leaders to Make Critical Decisions Using Decennial Data	U.S. Census Bureau
2021	Helping Small Businesses Thrive in a Digital Economy	City of Coral Gables
2021	Improving Data Literacy Using Decennial Census Data	U.S. Census Bureau
2021	Improving Minority Businesses' Access to Capital	Minority Business Development Agency
2021	Inclusive and Creative 2020 Census Data Engagement	U.S. Census Bureau
2021	Increasing Content Accessibility for Multilingual Communities	New York City
2021	Preventing Crisis for Low-Income Renters & Small Landlords	Consumer Financial Protection Bureau
2021	Tackling the Climate Crisis through Climate-Smart Communities	National Oceanic and Atmospheric Administration (U.S. Department of Commerce)

Year	Problem Statement Title	Agency Lead(s)
2021	Creating Digital Tools that Bring Diagnostic Data to Consumers	U.S. Department of Health and Human Services
2021	Helping Families, Businesses, and Communities Respond to COVID-19	U.S. Census Bureau, American Statistical Association
2022	Building Climate Change Resilience Through Public Transit	U.S. Department of Transportation
2022	Building Community and Individual Climate Resilience	Federal Emergency Management Agency
2022	Creating Opportunities for Parent/ Caregiver Engagement in Puerto Rico Schools	Puerto Rico Department of Education
2022	Developing Community-Informed National-Level Indicators of Well-Being	U.S. Department of Commerce, U.S. Department of Labor, U.S. Department of the Treasury, New America
2022	Enhancing Children's Resilience to Adversity in Puerto Rico	U.S. Department of Health and Human Services, Instituto del Desarrollo de la Juventud
2022	Helping Communities Access Infrastructure Grant Funding	White House Office of Science and Technology Policy, U.S. Department of Commerce
2022	Supporting Island Communities' Transition to Renewable Energy	National Renewable Energy Laboratory, Puerto Rico Negociado de Energía
2022	Supporting Workforce Development in Puerto Rico	Puerto Rico Department of Economic Development and Commerce, U.S. Department of Health and Human Services, U.S. Department of Agriculture
2022	Transforming Local Addressing Systems in Puerto Rico	U.S. Census Bureau, U.S. Department of Housing and Urban Development
2023	Advancing Health Data Aggregation for Improved Patient Care	U.S. Food and Drug Administration (FDA)
2023	Building Social Infrastructure Resilience for Local Communities	National League of Cities
2023	Capturing Harmonized Data from In Vitro Diagnostics (IVDs)	U.S. Food and Drug Administration (FDA)
2023	Empowering Consumers (Patients) Through Knowledge of Privacy and Security Regarding Their Health Data	U.S. Food and Drug Administration (FDA)
2023	Enabling the Use of Diagnostic Testing with Telehealth Platforms	U.S. Food and Drug Administration (FDA)
2023	Financing for Innovation and Technology Transfer in Puerto Rico	Minority Business Development Agency," Puerto Rico Science, Technology & Research Trust," Colmena66

Year	Problem Statement Title	Agency Lead(s)
2023	Improved Data Access for Local Policymakers	U.S. Department of Commerce
2023	Improving Access to Capital in Indigenous Communities through Data	U.S. Economic Development Administration
2023	Improving Access to Electrical Power for Climate Resilience	U.S. Department of Energy
2023	Promoting Competition in the Credit Card Market	Consumer Financial Protection Bureau
2023	Reducing the Literacy Gap in Puerto Rico Households	Todos a Leer Coalition
2023	Tracking Federal Funding Impact in Puerto Rico	PolicyLink, U.S. Department of Commerce, Puerto Rico Office of Management and Budget
2024	Building Stronger Pathways to Grants and Funding for Indigenous Communities	Natives Count Coalition, National Urban Indian Family Coalition
2024	Empowering Community-Led Well-Being Measurement	Harvard Business School, U.S. Department of Commerce, National League of Cities
2024	Enhancing Access to Federal Science and Technology Research & Development Funding	National Institute of Biomedical Imaging and Bioengineering, National Institutes of Health
2024	Expanding Opportunities for Native Homeownership and Housing Stability	U.S. Census Bureau, U.S. Department of Housing and Urban Development
2024	Strengthening the STEM Educator Workforce	U.S. Department of Education

## ABOUT THE AUTHORS



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**Joel Gurin** is the President and Founder of the Center for Open Data Enterprise (CODE). His book *Open Data Now* (McGraw-Hill), written for a general audience, is considered a benchmark publication that helped define this emerging field. Before launching CODE in January 2015 he conceptualized and led the NYU GovLab's Open Data 500 project, the first thorough study of the use of open government data by the private sector. He previously served as Chair of the White House Task Force on Smart Disclosure, which studied how open government data can improve consumer markets, and as Chief of the Consumer and Governmental Affairs Bureau of the U.S. Federal Communications Commission. For more than a decade he was Editorial Director and then Executive Vice President of Consumer Reports, where he directed the launch and development of ConsumerReports.org, which was then the world's largest paid-subscription information-based website. He is a graduate of Harvard University, a member of the 2023 FCW Federal 100, and an elected Fellow of the National Academy for Public Administration.



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**Matt Rumsey** is the Director of Research and Strategy at CODE. He has experience in open government data as an advocate, policy analyst, and researcher. Prior to joining CODE, Matt worked as an independent researcher with organizations including the Data Foundation, CODE, and the Sunlight Foundation. He conducted research and wrote policy and briefing papers on topics including DATA Act implementation, grants data standardization, legal entity identification, the interaction between open data and privacy, and open research data. He got his start in open data at the Sunlight Foundation, where he worked on federal policy initiatives. He advocated for passage and effective implementation of the DATA Act, conducted research and advocacy around executive branch open data efforts, and helped to conceptualize and draft what would become the OPEN Government Data Act. Matt has a B.A. in history from American University in Washington, D.C.

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