Public sector organizations can foster economic growth by leveraging open data and the technology platforms that manage data.

**Executive Summary**

There is mounting evidence showing that by embracing open data, public sector organizations can help make a measurable difference in creating jobs, influencing consumer spending, and increasing tax revenue for local economies. The initial (and truly historic) boost came from The Obama Administration's directive to federal agencies to put public information online. The momentum continues to be fueled by a growing number of open data advocates inside and outside of government. For example, in 2011, the rate of new business formation in Seattle—a city that has proactively embraced an open data initiative—rose 9.41 percent in 2011, compared with the national average of 3.9 percent. Clearly, there's a correlation between positive economic activity and the availability of open and transparent access to public data. The positive impact of increased economic activity—one of Socrata's four pillars of value in its Open Data Value Framework—is certainly a worthy objective for any organization considering undertaking an open data initiative.
Defining Activities
To the extent that public sector organizations are interested in leveraging open data to encourage economic development, a few important components should be taken into consideration. When implemented successfully, an open data initiative can act as a catalyst for economic activity and drive positive outcomes, especially if the organization focuses on these capabilities:

- Ability to deliver reduced data transaction costs for businesses
- Embrace a ‘catalyst’ role in the emerging data economy, helping to incubate civic startups
- Provide access to data that supports academic research, driving new discoveries
- Encourage public-private data exchanges
- Consider the development of cross-departmental and inter-government data federations

The Economic Impact of Open Data
Of the four pillars of value that should inform any open data initiative, the increased economic activity driven by open data might be the most difficult to pinpoint and measure. It's also true that of the four pillars, the economic value driven by open data can potentially have the most significant impact to both public sector organizations and the overall community. This impact manifests in several ways—from encouraging the development of a data economy to incubating new businesses, to monetizing the access to public data by private industry, to recognizing increased tax revenue from all of the increased economic activity. But it's up to each organization to determine which of those dimensions make the most sense to develop, based on the needs of the community, the demands of constituents, and the local economic realities.

It's said a rising tide lifts all boats. This adage is often the case in a robust economy, specifically in the case where each part of the community is engaged and rewarded for their risk-taking, hard work and innovation. Of course, economies are dynamic, so it's incumbent upon city, county, regional, and state government organizations to look for opportunities to foster a climate that encourages entrepreneurship while also maximizing the resources under its control. If you think of data as a public resource, it's no different than other resources controlled by public sector organizations for the good of all including parks and open spaces, roads and bridges, to infrastructure like water and sewer lines, to mineral rights, open ranges, or forests.

Public leaders have a responsibility to maximize the value of those resources and develop the economic potential for the benefit of their constituents. Data is no different from any other resource. It can be kept under lock and key, rendering it useless, or it can be made freely available, encouraging the free expression of ideas, fostering an environment that rewards entrepreneurship and unleashing the potential positive effects of net-new economic activity.

Benchmark Survey Reveals Positive Economic Impact
Results from the survey that fueled Socrata’s 2014 Open Data Benchmark Report reveal compelling statistics regarding the relationship between open data and economic development, and whether open data is improving the lives of constituents:

- 71% of respondents agree that open data initiatives can spark economic development
- 67% agree that open data initiatives make constituents’ lives better
- 39% say that open data has led directly to economic development in their communities

Respondents were also asked additional follow-up questions to better quantify the nature of this economic development. Of those who agree open data has led directly to economic development:

- 75% say they have seen the direct benefits in new businesses forming
- 72% has seen an increase in jobs
- 59% have seen increased tax revenues

Evidence Of Indirect Economic Benefits
A relatively new development in civic activity and engagement is the rise of the ‘hacktivist’. This new breed of citizen activist is tech savvy, passionate about the community in which he or she lives, and interested in harnessing the power of the data generated by local and regional public sector organizations to help make a difference. The hacktivist understands the value of open data, and the power of making the valuable information it provides more widely available and accessible to the average citizen. Many of these civic-minded innovators are now creating entirely new economies by leveraging public data to deliver valuable information and services to their fellow citizens.

Obviously, increased economic activity of any kind helps to create jobs and stimulate economic growth. Those benefits are almost always positive for the broader community. But in addition to the positive effects of increased economic activity, public sector organizations also stand to bring in more revenue – either through royalties from the private for-profit organizations that benefit from gaining access publicly-owned data or through the tax revenue that might accrue from the net increase in economic output.

Finally, there’s one more positive effect for public sector organizations that actively leverage open data to help foster economic activity to consider. The very act of embracing open data and making it available to constituents to help foster economic activity helps to shape the relationship between elected officials and the broader community. By providing free and open access to public data, and encouraging the development of innovative ways to harness that information, public sector organizations become true partners in fostering innovation and growth. The impact of this cannot be understated, especially in light of the increasing mistrust in government, with the perception held by many that public sector organizations are often a net drag on economic activity and an impediment to innovation.

Bringing Increased Economic Opportunities To Life
There are many examples of open data driving positive economic outcomes. Some examples involve for-profit organizations leveraging data to deliver services or creating a new business niche. Others involve citizen activists engaging with data to solve problems they are passionate about. And of course, public sector organizations themselves can both see direct economic benefits themselves and also provide economic benefit to their communities through open data initiatives. A few examples include:
Providing Consumers With Valuable Health Inspection Information

Food-borne illness affects 1 in 6 Americans. Every year, about 52 percent of all those food-borne illnesses occur at restaurants (and another alarming four percent at schools and hospitals.) In all, it adds up to a $77.7 billion impact on the U.S. economy annually, in missed time from work, food waste, and medical costs.

One company, HDScores, collects open data from Health Departments in 884 jurisdictions across the country. The information comprises more than three million inspection reports and nine million line item violations from about 300,000 establishments where food is sold or served to the public.

The data is standardized and made available for consumers in the form of a 100-point system with clear symbols to indicate the kind of violation an establishment has. For example, a restaurant might have an 87-point rating with a picture of a rat to indicate a pest problem. Consumers can then use that information to decide if they want to eat at the establishment.

Opening health inspection data and making it comprehensible to the public also makes great business sense. It's estimated when New York City released their inspection data, the City and State collected an additional $100 million in sales tax revenue, because of greater consumer confidence.

Saving Energy, Saving Money

Opower is a data-founded company that shows great potential in the open data space. The company was founded to help bridge the gap between utility companies and customers, ultimately helping customers save energy, thereby saving money. By harnessing the usage data from utilities, the company is able to provide services to its customers to help drive down energy usage and costs.

Opower's software has prevented more than 6 billion pounds of carbon dioxide pollution, saved more than four billion kilowatt-hours of energy, and saved users more than $447 million in usage. It uses algorithms to recognize patterns in usage and provides customers with that information through text alerts and emails that help them make wiser choices about their energy usage. Plus, consumers can enter more information into the platform to get more tips about reducing usage and saving money and energy.

Providing More Efficient Access to Efficient Energy Incentives

As with so much government data, data related to energy incentives and tax credit information is highly fragmented and ever-changing. Real estate developers, business owners, and homeowners expend lots time and other valuable resources to piece together which renewable energy policies, incentives, rebates, and tax credits apply to them.

One company, USGreenData.com, aggregates federal, state, and local data on renewable energy tax incentives and makes that information completely searchable by zip code. The database allows individuals to conduct fine-toothed searches for tax credits, incentives, and policies relevant to them.

The company also offers analytical tools, which help businesses and people identify the best renewable options based on their location. The company offers tools to determine the greatest return on investment for solar and wind power and appliances. This includes the ability to develop location-specific reports about green incentives, which include energy models, ROI calculations, graphs, and detailed explanations.

Curbing Exorbitant NYC Parking Fees

Parking a car in New York City is already a harrowing experience. It's even worse when compounded by poor marking and inadequate signage. One intrepid individual researching this issue reviewed the anonymized parking fee data published by the city and discovered that one small block was actually one the city's greatest sources of parking fees, and a huge source of frustration for unsuspecting citizens.

It was discovered that one specific block of Forsyth Street was generating an inordinate amount of parking fines. When this information was flagged to city officials, it soon became clear that poor street markings were confusing motorists, making the parking restrictions for that block unclear and hard to understand. This discovery drove the city to adjust the signs to make the restrictions more apparent, saving residents over $50,000 in parking fees annually.

Colorado Businesses Benefit From A New Type of Hackathon

To address the growing and diverse needs of Colorado's business community, the Colorado Secretary of State's office decided to combine the best aspects of an apps challenge and a hackathon. The result was GoCode, the only statewide event of its kind, designed to make the State's economy stronger by engaging Coloradans and creating tools of value for Colorado businesses.

The event involved two challenges that recognized the talents of both Colorado's government and business community, bringing them together to produce sustainable apps that leverage the state's open data to solve real business problems. One challenge focused on helping new or relocating business owners access the site location information that would allow them to find the best place to thrive. The other challenge addressed the local competitive landscape. Winners of these challenges include:

- An app that fetches a business fitness score based on dozens of sources, proving a simple tool that lets businesses explore the data behind the numbers and find their next home.
- An app that allows business owners to build their B2B network. These resulting connections help build a business's reputation and enhance their visibility within the business community.
- An app that helps business owners determine the best location for their businesses, making the complicated process of site selection easy and fun by providing access to complex and powerful data without sacrificing usability or clarity.

Additional Ways Open Data Can Have An Economic Impact

Economic data in both the U.S. and the EU indicate a trend linking the availability of open data to economic growth. A few examples of the ways that open data is being leveraged to help drive increased economic activity include:

- Firms like The Weather Channel and Garmin—which reuse government released geographical data—grew 15 percent more per annum than in countries that price such information with an objective of recovering costs.
- The aggregate economic impact from applications based on Open Data across the EU27 economy is estimated to be €140 billion annually. The corresponding increase in tax revenues is a direct monetary benefit to governments.
• In Spain, it’s estimated that the burgeoning infomediary sector—which is comprised solely of companies that sell services on top of Open Data—generates £330-£550 million annually.

So What Can Your Organization Do?

If your organization already has, or is in the process of launching, an open data initiative, that’s a great start. But like the examples cited above, it’s important to make sure your initiative goes far enough to unlock the true value of open data. Capitalizing on data to drive increased economic activity is a critical component to optimizing any open data initiative. Contemplating how some of the defining activities listed at the beginning of this paper can be implemented should be a high priority for any organization considering the adoption of an open data initiative.

Until recently, implementing an open data initiative specifically to help drive a positive economic impact within the community might have seemed like a daunting task. It might have involved asking internal IT resources to help build a data-warehouse. In addition, the project would require that an interactive experience be developed that enables external users to access public data in the format and manner that best suits their needs. For many public sector organizations, especially those that are small or have limited expertise and resources, undertaking such an initiative seems beyond the realms of reality.

The good news for public sector leaders looking to take advantage of this most powerful natural resource is the availability of cloud-based services. Easy-to-own innovations can now help organizations manage open data by seamlessly connecting with existing systems and delivering an intuitive user experience for a fraction of the cost of building one on your own.

The economic impact of leveraging data is a very real component of the overall value of an open data initiative. But, the data must be easily accessible and presented in a format and context that enables the user to leverage it appropriately. The only way to ensure the right data is available in a manner both constituents and staff alike can use to help foster innovation and drive increased economic impact is to work with experts who can help present your data and information in a user-friendly manner.

Conclusion

Creating a positive economic impact is one of the key pillars of value that public sector organizations can realize from undertaking and rolling out an open data initiative. The benefits to doing so can be highly beneficial—both internally and externally—in the form of increased innovation that drives real economic value as well as increased citizen engagement and improved outcomes for constituents.

The open data movement is rapidly evolving. As more government organizations recognize the benefits to simplifying access to the massive amounts of public data they already have, civic leaders are keen to assess the value of open data projects. The concepts around driving economic impact through access to open data presented in this paper highlight the importance of understanding both the broad requirements and potential gains from investing in the next wave of public sector innovation.

Utilizing the Open Data Value Framework

The open data movement has expanded from focusing on government transparency as an end in itself to the realization that it can yield economic and social value across a much wider spectrum. As part of its Open Data Value Framework, a structured methodology for defining the impact of open data at various phases of adoption and use, Socrata has identified four pillars of value that every organization should consider when evaluating how to engage in any open data initiative.

1. Citizen Experience
2. Data-Driven Decision Making
3. Operational Efficiency
4. Economic Impact

Based on industry practice and extensive field research, Socrata’s series of reports is intended to serve as a definitive resource for public-sector organizations looking to plan, evaluate, and evolve their open data initiatives.

For those organizations that are still evaluating development of an open data initiative, this paper is just one of the many resources made available by Socrata for initiating discussion and building consensus among elected officials, IT and operations staff, and other key stakeholders. Public sector organizations are encouraged to leverage these resources to make a more informed and data-driven decision around the investment needed to support an Open Data initiative.

About Socrata

Socrata is the world leader in cloud solutions for open data and data-driven governments. Its innovative customers include the cities of New York, Chicago, San Francisco, Los Angeles, Melbourne and Eindhoven; the states of New York, Illinois and Texas; US Health and Human Services; Centers for Medicare & Medicaid Services; the UN and the World Bank. Socrata’s solutions—including the recently launched Open Data Network™ which unleashes the full potential of government data to help drive connected communities around the world—assist government leaders in improving transparency, modernizing citizen access to information and bringing data into every decision, all with unprecedented speed and cost savings. Delivered as turnkey services, Socrata’s technologies unlock data trapped in enterprise silos, mobilize and transform it into useful information that everyone can easily access, visualize, share and reuse. To learn more about Socrata, visit www.socrata.com.