Empowering the Public Through Open Data

Findings and Recommendations for City Leaders in Los Angeles County

September 2015

Civic Tech USC | USC Annenberg Center on Communication Leadership & Policy | USC Price Sol Price School of Public Policy

Acknowledgements

This report is a joint effort of, and was made possible with support from, the University of Southern California Annenberg Center on Communication Leadership & Policy, the University of Southern California Sol Price School of Public Policy, and the Annenberg Family Chair in Communication Leadership. This report's research team thanks Geoffrey Baum, Geoffrey Cowan, Mark Latonero, Peter Robertson, and Andrew Schrock for serving as principal advisers, and Dana Chinn for providing the original inspiration for this project. The team would also like to thank Skye Featherstone for his photography (pages 3, 9, 19, 25, 30, and cover), and Gyasi Adams, Sarah Collins, Susan Goelz, Brandon Golob, Kate Guarino, Luke Holthouse, Leonard Hyman, Sinduja Rangarajan, Bhaskar Suri, Tess Thorman, Tim Tierney, Chris Whong, and Raquel Zsupnik for their feedback and contributions to this report. Finally, a special thanks to the city and county officials who participated in the interviews that informed this report: Behrang Abadi, EJ Boranian, Martin Cole, Ali Farahani, Kyle Hall, Suzy Jack, Debbie Kukta, Phillip Leclair, Peter Marx, Jeff Muir, Damion Patrick, Ted Ross, Miguel Sangalang, Rachael Tanner, Michele Williams, and Jory Wolf.

About the USC Annenberg Center on Communication Leadership & Policy

Based in Los Angeles at the Annenberg School for Communication and Journalism at the University of Southern California, the Center on Communication Leadership & Policy conducts academic research and organizes programs for students, scholars, policymakers and industry leaders to develop ways in which communication leadership, policy, technology and mobile innovation can contribute to a more informed electorate and a safer world. For more information, visit communicationleadership.usc.edu.

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License. Anyone can use and distribute this content for non-commercial purposes and with approproaite attribution. Note: Individual images in the report may be under copyright by the original owners.

Table of Contents

Executive Summary	1
Introduction	3
What is Open Data?	5
Research Approach & Methodology	7
Open Government Data in Los Angeles County	9
Chronology of Open Data Initiatives	10
Key Findings	11
Benchmarking Cities with Open Data Portals	17
Recommendations	19
Conclusion	25
Appendix 1: Key Resources & Further Reading	26
Appendix 2: City Officials Surveyed & Interviewed	27
Credits	30

Executive Summary

Open data is a powerful new tool to encourage government accountability and efficiency, grow the economy, and improve overall quality of life. Over the last few years, open data has become a focus for many cities around the country including many cities in Los Angeles County (LA County). Most simply, "open government data" refers to government data and content that "can be freely used, modified, and shared by anyone for any purpose."[1]

This report explores how the 88 incorporated cities of Los Angeles County are making their city data more open and accessible to the populations they serve. Based on surveys and interviews with city officials, this research project is a collaboration between the USC Annenberg Center on Communication Leadership & Policy and the USC Price School of Public Policy.

Major findings in this report, which are reviewed in detail on pages 9-16, include:

- **The Los Angeles region has quickly become a national leader in open data.** Since 2013, 17 of the 88 cities in LA County have launched some form of open data initiative. The City of Los Angeles now ranks as the second-highest scoring open data city nationally according to the U.S. City Open Data Census, and 5 more cities in the county rank in the top 50. Of the 51 city officials in LA County that replied to a survey distributed by this report's team, over three-fourths reported that open data is at least a moderate priority for their respective cities.

- **Cities with open data initiatives see benefits to their work, but in most cases there is still no clear measure of return on investment (ROI).** Potential benefits of open data—such as increased transparency, government accountability, and citizen engagement—are difficult to measure with precision. As a result, most cities with open data initiatives have not yet developed clear metrics or targets to measure their progress.

- **Leadership, both within and outside of government, is essential to launching an open data initiative.** Successful initiatives are typically driven by individuals with decision-making powers, such as a mayor, city manager, or chief financial officer. Key decision makers can allocate

1 The open definition (n.d). *Open Knowledge Foundation*. Retrieved from opendefinition.org

funding for open data initiatives and establish formalized internal structures and mandates for information sharing. Such activities are critical to successful open data initiatives because they address the two major barriers cited by city officials (funding and buy-in from city departments). Even cities with active open data portals point to the importance of fostering an environment of collaboration, particularly in the difficult early stages of an open data initiative. Executive ordinances or mandates and city, county, and state legislation are also important tools that help to make open data initiatives possible.

- **Public trust and transparency are key motivators for creating open data initiatives, and a lack of funding is the major barrier**. Cities are interested in the potential of open data to improve internal efficiency, solve problems, engage citizens, and inform city employees. However, open data software platforms like Socrata, Junar, and OpenGov can cost tens of thousands of dollars or more to launch and maintain, depending on the size of the city and the services included in the contract.[2] While a basic open data initiative with a major provider could be launched by smaller cities in LA County for less than $10,000 annually, many cities report that they do not yet have the budget or the political mandate to launch their own open data portals. And while open data initiatives can be launched using free open-source tools, some city officials report being intimidated by the technical knowledge they require.

Major recommendations in this report for city officials and other open data advocates, which are reviewed in detail on pagees 19-24, include:

- **Focus open data initiatives not only on transparency and accountability, but also on how data can be used to solve entrenched problems**. Open data is not solely about transparency and accountability; it also gives cities and citizens new insights and tools to address persistent problems and improve quality of life. City officials must do more to prioritize the collection of useful data and the release of high-value datasets, while also recognizing that opening up datasets is just a first step. There should be mechanisms for regularly tracking and publicizing stories of how open data is creating value, which can both increase public engagement with city data and help to make a case for meaningful ROI.

- **Establish a network of city officials across LA County who are advocates for open data in their cities and across the county**. Collaboration and information-sharing will be the key to ensuring that Los Angeles County, one of the most sprawling and demographically diverse regions in the country, becomes a model for how open data initiatives can help solve problems and improve outcomes for government and citizens.

- **Look beyond existing open data criteria to make sure open data is working in the unique context of your city**. Criteria like those used by the U.S. City Open Data Census can provide valuable guidance and motivation for cities with open data initiatives, but these emerging metrics are limited in their scope and usefulness. City officials should tailor their open data initiatives and criteria to match their cities' unique challenges, assets, and opportunities.

- **Pursue outside grants and other opportunities for funding, or get started with open data for minimal cost**. Foundation grants, free open-source tools, and public-private partnerships are all mechanisms through which cities can launch open data initiatives for minimal cost.

- **Ensure that the privacy of citizens is a top priority from the beginning of any open data initiative.** Cities should establish clear guidelines to specify which datasets can and cannot be made public, and have a thorough and effective strategy for anonymizing data to remove personally identifiable information about citizens.

2 Mendelson, A. (2015, June 24). How much do 'open data' portals cost So Cal governments? KPCC. Retrieved from scpr.org/news/2015/06/24/52343/how-much-do-open-data-portals-cost-so-cal-governme

Introduction

Cities are complex entities, and until recently there has been relatively little visibility into their day-to-day workings. With vast and often siloed databases of crime reports, 311 service requests, transit schedules, campaign contributions, and more, cities are producing, collecting, and storing more data than ever before. This government data is a vital public resource that can be leveraged to solve entrenched problems, improve operational efficiencies, and increase civic engagement. As Rick Cole, Los Angeles's former Deputy Mayor for Budget and Innovation (and now Santa Monica City Manager), argues, data can help to "demystify all the anecdotal debate around…polarizing topic[s]" and give cities and citizens the tools to tackle important problems in smart and strategic ways.[3]

While the past two years have seen an increasing number of resources and reports related to open data in the United States, this report is the first to provide a comprehensive portrait of the progress of open data initiatives in Greater Los Angeles.[4] The purpose of this report is not to duplicate or replace existing open data guidelines and recommendations, but to build on this work by providing research and insights specific to the cities of Los Angeles County. This report is designed to inform and encourage public officials, academics, journalists, and other advocates on the front lines of promoting public access to government data throughout Greater Los Angeles.

As the most populous county in the United States, Los Angeles County provides fertile ground for researchers and practitioners interested in the impact of open data initiatives. With roughly 10 million residents, more people live in LA County than in 43 states.[5] At 4,083 square miles, the county includes 88 incorporated cities and 150 unincorporated towns.[6] One of the most ethnically diverse counties in the United States, LA County is the epicenter of global entertainment and home to some of the world's busiest seaports and airports. It boasts world-class industrial, educational, scientific, artistic, and corporate institutions, organizations, and people.

3 Goodwin, A. (2015, April 24). Promise zone featured in local government commission report about preventing displacement. *City of Los Angeles*. Retrieved from lamayor.org/promise_zone_in_the_news

4 A related but separate project at USC Annenberg, Open Data LA has developed a set of evaluation criteria for cities with open data initiatives: opendatala.org

5 Giroux, G. (2014, March 27). L.A. County's 10 Million Population Bigger Than 43 States. *Bloomberg*. Retrieved from go.bloomberg.com/political-capital/2014-03-27/census-l-a-county-tops-10-million-people-texass-bexar-passes-michigans-wayne

6 Incorporated cities (such as Pasadena, Long Beach, and the City of Los Angeles) are physically located within Los Angeles County borders but are governed independently, while LA County government controls unincorporated towns (such as Altadena and Valencia).

While open data has the potential to help government become more efficient and effective, it is not a panacea. The current landscape of open data initiatives—in LA County, and also around the country and the world—falls short of the aspirations of open data advocates to foster government that is transparent, participatory, and collaborative.[7] For example, while detailed and regularly updated crime reporting is now a common element of open data initiatives, mapping crime is only one of a number of ways that open data can contribute to safer cities and a more efficient and fair criminal justice system. Notably absent from open data initiatives reviewed in this report are more nuanced data that may shed light on problems and abuses in the criminal justice system, including demographic information on who is arrested and charged for certain crimes and data on sentencing broken down by race and socioeconomic background.[8] The limits of existing public data on crime and criminal justice are just one example—in category after category, it is clear that despite the strides cities in LA County and elsewhere have made in opening up their municipal data, much work remains to be done to ensure this data is useful, complete, and provided with context.

Some city officials cite privacy concerns resulting from practices like de-anonymization, in which sensitive personal data is cross-referenced with other data sources to re-identify individuals in an anonymized dataset. Since the dividing line between public and personal data is not always clear, protecting the privacy of citizens should be a major consideration in any open data initiative. Finally, some experts argue that opening data purely in the pursuit of transparency can have ambiguous or even negative consequences. For example, Harvard University legal scholar Lawrence Lessig warns in his 2009 essay, "Against Transparency," that the public availability of an ever-increasing database of campaign contributions, on its own and without necessary context, can lead to diminished trust in government without producing any real benefit.[9]

Cities face a host of other challenges to opening their data, including limited resources, political resistance, and the lack of measurable benefits. According to an April 2015 survey by the Pew Research Center, Americans have mixed feelings about open data initiatives. While many recognize the potential of open data to improve government accountability, most Americans are still skeptical as to whether such data will actually improve government performance.[10] Ultimately, it is people leveraging data as one tool among many, and not data alone, that will lead to a more informed and engaged public, improved problem-solving, and more efficient, responsive, and accountable government.

7 For example, see the 2009 White House memo by President Barack Obama, "Transparency and Open Government: Memorandum for the Heads of Executive Departments and Agencies." Retrieved from whitehouse.gov/the_press_office/TransparencyandOpenGovernment. Also see Los Angeles Mayor Eric Garcetti's 2013 Executive Directive on Open Data. Retrieved from lamayor.org/garcetti_directs_city_departments_to_collect_data_for_open_data_initiative

8 For example, the GovLab at NYU, led by Beth Noveck, is launching a project on "data driven criminal justice innovation...to devise more effective methods of using data to develop and implement meaningful criminal justice reforms and seek ways to reduce both incarceration and crime by leveraging the potential of data-driven policy innovations." Retrieved from thegovlab.org/the-govlab-is-hiring-a-data-driven-criminal-justice-innovation-fellow

9 Lessig, L. (2009, October 6). Against Transparency. *The New Republic*. Retrieved from newrepublic.com/article/books-and-arts/against-transparency

10 Horrigan, J., & Raine, L. (2015, April 21). Americans' Views on Open Government Data. *Pew Research Center*. Retrieved from pewinternet.org/2015/04/21/open-government-data

What is Open Data?

"Open data" refers to data and content (such as documents, databases, records, or transcripts) collected by local, regional, state, and federal governments that can be freely accessed in digital, machine-readable formats so that it can be used, modified, reused, and shared by anyone for any purpose.[11,12] While not all "open data" is "open government data," in this report, as in many others, the two terms are used interchangeably.[13]

Most spreadsheets (such as CSV or XLS files) are machine-readable, because they can be easily accessed by many different computer programs to interpret or manipulate the data. A PDF file or scanned image of a dataset, on the other hand, is not machine-readable because the data can't be directly interpreted or altered with other computer programs.[14]

The Open Data Institute specifies that open data should be "linked to, so that it can be easily shared and talked about; available in a standard, structured format, so that it can be easily processed; available and consistent over time, so that others can rely on it; and traceable, through any processing, right back to where it originates, so others can work out whether to trust it."[15]

In his 2014 book *Citizenville*, California Lieutenant Governor Gavin Newsom argues that open data should not only refer to the technical characteristics of the data, but also to its usability. "It's not enough simply to pull reams of government data out of filing cabinets," Newsom writes.

The data must be:

1. **Findable** ("Through government websites, Facebook pages, Twitter feeds, press releases, memos—whatever it takes—we must make sure that people who can benefit from datasets know that they're out there.")

11 Open Data Handbook: What is open data? (n.d). *Open Knowledge Foundation*. Retrieved from opendatahandbook.org/en/what-is-open-data
12 The open definition (n.d). *Open Knowledge Foundation*. Retrieved from opendefinition.org
13 "Open government data" refers specifically to open datasets released by governments, while "open data" can also satisfy a broader set of stakeholders, including those in the private sector.
14 Hendler, J. (2012, September 24). A Primer on Machine Readability for Online Documents and Data. *Data.gov*. https://www.data.gov/developers/blog/primer-machine-readability-online-documents-and-data

15 What makes open data? (n.d). *The Open Data Institute*. Retrieved from theodi.org/guides/what-open-data

2. **Standardized** ("If we standardize our data now, we can also standardize one conversion technique so we can update and continue to use data into the future, throughout the inevitable introduction of new computer technologies.")

3. **Narrative** ("Transparency is not enough. Access to data is considerably less valuable than access to data *plus* the ability to tell the story of why it matters.")

4. **Trustworthy** ("We should [accept contributions from] data validators, who would function in much the same way as Wikipedia's armies of editors.")[16]

Finally, open data is part of a broader movement around "open government," but while the terms are often conflated, they deal with different aspects of government openness. Practices related to open government—like the Ralph M. Brown Act, which requires government bodies in California to provide public notice of and access to government meetings—often do not address open data. Open data policies are designed to ensure that public records are made available in digital, machine-readable formats that are easy to find, share, and derive meaning from.[17] For example, while a PDF file of a city council meeting agenda may reasonably be considered a contribution to open government, it is not open data. Similarly, open data does not always or necessarily contribute to open government. As Harlan Yu and David Robinson argue in their 2012 article, "The New Ambiguity of Open Government," "Open government and open data can each exist without the other: A government can be an open government, in the sense of being transparent, even if it does not embrace new technology.… And a government can provide open data on politically neutral topics even as it remains deeply opaque and unaccountable."[18]

In short, open government refers to a broad set of practices that contribute to government transparency and accountability, while open data refers to the specific ways and formats in which government data is made available to the public.

16 Dickey, L., & Newsom, G. (2014, January 28). *Citizenville: How to Take the Town Square Digital and Reinvent Government* (pp. 40-43). New York: Penguin Books.
17 Lockyr, B. (2003). *The Brown Act. Open Meetings for Local Legislative Bodies.* Retrieved from http://ag.ca.gov/publications/2003_Intro_BrownAct.pdf

18 Yu, H. and Robinson, D. (2012, February 28). The New Ambiguity of 'Open Government.' *59 UCLA L. Rev. Disc. 178*. Retrieved from papers.ssrn.com/sol3/papers.cfm?abstract_id=2012489

Research Approach & Methodology

This report is based on:

1. Survey responses from city officials representing 51 of the 88 incorporated cities within Los Angeles County.

2. In-depth interviews with officials from LA County, the LA City Controller's Office, and eight of the cities that responded to the survey—including six of the seven cities within LA County that have open data portals.

3. Public scoring of cities with open data portals and cities with OpenGov sites in LA County, based on the U.S. City Open Data Census criteria.[19]

4. A review of existing articles and reports about open data from the academic, public, and private sectors.

Survey

During the summer of 2014, this report's research team developed a 10-question survey and emailed it to city officials in all 88 incorporated cities within LA County. For most cities, the survey was emailed to three individuals: the mayor, city manager, and controller or treasurer. The online survey instructed officials that the survey "should be taken by someone who is familiar with your city's policies on publicly available data." The survey was also emailed to each city's chief information or technology officer if he or she had a publicly listed email address. City officials from 51 of the 88 incorporated cities within LA County responded to the survey, representing about 80% of the total population of LA County.

Interviews

Of the 51 officials who completed the survey, over half agreed to participate in a follow-up interview. During September and October of 2014, members of this report's research team interviewed officials from eight cities as well as the Controller's Office of the City of Los Angeles and Ali Faharini,

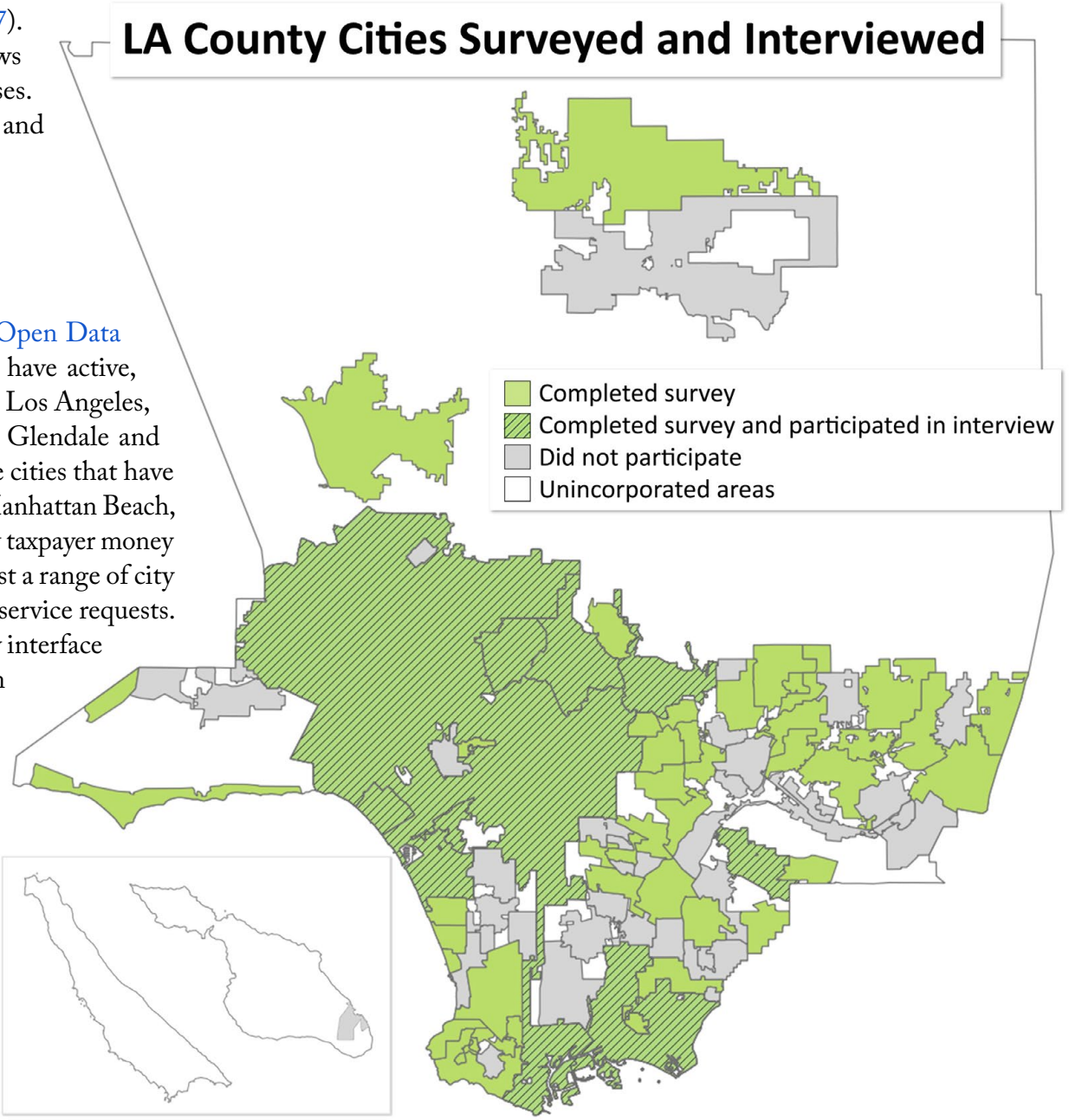
19 About U.S. City Open Data Census (n.d.). *Open Knowledge Foundation*. Retrieved from us-city.census.okfn.org/about

Chief Data Officer for LA County (full list on page 27). All interviews were conducted in person, and interviews were semi-structured to encourage open-ended responses. Where permission was given, interviews were recorded and subsequently coded for content and themes.

U.S. City Open Data Census

This report uses the criteria established by the U.S. City Open Data Census to score the seven cities within LA County that have active, publicly accessible open data portals.[20] These cities include Los Angeles, Santa Monica, Culver City, West Hollywood, Pasadena, Glendale and Santa Clarita. The same criteria was used to score six of the cities that have OpenGov sites—West Covina, El Segundo, Long Beach, Manhattan Beach, Bell, and Calabasas. OpenGov sites focus exclusively on how taxpayer money is collected and spent, while open data portals generally host a range of city data, e.g., on crime, transit, construction permits, and 311 service requests. Despite their limited scope, the attractive and user-friendly interface of OpenGov sites provides a useful introduction to open data and financial transparency.

After a review of each city's open data portal, the available datasets were evaluated based on the nine criteria established by the U.S. City Open Data Census. Through this process, each city was assigned a numerical score. While this particular scoring system, like all benchmarking efforts, has its limitations (see pages 17-18), the U.S. City Open Data Census has developed the most comprehensive and straightforward scoring criteria currently available.[21]



20 U.S. City Open Data Census (n.d.). *Open Knowledge Foundation*. Retrieved from us-city.census.okfn.org

21 Goldsmith, S. (2015, March 11). Why benchmarking matters. *Government Technology*. Retrieved from govtech.com/data/Why-Benchmarking-Matters.html

Open Government Data in Los Angeles County

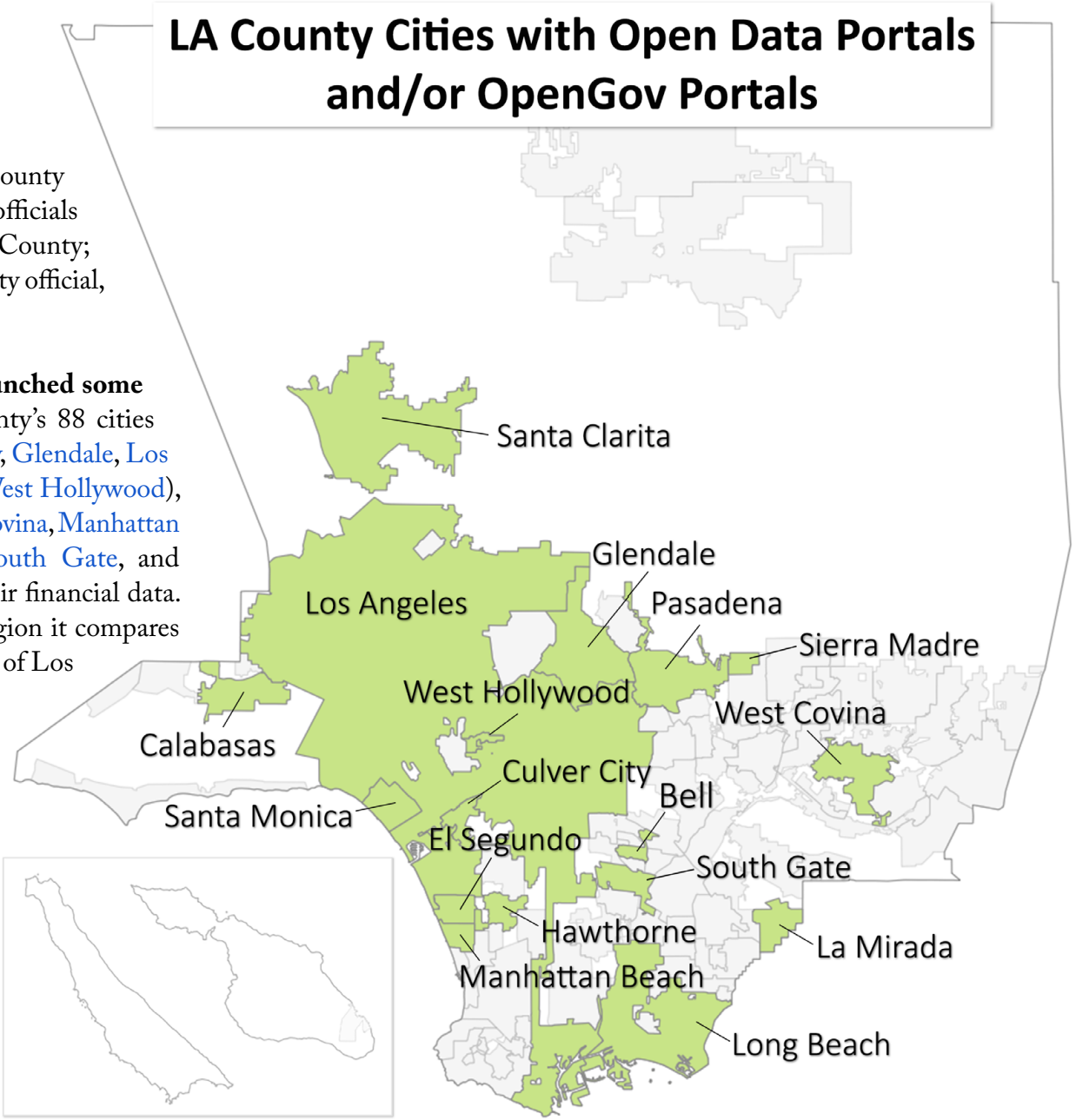
Chronology of Open Data Initiatives in LA County

2013	August 2013	**Santa Clarita**, Junar (data.santa-clarita.com)	
	September 2013	**Culver City**, OpenGov (culvercity.opengov.com)	
	October 2013	**City of LA**, Control Panel LA (controllerdata.lacity.org)	**City of LA**, OpenGov (lamayor.org/openbudget)
	November 2013	**Calabasas**, OpenGov (calabasasca.opengov.com)	**El Segundo**, OpenGov (elsegundoca.opengov.com)
		Sierra Madre, OpenGov (sierramadre.opengov.com)	
2014	February 2014	**Manhattan Beach**, OpenGov (manhattanbeachca.opengov.com)	
	March 2014	**Pasadena**, Junar (data.cityofpasadena.net)	
	May 2014	**Culver City**, Socrata (data.culvercity.org)	**City of LA**, Socrata (data.lacity.org)
	June 2014	**Santa Monica**, OpenGov (santamonicaca.opengov.com)	**West Hollywood**, Socrata (data.weho.org)
	August 2014	**Bell**, OpenGov (bell.opengov.com)	**Santa Monica**, Socrata (data.smgov.net)
	October 2014	**West Covina**, OpenGov (westcovinaca.opengov.com)	
2015	March 2015	**Glendale**, Socrata (performance.glendaleca.gov)	**La Mirada**, OpenGov (lamiradaca.opengov.com)
	April 2015	**Hawthorne**, OpenGov (hawthorneca.opengov.com)	
	May 2015	**County of Los Angeles**, Socrata (data.lacounty.gov)	
	June 2015	**Long Beach**, OpenGov (longbeachca.opengov.com)	**Long Beach**, openLB (longbeach.gov/openlb)
		South Gate, OpenGov (southgateca.opengov.com)	
	July 2015	**Santa Clarita**, OpenGov (santaclaritaca.opengov.com)	

Key Findings

The following findings are specific to cities within LA County and are based primarily on: 1) Survey responses from officials representing 51 of the 88 incorporated cities within LA County; and 2) In-depth interviews with city officials, and one county official, in LA County.

1 Since 2013, 17 cities within LA County have launched some form of open data initiative. Seven of LA County's 88 cities have comprehensive open data portals (Culver City, Glendale, Los Angeles,[22] Pasadena, Santa Clarita, Santa Monica, and West Hollywood), and ten additional cities (Long Beach, El Segundo, West Covina, Manhattan Beach, Calabasas, Bell, Sierra Madre, La Mirada, South Gate, and Hawthorne[23]) have OpenGov sites that publicly host their financial data. While LA County is relatively new to open data, as a region it compares favorably with other counties across the U.S., and the City of Los Angeles is becoming a leader nationally. Currently the city is the second-highest rated open data city in the country by the U.S. City Open Data Census, and the top-rated city in the the national Digital Cities Survey.[24] [25] [26] A county-wide



22 Los Angeles has several open data portals powered by Socrata and an OpenGov site. Los Angeles Open Data (data.lacity.org) and a companion performance site (performance.lacity.org) were launched by Mayor Eric Garcetti in May 2014, while Control Panel LA (controllerdata.lacity.org) was launched by City Controller Ron Galperin in October 2013. The city's Department of Water and Power, a proprietary agency, launched the LA Utility Panel (utilitypanel.la) in March 2015. The city launched its OpenGov site (losangeles.opengov.com) in March 2014.

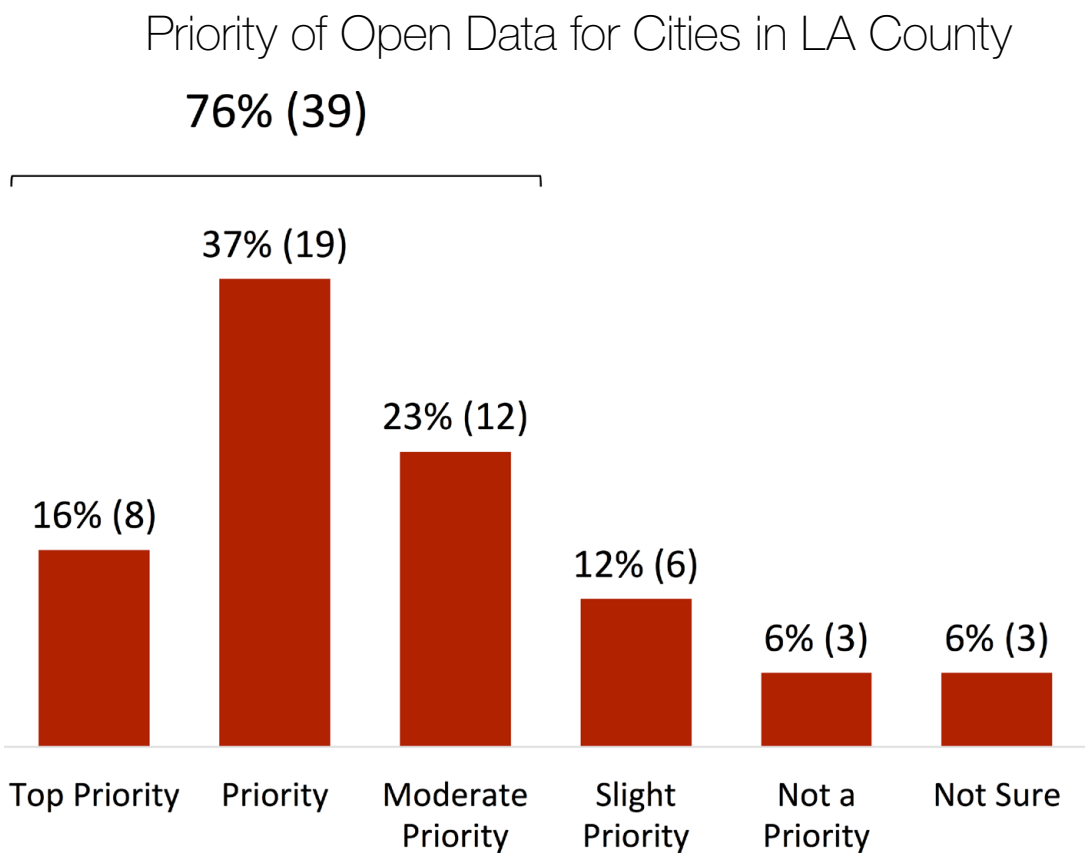
23 Calabasas, Sierra Madre, and Hawthorne did not participate in this report's survey or interviews.

24 See "Benchmarking LA County Cities" on page 17.

25 See also: City Open Data Policies: Learning By Doing (n.d.). *National League of Cities.*. Retrieved from nlc.org/find-city-solutions/city-solutions-and-applied-research/urban-innovation/city-open-data-policies

26 Wood, C., Towns, S., Knell, N., Pittman, E., and Mulholland, J. (2014, November 13). 2014 Digital Cities: winners focus on innovation, boosting transparency and privacy. *Government Technology*. Retrieved from govtech.com/local/Digital-Cities-Survey-2014.html

portal was launched in May 2015, and a statewide open data portal managed by the California State Controller, and containing information on LA County, launched in November 2014.[27]



2 **Open data is a priority for most cities within LA County.** While 17 cities already have some form of open data initiative, this report's survey of city officials reveals that many more—more than three quarters (76%)—consider open data at least a moderate priority going forward. For example, an official with the City of Long Beach said open data is a priority for the city, adding, "We are evaluating the best ways to make the data behind the information open and available." Since the interview with Long Beach last fall, the city launched Open LB in June 2015, a comprehensive website for open government resources and data, though the data portion is not expected to launch until November 2015.[28] Mayor Robert Garcia has expressed his intention to make Long Beach the "Silicon Valley of the South," which he equates with "being a city that embraces open data and embraces innovation."[29]

3 **Funding is the most cited barrier to implementing or expanding open data initiatives**. This report's survey results show that "funding" (73%) is the most-cited barrier to cities' pursuit of open data. "We liked some of the [open data platform] services, but we didn't have money, and that is the big problem," said EJ Boranian, Information Technology Manager for the City of Whittier. The second most significant barrier cited in the survey is "expertise" (53%), followed by "buy-in from city departments" (47%) and "political support" (25%). Thirteen cities cited other significant barriers, such as legal, time, data errors or misinterpretation, staffing, and other resources. "The time involved in generally preparing data for view, and

27 California's statewide open data portal is powered by Socrata and launched in September 2014. It can be accessed at bythenumbers.sco.ca.gov

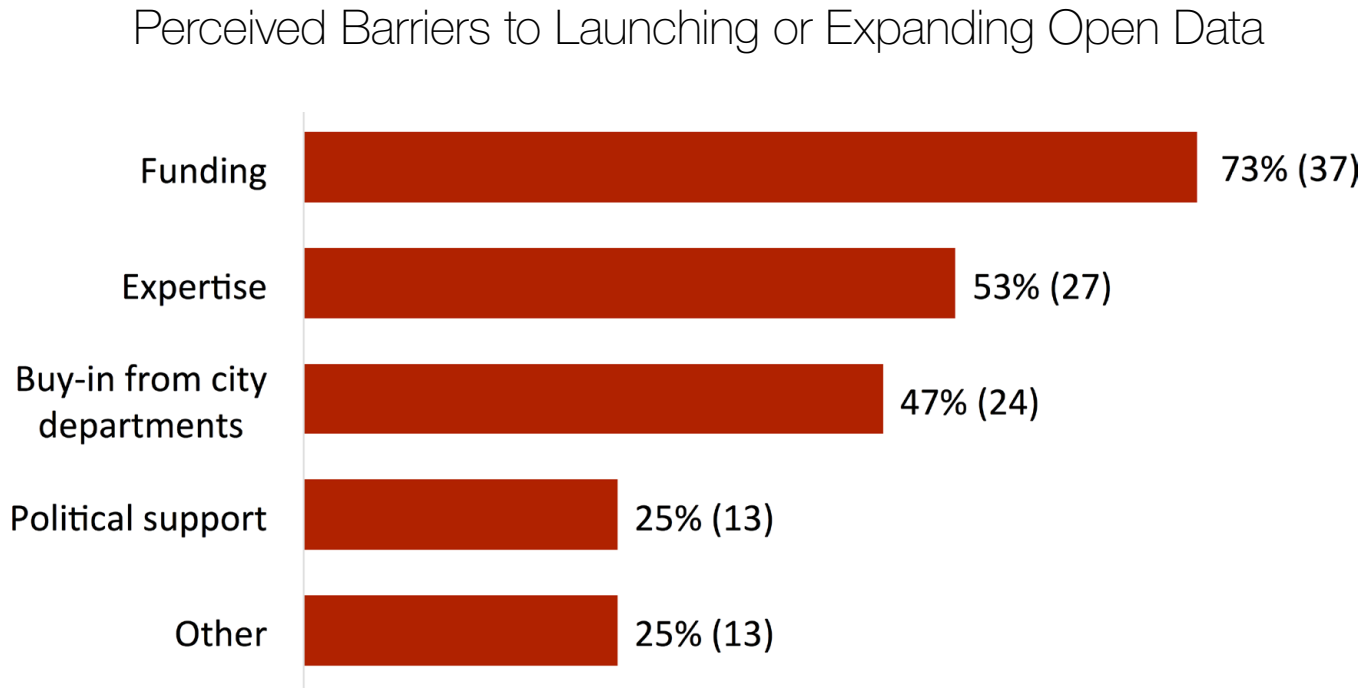
28 Nelson, C. (2014, December 19). Data Summit: Should local governments embrace open data? *CA Fwd*. Retrieved from cafwd.org/reporting/entry/data-summit-should-local-governments-embrace-the-open-data-movement

29 Goffard, C. (2015, April 2). Mayor Robert Garcia wants to transform Long Beach into high-tech hub. *Los Angeles Times*. Retrieved from latimes.com/local/california/la-me-long-beach-mayor-20150402-story.html#page=1

the limitations of existing systems to make data readily available without significantly modifying [it], is our largest barrier to making data generally more available," one city official said.

4 **Gaining public trust and demonstrating transparency are key drivers of open data initiatives**. Transparency and gaining public trust are among the main reasons cities launch open data initiatives.[30] "First and foremost transparency to our citizens [is our goal with open data]," said Jeff Muir, Culver City's Chief Financial Officer. "For those of us that work in city government, the [financial scandal] in the City of Bell was an embarrassment and...an abdication of the public trust… Culver City has always been very transparent with its information...and that's part of why we did the [portal]." Suzy Jack, the Deputy Controller of Los Angeles at the time she was interviewed in October 2014, agreed that transparency and public trust are top priorities. "Obviously the proof is in the pudding," said Jack. "If we build it and it's awesome but no one ever uses it, I'm going to have a hard time justifying it. But can you put a price on transparency and being open and garnering public trust?" Alongside the launch of its new portal in May 2015, an LA County press release stated that its open data initiative is "meant to foster and improve awareness, transparency, and citizen service and engagement as well as technology and business innovation."[31]

5 **Cities are interested in the potential of open data to improve internal efficiency, solve city problems, and inform city employees**. Most cities surveyed were interested in the potential of open data to "improve internal efficiencies related to information requests from citizens" (67%), and to "provide city employees with information and tools to make better-informed, data-driven decisions" (63%). Two other widely cited benefits were "avoiding redundant data requests from other city departments" (47%) and "empowering citizens to solve city problems" (41%). Often, city officials report that the internal efficiencies gained by opening key datasets to the public and other city departments are worth the investment of staff time needed to set up a regularly updated system. Like many city officials who were interviewed, Behrang Abadi, Web Development Manager with the City of Santa Monica, said new tools allowed city staff to save time,

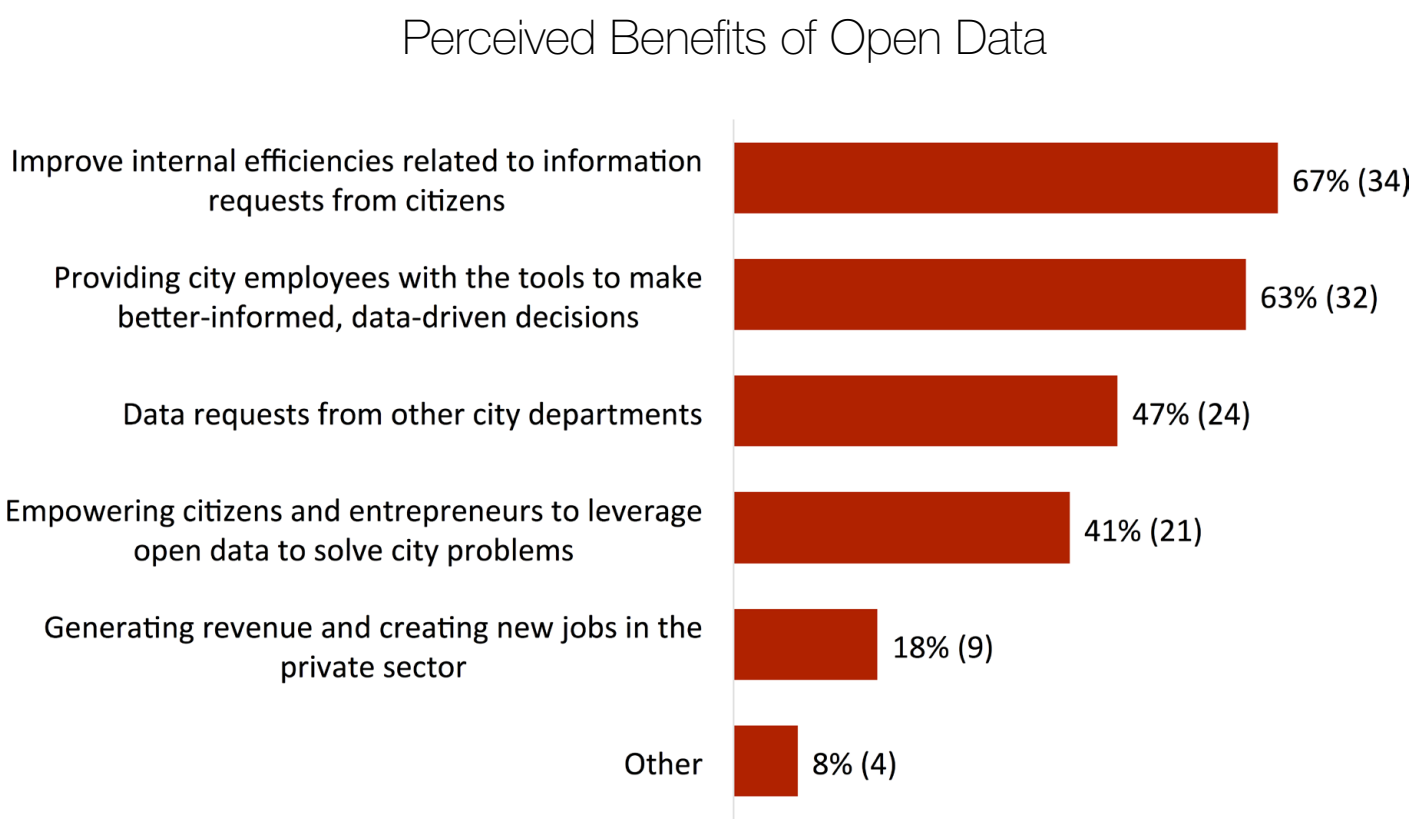


30 Buell, R., & Norton, M. (2013, November 4). Surfacing the Submerged State with Operational Transparency in Government Services. *Harvard Business School*. Retrieved from hbs.edu/faculty/Publication%20Files/14-034_3dcc83ea-aa8d-463d-bd66-d0ff8c267506.pdf

31 County of Los Angeles Open Data FAQs (n.d.). *County of Los Angeles Open Data Portal*. Retrieved from data.lacounty.gov/Administration/FAQ/s86w-emzp

collaborate, and see their data in new ways. "We didn't really realize how much excitement there would be around [open data]—there was a tremendous amount of interest," he said. Phillip Leclair, Chief Information Officer for the City of Pasadena, explained why: "Open data [provided] an opportunity to help solve some of those internal challenges of sharing because once the public was demanding something and it was being delivered to the public, it automatically breaks down the barriers for internal collaboration." And as Jonathan Reichental, CIO of the City of Palo Alto, argues, "If you are concerned about dropping a few thousand dollars to put into production an open data platform, [consider that] today every agency is answering some form of public records request…. If just some of that data was online in machine readable formats, you would avoid those requests, avoid those costs, and you've paid this thing back very, very fast."[32]

6 An open data initiative can be launched using free open-source tools, but city officials say platforms like Socrata, Junar, and OpenGov make publishing data easier over the long run. Municipal contracts with commercial open data platform providers like Socrata, Junar, and OpenGov can cost tens of thousands of dollars or more each year, but city officials reported that they are happy with the services these platforms provide and argue that the platforms have made it easier for them to release datasets to the public. Some cities within LA County and many around the country have started low-cost open data initiatives by putting datasets up on open-source platforms like CKAN[33] or GitHub,[34] the latter of which is used by over 10 million people to collaborate on open-source software.[35] CKAN is a popular service for hosting city datasets, although city officials may face issues in the implementation of the platform without some technological expertise. "Sometimes it's hard to push out the data, but a tool like Socrata does make it easier to publish and put it in the hands of the citizens," said Michele



32 Darrow, B. (2014, January 2). The city of Palo Alto's CIO explains the benefits of open data. Gigaom. Retrieved from gigaom.com/2014/01/02/the-city-palo-altos-cio-explains-the-benefits-of-open-data

33 CKAN is an open-source DMS (data management system) that is used worldwide to host datasets, notably by the U.S. Government's central data portal (data.gov), and the UK Government's portal launched by Tim Berners Lee in 2009 (data.gov.uk). CKAN is free to download and install for any use, but hosting and support has associated fees. CKAN is managed by the Open Knowledge Foundation.

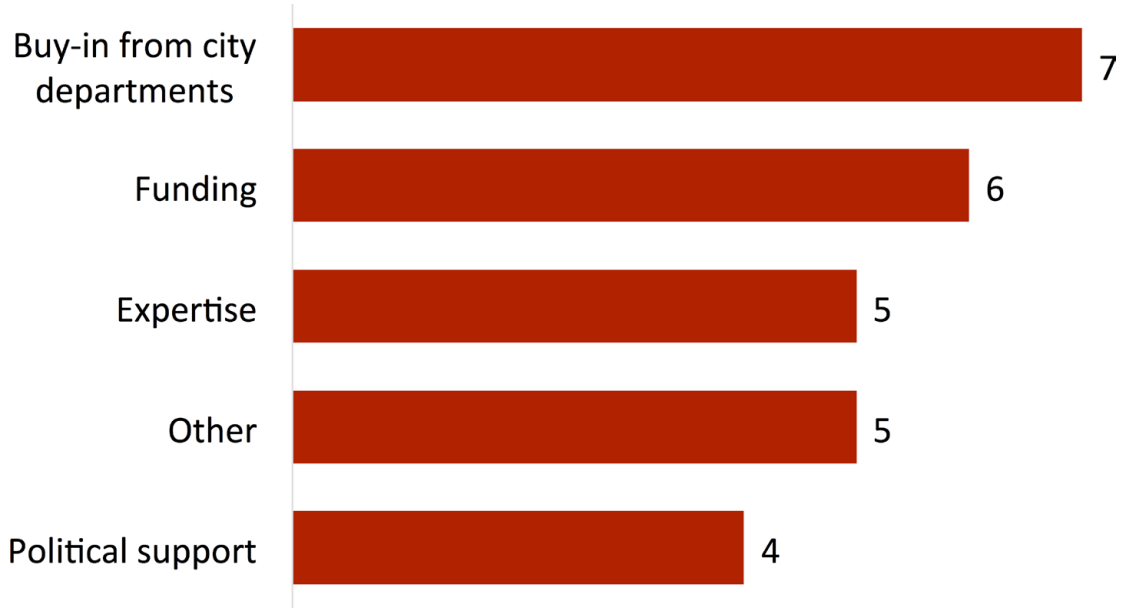
34 See, for example, Santa Monica's Github page, which was launched before their Socrata portal: github.com/CityofSantaMonica

35 Press (n.d.). *GitHub*. Retrieved from github.com/about/press

Williams, Culver City's Chief Information Officer. "What Socrata has done is almost set a data format standard, where we can collaborate and even exchange data regionally." While cities report satisfaction with their experiences working with private providers of open data, a June 2015 analysis of open data contracts between private providers and cities in Southern California, conducted by KPCC journalist Aaron Mendelson, revealed that the cost of open data initiatives, both in absolute terms and on a per dataset and per resident basis, varies widely by city and provider.[36] [37]

7 Cities with open data see clear benefits, but in most cases there is not a readily apparent or measured dollar value return on investment (ROI). The benefits of open data include increasing transparency in government, creating an environment of accountability, gaining public trust, and allowing citizens to solve problems and build products with public data. However, these benefits are difficult to measure and it isn't clear to many cities within LA County how open data can generate a substantial return on investment. "It is difficult to put a hard dollar return on investment figure with this," said Jeff Muir, Culver City's Chief Financial Officer. "This is just one of those things—it is the right thing to do. It is the right direction to go. There is efficiency involved. It's difficult to be very specific about ROI, but I think it is there." The City of Pasadena's open data effort has been more "experimental," said Phillip Leclair, Pasadena's Chief Information Officer, adding that "the ROI isn't clearly defined [at this stage]."

Perceived Barriers for Cities with Active Open Data Portals



8 Cities with active open data portals cite "buy-in from departments" as the most significant barrier to expanding their efforts. Of ten cities with active open data portals (including OpenGov sites) at the time of this report's survey,[38] seven listed "buy-in from city departments" as a significant barrier to their open data efforts, and six listed "funding" as a significant barrier. Five of the cities with active open data portals cited other barriers, including "data quality," "defining data sets," "legal department concerns," "making time," and "coordinating with internal operating departments."[39] Of the 41 cities represented in the survey that did not have open data portals at the time of the survey, the barrier cited most often was "funding" (76%), followed by "expertise" (54%). Organizing and releasing data requires individual city departments to allocate time and resources at

36 Mendelson, A. (2015, June 24). How much do 'open data' portals cost So Cal governments? *KPCC.* Retrieved from scpr.org/news/2015/06/24/52343/how-much-do-open-data-portals-cost-so-cal-governme
37 The list of contracts with city governments compiled by KPCC is available on GitHub: github.com/SCPR/kpcc-data-team/tree/master/data/2015-open-data-contracts/contracts

38 Excluding Calabasas and Sierra Madre, which did not respond to the survey.
39 The ten cities with active open data portals and/or OpenGov sites at the time of this report's survey in fall 2014 were: Bell, Culver City, El Segundo, Los Angeles, Manhattan Beach, Pasadena, Santa Clarita, Santa Monica, West Covina, and West Hollywood. Calabasas did not participate in the survey.

the expense of other priorities, and not all departments can easily absorb that additional cost. "Right now for most of our departments it's a labor intensive, manual process," said Damion Patrick, Senior Project Manager of Glendale's IT Department. Furthermore, individual departments often feel a sense of ownership of their data, which can hinder cities' open data efforts. Before the City of Los Angeles launched its portal, according to Suzy Jack, "departments couldn't even see each other's data in our system…[and tended to] think that their data [was] proprietary to them. Really building a culture around open data internally is the right way to go in creating the time and space to bring people along. It benefits everyone tremendously."

9 **Leadership, both within and outside of government, is essential to launching an open data initiative**. It takes leadership to garner support for an open data initiative, get buy-in from city departments, and launch a portal that effectively serves the public and government officials alike. Most city officials interviewed for this report said open data efforts in their cities were started by the city council, mayor, or city manager. "You have to find and tap into those people who have an interest to help drive a program like this," said Phillip Leclair of Pasadena. While internal leadership is critical, sometimes pressure from outside the city government can also lead to the development of an open data initiative. For example, in Culver City a financial oversight committee consisting of citizens and business professionals encouraged and influenced the city's efforts to fund two open data portals in 2013 and 2014. Another example is Oakland Crimespotting, an interactive map of crime reports in Oakland, CA, created by Oakland resident and Code for America CTO Michal Migurski. Migurski was dissatisfied with the City of Oakland's existing crime mapping tool, and spent his winter vacation scraping data from the city's website to create a helpful tool that uses the city's crime data to inform citizens about crime trends in their neighborhoods. "Essentially, Oakland got a free gift from a motivated citizen," Gavin Newsom wrote in his book *Citizenville*. "Let's imagine that Oakland had decided they wanted to build the Crimespotting tool themselves...they'd need to outsource the job," which could take several months. "The cost might reach into the hundreds of thousands of dollars, and the end product may or may not have been as good as what Mike and his colleagues produced."[40] Leadership can also come in the form of legislation. Currently, the California legislature is considering several bills that would affect open data at all levels of government.[41] Assembly Bill 1215 would create a state Chief Data Officer appointed by the governor, who would require state a gencies to publish their data on the state's open data portal, data.ca.gov.[42] Assembly Bill 169 would create standards and definitions of "open data" and require government agencies to provide their data in easily retrievable and searchable formats.[43] And Senate Bill 272 would require local government agencies to detail their data systems in catalogues and conduct inventories of those systems.[44]

10 **The line between public and personal data is not always clear, which concerns some city officials**. While city officials interviewed for this report expressed support for opening up government data, several did have concerns about private information being released in the process. "As a [citizen] I like the idea of having my government open and accessible, but as a government employee I am mindful that some data is personal," said Martin Cole of Culver City. EJ Boranian of Whittier sees privacy as "one of the real things that we have to resolve" in regards to open data. Other officials, however, do not see privacy as a major concern. "To be honest, we haven't talked about privacy that much at all," said one official. "It is one of my concerns, although it's funny because all of our data is public record, right?"

---

40 Dickey, L, & Newsom, G. (2014, January 28). *Citizenville: How to Take the Town Square Digital and Reinvent Government* (pp. 70). New York: Penguin Books.
41 Mendelson, A. (2015, April 14). California legislature looks to open up government data. *KPCC*. Retrieved from scpr.org/news/2015/04/14/50928/california-legislature-looks-to-open-up-government
42 Shaw, E. (2015, April 8). 3 bills that could make 2015 a landmark year for open data in California. *Sunlight Foundation*. Retrieved from sunlightfoundation.com/blog/2015/04/08/3-bills-that-could-make-2015-a-landmark-year-for-open-data-in-california
43 Bjerg, A. (2015, May 11). California bill would require open data to be easily retrievable and searchable. *California Forward*. Retrieved from cafwd.org/reporting/entry/california-bill-would-require-open-data-to-be-easily-retrievable-and-search
44 Heaton, B. (2015, April 27). Will California Mandate Local Government Data Inventories? *GovTech*. Retrieved from govtech.com/dc/Will-California-Mandate-Local-Government-Data-Inventories.html

Benchmarking Cities with Open Data Portals

Note: Information for some cities in this section may be incorrect because the U.S. City Open Data Census is a live, crowdsourced resource that may be updated at any time. The information below is a snapshot of the Census on August 10, 2015.

**As of August 10, 2015*

Overview and Explanation of U.S. City Open Data Census Scoring

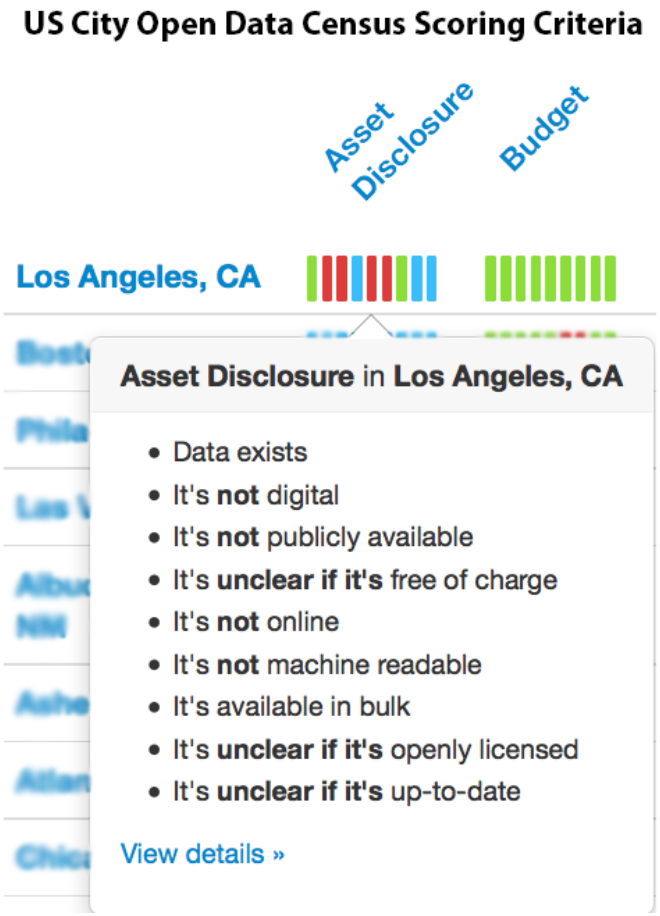
The U.S. City Open Data Census offers a thorough review of city-level data across 19 key categories for about 75 U.S. cities.[45] A collaboration between the Open Knowledge Foundation, the Sunlight Foundation, and Code for America, the website launched in February 2014 as an extension of the Open Knowledge Foundation's International Open Data Census. Datasets from categories like crime, spending, and transit are graded on nine criteria such as whether they are available digitally, in bulk, and free of cost. Each of the 19 data categories is given a score of 1-100 based on how many of the nine criteria it satisfies, with "open licensing" (meaning the data is "free to use, reuse, or to redistribute") given the greatest weight of 30 points.[46]

While the Census criteria are evolving and new categories continue to be added, the City of Los Angeles currently comes second closest to obtaining the maximum number of points (with 1765 out of a possible 1900). Other

45 About U.S. City Open Data Census (n.d.). *Open Knowledge Foundation*. Retrieved from us-city.census.okfn.org/about

46 Frequently Asked Questions (n.d.) *U.S. Cities Open Data Census*. Retrieved from us-city.census.okfn.org/faq

high-ranking cities include San Francisco (1825), New York City (1645), Philadelphia (1605), and Boston (1480). The City of Los Angeles also received platinum status for its open data from the World Council on City Data (WCCD), the certification body responsible for implementing the first international open data standards for cities (known as ISO 37120).[47]



Limitations

While useful and data-rich, the Census is limited in at least four respects. First, it evaluates cities on data that in some cases they neither collect nor maintain (e.g. county-level data).[48] This is not a problem for cities like San Francisco, which has a unified city-county government structure. For cities like Los Angeles, however, data in categories like health and property are under the jurisdiction of the county, not the individual cities. Second, the Census organizes data by category rather than by specific dataset. This can be problematic because cities only receive credit for a single dataset under each category, even when categories may be informed by many datasets. For example, the crime data category might be informed by multiple datasets cataloging incident reports, arrests, and other metrics. In this sense, a city with a more comprehensive, but disaggregated, catalog of such data is not rewarded with a higher score. A third limitation is that the Census is crowdsourced, which means that individuals or city officials contributing to a city's Census profile may over-or under-represent the character and availability of that city's data. Finally, the Census was essentially unusable and in read-only mode for several months in the spring of 2015 because of technical difficulties, which highlights the limitations of relying on new, nonprofit, and crowdsourced resources for tracking and benchmarking open data initiatives.

47 Compare Cities Worldwide (n.d.) *World Council on City Data ISO 37120*. Retrieved from dataforcities.org

48 For this report's analysis, the research team defaulted to city-owned data where it was readily available, and included county-level data for property assessment, property deeds, and restaurant inspections. Cities received credit for county data for these categories because the LA County Office of the Assessor maintains property assessment and property deeds data at the county level in Los Angeles. Restaurant inspection data is also maintained at the county level by the LA County Department of Public Health for every city in the county, with three exceptions: Pasadena, Vernon, and Long Beach. These three cities maintain their own independent health jurisdictions with restaurant inspections. Pasadena and Long Beach both have an open data portal. For these reasons, Pasadena and Long Beach were scored based on their independent restaurant inspection databases rather than the county data.

Recommendations

The recommendations below are based on original research and conversations with city officials throughout Los Angeles County. As such, they are meant to be a starting place for city officials and others who are interested in open data in Greater Los Angeles. For more general recommendations on establishing open data policies and administering an open data portal, see "Key Resources & Further Reading" below.

1 Focus not only on transparency, but also on how open data can be used to solve problems. According to an April 2015 survey by the Pew Research Center, just 7% of Americans say local governments share data "very effectively." In the same survey, only 19% of Americans "could think of an example where [their] local government did a good job providing information to the public about data it collects."[49] This report's survey and interviews revealed that for city officials in LA County, the perception of government transparency and gaining public trust are among the main reasons cities pursue open data efforts. While transparency is important and can lead to improved public policy and increased public trust, it is not a solution on its own. As former U.S. Chief Technology Officer Beth Noveck says, "simply throwing data over the transom doesn't change how government works. It doesn't get anybody to do anything with that data to change lives [or] to solve problems." Publicly releasing data is an important first step, but from the outset city officials should incentivize citizens, journalists, and others to use open data to improve life in their city. For example, since 2011 the annual NYC BigApps competition in New York City offers prize money to encourage citizens to use public data to solve city problems.[50] In 2014, winners included NYCHired, an application for job seekers to connect with employers that are hiring; Coursekicker, a learning and collaboration network for teachers; and Heat Seek NYC, a platform that helps landlords reduce heating costs and heat their buildings more effectively while providing transparent heating data to educate the community and inform housing policy.

2 Develop a network of city officials across Greater Los Angeles who are advocates for open data. LA County is the largest county in the country by a wide margin, and it has unique challenges that can only be solved with county-wide collaboration and commitment. Many city officials interviewed for this report thought it would be useful to talk with other city officials about their open data efforts and best practices, and some already do so. Over half of the city officials surveyed for this report cited a lack of expertise as a major barrier to launching an open data initiative. Their responses indicate the need for a network to connect city officials, technologists, and civic hackers who have expertise in open data with those who are interested in launching an open data initiative but do not know where to start.

3 Pursue outside grants and other opportunities for funding, or get started with open data for free. This report's survey revealed that city officials in LA County perceive funding as the most significant barrier to launching an open data initiative. For city officials who are open data advocates in cash-strapped cities, grants can be a valuable resource. For example, Bloomberg Philanthropies is sponsoring a new 3-year, $42 million program called What Works Cities, a national initiative to "assist mid-sized American cities in developing data projects that improve life for their residents."[51] In December 2014, Bloomberg Philanthropies awarded 14 cities, including Los Angeles and Long Beach, up to $3 million each as part of its "Innovation Teams" program to improve city governments using open data and other innovative approaches.[52] In March 2015, Detroit received a grant from the recently established Socrata Foundation to launch its open data portal.[53] And in January 2015, Boston received a $495,000 grant from the Knight Foundation to work with the Boston Public Library

49 Horrigan, J., & Raine, L. (2015, April 21). Americans' Views on Open Government Data. *Pew Research Center*. Retrieved from pewinternet.org/2015/04/21/open-government-data
50 What is NYC BigApps? (n.d.) *Big Apps NYC 2015*. Retrived from nycbigapps.com
51 Wood, C. Bloomberg's 'What Works Cities' Initiative Targets 100 Mid-Sized Metros (n.d.) *Government Technology*. Retrieved from govtech.com/data/Bloombergs-What-Works-Cities-Initiative-Targets-100-Mid-Sized-Metros.html
52 Womack, M. (2014, December 15). Bloomberg Philanthropies Expands Innovation Teams Program to 12 New American Cities. *Bloomberg Philanthropies*. Retrieved from bloomberg.org/press/releases/bloomberg-philanthropies-expands-innovation-team-program-12-new-american-cities
53 Shueh, J. (2015, March 12). From Debt to Data: Detroit Launches Open Data Portal. *Government Technology*. Retrieved from govtech.com/data/From-Debt-to-Data-Detroit-Launches-Open-Data-Portal.html

to turn that city's open data collection into a public resource.[54] Even without internal or external funding, there are free open-source hosting options that cities can use to get started with open data (see finding six above for details). Public-private partnerships (PPP) are another option in cases where funding is unavailable. One example is Google's partnership with TriMet, the public transit agency in Portland, Oregon. Spearheaded by Bibiana McHugh, TriMet's IT manager of geographic information systems, the partnership combined TriMet's open transit data with Google's Transit feature to let citizens plan trips using Google Maps. This partnership led to the creation of the General Transit Feed Specification in 2006, a standard format that is now used around the world for sharing public transportation schedules.[55]

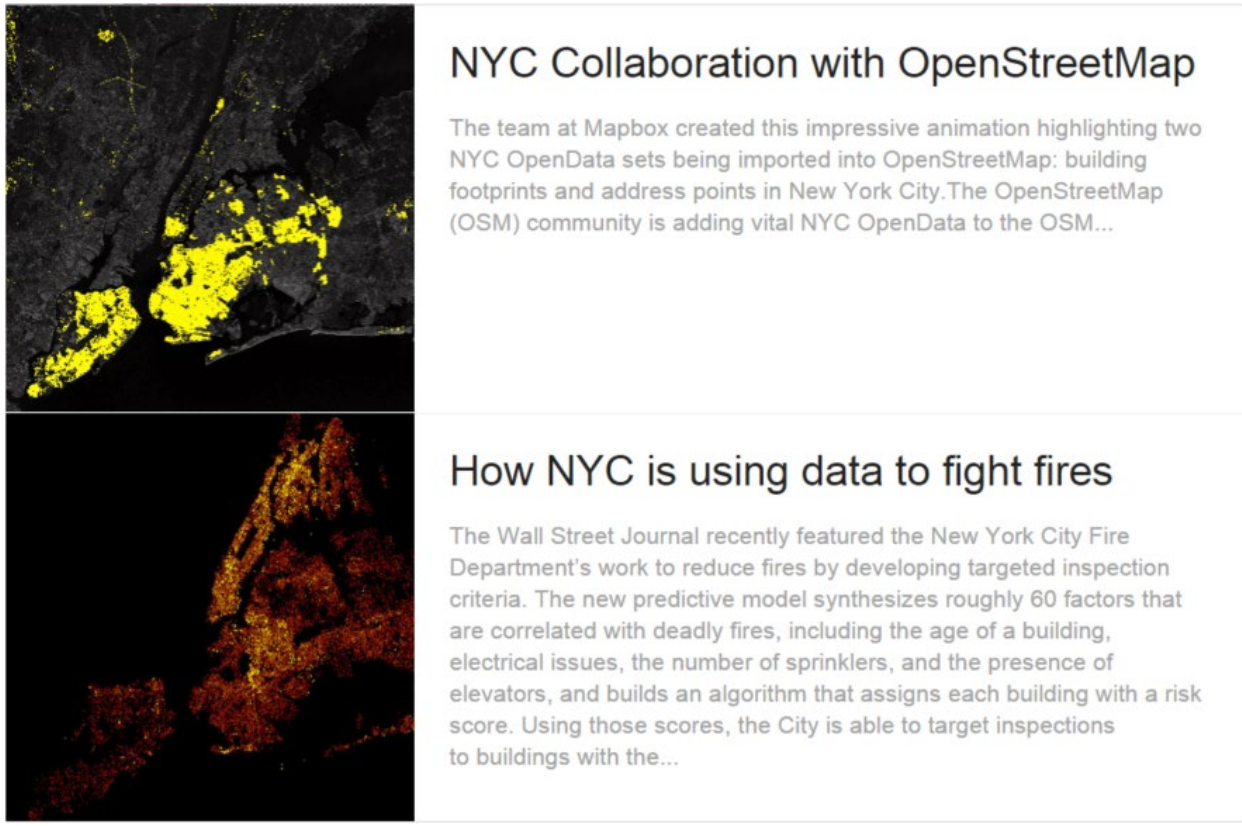


Figure 1: Examples from the homepage of New York City's open data portal, nycopendata.socrata.com

4 Track and highlight stories of how open data is creating value in your city. Open data advocates have trouble building support and departmental buy-in when city officials and citizens are not aware of tangible ways that open data can make a positive difference in their communities. Many open data portals in Greater Los Angeles highlight specific datasets and encourage citizens to use them, but no LA area open data portals or city websites highlight apps that have been built, problems that have been solved, or other positive outcomes that have resulted from open data in those cities. Contrast this with the homepage of New York City's open data portal, which features nearly 20 different uses of the city's open data portal to solve problems (see Figure 1). This year, a number of major events and initiatives around Los Angeles—like Hack for LA, Challenge:LA, and Innovate Pasadena's Connect Week—are being organized to engage citizens in working with open data. These kinds of events raise awareness and should be designed with a plan to follow-up on any useful or actionable ideas. Finally, there are a number of organizations that highlight creative and useful examples of open data, including the *Atlantic's* CityLab,[56] the *Huffington*

54 Open Data to Open Knowledge: City of Boston (n.d). *Knight Foundation*. Retrieved from knightfoundation.org/grants/201550349

55 McHugh, B. (2013). Pioneering Open Data Standards: The GTFS Story. *Beyond Transparency*. Retrieved from beyondtransparency.org/chapters/part-2/pioneering-open-data-standards-the-gtfs-story

56 Misra, T. (2015, April 22). 3 cities using open data in creative ways to solve problems. *Atlantic CityLab*. Retrieved from citylab.com/cityfixer/2015/04/3-cities-using-open-data-in-creative-ways-to-solve-problems/391035

Post's Alexander Howard,[57] and the blogs of the Sunlight Foundation[58] and Code for America,[59] among others.

5 **Prioritize the release of high-value datasets**. The value of particular datasets often differs by jurisdiction, and each city should have a mechanism, like a working group that gathers citizen input, to help prioritize the release of datasets. Public Records Act (PRA) requests and Freedom of Information Act (FOIA) requests are also key indicators of what data is most in demand. While the federal government reports annually on FOIA requests, most local governments do not. City officials in LA County may consider tracking and publicly releasing records requests to drive decisions on what kinds of datasets to prioritize releasing. Former Philadelphia Chief Data Officer Mark Headd recommends that open data initiatives focus initially on "the 'Three B's: Buses (transit data), Bullets (crime data), and Bucks (budget and expenditure data)."[60] While these kinds of data are undoubtedly useful and important, there is a distinction between datasets that hold government officials accountable and those that may contribute to a fun or useful app. A robust open data initiative needs both. For example, meaningful datasets related to education, health, and criminal justice have been mostly absent from discussions of open data in most cities—and no such categories exist in the U.S. City Open Data Census. Police and court records which include demographic data could illuminate how certain groups are targeted with tougher enforcement and sentencing, and ultimately lead to policy changes that promote a more fair justice system. A promising development in this space is the White House's newly announced Police Data Initiative, which was launched to explore ways in which data and technology could be leveraged "to build trust, enhance community policing, and reduce inappropriate use of force."[61] The LA County Sheriff's Department and the Los Angeles Police Department are among 21 police jurisdictions nationally who have signed on to publicly release new kinds of police data—including data on traffic stops and police-involved shootings—that will help "communities gain visibility into key information on police/citizen encounters."[62] The importance and usefulness of data released in Los Angeles remains to be seen. But the focus on high-value datasets with the potential to inform important policy changes is the right one, and such initiatives should be encouraged and expanded across the spectrum of government departments.

6 **Establish guidelines to protect the privacy of individuals**. In general, personal and identifying information on individuals should be removed from government data before it is released to the public. Open Knowledge (OK), a UK-based non-profit and leader in the movement for open government data, emphasizes that "ensuring the risks are considered and managed before data release is essential" and proposes that governments establish a clear set of guidelines and principles for maintaining the privacy of citizens. In cases where data cannot be sufficiently altered to provide a reasonable level of citizen privacy, OK argues that "these datasets simply should not be opened up."[63] Cities' own policies and guidelines for what data can and cannot be made public should balance concerns around privacy and safety with the public's need for information and the ways that data might be used to solve important problems. While privacy is a legitimate concern that should factor into all decisions to release data, personal information can be removed from most city datasets, which can be opened up with minimal effort after getting buy-in from specific departments. Finally, cities should learn from high-profile privacy missteps in other cities. For example, in

57 Alexander Howard also writes his own blog all about open government and technology: e-pluribusunum.org
58 Sunlight Foundation's posts about open data: sunlightfoundation.com/blog/tag/open-government-data
59 Code for America's posts about open data: codeforamerica.org/blog/category/open-data
60 Open by Default: An open data playbook to help you get started in your city or county (n.d.) *Code for America*. Retrieved from https://www.codeforamerica.org/governments/principles/open-data/#publishing
61 Suszan, B. (2015, June 2). How to Champion the White House 21st Century Policing and the Police Data Initiative. *SpotCrime Blog*. Retrieved from blog.spotcrime.com/2015/06/how-to-champion-white-house-21st.html
62 Austin Jr., R., & Smith, M. (2015, May 18). Launching the Police Initiative. *White House Office of Science and Technology Policy*. Retrieved from https://www.whitehouse.gov/blog/2015/05/18/launching-police-data-initiative
63 James, L. (2013, August 27). Open Data Privacy. *Open Knowledge Foundation*. Retrieved from blog.okfn.org/2013/08/27/open-data-privacy

2013 data analyst and civic hacker Chris Whong legally obtained a large dataset of every cab ride in New York City—over 173 million individual trips—through a request under New York State's Freedom of Information Law (FOIL). Whong made a series of engaging and interactive maps using the data, and released the raw data so that other technologists and academics could use it to make their own visualizations and tools.[64] The problem came because personal information had not been properly anonymized by the NYC Taxi & Limousine Commission before they released the dataset, which led to other users finding ways to reveal not only who the driver was for each trip, but also who the passenger was, how long their ride lasted, how much they paid, and where they were picked up and dropped off.[65] The story resulted in criticism and negative press for New York City, and the lesson for cities is that they should ensure they are following best practices to effectively anonymize datasets before they are released.[66] "The cat is already out of the bag in this case," wrote software developer Vijay Pandurangan, who in less than two hours completely de-anonymized all 173 million taxicab entries. "But hopefully in the future, agencies will think carefully about the method they use to anonymize data before releasing it to the public."[67]

7 **Build support for open data through municipal policies**. City officials who are interested in open data should consider passing municipal policies to provide a foundation for launching an open data initiative. In addition to building internal and public support for an open data initiative, such policies can help to establish best practices for addressing concerns around privacy, legality, and shareability of datasets. Cities around the country have used an array of legislative tools to promote open data policies and establish frameworks for the institutionalization of municipal open data portals, including Executive Orders,[68] city council legislation,[69] Administrative Orders,[70] City Manager Policies,[71] Resolutions,[72] and a range of other approaches.[73] All five of the largest U.S. cities now have open data policies,[74] including the City of Los Angeles.[75] In addition to providing a foundation for local open data initiatives and portals, municipal open data policies enacted by small to mid-sized cities may support future interoperability with data stored at other levels of government. Open data policies have similarly been useful at the county, state, and national levels, as evidenced by LA County's Open Data Initiative,[76] and both the U.S. Open Data Executive Order[77] and U.S. Open Data Policy.[78]

8 **Go beyond existing open data criteria to make sure open data is working in the unique context of each city**. Criteria like those used in the U.S. City Open Data Census can provide valuable guidance

64 Whong, C. (n.d) NYC Taxis: A Day in the Life. *Chris Whong*. Retrieved from nyctaxi.herokuapp.com
65 Trotter, J. (2014, October 23). Public NYC Taxicab Database Lets You See How Celebrities Tip. *Gawker*. Retrieved from gawker.com/the-public-nyc-taxicab-database-that-accidentally-track-1646724546
66 Pandurangan, V. (2014, June 21). On Taxis and Rainbows: Lessons from NYC's improperly anonymized taxi logs. *Medium.com*. Retrieved from medium.com/@vijayp/of-taxis-and-rainbows-f6bc289679a1
67 Goodin, D. (2014, June 23). Poorly anonymized logs reveal NYC cab drivers' detailed whereabouts. *Ars Technica*. Retrieved from arstechnica.com/tech-policy/2014/06/poorly-anonymized-logs-reveal-nyc-cab-drivers-detailed-whereabouts

68 For example, the Mayor of Los Angeles released an "Open Data Executive Directive" in December, 2013: gist.github.com/rebeccawilliams/8031812
69 For example, the City of New York passed "Local Law 11 of 2012: Publishing Open Data" in May, 2012: nyc.gov/html/doitt/html/open/local_law_11_2012.shtml
70 For example, Cincinnati, OH issued Administrative Regulations No. 61 (Open Data Requirements and Implementation Plan) in January, 2014: city-egov.cincinnati-oh.gov/Webtop/ws/fyi/public/fyi_docs/Blob/3227.pdf?rpp=-10&m=1&w=doc_no%3D%272728%27
71 For example, Charlotte, NC released "Open Data Policy" from the City Managers Office in January, 2015: charmeck.org/maps/Documents/OpenDataPolicy.pdf
72 For example, Raleigh, NC adopted the "Open Source Systems Resolution" (Resolution No. 2011): documentcloud.org/documents/286685-open-source-resolution.html
73 For example, Las Vegas, NV enacted Open Data Policy through their IT Department in January, 2014: https://opendata.lasvegasnevada.gov/dataset/Open-Data-Policy/fzgv-7d28
74 The Sunlight Foundation maintains an updated list of municipal, county, state and federal open data policies here: sunlightfoundation.com/policy/opendatamap
75 Executive Directive No. 3 (2013, December 18). *City of Los Angeles*. Retrieved from gist.github.com/rebeccawilliams/8031812
76 The LA County Open Data Initiative enacts policy that requires the County Chief Information Officer to "1. Establish and administer a Los Angeles County Open Data Portal, 2. Establish a County Open Data Task Force." Retrieved from file.lacounty.gov/bos/supdocs/90954.pdf
77 President Obama's Executive Order, titled *Making Open and Machine Readable the New Default for Government Information* declared that information is highly valuable to the United States. Furthermore, it established that the value of this data is magnified when made more easily accessible to the public: whitehouse.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government
78 President Obama's U.S. Open Data Policy's *Managing Information as an Asset* is pursuant to the Executive Order on May 9, 2013, "to help institutionalize the principles of effective information management at each stage of the information's life cycle to promote interoperability and openness": whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf

and motivation for cities with open data initiatives.[79] But city officials should not let external indicators or evaluators dictate the boundaries or content of an open data initiative. Instead, city officials should develop strategic plans around open data that make sense in the context of their cities—taking citizen input and other factors discussed throughout this report into account.

79 Goldsmith, S. (2015, March 11). Why Benchmarking Matters. *Government Technology*. Retrieved from govtech.com/data/Why-Benchmarking-Matters.html

Conclusion

While open data initiatives are not a solution to all of the issues that impact modern cities, opening up government data can provide meaningful benefits to both city governments and the residents they serve. New apps and websites powered by open data continue to improve governments and the lives of citizens. Open data portals and initiatives help foster a culture of transparency and trust, and can provide new avenues to improve government efficiency, generate revenue, and create new jobs in the private sector.

This report finds that cities across Los Angeles County are making progress on their open data efforts, and even those who haven't made progress express substantial interest in pursuing open data initiatives. At the same time, city officials say that there are significant barriers to launching or expanding their open data efforts, including funding, expertise, and getting buy-in from city departments. By listening to their constituents and following the recommendations in this report, city officials and other open data advocates have the potential to overcome these challenges and create open data initiatives that make a difference in their communities.

Open data has the potential to improve and connect city governments across one of the most sprawling and demographically diverse regions in the country, and this report highlights the encouraging trends in Los Angeles County. In most cases, the production of city data is paid for by taxpayers, and can be made public with modest effort. Making this data freely available to the public in open and easily accessible formats not only increases transparency and trust in government, but it can also empower citizens to solve problems in their own communities. When cities open up their public data, they provide an alternative narrative about how citizen data can be used by governments. Open data initiatives reinforce the point that government data belongs to the public and can be used in positive and productive ways.

While open data is not the answer in and of itself, making government data more open and accessible is an important first step toward creating transparent, efficient cities that are responsive to the needs of all their citizens.

Key Resources & Further Reading

1. "Open by Default: An open data playbook to help you get started in your city or county", *Code for America*

   This short guide provides specific suggestions and general principles to help city officials in implementing open data initiatives. The playbook also includes an overview of popular open data platforms and stories of how open data has helped solve problems in cities around the country.

2. "LA Open Data: Policy and Playbook", *City of Los Angeles*

   A guidebook by the City of Los Angeles that highlights strategic and operational best practices for launching municipal open data initiatives.

3. "Open Data Guide: A guidebook for state & local government officials who want to get started with open data", *Mark Headd*

   Created by the first chief data officer of the City of Philadelphia, this guide is targeted at city officials who are interested in open data and covers all phases of launching an open data initiative.

4. "City Open Data Policies: Learning by Doing", *National League of Cities*

   Based on five U.S. municipal case studies, this report provides six guiding principles for developing an open data plan in a city: leadership, legislation, funding, tech expertise, stakeholder involvement, and measuring success.

5. "Open Data Policy Guidelines", *Sunlight Foundation*

   This comprehensive list of open data guidelines addresses what data should be public, how to make data public, and how to implement policies around open data.

6. "The Open Data Handbook", *Open Knowledge Foundation*

   This handbook reviews the legal, technical, and social aspects of open data.

7. "Beyond Transparency: Open Data and the Future of Civic Innovation", *Code for America*

   This collection of stories about open data explores "the transformative potential of open data in shaping the future of our civic life" and reveals insights from open data practitioners in government, business, technology, and journalism.

8. "Government as a Platform", *Tim O'Reilly*

   This widely cited essay discusses open data, "Government 2.0," and the open government movement within the context of technological and civic innovation. O'Reilly frames the discussion of open government with the question, "How does government become an open platform that allows people inside and outside government to innovate?"

9. "The GovLab Selected Readings on Civic Innovation: Cities and Civic Technology", *NYU GovLab*

   This useful and annotated list provides further reading on open data, civic innovation, and civic technology.

10. "Sustainable Development of Communities: Indicators for City Services and Quality of Life", *World Council on City Data*

    The World Council on City Data (WCCD) is a certification body that has created the first international standard for open city data, known as "ISO 37120 Sustainable Development of Communities." The standard includes "a comprehensive set of 100 indicators...that measure a city's social, economic, and environmental performance."

City Officials Surveyed & Interviewed

Surveyed

City	Name	Title
Alhambra	Tara Schultz	Assistant City Manager/Development Services Director
Arcadia	Dominic Lazzaretto	City Manager
Baldwin Park	Craig Graves	Director of Finance
Bell	Alex Fong	Community Development
Bradbury	Michelle Keith	City Manager
Burbank	Debbie Kutka	City Treasurer
Claremont	Colin Tudor	Assistant City Manager
Commerce	Jorge Rifa	City Administrator
Covina	Daryl Parrish	Administration
Culver City	Jeff Muir	Chief Financial Officer
Downey	Juddy Montenegro	Admin Aide
Duarte	Kristin Peterson	Administrative Services
El Segundo	Suzanne Fuentes	Mayor
Glendale	Damion Patrick	Senior Project Manager, Information Services
Glendora	Matthew Jester	Information Systems Supervisor
Hermosa Beach	Nico De Anda-Scaia	Management Analyst, City Manager's Office
Huntington Park	Danny Bueno	Assistant to the City Manager
Irwindale	Laura Nieto	Deputy City Clerk
La Cañada-Flintridge	Mark Alexander	City Manager
La Habra Heights	Shauna Clark	City Manager
La Mirada	Anne Haraksin	Deputy City Manager
Lakewood	Diane Perkin	Director of Administration Services
Lancaster	Barbara Boswell	Finance Director
Lomita	Michael Rock	City Manager
Long Beach	Rachael Tanner	Program Specialist, City Manager's Office

Surveyed

City	Name	Title
Los Angeles	Kyle Hall	Special Assistant to Controller Ron Galperin
Malibu	Skylar Peak	Mayor
Manhattan Beach	Leilani Flores Emnace	Information Systems Manager
Monrovia	Alexis Bakofsky	Public Information Officer, City Manager's Office
Montebello	David Kim	Finance Director
Monterey Park	Chu Thai	Director of Management Services
Norwalk	Michael Egan	City Manager
Pasadena	Phillip Leclair	Chief Information Officer
Pomona	John DePolis	Director of Information Technology
Palos Verdes Estates	Anton Dahlerbruch	City Manager
Rancho Palos Verdes	Carolynn Petru	City Manager
Rolling Hills Estates	Judy Mitchell	Mayor
Rosemead	Carolyn Chu	Finance Director
San Dimas	Blaine Michaelis	City Manager
San Gabriel	Steven A. Preston	City Manager
San Marino	Eugene Sun	Mayor
Santa Clarita	Ryan Drake	Senior Information Technology Analyst
Santa Monica	Jory Wolf	Chief Information Officer
Signal Hill	Rebecca Burleson	Administration
South Gate	Bryan Cook	Assistant City Manager, Director of Finance
South Pasadena	Christopher Castruita	Management Aide, City Manager's Office
Torrance	Leroy J. Jackson	City Manager
West Covina	Christopher Chung	City Manager
West Hollywood	David Wilson	Director of Finance and Technology Services
Westlake Village	Mark Rutherford	Mayor
Whittier	EJ Boranian	IT/Records Manager

Interviewed

City	Name	Title
Burbank	Debbie Kutka	City Treasurer
Culver City	Jeff Muir	Chief Financial Officer
	Martin Cole	Assistant City Manager
	Michele Williams	Chief Information Officer
Glendale	Damion Patrick	Project Manager, Information Services
Long Beach	Rachael Tanner	Project Specialist
Los Angeles Controller's Office	Suzy Jack	Assistant Controller (former)
	Kyle Hall	Special Assistant to Controller Ron Galperin
Los Angeles Mayor's Office	Miguel Sangalang	Executive Officer for Budget & Innovation
	Peter Marx	Chief Innovation Officer
	Ted Ross	Assistant General Manager of the Information Technology Agency
Los Angeles County	Ali Farahani	Chief Data Officer
Pasadena	Phillip Leclair	Chief Information Officer
Santa Monica	Behrang Abadi	Web Development Manager
	Jory Wolf	Chief Information Officer
Whittier	EJ Boranian	Information Technology Manager

Credits

Report Team

Ev Boyle
Principal Investigator & Director, Civic Tech USC

Justin Chapman
Research Manager

Skye Featherstone
Global Research Fellow & Report Photographer

Andrew Frantela
Research Assistant

Liz Krane
Lead Designer & Research Assistant

Brett Shears
Research Associate

Report Advisors

Geoffrey Baum
Managing Director, USC Annenberg Center on Communication Leadership & Policy

Geoffrey Cowan
USC University Professor & Director, USC Annenberg Center on Communication Leadership & Policy

Peter J. Robertson, PhD
USC Associate Professor & Director, Master of Public Administration

Andrew Schrock, PhD
USC Annenberg School for Communication and Journalism

350 S Grand Ave
Suite 3350
Los Angeles, CA 90071
(213) 337-3100
commlead@usc.edu

USC Annenberg
Center on Communication Leadership & Policy

USC Price
Sol Price School of Public Policy

civictechusc.com

Civic Tech USC