



Open Contracts Data Project

“Transparency is a cornerstone of good governance, and it is vital for the City to be open and available to our citizens.”

- Mayor Michael A. Nutter

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Introduction

The Mayor's Internship Program (MIP) Open Contracts Data group was charged with determining the value and viability of making the city's contract documents – or pertinent contract data – publicly available online. Over the last ten weeks, the group conducted a series of interviews with City employees and their counterparts in six peer cities to evaluate: 1) the city's capacity, desire, and need to post centralized contract data online and 2) how Philadelphia compares to other cities around the country. Using the information gleaned from these interviews, the group is prepared to offer a series of recommendations and guiding questions for the city to consider as it moves toward making its contract documents or contract information (and other financial data in general) public. The group consisted of nine undergraduate and graduate interns and was led by Chief Data Officer Mark Headd and Chief Deputy Integrity Officer Hope Caldwell.

It is important to emphasize the underlying rationales for making the city's business transactions more publicly available and visible. As the group's work progressed, it became clear that the most important reason to perform what is sure to be a costly and time-intensive exercise is to increase governmental transparency – and by extension, accountability. This is in line with Mayor Nutter's goal to ensure that government “works efficiently and effectively, with integrity and responsiveness.” A cornerstone of effective municipal governance in the 21st century will be the transparency and availability of data related to processes and services to the public; making the City's contract data publicly available falls within the context of this larger “open data” movement.

Secondary rationales address both internal and public interests. The group found evidence to suggest that centralizing contract data online would be of use to city departments to both ease the overall contracting process and to potentially save money by allowing departments to more easily leverage bids or share recommendations for professional services. Moreover, this venture could

enhance public usage of city data through the development of smartphone apps or streamlining Right-To-Know (RTK) requests from journalists and vendors.

With this three-part rationale in mind, the paper is divided into the following sections:

- I. Methodology: a brief description of our approach to this project, outlining the scope of work, departments and peer cities contacted, and interviews conducted;
- II. Capacity: an overview of the city's current technical and departmental capacity to implement any kind of open contract data system and the potential accompanying challenges to doing so; and,
- III. Findings and Recommendations: A review of the potential solutions and benefits to pursuing this open contracts data venture

Throughout this paper, we hope to make clear the city's options and the importance of examining the desired internal and external policy ramifications when choosing which open contract data path to pursue.

Methodology

The MIP group surveyed roughly twenty individuals in seven different City of Philadelphia departments and six peer cities across the country. *(See Appendix A)* The group was divided into two subgroups in order to tackle our duties more efficiently. One group examined the City's current state of affairs in regard to contracts data, while the other reviewed peer cities and their achievements in open data. Both groups created and revised a series of questionnaires – each of which was tailored to the interviewees based on their positions and level of knowledge on the subject matter. After compiling the results on an interview-by-interview basis, we then set out to create a report that included all of our findings in addition to a few recommendations to be considered by the City's executive team.

II. Capacity

Current State of Affairs

To initiate an open contract data portal venture, there must first be a thorough review of the City's current systems. There are four relevant systems used within the City of Philadelphia:

- Advanced Purchase Inventory Control System (ADPICS) and Special Procurement Evaluation and Enhanced Database (SPEED) are the systems used for competitively bid goods and services, or Procurement contracts;
- Automated Contract Information System (ACIS) is the system used for non-competitively bid goods and services;
- Financial Accounting Management Information System (FAMIS) is the database used for all financial data.

These databases were all created by separate entities and utilize different ways of recording and reporting contract information. In order for the City to provide a comprehensive review of the City's contracts on an online platform and in a reasonably effective manner, the website on which the information is published must pull from a database that has a standardized format. For this, extensive data clean-up is required due to the current inconsistencies in available data.

Take note that a great deal of useful and relevant information on the City's contracts for non-competitively bid goods and services is published on a quarterly basis via eContract Philly. The report is made available as a PDF document on the website by the City's contracting unit and includes: vendor name, subject matter of the contract, start and end dates of the contract, days remaining in the contract, total contract amount, and total amount that had already been paid at the end of the quarter - all of which is organized by the office or department with which the contract was conformed. The information is collected from ACIS, FAMIS, and the individual departments involved in the contracts.

Another current system to take into consideration is the Office of Economic Opportunity's B2GNow project with AskReply. The purpose of OEO's project is to track payments to minority companies and individuals via contracts with City departments in order to ultimately gauge "minority participation." The B2G project is a unique system because it tracks payments from the City to vendors *and* from the vendors to subcontractors, which requires pulling information from all four of the aforementioned databases in addition to information from the vendors and subcontracts – thus indicating that doing so would be definitely viable for our Open Contracts Data project. The information that is uploaded monthly to B2G consists of new or updated Supplies, Services, and Equipment (SS&E) contracts and Public Work (PW) contracts from ADPICS, new or updated Professional Services Contracts (PSC) from ACIS, FAMIS data corroborated against encumbrances, invoices, and payment vouchers for non-unitary contracts, and all new miscellaneous purchases and small-order purchases.

However, the proper data transfer protocol on unitary contracts and payments is still being developed and the payment data for unitary contracts does not yet appear in B2G in a useable format. This is primarily due to the fact that much of the information pulled from B2G on professional goods and services contracts is gathered from ACIS, but the database simply captures payment vouchers for all of its contracts and does not track if or when that payment has been made; thus there are inaccuracies between vouchers in ACIS and actual payments in FAMIS due to the nature of unitary contracts. The multiple encumbrances on a unitary contract create even more difficulties in the data analysis side of the B2G project. This obstacle is something to be considered if the open data contract venture involves the B2G system, and perhaps a reevaluation of the system's relevance to this project will be required after the issue with unitary contracts is solved.

Also, take note that although the data is in a more malleable format and able to be exported to Excel from the original CSV (i.e. plain text) files via the B2G system, these reports only include

information required by OEO and are only updated on a monthly basis rather than as a live feed. Another level of data analysis, input, and presentation will be required if our venture aims to collect different information and aims to post data on a more immediate basis.

The basic procedure currently in place for contracts varies depending on the type of contract, or whether it is competitively bid or non-competitively bid. The current database systems will probably stay in place as this project moves forward – but the City will also have to require departments to input this information into the new database (if such a database is formed) for a robust Open Data project. If this is not a plausible goal, the City might have to recruit a team of people that is willing to work on collecting this data across departments. And another key requirement to take into account is the manner in which this data is to be uploaded. Although there is a lot of work on the Internet and on computer databases, much of the contract management is paper based – especially for the Procurement Department. If the Open Data project aims to provide more than just payment information, then more time and effort will have to be put in from the Information Technology side of this project to pull that information from the databases and from the paper documents.

III. Findings and Recommendations

Transparency

The most vital reason to push forward with this project is the increased transparency of city government business to the general public, as stated by the Mayor himself in an April 2012 Executive Order which read, in part: “Transparency is a cornerstone of good governance, and it is vital for the City to be open and available to our citizens.” Increased transparency in municipal government operations is a mechanism by which to enable governmental accountability to citizens. Providing open contract data can thus be seen as a good provided in the public interest. Increased

transparency and the release of information pertaining to city operations and business is also a means by which the city can get out in front of the open data movement which will characterize good governance and improved services into the 21st century.

Internal Utility

An effective execution of any open contracts data project could be make city government operations more efficient and save staff time and resources. As mentioned before, the project will by necessity require a more comprehensive database from which the information can be pulled and published to an online platform. That database will by necessity have an internally facing component that all departments will have access to; thereby improving interdepartmental communication and communication among city departments and even to certain departmental constituencies.. In regard to the former benefit, the database will allow all government employees to access updates in real-time of the business ventures of other departments with relative ease, reducing redundancy and increasing efficiency. As mentioned, a centralized system could make it easier for departments to leverage or add on to bids, and to share recommendations for professional services. In regard to the latter benefit, the open data portal has the potential to decrease the workload of the City's RTK officers as most of the requested contract information would be available online. Both Chicago's and San Francisco's city governments recognized a reduction in the number of RTK requests after the establishment of their open data portals, although this observation was anecdotally noted and not data based. In San Francisco and New York, public requests for general information also became more in-depth; less city staff time was wasted answering basic questions.

Public Use

It is also important to note the utility of this open contract data project to the public. Interviews from both New York and San Francisco revealed that the types of questions that their departments received from the public changed from simple ones about vendor names and contract amounts to more complex questions about why a specific vendor was chosen, indicating increased citizen involvement. Within the general constituency, the data will definitely be of great use to researchers, analysts, and journalists who wish to gain greater insight into City expenditures, current and potential vendors who wish to learn more about the City's preferences in conducting business, and technology experts who wish to use the information to develop applications or similar systems to serve the public.

Potential Challenges

The differing concerns of departments with regard to what data each would be required to post will be a significant challenge in this project. For instance, social service providing departments may want contract information kept confidential in order to protect client privacy interests, and security concerns may arise in releasing contract data from the prison system or police department. Creating unequal requirements for posting data for departments depending on their needs might alleviate those worries. However, an effort to move toward open data will be more credibly transparent and useful to the public if it does not exclude or exempt certain departments. This means that it is critical to design a system with uniform standards that meet the needs of the departments with the greatest concerns, in order to protect the value of the project as a whole. However, our research into other cities' systems revealed that this could not always be the case. For example, New York worked with the New York Police Department to ensure that no contracts, such as those concerning anti-terror efforts, were published due to security concerns.

Another key element to keep in mind is the need to educate these departments – each with their own policies, procedures, and standards – about the impact of having their data available to the public, possibly in real time. The need for carefully entered data and clean practices becomes more important with the public’s eye watching the information. That is, data that is made public in real time, or at least close to it, must be as accurate as possible.

The cost of implementing a project such as this would be largely dependent on the decisions made about many of the other concerns already addressed. Posting actual contract documents will require the resources to have all of these documents scanned and uploaded, while posting just key data from each contract will require manpower to extract this data. Hiring a vendor to create a centralized system will largely depend on the presentation format. New York City reported there was a \$300 million one-time cost (albeit in the 1970s) to create their centralized accounting system and an additional \$3 million to develop the user-facing data portal, called CheckBook 2.0. The State of Massachusetts’ custom-built portal cost a similar \$2 million. However, Boston estimated it only paid \$10,000 to implement its Socrata system - which has a very different look and feel to New York’s Checkbook application - to hold the contract data and an additional \$1000 a month to maintain. The budget that Philadelphia has available for an open contract data project would have a large impact on the type of system the City would be able to create.

Possible Solutions

1. Expand upon the quarterly report

One possible short term solution that would allow the City to reap benefits to internal departments and to enhance transparency would be to convert the quarterly report described earlier into a more open, easily usable database format that could be viewed and searched between departments and in the public domain. Unfortunately, this solution would only make information

about non-competitively bid goods and services available and would need to be further expanded in order to give a full picture of the City's contracts. Further, while this solution would facilitate the interdepartmental communication discussed earlier, it would not be as user-friendly for the public as other options.

2. Provide summarized contract information

Another possible solution is to post summarized data from contracts in a database format. Both San Francisco and Boston used Socrata, a third-party vendor, to build a "spreadsheet like" format that includes key contract information – vendor name, amount, services provided. This solution is low cost and searchable. However, it may require additional labor and staff time for those contracts that do not already have their key data summarized into an existing report. For paper contracts, this workload would be even further intensified.

3. Post contracts in their entirety

A third option is to post contracts in their entirety in a PDF format. If Philadelphia decides to post full contract documents, it is important to note that some contracts may include sensitive client information, which raises concerns about protecting confidentiality. Making available scanned PDF documents of contracts would provide a large level of detail for the public, but simultaneously present the risk that sensitive information that should have been omitted might get included due to simple human error. It would be the responsibility of either a City department or the vendor to thoroughly redact sensitive information. Vendor redaction might be preferable, as this would save time for the city and avoid a liability issue by letting vendors protect their own information. Although it might create more work for vendors, it would also give them more control over and perhaps confidence in the process to not make any damaging mistakes. This solution

might, however, require making clear to vendors what information they are allowed to protect and what they must disclose. It would also still require some level of oversight by the City, so its workload for redacting data would be lessened but not eliminated. This solution, while it provides the rawest data to the end users, might be less useful for those looking to reduce redundancies internally and those in public. Full contract postings will provide the least amount of searchability and context while possibly being the most labor intensive.

4. Publicize contract data as part of a larger open data initiative

The last, and most complex, solution is to create a system which posts summarized contract data in the larger context of city expenditures, salary information, and budget. It is important to note that several of the preceding solutions could be part of a lead-up to this more robust system; they are not mutually exclusive. New York's Checkbook 2.0 system serves as an example of this format. The data is presented graphically to represent how vendor contracts fit into New York City's larger budget, revenue, and expenditure accounts. The end user has the option of viewing contracts by category, such as "Top 5 Contracts by Amount," by agency, or by vendor. The user also has the option of viewing key information, such as vendor name or contract amount, individually by each contract. Note that in this case, the full contract document is not posted to the public. This presentation allows a citizen to more clearly see patterns in spending and get information about specific contracts without being overwhelmed with the complexity of a full legal document. It also allows City departments to increase efficiency.

Going forward with this endeavor, the route that Philadelphia decides to take will depend on which outcomes are most important to the City – transparency, internal efficiency, or public use. These four solutions can be combined and tweaked in order to provide the best option for

Philadelphia's needs and available resources. As other peer cities continue to expand their public data sets, it is important the Philadelphia keeps up, provides this information to the public, and uses this opportunity to reap the benefits of a centralized system.

Appendix A

Name	Position	Department	City
Nigel Jacob	Co-Chair	Office of New Urban Mechanics	Boston, MA
Curt Savoie	Chief Data Scientist	Office of New Urban Mechanics	Boston, MA
Heather Hudson	Chief Data Officer	Office of Information Technology	Baltimore, MD
Tom Schenk Jr.	Director, Analytics and Performance	Department of Innovation and Technology	Chicago, IL
Christopher Marshall	Program Manager, Citywide Data Warehouse	Office of the Chief Technology Officer	Washington D.C.
AdriSSha Wimberly	Assistant to Deputy Comptroller of Budgets	Office of the Comptroller	New York, NY
Wylie Timmerman	Performance Analyst	Controller's Office, City Services Auditor	San Francisco, CA
Jaci Fong	Director	Office of Contract Administration	San Francisco, CA
Jason Euren	Research Fellow	Office of Civic Innovation	San Francisco, CA
Laura Taylor	Contract Administrator	Office of Housing and Community Development	Philadelphia, PA
Scott Strickler	Project Manager, B2GNow	Office of Innovation and Technology	Philadelphia, PA
Benjamin Mishkin	Assistant City Solicitor	Law Department, Pensions and Investment	Philadelphia, PA
Cassandra Gray	Compliance Manager	Department of Public Health	Philadelphia, PA
Yvonne Farrell	Development and Compliance Manager	Department of Human Services	Philadelphia, PA
Drew Menten	Contract Management Analyst	Office of the Director of Finance	Philadelphia, PA
Stephanie Tipton	Director, Public Works and Special Services	Procurement Department	Philadelphia, PA
T. David Williams	Director, Contracts Legislation Unit	Office of the Director of Finance	Philadelphia, PA
Trevor Day	Deputy Commissioner	Procurement Department	Philadelphia, PA

Appendix B

City	Contracts Data Solutions	URL
Baltimore, MD	None to date	N/A
Boston, MA	Summarized and searchable information that is organizationally malleable	https://data.cityofboston.gov/Finance/Current-Active-Contracts/6yws-tqu3
	Searchable user interface with summarized data	https://data.cityofboston.gov/checkbook/2013
Chicago, IL	Summarized and searchable information in addition to full PDFs of contracts	https://webapps1.cityofchicago.org/VCSearchWeb
New York City, NY	Searchable user interface with summarized data in context	http://www.checkbooknyc.com/contracts_landing/status/A/yeartype/B/year/115
San Francisco, CA	(in progress) Summarized vendor payments online	http://openbook.sfgov.org/
Washington, D.C.	Contracts posted in their entirety for Finance Department only	https://sites.google.com/a/dc.gov/ocfo-procurements/fy13-contract-awards