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The Opacity Problem: An Examination of Baltimore City Infrastructure Contracts

By Cristie F. Cole Firebrand Analytics

The health of a city is dependent on a strong infrastructure of transportation, water, power, and waste systems. Municipalities must invest millions of dollars each year into projects that improve and enhance those systems. Infrastructure projects, like any type of project, sometimes run over their allotted time frames and budget amounts. Often those overruns are the result of unforeseen conditions and are a normal part of business, but how a city monitors and handles overruns is an important part of municipal stewardship.

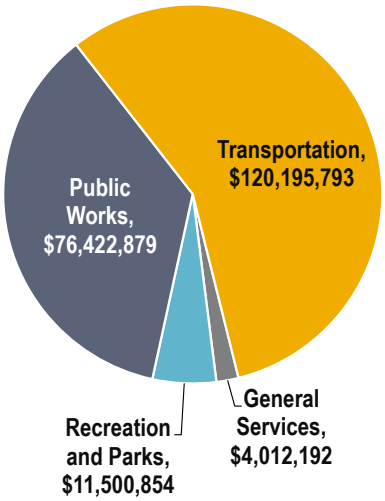
For this report, we set out to conduct an analysis of Baltimore City infrastructure contract overruns using publicly available data from city records to determine the extent to which contracts were over-extended, and, if possible, to determine the extent to which the city is collecting damages from contractors for missing final project deadlines. However, we were never able to obtain data that was complete enough or robust enough to answer our basic research questions. So, instead of being an analysis of city contract overruns, this report chronicles our unsuccessful efforts to access information from city entities and proposes practices for greater transparency in city agencies going forward.

Background

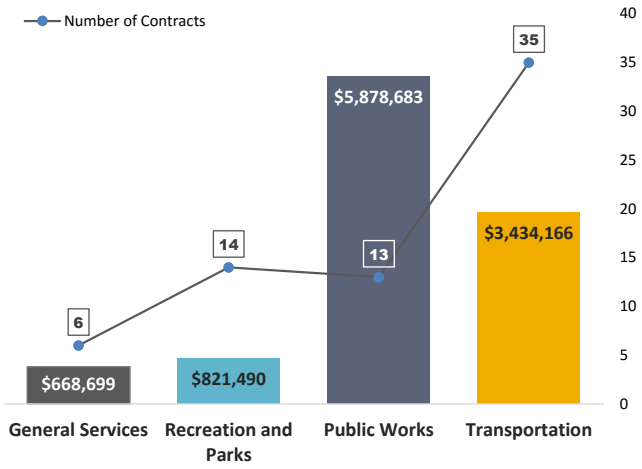
In fiscal year 2012, the Baltimore City Board of Estimates (BOE) approved more than $212 million for infrastructure contracts. These 68 contracts provided for both new construction and major repairs and maintenance on Baltimore's transportation network, water and waste systems, and city-owned buildings. All city contracts are governed by standard legal specifications that direct the timely execution of contractual projects. Each project has a specified number of days in which it must be completed. The contractor gives the sponsoring agency a detailed timetable, and if the contractor falls behind or anticipates falling behind schedule, the contractor must notify the sponsoring agency. The agency works closely with the contractor to resolve issues as they arise in order to stay on schedule.

If the contractor falls behind enough that the final deadline (the expiration date of the project) is likely to be missed, the contractor can be granted an extension on the total number of working days, thereby pushing the expiration date back. In order to be granted such an extension, an extra work order (EWO) must be brought before the Board of Estimates and approved. An EWO must also be approved if the contractor is requesting more than $25,000 in additional funding for a specific

Total Infrastructure Contract Awards for Fiscal Year 2012



Number of Contracts from Each Agency and Average Award Amount



project. These BOE approved time and budget extensions are not considered overruns.

Each contract also specifies damages that the city can collect if contractors fail to execute a project by the expiration date. Damages are specified for each project as an amount per day past the expiration date. That daily amount, referred to as liquidated damages, differs from project to project. Liquidated damages is a way for the city to recoup costs when a contractor doesn't finish a project on schedule. Actually assessing liquidated damages to the contractor, however, is unusual. Infrastructure contracts rely on firms that have highly specialized skillsets. Significant public funds are invested into each infrastructure project, particularly those requiring close oversight by engineers, so even when a contractor is falling far short of expectations, city agencies almost never fire a contractor mid-project. In the vast majority of cases, it is cheaper and faster to have the existing firm finish slow, bloated projects than to terminate the contract and rebid.

When we embarked on this project, our aim was to describe the extent of contractual overrun using publicly available data. However, what we found after we pulled data from three different types of records (detailed below) was that the overrun question is unanswerable to the average Baltimore citizen because of the difficulty in obtaining and understanding information about the status of city contracts. The contracting process is long and complex. If we had been able to obtain data and complete an analysis, we would have included lengthy explanations about different types of contracts, the prequalification and bid processes, and other key concepts. However, since this report instead became an account of the problems we encountered in obtaining and deciphering data, those detailed technical descriptions are out of scope. Below is a detailed description of the project's original intent and design, the publicly available data we obtained, and suggestions for city leaders to hold contractors and agencies more accountable through transparency.

Population Description

The contracts we chose to study comprise all of the city infrastructure contracts from fiscal year 2012. We chose FY '12 because we wanted a group of contracts that spanned an entire year in order to account for seasonal building fluctuations, and we wanted the projects to be old enough that the vast majority of them would be completed. The contracts originated from four city agencies: the Department of Transportation (DOT), the Department of Public Works (DPW), the Department of Recreation and Parks, and the Department of General Services (DGS). They ranged from

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$68,000 to $38.6 million, averaging $3.1 million overall. We constructed the population frame using Board of Estimates minutes from July 2011 to June 2012.

Data Sources

We drew upon three data sources in order to answer our research questions. Specifically, we were looking for each project's beginning and actual end dates, the original number of days for which the contract specified project completion, the final expiration date, the daily liquidated damages amount, and the final cost of the project. The merits and drawbacks of each information source are discussed on the next page.

When we compiled data from the BOE minutes, we believed that, although it had limitations, our data was robust enough to begin to answer our questions about contract overruns. Then, we received the engineer's certificates. There were only 11 contracts for which we had both data sources, and in those few projects there were so many points of incongruence between the two data sources that we suspended analysis because we had no way of knowing which was accurate. Of the 11 projects, seven had disparities between the two data sets in the amount of additional funds granted and two had disparities in the number of additional days granted.

There are several perception problems that arise when the public doesn't have access to information about overruns on city infrastructure contracts. This information is systematically examined and reported internally by at least DPW, but not in a format that is accessible to the public. When projects aren't audited for years after they were awarded, or the comptroller is reporting different numbers than the sponsoring agency, engaged citizens might be inclined to wonder:

1. ***Are projects being underbid?*** The Board of Estimates awards city contracts to the pre-qualified bidder who demonstrates he/she is capable of completing the job and who bids the lowest. This system incentivizes contractors to intentionally bid too low and ask for extra funding when the project is already underway. We would be in a better position to tell if that isn't happening or whether it warranted further investigation if we knew how often contractors asked for more money, and if we knew which contractors were doing so habitually.

2. ***Are city agencies producing bad requests for proposal (RFPs)?*** Are they awarding contracts to companies who aren't up for the job? A good indicator of the strength of RFPs is the ability of a contractor to finish in the specified time frame. If we had reliable data on how often (and extensively) overruns were occurring, and in which agencies, we would have a better idea about whether there was a problem with either the RFPs or negligent contractors.

	BOE Minutes	Signed Contract	Engineer's Certificate of Completion
Description	The Board of Estimates approves all major city contracts and most changes in those contracts. It consists of the city comptroller, the mayor, the city council president, the city solicitor, and the head of DPW. The city solicitor and the head of DPW are both appointed by the mayor. BOE minutes are the records of their weekly meetings.	This is the copy of the actual contract that was signed by the city and the contractor. It contains all of the project specifications and legal agreements, including penalties for failure to perform.	The engineer's completion certificate is a simple one-page report that details the original cost and time specifications for the contract, the final time and cost consumption, and the amount of overrun (or underrun) that the project consumed.
Accessibility	**High:** Available on the comptroller's website in PDF form.	**Low:** Available through a Maryland Public Information Act (PIA) request and subject to the city's $1 per page copy fee. Contracts are generally several hundred pages in length, and one must be able to navigate the city bureaucracy well enough to figure out which office within an agency handles PIA requests.	**Medium:** Available through a Maryland Public Information Act (PIA) request and subject to the city's $1 per page copy fee; however, each certificate is only one page long. One must be able to navigate the city bureaucracy well enough to figure out which office within an agency handles PIA requests.
Merits	BOE minutes contain all time extensions and monetary extensions greater than $25,000 for every city contract. With this information we were able to construct a dataset that contained several of the data points we were looking for.	This contract contains the original number of days allotted for completion. This was also the only data source that specified the daily liquidated damages amount.	The engineer's certificate contained every critical data point that we were seeking on one sheet of paper and was, by far, the simplest document we looked at for the entire project.
Drawbacks	1. Understanding BOE proceedings can be almost impossible for anyone not intimately familiar with the workings of city government. 2. Constructing a dataset from thousands of pages of BOE minutes is very time-intensive. 3. While we could see how many days the project had been extended, there is no way of knowing whether the project was ever actually completed.	1. The cost of obtaining contracts is prohibitive for the vast majority of people and organizations. 2. There is no outcome data in the contract.	Engineer's certificates are completed after the project audit is completed, which takes place after the project's warranty period (generally a year) expires. We requested a total of 48 certificates from DPW and DOT, and only received 11 back. Two DPW certificates were archived. Three to four years have passed since these contracts were approved, and 35 of 48 engineer's completion certificates are still unavailable.

City personnel will be spared the onerous task of sorting through paper files, and, as more city agencies adopt these practices and the cost of producing public records decreases, the city's public record fees will hopefully follow suit.

3. ***Is there some sort of political gain to be had by not making this information public?*** Four contractors were awarded half of the contracts in our population of 68. All four of those companies were major donors to at least one elected member of the Board of Estimates. If we knew that these companies were being awarded contracts because they did great work, their donations are irrelevant. However, if they are consistently turning out expensive work while missing deadlines, their contributions might seem suspect. But we have no way of knowing anything about the quality of their taxpayer-funded work.

DPW, DOT, and DGS are all in the process of upgrading their project management systems, including using centralized databases within agencies and digitizing records. These new management tools will allow data sharing with unprecedented ease for more recent projects. City personnel will be spared the onerous task of sorting through paper files, and, as more city agencies adopt these practices and the cost of producing public records decreases, the city's public record fees will hopefully follow suit. The long term gains of these upgrades will be substantial, but many of them will not be realized for some time. The type of analysis we proposed here, for example, would have to wait for several years before the projects that are now being processed through the upgraded system have matured and closed.

Fortunately, there are simple ways that city leaders can increase transparency in infrastructure projects using existing channels of communication. These three suggestions would be simple to implement in the near-term and would provide critical information to the public.

1. **Put the scheduled completion date on the signs of every construction project across the city.** The current practice is to put the anticipated year and season of completion. This provides a margin of error of months on a contract, and for city residents whose daily lives are disrupted because of construction, ambiguity in the range of months is unacceptable. The month, day, and year, updated every time an extension is granted, will provide citizens with information they need and deserve.

2. **Create scorecards for every contractor who bids on projects, read on record during bid openings and publish in BOE minutes.** The scorecard would incorporate ratings given by agency project managers on past projects, the Office of Boards and Commissions' work capacity rating, metrics on past performance of contracts, and campaign contribution information for each BOE member.

3. **For all extra work orders granted by the BOE, include the reason for the additional funding or days and the new completion deadline in BOE minutes.** Currently, most records of extra work orders in BOE minutes do not contain this information, although the information is submitted by the agencies. BOE minutes is the only information source on contracts that is truly available to the public. As such, it would be the best medium for detailed information on changes in projects.

While the information that is made available to the public on this issue is inadequate to gain meaningful insight on the performance of city contracts, therein lies an opportunity. City leaders are poised to make simple adjustments in the information they present to the public to demonstrate that the process of creating, bidding, overseeing, and executing infrastructure projects is ethical, responsible, and, above all, accountable to the people it benefits, and by whom this process is financed. In doing so, city leaders will make great strides in buoying their legitimacy as competent city managers, and ultimately gain the trust of city residents.

About the Author

Cristie Cole is the founder of Firebrand Analytics, a company that carries out analytical projects for nonprofits and change organizations working in Baltimore City. Prior to starting her own company, Ms. Cole worked at the Baltimore City State's Attorney's Office and the Mayor's Office of CitiStat and earned a masters degree in sociology with a concentration in applied research and evaluation from the University of Indianapolis.

ABELL
FOUNDATION

111 South Calvert Street, Suite 2300
Baltimore, Maryland 21202-6174

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About the Abell Foundation

The Abell Foundation is dedicated to the enhancement of the quality of life in Maryland, with a particular focus on Baltimore. The Foundation places a strong emphasis on opening the doors of opportunity to the disenfranchised, believing that no community can thrive if those who live on the margins of it are not included.

Inherent in the working philosophy of the Abell Foundation is the strong belief that a community faced with complicated, seemingly intractable challenges is well-served by thought-provoking, research-based information. To that end, the Foundation publishes background studies of selected issues on the public agenda for the benefit of government officials; leaders in business, industry and academia; and the general public.

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