

The Road To Saving More Than \$90 Million In The Department Of Transportation

**GO PUBLIC**

NYS PUBLIC EMPLOYEES FEDERATION JUNE 2012 - REPORT 4



## Introduction

Despite decades of reports indicating that New York State wastes millions of tax dollars on expensive consulting engineers, elected officials have not demonstrated a willingness to reverse this trend.

Specifically, the current staffing level at NYSDOT of 8,583 full-time equivalents (FTE) represents a historic low point. In fact, staffing levels have decreased by over 16 percent since their recent nine year high in 2008. Yet spending on costly consultants continues.

The Department of Transportation (DOT) with \$352.2 million of consultant spending, or 10 percent of the total consultant spending, is one of the top four agencies that relies on consultants. While previous reports looked at the “big picture” as it relates to NYS’s spending on consultants, this report will take a more focused look at DOT spending on engineering consultants because multiple objective studies have concluded that DOT could save millions by decreasing its reliance on costly consultants.

PEF released three reports in May that discussed the scope of NY’s use of consultant contracts from SFY 2003-04 to SFY 2011-12. Those reports found that:

- New York State can save up to \$316 million annually by replacing some of its consultants with State employees. A plan that phases these savings in over three years can save the State \$600 million by SFY 2014-15 and \$300 million annually thereafter.
- New York State spent over \$3.5 billion on consultants in SFY 2011-12, over \$840 million more than the State spent on consultants in SFY 2003-04, a 32% increase! New York State’s consultant spending over the last year also increased by over \$285 million; from \$3.23 billion to \$3.51 billion.
- The average consultant cost the State \$72.63 per hour in SFY 2010-11, 40% more than the average cost of comparable State employees (\$51.72 per hour including the cost of benefits).
- From SFY 2008-09 to SFY 2011-12, the number of FTE consultants employed by New York State increased by 1,300 or 24%. During the same time period, the State workforce decreased by over 14,000 FTE employees.
- The State paid eleven consulting firms \$232 million for consulting services in SFY 2011-12. These firms charged some of the highest hourly rates for their services, ranging from \$114.50 per hour to \$239.67 per hour.



## Executive Summary

1. The State can save more than \$90 million annually by replacing most of its Department of Transportation (DOT) consultants.
2. The State can save more than \$58 million annually by replacing only half of its DOT engineering consultants and all of its IT Design and Develop consultants with State employees.
3. DOT consultant spending for bridge inspections has increased by 96 percent since SFY 2003-04, increasing to \$37.9 million in SFY 2011-12 from \$19.3 million in SFY 2003-04.
4. The number of DOT consultants increased as the size of the DOT workforce reached a record low of 8,583. Since SFY 2006-07, the number of estimated full-time equivalent (FTE) consultants increased by 4 percent, while the DOT workforce has decreased by 16 percent.
5. Based on Office of State Comptroller data, PEF estimates that DOT employed 2,000 FTE consultants in SFY 2010-11, 600 more FTE consultants than the Division of Budget (DOB) estimated in the SFY 2011-12 Executive Budget.
6. DOT engineering consultants in the civil engineering title cost 75 percent more than the typical in-house civil engineering title. Consulting engineers bill DOT at an average hourly rate of \$102 per hour compared to the DOT hourly rate of \$58.36 (including benefits). DOT wastes nearly \$99,000 every time a full-time consultant engineer is hired instead of a State employee engineer.
7. The top four engineering consulting firms doing business with DOT received over \$40 million in SFY 2010-11. One consulting firm doing business with DOT charged over \$728 an hour for its engineering services; 1,148 percent more than the cost of a state employee to do the same work.
8. The State can achieve significant cost savings by using a cost comparison process before committing to consultant contracts. The best way to do this is to adopt S3093 (Robach)/A5128-A (Bronson).
9. DOT should implement a consultant reduction plan that would reduce its consultant spending by 10 percent in year one, 25 percent in year two, and 50 percent in year three; for a three year savings of almost \$100 million.
10. The DOB should direct DOT to immediately begin to move all bridge inspections in-house with the goal of moving at least 90 percent of bridge inspections in-house by SFY 2014-15. This is one of the fastest growing categories of DOT consultant spending and it is regularly scheduled routine work that can be easily brought in-house.



## DOT Can Save Up To \$90 Million Annually by Replacing Its Consultants With State Employees

Based on the consultant expenditure figures in various categories at DOT in 2010-11, PEF has calculated that the State can save between \$58 and \$90 million annually by replacing consultants with state employees. Most of the savings in DOT will occur in engineering related expenditures in the various capital projects accounts. Specifically, a full \$81 million in savings can be achieved by using state employees to replace 90 percent of the consultants in all the Capital Projects Consultant Services, except the Capital Projects Consultant Services-Other category which we estimate only 50 percent of the consultants can be replaced.

**Table 1**  
**DOT Can Save Over \$90 Million Annually By Replacing Most Of Its Consultants With State Employees**

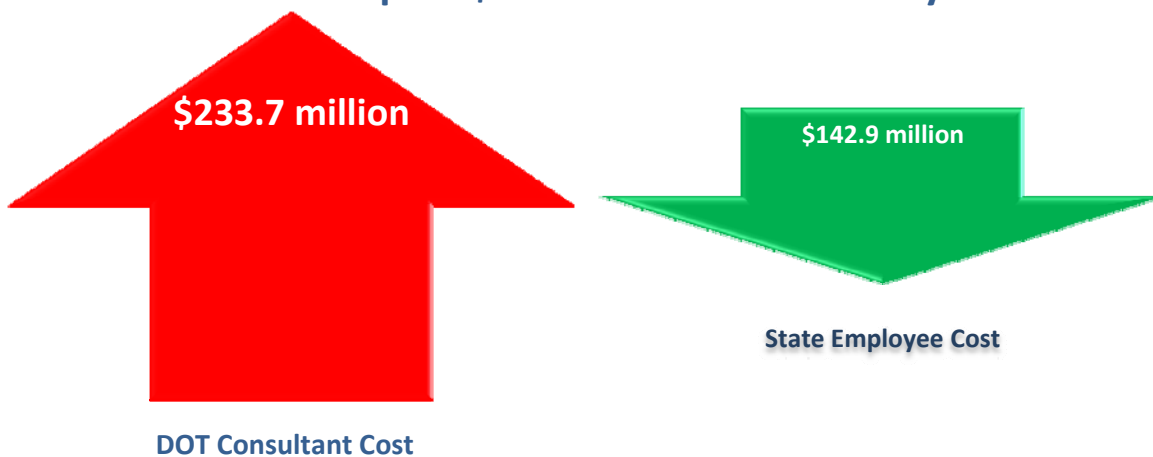
Consultant Service Object Code Description	Consultant Cost 2010-11 FY	State Employee Cost doing Specified % of Work	Estimated Savings
IT Consultant - Design/Develop (100%)	\$15,236,198.99	\$9,584,833	\$5,651,366
IT Software Installation/Integration (50%)	\$52,775.83	\$16,600	\$9,788
IT Software Maintenance (50%)	\$6,428,946.36	\$2,022,170	\$1,192,303
IT Services - Other (30%)	\$96,491.98	\$18,210	\$10,737
Accounting & Auditing Services (50%)	\$1,568.30	\$257	\$527
Legal Services (50%)	\$34,920.44	\$10,499	\$6,961
Medical/Clinical Services (50%)	\$406,272.41	\$153,276	\$49,860
Conferences/Training Services (25%)	\$365,948.01	\$75,526	\$15,961
Alter & Imp Existing Fac (25%)	\$7,291,020.62	\$1,104,115	\$718,640
Cap Proj - Con Svcs - Engineers (90%)	\$80,387,057.93	\$43,824,257	\$28,524,095
Cap Proj - Cons Svcs - Bridge Inspt (90%)	\$42,581,799.68	\$23,214,132	\$15,109,488
Cap Proj - Con Svcs - Eng Supervision (90%)	\$76,036,331.93	\$41,452,391	\$26,980,307
Cap Proj - Con Svcs - Material Testing (90%)	\$6,919,302.39	\$3,772,166	\$2,455,207
Cap Proj - Con Svcs - Other (50%)	\$40,640,870.25	\$12,308,891	\$8,011,544
<b>Subtotal</b>	<b>\$276,479,505.12</b>	<b>\$137,557,324</b>	<b>\$88,736,784</b>
Other Services	\$79,633,096.54	\$5,406,544	\$1,999,334
<b>Total</b>	<b>\$356,112,601.66</b>		<b>\$90,736,118</b>

Indeed, a full \$70 million in savings would accrue by using state employees for 90 percent of just three spending categories: Capital Projects Consultant Services-Engineers-State projects; Capital

Projects Consultant Services-Bridge Inspection; and Capital Projects Consultant Services-Engineering Supervision. An additional \$5.6 million can be saved by using State employees for 100 percent of the expenditures currently spent in the IT Consultant-Design/Develop category.

A less drastic approach, one in which only 50 percent of the engineering work rather than 90 percent is shifted in-house, would still result in over \$58 million in annual savings at DOT. See the Appendix for Table 3 which documents these reduced savings.

### Figure 1 State Employees Can Do the Same Work as DOT Consultants For Up To \$90 million Less Annually



### DOT Consultant Spending For Bridge Inspections Increased by 96 Percent Since SFY 2003-04

Total NYS spending on consulting engineers in all State agencies has increased by \$68 million from SFY 2003-04 to SFY 2011-12, an increase of 27 percent. At NYS DOT, total spending on consultants has increased by 9 percent during the same time period. **More importantly, spending on engineering consultants increased by 15 percent.** See Appendix for Table 3 which documents DOT consultant spending by category. The greatest increases in DOT consultant spending occurred in the:

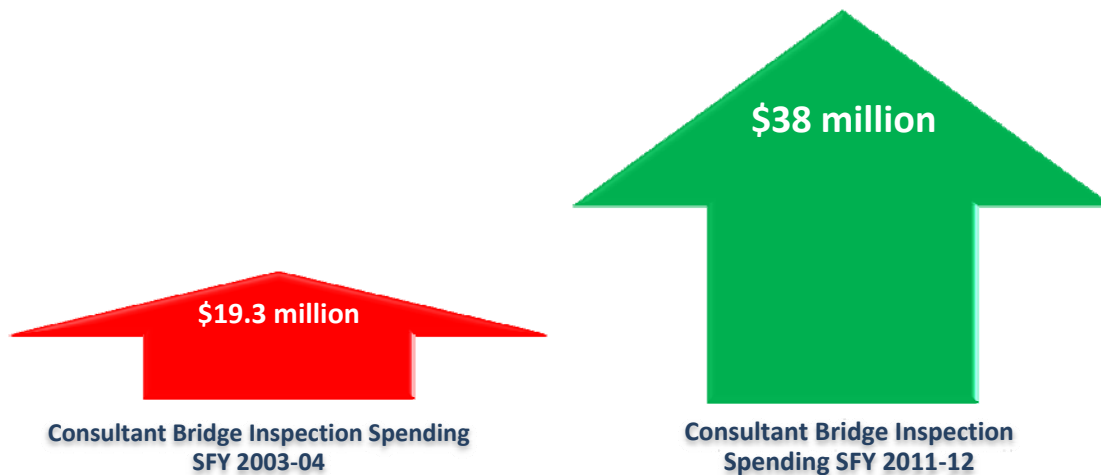
- “Capital Project-Consultant Services-Bridge Inspection category which increased by \$18.6 million, almost double its SFY 2003-04 total (a 96 percent increase);
- “Capital Project-Consultant Services-Other” category, which increased by \$23.7 million or 127 percent. Most of this spending was for consultant engineers;



- “IT Software Maintenance” which increased by \$5.3 million, or 40,574 percent.
- “IT Software Installation/Integration” which increased by \$438,019 or 25,829 percent.

It is interesting that DOT increased its spending on “Capital Project-Consultant Services-Other” by almost \$24 million while at the same time it decreased its spending on “Capital Projects Consultant Services Engineers by almost the same amount (\$27.5 million).

**Figure 2**  
**DOT Spending On Bridge Inspection Consultants**  
**Has Almost Doubled Since SFY 2003-04**



## The Number of DOT Consultants Goes Up as the Number of DOT State Employees Decreases

The number of FTE state employees working at DOT is consistently monitored and publicly reported by the Division of the Budget. The number of consultant FTEs is a more difficult number to estimate. In SFY 2006-07 the DOB began reporting the number of consultants that worked for DOT. In SFY 2006-07 DOB estimated the number of FTE consultants but after that they just estimated the raw number of consultants until the SFY 2012-13 Executive Budget when they estimated both. It should be noted that since SFY 2003-04 DOT has lost approximately 955 employees including 155 in engineering titles.

**Table 2**  
**DOT Consultants Up 4%; State Employees Down 16%**

	SFY 2006-07	SFY 2009-10	SFY 2010-11	SFY 2011-12	Change 2006-07 to 2011-12	% Change 2006-07 to 2011-12
<b>Consultants FTE</b>	1,098	1,431*	1,404*	1,140	<b>+42</b>	<b>+3.8%</b>
<b>DOT Workforce FTE</b>	10,179	9,963	9,130	8,583	<b>-1,596</b>	<b>-15.7%</b>
<b>Consultants Body Count</b>	NA	3,670	3,599	2,916	<b>NA</b>	<b>NA</b>

\* see Sources and Methodology section for an explanation of how these numbers were derived from DOB's Consulting Service Contracts reports in the SFY 2009-10, 2010-11, and 2011-12 Executive Budgets.

## DOB Underestimates The Number Of DOT FTE Consultants By Up to 600 FTE Consultants

DOB's estimate of 1,404 FTE consultants for SFY 2010-11 and 1,140 FTE consultants for SFY 2011-12 is based on DOT consultant expenditures of \$208.5 million in SFY 2010-11 and \$190.7 million in SFY 2011-12. However, according to the Office of the State Comptroller's (OSC) *CTL 470 Expenditure Reports*, DOT spent \$366 million on consultants in SFY 2010-11 and \$352 million in SFY 2011-12. Even if we take out the OSC "Other Services" category that DOB claims does not include consultant spending, the State spent \$286.5 million on consultants in SFY 2010-11 and \$275.3 million in SFY 2011-12. Obviously, if the State spends more money on consultants than DOB estimates, it means there are more consultants working for the State than DOB estimates.

PEF bases its DOT FTE consultant estimates on consultant spending data reported to the Comptroller on form CTL 470, and the average cost of consultants as reported on the Form Bs filed by consultants and reported in OSC's Procurement Stewardship Act (PSA) report. Since the PSA report is not released until three months after a fiscal year ends, the most current data available on the costs of consultants is for SFY 2010-11. Therefore, we can only estimate the number of consultants employed by the State in SFY 2010-11. Using the methodology explained in the *Sources and Methodology* section **we estimated that DOT employed about 2,000 FTE consultants in SFY 2010-11.**



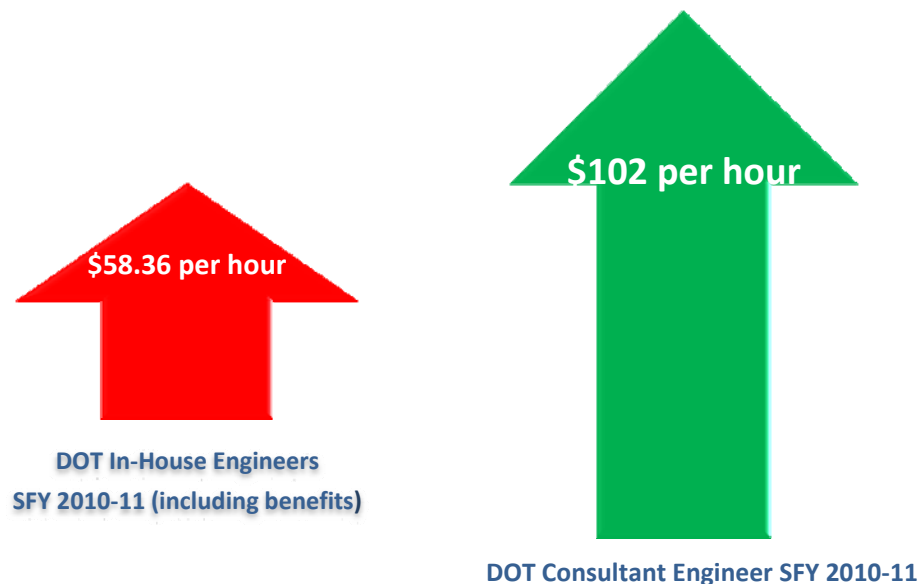
## DOT Wastes \$99,000 Every Time It Uses A Full Time Consultant Engineer Rather Than A State Employee Engineer

The unfortunate reality is that New York State's roads and bridges are in need of inspection, repair, and replacement. In fact, since many bridges were built at least fifty years ago, they have reached, or are about to reach, the end of their life expectancy. Thus, NYS is facing a wave of bridges that will have reached their maximum life expectancy, raising the need for increased vigilance. Given cost constraints at both federal and state levels, it is imperative that NYSDOT is able to stretch its limited tax dollars.

However, an examination of the 2010-11 Form Bs filed by consultants working for NYSDOT, shows an overall hourly rate of \$88.34 an hour, or \$183,738 on an annual basis. In contrast, NYSDOT employees averaged \$40.04 an hour, or \$78,085 annually (including the cost of their benefits).

A closer examination of these forms indicates that the most frequently used consulting title is "Civil Engineering" and the average hourly rate is \$102 per hour, or \$212,440 annually per FTE. In contrast, the weighted average of DOT employees in the Civil Engineer 1-4 title, is only \$58.36 per hour (with benefits), or \$113,808 annually. **Thus, NYSDOT is paying 75 percent more for consultant engineers and wastes nearly \$99,000 every time a full-time consultant engineer is hired.**

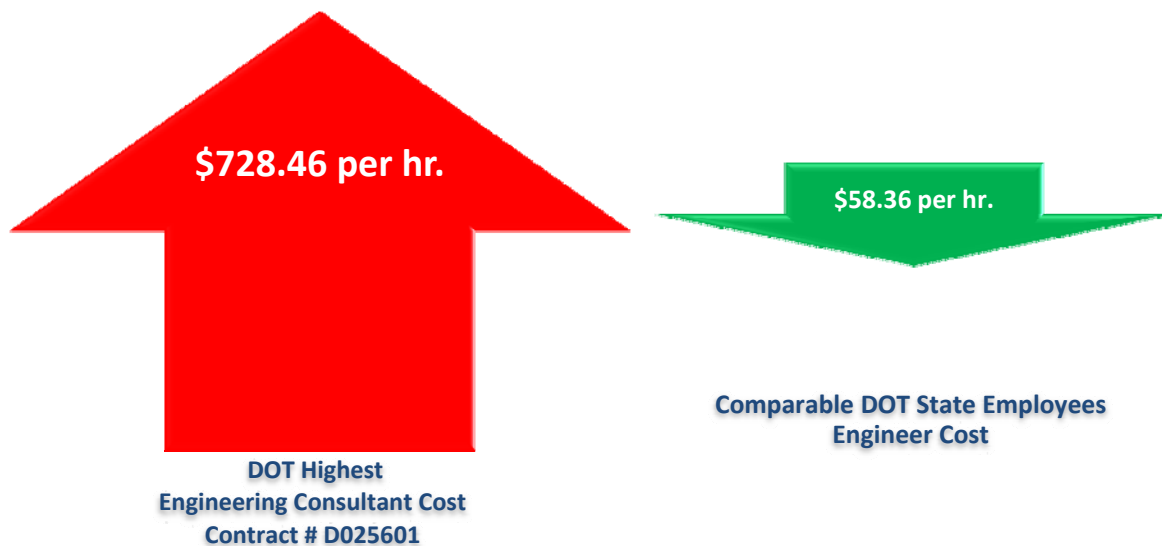
**Figure 3**  
**DOT Engineering Consultants Cost 75% More Than State Employee Engineers**



Another commonly used consulting title was the “Engineering Tech” title at rates of \$57.70, or \$120,006 annually. This rate is 58 percent higher than the State equivalent. Specifically, a weighted average of the NYSDOT Engineering Tech 1-3 title produces an hourly rate of \$36.52 per hour (with benefits), or \$72,000 annually. NYSDOT wastes nearly \$50,000 every time an engineering tech is hired rather than a State employee.

## The Top DOT Consultant Firms Charged Up to 1,148% More Than The Cost of A State Employee Engineer

Figure 4



In the state fiscal year ending March 30, 2012, the top ten consulting engineer companies that contracted with NYSDOT received over \$73 million dollars, almost half of the NYSDOT expenditures on engineering consulting. The top four received over \$40 million of these expenditures.

A review of the most recent Form Bs available (SFY 2010-11) filed by these consulting engineering companies indicates that nine of the top ten consultants filed Form Bs for an average hourly rate of \$93.43 per hour and one failed to comply with the law. Consultants in the Civil Engineer title were often billed at more than \$140 per hour, or over \$290,000 annually. For example, Engineering Consultant Company #4 billed 12 full-time civil engineers at \$149 per hour on Contract #D015183. In addition, Engineering Consultant Company #2 billed civil engineers at \$166 per hour on Contract #C000758. Another engineering consultant company billed civil engineers at \$728 an hour for Contract #D025601.

## Solution: Enact A Cost Benefit Analysis Law

The State can achieve significant cost savings by using a cost comparison process before committing to consultant contracts. The best way to do this is to adopt S3093 (Robach)/A5128-A (Bronson). This bill rests on a simple premise: Before a State agency commits to a large contract for consultant services, it should do a cost comparison to see whether State employees could do the same work at a lower cost. In connection with Chapter 500 of the laws of 2009, DOB has developed a model for agencies to use to do cost comparison for information technology contracts. This model can easily be adapted to other types of consultant contracts.

In 2008, Governor Paterson issued Executive Order 6 to create a process to review consultant contracts. But that process only reviews contracts of \$1 million or more and only after they have been executed. It is unclear whether this process is still used, although the Executive Order is still in effect. In 2010, Governor Cuomo issued Executive Order 10 which called for a 10 percent reduction in the cost of personal service contracts that are renewed. Unfortunately, these steps have not reduced consultant spending. Significantly more savings can be achieved if an ongoing cost comparison process is implemented under law.

Other steps the State should take to reduce the cost of consultant services include:

1. **The State should enact a Consultant Reduction Plan at DOT with a goal of reducing consultant spending by 50 percent over the next three years.** The reduction can be phased in beginning with a 10 percent reduction in SFY 2012-13, then a 15 percent reduction in SFY 2013-14, and conclude with another 25 percent reduction in SFY 2014-15 to save \$56 million annually by 2014-15. **Phased in over the three years, this plan could save the State more than \$98.1 million.** This is a very conservative plan that could easily be implemented by the State.

CONSULTANT REDUCTION PLAN SAVINGS SFY 2012-13 TO SFY 2014-15	
SFY 2012-13 Savings	\$12.8 million
SFY 2013-14 Savings	\$29 million
SFY 2014-15 Savings	\$56 million
<b>Total 3-Year Savings</b>	<b>\$98.1 million</b>



2. **The Division of the Budget (DOB) should direct DOT to immediately begin to move all bridge inspections in-house with the goal of moving at least 90% of bridge inspections in-house by SFY 2014-15.** This would increase the annual savings in our proposed DOT consultant reduction plan by \$6.7 million. The cost of consultant bridge inspections have increased over 96 percent since SFY 2003-04, one of the fastest growing categories of DOT consultant spending. Since bridge inspections are routine and are done on a regular schedule there is no excuse to continue to contract out this work to engineering consultant firms that charge 75% more than the cost of state employees to do the same work.
  
3. The State should enact measures to standardize DOT engineering consultant charges so a consultant engineering firm cannot charge over \$728 an hour for its services.



## Appendix

**Table 3**  
**DOT Can Save Over \$58 Million Annually By Replacing**  
**Half Of Its Consultants With State Employees**

Consultant Service Object Code Description	Consultant Cost SFY 2010-11	State Employee Cost doing Specified % of Work	Estimated Savings
IT Consultant - Design/Develop (100%)	\$15,236,198.99	\$9,584,833	\$5,651,366
IT Software Installation/Integration (50%)	\$52,775.83	\$16,600	\$9,788
IT Software Maintenance (50%)	\$6,428,946.36	\$2,022,170	\$1,192,303
IT Services - Other (30%)	\$96,491.98	\$18,210	\$10,737
Accounting & Auditing Services (50%)	\$1,568.30	\$257	\$527
Legal Services (50%)	\$34,920.44	\$10,499	\$6,961
Medical/Clinical Services (50%)	\$406,272.41	\$153,276	\$49,860
Conferences/Training Services (25%)	\$365,948.01	\$75,526	\$15,961
Alter & Imp Existing Fac (25%)	\$7,291,020.62	\$1,104,115	\$718,640
Cap Proj - Con Svcs - Engineers (50%)	\$80,387,057.93	\$24,346,810	\$15,846,719
Cap Proj - Con Svcs - Bridge Inspt (50%)	\$42,581,799.68	\$12,896,740	\$8,394,160
Cap Proj - Con Svcs - Eng Supervision (50%)	\$76,036,331.93	\$23,029,106	\$14,989,060
Cap Proj - Con Svcs - Material Testing (50%)	\$6,919,302.39	\$2,095,648	\$1,364,004
Cap Proj - Con Svcs - Other (50%)	\$40,640,870.25	\$12,308,891	\$8,011,544
<b>Subtotal</b>	<b>\$276,479,505.12</b>	<b>\$87,662,681</b>	<b>\$56,261,630</b>
Other Services	\$79,633,096.54	\$5,406,544	\$1,999,334
<b>Total</b>	<b>\$356,112,601.66</b>		<b>\$58,260,964</b>

Source: OSC CTL 470 reports SFY



**Table 4**  
**DOT Consultant Engineering Spending Has Increased**  
**By 15% Since SFY 2003-04**

Consultant Spending Description	SFY 2003-04	SFY 2011-12	\$ Change	% Change
Accounting & Auditing Services	\$158,384	\$73,735	(\$84,648)	-53%
Alter & Imp Existing Facilities	\$18,472,597	\$7,928,699	(\$10,543,899)	-57%
Client Services	\$6,308,554	\$10,323,096	\$4,014,542	+63%
IT Consultant - Design/Develop	\$12,309,259	\$12,630,164	\$320,905	+3%
IT Hardware Maintenance		\$1,031,198	\$1,031,198	+100%
IT Services - Other	\$116,910	\$41,082	(\$75,828)	-65%
IT Software Installation/Integration	\$1,692	\$438,711	\$437,019	+25,829%
IT Software Maintenance	\$13,081	\$5,320,583	\$5,307,502	+40,474%
Legal Services	\$36,864	\$31,098	(\$5,765)	-16%
Medical/Clinical Services	\$298,900	\$418,920	\$120,019	+40%
Other Services	\$80,288,299	\$76,574,636	(\$3,713,663)	-4%
Cap Proj – Con Svcs – Architects*	\$748,593	\$26,004	(\$722,589)	-96%
Cap Proj - Con Svcs – Bridge Inspt*	\$19,329,686	\$37,973,287	\$18,643,601	+96%
Cap Proj – Con Svcs – Eng. Sup*	\$61,349,952	\$79,696,986	\$18,347,034	+30%
Cap Proj - Con Svcs - Engineers *	\$98,182,373	\$70,650,811	(\$27,531,562)	-28%
Cap Proj - Con Svcs – Material Test*	\$7,415,997	\$6,424,176	(\$991,821)	-13%
Cap Proj - Con Svcs – Other*	\$18,613,527	\$42,334,653	\$23,721,127	+127%
<b>All Consultant Engineering*</b>	<b>\$205,640,128</b>	<b>\$237,105,917</b>	<b>\$31,465,789</b>	<b>+15%</b>
<b>Total</b>	<b>\$323,644,668</b>	<b>\$351,917,839</b>	<b>\$28,273,171</b>	<b>+9%</b>





## Sources and Methodology

In general, all data for this report are from the Office of the State Comptroller (OSC) and the Division of the Budget (DOB). In particular, OSC's monthly *CTL 470 Reports*, which track all State expenditures, and Form Bs, which are part of the annual *Procurement Services Act Report* (the most recent of which was released in August 2011 and covers consultant spending in SFY 2010-11). Form Bs are required to be filed by consultant companies providing personal services under contract to State agencies and contain the title that the consultant is working in, how many hours they worked in that title, and the total paid to the consultant company for that work. PEF enters all this data into a database so we can determine the average hourly cost of consultants by title.

Tables 1 and 3 and Figure 1 are derived from OSC CTL 470, Form Bs, and payroll reports. We took the total expenditures for each category of consultant spending, divided it by the average hourly consultant rate for that category, determined how many hours of work that represents, reduced those hours by the percentage stated in parenthesis in each category of consultant spending and calculated how much it would cost State employees to work those hours at the average hourly State employee rate (including the cost of their benefits) for titles that do that category of consultant work. Figure 1 simply depicts the consultant cost for the hours of work that we have identified as work that could be done by State employees, and the State employee cost for the same work. For a more detailed explanation of this methodology see Appendix 2 of our report *Tip of the Iceberg* (March 2010).

Figure 2 and Table 4 are from the OSC *CTL 470 Reports* for SFY 2003-04 and SFY 2011-12.

Table 2 is derived from the DOB's *Consulting Service Contracts (CSC)* reports and the All Funds Workforce Summary reports from the SFY 2009-10, SFY 2010-11, SFY 2011-12, and SFY 2012-13 Executive Budgets and Financial Plans. The CSC reports for SFY 2008-09, SFY 2009-10, and SFY 2010-11 did not contain estimates of FTE consultants but did contain estimates of all consultants employed. DOB included estimates for FTE consultants for SFY 2011-12 and SFY 2012-13 in the SFY 2012-13 report. In the DOT, in both cases, the FTE estimate was 39 percent of the total consultants employed estimate. We multiplied the 39 percent figure by the total consultant employed figures provided by DOB in their SFY 2008-09, 2009-10, 2010-11 reports to get the FTE consultants estimates for those years.

Figure 3 is based on the actual weighted average of NYSDOT Civil Engineers 1-4 (including benefits) and the hourly rates for the Civil Engineer title as reported by consultants on the Form B for SFY 2010-11.

Figure 4 is based on contract #D025601 between DOT and Bergmann Associates in SFY 2010-11.