



**Date:** August 11, 2011  
**To:** John Gross, Director of Financial Management  
Alan Patalano, Fire Chief  
**From:** Laura L. Doud, City Auditor *ld*  
**Subject:** Ambulance Billing and Collection Services Cost/Benefit Analysis

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Prior to May 2011, Wittman Enterprises, LLC (Wittman) processed the Basic Life Support (BLS) ambulance transport billing and collection for the City. When the City elected to process the BLS services through the City's Billing and Collections Section (B&C) in the Commercial Services Bureau, Wittman presented the City with a cost benefit analysis. The analysis indicated it was more cost effective for Wittman to not only process the BLS services, but to also process the Advance Life Support (ALS) ambulance transport billings. B&C has historically handled all ALS billing and collection.

Our Office initiated an independent analysis of the revenues and expenses associated with the processing of BLS and ALS ambulance billing and collection services to determine whether contracting out these services is more cost-effective.

Overall, we found there is limited savings potential for the City if Wittman were to handle both BLS and ALS ambulance billing and collection services. The primary reason for the limited savings potential is B&C's fixed costs, such as Civic Center rent and indirect labor costs, would still remain and would be shifted to other City departments currently using B&C services. In addition, B&C plans to absorb the cost of processing the BLS invoices without adding new personnel.

As a result of our analysis, we recommend the City's B&C continue with their intent to handle both BLS and ALS ambulance transport billing and collection. B&C's ability to maximize their resources and absorb the additional work without adding more staff is the key to this recommendation. If at some point in the future B&C determines more staff is required to perform ambulance billing and collection services, then the City should perform a new cost benefit analysis to assess the effect on the City's expenses and revenues.

Detailed information regarding our analysis is included in the attached report. Questions or comments can be directed to Janet Day at 570-5895.

cc: Mayor and City Councilmembers  
Patrick H. West, City Manager  
Suzanne Frick, Assistant City Manager  
Pamela Horgan, Manager, Commercial Services Bureau

# Ambulance Billing & Collection Services Cost/Benefit Analysis

August 2011



## Audit Staff

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## Executive Summary

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Paramedic ambulance transports provided by the Long Beach Fire Department (FD) are categorized as either Advance Life Support (ALS) services or Basic Life Support (BLS) services. Prior to May 2011, the City's Billing and Collections Section (B&C) in the Commercial Services Bureau under Financial Management handled all billings and collection related to ALS services while an outside vendor, Wittman Enterprises, LLC (Wittman) processed the billing and collection for the BLS services.

During the fiscal year 2011 budget process, the City Manager recommended ending the Wittman contract and having B&C process all ambulance transport billings and collection services to decrease costs and increase revenues. For this reason, the contract between the City and Wittman was allowed to expire on March 31, 2011.<sup>1</sup> Just prior to the contract expiration, Wittman presented the City an analysis indicating the City could incur significant savings by outsourcing all ambulance billing and collection services to Wittman.

The Office of the City Auditor (OCA) initiated an independent analysis of the revenues and expenses associated with the processing of ambulance billing and collection services to determine whether contracting out these services is more cost-effective.

Based on our analysis, we determined the following:

- The analysis prepared by Wittman calculates collection rates based on gross billing totals. However, these totals are not reflective of the numerous contractual and other write-offs that reduce the actual invoice amounts that can be billed and reasonably collected. Therefore, Wittman's analysis reflecting significant savings to the City is not realistic.
- The OCA performed a cost/benefit analysis using average net billing totals over three-years and found that having Wittman perform the ambulance billing and collection services will result in minimal cost savings to the City of \$94,000 for fiscal year 2012. However, in order to obtain these cost savings, the City will have to eliminate \$273,000 in personnel costs from its budget.
- B&C has fixed costs that remain even if the services are outsourced. These fixed costs, such as Civic Center rent and indirect labor costs, would be shifted from the FD to other City departments currently using B&C services. The remaining fixed costs are factored into the analysis.
- It is inefficient to have both B&C and Wittman perform ambulance billing and collection services. The City generates at least \$66,000 more revenue annually when only one provider performs the service.

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<sup>1</sup> The Wittman contract was extended for one month to April 30, 2011.

The cost analysis performed by the OCA relied on B&C's intent to absorb all BLS billing and collection services, currently performed by Wittman, without adding personnel. B&C management provided the number of full-time equivalent (FTE) employees that provide ambulance transport billing and collection services. In addition, the analysis was performed based on Wittman's stated cost and current collection rates (based on average FY 2008 - FY 2010 collections). It is not known whether another vendor could provide more efficient service.

As a result of our analysis, we found limited savings potential by moving the ambulance billing and collection process to Wittman, and recommend the City's B&C continue to handle these services. B&C's ability to maximize their resources and absorb the additional work without adding more staff is the key to this recommendation. If at some point in the future B&C determines more staff is required to perform ambulance billing and collection services, then the City should perform a new cost benefit analysis to assess the effect on the City's expenses and revenues.

The OCA performed this cost/benefit analysis using available revenue and cost data supplied by the Rescue Net <sup>2</sup> and B&C system. We did not evaluate the efficiency of B&C or Wittman's billing and collection operations. Therefore, we make no opinion on whether the costs or collection rates are reasonable or comparable to industry standards.

This report was provided to the Fire Department, Financial Management Department and Wittman Enterprises, LLC, for their comments. No changes to this report were deemed necessary as a result of their review.

## **Background**

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### ***Billing & Collection's Costs***

B&C has provided ALS ambulance transport billing and collection services at an average annual cost to the LBFD of \$638,000 over the last three fiscal years (FY 2008 through FY 2010). The budgeted cost for FY 2012 is \$600,433 due to lower personnel charges. This cost is based on 5.48 full-time equivalent (FTE) employees at a cost of \$350,000, postage, Civic Center rent, indirect labor costs, system maintenance charges, and supplies. B&C processes approximately 14,000 ALS invoices annually and plans to absorb the cost of processing the 9,000 BLS invoices currently handled by Wittman without adding new personnel.

Historically, B&C has also performed collection efforts on stale accounts transferred from Wittman. Approximately 1.03 FTE are used to perform the collections function. The amount of revenue collected is not included in the calculation of a collection rate. Instead, overall costs are reduced by the revenues collected on these accounts. The cost of collection services for stale Wittman accounts is included in the \$600,433 budget figure.

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<sup>2</sup> The Rescue Net System is a fully integrated ambulance billing and collection software package utilized by the Fire Department and Billing and Collections.

If ALS ambulance billing services were outsourced, only B&C's variable costs of \$280,000 could be eliminated. This would include the elimination of \$273,000 in personnel costs plus postage charges of \$7,400. The City would retain personnel to continue collecting on stale accounts. All remaining fixed overhead costs would be allocated to other City departments currently utilizing B&C services.

Since the expiration of the Wittman contract at the end of March 2011, B&C has begun processing all ambulance transport billings, both ALS and BLS.

### ***Wittman's Costs and Analysis***

The analysis performed by Wittman and presented to the City (Attachment I) uses one year of billing information (2010) and calculates a collection rate using gross billing amounts, which do not account for contractual write-offs (Medicare/Medical, Tricare, Veterans Administration, Worker's Compensation and homeless citizens). The collection rate presented by Wittman is not realistic, because it is not based on actual invoice amounts that can be billed and reasonably collected.

The LBFD pays Wittman 5.9% of annual collections to process BLS ambulance transport billings and collection services. Per Wittman's analysis, costs to provide billing and collection services for both ALS and BLS invoices would be \$450,000.

Wittman assumes B&C's cost to provide ALS and BLS ambulance transport billing and collection services is \$760,000. However, this figure exceeds B&C's FY 12 cost estimate of \$600,433 for providing these services.

### ***System Data***

The FD and B&C use the Rescue Net software system to process ambulance billings and record collections. The system was implemented in 2009. We used billing and revenue data from Rescue Net and from B&C's collection system to complete our cost/benefit analysis. The data was assumed to be correct and was not audited for accuracy or completeness during the preparation of the analysis.

## **Analysis, Results, and Recommendations**

### **Analysis of Sole Provider of Ambulance Billing and Collection Services**

In Attachment I, Wittman presented to the City a cost/benefit analysis indicating the City could incur significant savings by outsourcing all ambulance transport billings to Wittman. As stated previously, we do not believe that the cost analysis prepared by Wittman is realistic due to the calculation of collection rates based on gross versus net billings. Therefore, it should not be used to determine whether it is more cost effective for Wittman or the City to perform these services.

Table 1 represents an analysis prepared by the OCA that uses a three-year average of net billing and revenues as reported in the Billing and Collection and Rescue Net systems. The analysis calculates potential net revenues assuming either B&C or Wittman is responsible for all billing and collection services. Based on this analysis, the City could save \$94,000 by using Wittman versus B&C. However, in order for the City to realize these cost savings, personnel costs totaling \$273,000 must be eliminated.

In addition, if the service was outsourced to Wittman, the City's ongoing fixed costs of approximately \$320,000 would not be eliminated. These costs would only be transferred to other city departments currently using B&C services. This is included in the analysis when calculating the costs for Wittman to provide the service.

**TABLE 1: AMBULANCE BILLING PERFORMANCE ANALYSIS - Assuming One Provider**

	B&C	Wittman	TOTAL
<b>Revenues: 3 -year average FY 08- 10</b> <i>(Source: B&amp;C &amp; Rescue Net systems)</i>			
Average Gross Billing	17,243,928	\$ 7,855,535	
Less: Contractual Allowances and Other Write-offs	(7,992,889)	(3,513,562)	
Average Net Billing	9,251,039	4,331,973	13,583,012
Average Collections <i>(on Average Net Billing)</i>	5,959,682	\$ 2,894,591	
Average Collection Rate <i>(Average Collections/Average Net Billing)</i>	64.42%	66.82%	
Total Potential Revenue <i>(assuming one processor)</i> <i>(Total Average net Billing for All Ambulance Transports x Average Collection Rate)</i>	\$8,750,176	\$9,076,169	
<b>Expenses:</b>			
Cost of Service	(\$600,433)	(\$450,000) (1)	
Ongoing City Fixed Costs if Outsourced	-	(320,033)	
Total Cost of Service	(\$600,433)	(\$770,033)	
<b>Net Revenue:</b>	\$8,149,743	\$8,306,136	
Average Collected by City on Stale Wittman Accounts	62,723	-	
Total Net Revenue by Processor	\$8,212,466	\$8,306,136	
<b>Net (Cost) of Using City Billing Services:</b>			(\$93,670)

(1) Wittman provided a fixed cost of \$450,000 for performing both ALS and BLS billing and collection services. The City's costs were provided by B&C.

### Recommendation:

Based on the data provided, there is limited savings potential for the City if Wittman were to assume all ambulance billing and collection services. B&C has the opportunity to maximize their resources and perform the services without the addition of more staff. Therefore, we recommend the City's B&C continue to handle these services. However, if, in the future, B&C determines more staff is required to perform ambulance billing and collection services, then the City should obtain new vendor cost proposals and perform a revised analysis to assess which option is more cost effective.

### Analysis of Dual Providers of Ambulance Billing and Collection Services

As noted previously, prior to May 2011, ambulance billing and collection services were performed by both B&C and Wittman. We performed an analysis to determine if it was more efficient to return to this arrangement with B&C processing the ALS invoices and Wittman processing the BLS invoices.

Table 2 compares the revenue collected by dual providers performing the service against potential revenue of only one provider performing all billing and collection services. At a minimum, the City recognizes \$66,000 more revenue by B&C performing all services.

**TABLE 2: AMBULANCE BILLING PERFORMANCE ANALYSIS - Assuming Two Providers**

	B&C	Wittman	TOTAL
<b>Revenues (3 -year average):</b>			
Average Gross Billing	\$17,243,928	\$7,855,535	\$25,099,463
Less: Contractual Allowances and Other Write-offs	(7,992,889)	(3,523,562)	(11,516,451)
Average Net Billing	9,251,039	4,331,973	13,583,012
Average Collections	\$5,959,682	\$2,894,591	\$8,854,273
<b>Expenses:</b>			
Cost of Service	(\$600,433)	(\$170,781) (1)	(\$771,214)
<b>Net Revenue:</b>	\$5,359,249	\$2,723,810	\$8,083,059
Average Collected by City on Stale Wittman Accounts	62,723	-	62,723
<b>Total Net Revenue</b>	<b>\$5,421,972</b>	<b>\$2,723,810</b>	<b>\$8,145,782</b>
<b>Single Provider (B&amp;C) Potential Net Revenue</b>			<b>\$8,212,466</b>
<b>Lost Revenue by Splitting Contract</b>			<b>(\$66,684)</b>

(1) Wittman's contractual rate for providing BLS billing and collection services is 5.9% of the net amount collected.

Recommendation:

The City's decision of having only B&C perform all ambulance billing and collection services should result in more revenue than if the services were processed by multiple providers. Therefore, at this time, it is not recommended that the City return to Wittman processing BLS invoices.

EMS billing rate and collection comparison

Calendar year 2010				
Client	Charges	Receipts	Gross collection rate %	Current Cost to City
Long Beach ALS (FM billing)	\$19,998,433.00	\$6,386,422.00	31.93%	\$700,000.00
Long Beach BLSE (W.E. LLC billing)	\$8,274,390.00	\$2,902,758.00	35.08%	\$174,165.48
Wittman Enterprises, LLC's LA Cnty clients				
Alhambra	\$3,615,268.00	\$1,420,488.00	39.29%	
Arcadia	\$2,922,707.00	\$1,271,746.00	43.51%	
Beverly Hills	\$3,213,880.00	\$1,436,574.00	44.70%	
Burbank	\$5,081,774.00	\$2,011,654.00	39.59%	
Culver City	\$3,411,707.00	\$1,358,134.00	39.81%	
Glendale	\$12,227,530.00	\$4,204,000.00	34.38%	
El Segundo	\$909,516.00	\$511,673.00	56.26%	
La Verne	\$1,612,192.00	\$660,055.00	40.94%	
Manhattan Beach	\$1,143,082.00	\$538,393.00	47.10%	
Monterey Park	\$3,325,088.00	\$1,103,281.00	33.18%	
San Gabriel	\$2,108,952.00	\$907,067.00	43.01%	
San Marino	\$706,719.00	\$356,570.00	50.45%	
Sierra Madre	\$528,512.00	\$252,548.00	47.78%	
South Pasadena	\$932,317.00	\$473,681.00	50.81%	
West Covina	\$4,690,862.00	\$1,780,959.00	37.97%	
<b>Grand Total</b>	<b>\$54,704,496.00</b>	<b>\$21,189,581.00</b>	<b>38.73%</b>	

The difference between our overall 38.73% and FM's collection rate of 31.93% equals 6.8%.  
This 6.8% equates to an **additional \$1,359,893** in potential collected dollars.

Being more conservative, the difference of the average of our 3 lowest collection percentage clients  
(LB 35.08%, Glendale 34.38%, and Monterey Park 33.18%) and FM's collection rate of 31.93% equals 2.28%.  
This 2.28% equates to an **additional \$455,964** in potential collected dollars.

FM's cost for all billing	\$760,000.00
Wittman's cost for all billing	\$450,000
Savings to City	\$310,000.00
Plus conservative collections increase	\$455,964.00
<b>Grand total savings/benefit to the City of Long Beach</b>	<b>\$765,964.00</b>