King County Auditor's Office

Due Diligence Report

Cost Benefit Analysis: Accountable Business Transformation (ABT) Program 9/17/08

As part of its 2008 work program, the King County Auditor's Office was asked to provide oversight of the Accountable Business Transformation (ABT) program. Most recently, ABT engaged a team of independent consultants to assist in the development of a new cost benefit analysis of the program.

The auditor's office conducted a due diligence review of the cost benefit analysis and concluded the following:

- Under a reasonable range of assumptions, ABT shows benefits exceeding costs.
 - Those benefits are very sensitive to several assumptions such as FTE reductions and staffing efficiencies over time.
- ABT will not pay for itself unless the estimated dollar savings can be achieved.
 - The county has adopted a method to help capture the savings.
- The county has the opportunity to become more cost-effective in future years.

We will continue to monitor ABT's progress in achieving the estimated cost savings contained in the cost benefit analysis.

We recommend that the ABT program provide an annual report to the council documenting its success and progress in achieving the program's estimated dollar savings, consistent with the eight step methodology included in council motion 12356.

ABT's Cost Benefit Analysis

The ABT program is charged with the implementation of integrated, efficient and effective financial, human resource and budget business processes and systems.

These systems are intended to allow the county to gain greater efficiency in providing high quality, effective, and valued services to its customers.

The cost of the ABT project being proposed by the executive is \$84 million (before financing).

The analysis conducted by the ABT program has identified costs and benefits, but has quantified only those benefits related to a potential reduction of 147 FTEs or costavoidances associated with making staff more efficient. There are additional potential benefits estimated to follow from implementation of the ABT program that are not reflected in the dollar values presented in the Cost Benefit Analysis.

Auditor's Due Diligence Review

We reviewed ABT's economic analysis and related assumptions and also conducted a sensitivity analysis of the major variables.

Note: Our due diligence review so far has not addressed the Detailed Implementation Plan (DIP) and comprehensive cost estimates that identify the ABT program scope, schedule, and budget necessary to meet the program's charter or the validity of the underlying assumptions employed by the Hackett Group in identifying and quantifying project related benefits.

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Differences between Auditor's and ABT's Analyses

For its analysis, the auditor's office used a real discount rate of 7 percent per county policy as opposed to 3.9 percent originally used by ABT and recommended by OMB.

Seven percent is consistent with other major analyses in King County (e.g., the Admin Building Replacement Project) and Federal OMB guidelines.

ABT now agrees on the use of the recommended real discount rate of 7 percent.

The auditor's office also included in its analysis the cost-effects of financing. This is consistent with the principles for economic analysis developed in response to the previous performance audits by this office on capital planning and budgeting.

However, it is useful to look at the economics of a project without financing to understand if its positive financial benefits are due solely to the county's ability to borrow money at a tax-subsidized rate. We included a non-financed scenario in its sensitivity analysis.

There have also been numerous technical adjustments made jointly between the auditor's office and ABT since the initial submission for the Cost Benefit Analysis for review in August.

Do ABT Benefits Outweigh Costs?

Yes. Based on the estimates provided, and applying life cycle cost analysis, the Net Present Value (NPV) of benefits is positive.

However, because the outcomes of the life cycle cost analysis are very sensitive to certain assumptions, it is better to look at a <u>range</u> of NPV figures rather than to portray a single number.

Sensitivity Analysis & Interpretation

We used a real discount rate of 7 percent and expressed the Net Present Value benefits in millions of dollars over a 15 year period. We also added financing costs in our scenario. The following table shows the range of values based on changes in major variables.

	Staff Cost Annual Inflation		
Benefits	4%	5%	6%
100%	\$60.9	\$71.0	\$82.0
75%	\$38.1	\$46.3	\$55.1
50%	\$15.4	\$21.6	\$28.3

Source: Auditor's Revised ABT CBA

With the use of the recommended real discount rate of 7 percent, and assuming staff cost inflation of 5 percent, and assuming that ABT will achieve 100 percent of FTE efficiency benefits, the project would have an estimated positive NPV of \$71 million over a 15 year period of analysis.

However, if only half of the FTE benefits were actually realized, the NPV would fall to an estimated \$21.6 million.

Other assumptions produce different results, which is evidence of how sensitive the results are to changes in the assumptions.

Appendix A shows further sensitivity analyses employing 7 percent and 10 percent real discount rates and looking at 10 and 15 year periods of analysis, with financing included. The appendix also shows a 15 year scenario without financing.

Under all scenarios where the project is assumed to achieve most of the benefits that have been quantified, the NPV is positive. In all cases where financing is included, the project shows a positive NPV.

Will ABT Pay for Itself?

Not Necessarily. The estimates of benefits are based on *potential* FTE reductions or cost-avoidances.

The Hackett Group, ABT's consultant on the cost benefit analysis has cautioned:

Due to the fragmented and decentralized nature of most processes, these generally (except as noted) represent fractional FTE reductions across the County. In these cases, a more in-depth analysis would be required to pinpoint specific impacts by location and determine if benefits might be translated to savings.

Furthermore, the county agencies that would be subject to the FTE reductions or costavoidances have not agreed to any specific staffing reduction estimates.

How Will Savings Be Realized?

It may not be possible to ensure that *all* the savings are realized, but the County Council anticipated situations like this when it included a proviso in the 2006 Budget Ordinance for the executive to develop a methodology for capturing budget savings from technology projects.

In Motion 12356 (October 10, 2006) the County Council approved the eight-step methodology submitted by the executive for identifying, validating, capturing, and reporting on cost savings opportunities from information technology efficiency projects:

- 1. Identify new project opportunities
- 2. Develop a business case
- 3. Approve the project Set budget action/expectations
- 4. Execute the project
- 5. End the project
- 6. Measure and report on operational benefits realized
- 7. Implement budget actions based on realized benefits
- 8. Report on budget actions as part of annual budget submittal

For technology efficiency projects, specific expectations apply:¹

For projects that deliver benefits to multiple departments/agencies, OMB will assign benefit realization responsibility to multiple sponsors (each with their own, unique benefits) or to one sponsor agreed to by all benefiting departments/agencies.²

According to the ABT Charter, the County Administrative Officer is the Project Sponsor who chairs a Management Team responsible for realization of program benefits. The Management Team includes the county's Chief Information Officer, Director of OMB, Assistant County Executive, and a "Deputy Project Sponsor." The County Executive is the Executive Project Sponsor.

Are Other Savings Possible?

Yes. For example, the Hackett Group has provided information showing county labor costs, in the areas of financial, budgeting and human resources, compared to what the costs might be, based on:

- The county's annual costs today
- Costs with ABT as currently proposed
- Additional cost reductions that are outside of the ABT scope
- Further potential cost reductions if King County operated more like benchmark organizations.

The range of long term potential county labor costs is illustrated in the chart below.



However, the core ABT project is a replacement of a financial, budgeting, and human resource system and as such, its current scope does not address transformation in the full breadth of areas included in the Hackett peer comparison. Moreover, the Hackett analysis did not provide a roadmap for the investments, policy tradeoffs, and full range of business transformations that would be needed to bring King County closer to its peers.

¹ These projects are referred to as IT Cost Saving Projects in the county's 2007 Technology Business Plan.

² Cost Savings Opportunities from IT Efficiency Projects: A Methodology for Identifying, Capturing and Reporting, King County, Office of the Executive, September 2006 (*Revised*).

Nevertheless, the Hackett Group indicated the following areas for potential additional efficiencies and service improvement in county government:

- 1. Optimize time and attendance and leave management strategy
- 2. Optimize human resources processes and organization
- 3. Optimize employee data management system (PeopleSoft HRMS)
- 4. Redesign organization effectiveness labor relations process
- 5. Develop a strategic planning process

Follow-up Work

The auditor's office will continue to monitor ABT's progress toward achieving its potential cost savings. To that end, we believe reporting on the program's success in attaining cost savings should be included in its annual budget submittal.

Recommendation

ABT should provide an annual report to the council documenting its success and progress in achieving the program's estimated dollar savings, consistent with the eight step methodology included in council motion 12356.

Auditor's Office ABT Project Team: Bob Thomas, Senior Principal Management Auditor; Ron Perry, Deputy County Auditor

Appendices

Appendix A: Additional Sensitivity Analysis

These analyses use OMB's adopted 7% real discount rate policy and a more conservative 10% in order to show the sensitivity to the choice of discount rate.

SCENARIOS WITH FINANCING

Real Discount Rate = 7%

	Staff Cost Annual Inflation		
Benefits	4%	5%	6%
100%	\$60.9	\$71.0	\$82.0
75%	\$38.1	\$46.3	\$55.1
50%	\$15.4	\$21.6	\$28.3

Real Discount Rate = 10%

	Staff Cost Annual Inflation		
Benefits	4%	5%	6%
100%	\$50.4	\$58.2	\$66.8
75%	\$31.8	\$38.1	\$45.0
50%	\$13.2	\$18.0	\$23.3

10-Year Analysis (\$Millions NPV)

Real Discount Rate = 7%

	Staff Cost Annual Inflation		
Benefits	4%	5%	6%
100%	\$41.4	\$46.4	\$51.7
75%	\$26.0	\$30.0	\$34.3
50%	\$10.6	\$13.6	\$16.8

Real Discount Rate = 10%

	Staff Cost Annual Inflation		
Benefits	4%	5%	6%
100%	\$36.4	\$40.6	\$45.0
75%	\$23.1	\$26.5	\$30.0
50%	\$9.8	\$12.3	\$15.0

Appendix A: Additional Sensitivity Analysis (continued)

SCENARIO WITHOUT FINANCING

Real Discount Rate = 7%				
	Staff Cost Annual Inflation			
Benefits	4%	5%	6%	
100%	\$40.8	\$50.9	\$61.8	
75%	\$18.1	\$26.2	\$35.0	
50%	-\$4.7	\$1.5	\$8.2	
50%	-\$4.7	\$1.5	\$8.2	

4%	5%	<u>c</u> 0/
	0,0	6%
\$20.8	\$28.6	\$37.1
\$2.3	\$8.5	\$15.3
-\$16.3	-\$11.6	-\$6.4
	\$2.3	\$2.3 \$8.5

Appendix B: Cost Benefit Analysis in 2004-5

Dye Management, Inc. prepared the initial cost benefit analysis of ABT in 2004 as part of the Quantified Business Case (QBC).

A subsequent review by this office concluded that (1) the QBC cost estimates were reasonable, but would need to be updated at a future point in time; and (2) the project had the potential to pay for itself.

We found technical errors in Dye's cost benefit analysis and noted that many underlying assumptions for the benefits had weak justification. The result of our 2005 adjustments was to substantially reduce the estimated benefits of ABT.