
# $ave Oregon

# Incentivizing Cost Reduction in State Government

## *Abstract*

***A well developed, comprehensive, state-wide cost reduction program can institutionalize cost reduction into state government providing an ongoing means of controlling the growth of government spending.***

***In today's political climate the need for government services is constantly increasing while the willingness on the part of taxpayers to fund services remains static. This leaves increased government efficiencies – that is, reducing the costs of current programs – as the best method for being able to do more with the current levels of funding.***

***Many attempts at cost reduction have only addressed some of the components of a comprehensive program or have failed to provide sufficient incentive to participate in the program for either suggestors or implementers. In fact, most programs fight a loosing uphill battle for the implementation of cost reductions due to the lack of incentives for the managers that would have to actually implement them.***

***The author believes that by drawing upon experience gained from the B2 Stealth Bomber Cost Reduction Program it is possible to develop a successful incentivized cost reduction program at the state level. However, development of such a program must be done in a carefully planned manner to ensure success. This paper reviews cost reduction, outlines a comprehensive plan for a state government system and provides a call to action to conduct a feasibility study on the issues associated with implementing such a program in Oregon.***

## *Overview*

Organized cost reduction programs have been around for some time in both industry and government. In their simplest form they may be manifested as an employee suggestion program or as a government waste reporting system, as is found in Oregon. More comprehensive programs – involving more than just employee suggestions – are found at some levels of government and include such examples as value engineering[1] programs and the Department of Defense Industrial Modernization Improvement Program (IMIP) (*described later in this document)*. What usually is not found is a comprehensive integrated program that involves employees, contractors, suppliers and customers all working together through a centrally managed cost reduction program. Such a program is able to leverage all of these groups together to achieve cost reduction and avoidance at all levels in the agency or organization. It is also important that any such program span the largest enterprise possible. A statewide program, administered from the state level, has a much greater impact than a set of similar programs each administered at the agency level. The whole can be much greater than the sum of the parts.

This paper explores the basics of cost reduction programs in the context of a state government. Some common terminology is defined as well as the concept and application of incentivizing. Issues associated with implementing such a program in a state government are reviewed and a call to action issued.

## *Some Definitions*

- Cost reduction – A project or change affecting a procedure, rule, process, etc. that results in a budget reduction, contract price revision or refund of an expense. Cost reductions are considered tangible savings.
- Cost avoidance – Cost avoidances do not result in immediate budget reductions or refunds. A project or change that avoids a future cost or limits budget growth in the future. Many times cost avoidances are viewed as intangible savings. Many suggestion programs do not acknowledge avoidances and thus, they are discouraged. Although they do not affect current costs, avoidances can have a big affect on future cost growth. As used in the remainder of this document "cost reduction" includes "cost avoidance".
- Evaluation – The general term for the unbiased review of a cost reduction idea that includes an analysis of technical feasibility, cost/benefit financial analysis, implementation analysis and other impacts. The result should provide the necessary data for management to make an informed decision to accept or reject a suggestion.
- Incentive – In the context of cost reduction, an award, usually financial, that is used to affect behavior (in the case of individuals) or provide an acceptable return on investment for companies or other business entities.

[1] The Federal Highway Administration defines Value Engineering as "the systematic application of recognized techniques by a multi-disciplined team which identifies the function of a product or service; establishes a worth for that function; generates alternatives through the use of creative thinking; and provides the needed functions, reliably, at the lowest overall cost." (23 CFR § 627.3)

- Suggestion – An idea that has been submitted by an employee, contractor, citizen or customer to improve the business, reduce or avoid cost, improve service, etc. The idea may involve a process change or improvement, an action or cessation of action, or a specification or standards change.

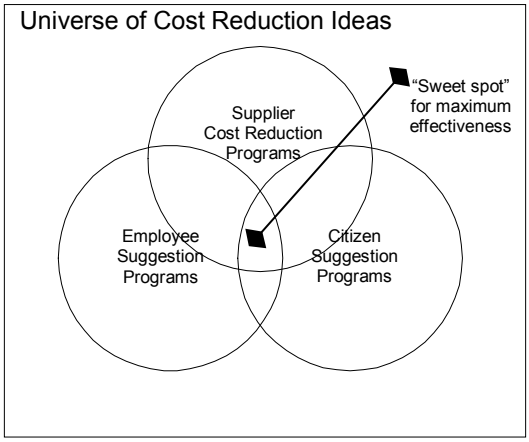
## *The political climate*

Oregon taxpayers have spoken very clearly, through their votes on Measures 28 & 30, that they are currently unwilling to fund state government programs as requested by the legislature. This forces the state government to either (a) cut back on programs or (b) find more efficient ways to deliver government services. While programs cut backs may be inevitable, the impact of the cut backs will be greatly tempered by increasing the efficiencies of the programs. These efficiencies can best be achieved by reducing the costs of the program while maintaining the level of service.

## *Why typical cost reduction programs fail to deliver*

There are several basic reasons why typical cost reduction programs fail to deliver significant benefits over the long run. The scope or comprehensiveness of the program is often a significant limiting factor. Most programs involve only one component of the total set of possible cost reduction program components. This component limitation can occur in two general ways. One example is having an employee suggestion program that is limited to one or a few agencies in a state government. These programs are usually the result of action by a single agency acting on their own to reduce their own agency's costs. Suggestions that fall outside of the agency are generally rejected and never evaluated simply because they are out of scope. For example, if an employee of the transportation department comes up with an idea that saves money for the state police, DOT cannot evaluate it and SP does not have a program. This leaves potentially valuable ideas on the table, frustrating the suggestors and reducing the value of the program. Cross agency and multiple agency reductions are also killed before seeing the light of day.

The limitation in establishing only a single component of a more comprehensive program prevents getting cost reduction suggestions from other sources such as citizens and suppliers. Using the same example, there is no conduit to solicit, evaluate and act on non-employee initiated suggestions. A few may end up being resubmitted by employees, but ones that may require action by customers or a supplier will, most likely, never be identified.



Another reason for cost reduction program failure is that, inherently, someone has to give up some money. Often the source of the most beneficial cost reduction ideas is the same one that has to give up the money to achieve the reduction. It is not hard to imagine how well received such a suggestion will be. When this is a supplier with a cost plus fixed fee government contract, for example, it is generally not in their self-interest to reduce the cost of a current contract.

When the source of the savings would be a manager in a state department (or one of his/her employees), the fact of giving back budget is usually not seen as a career-enhancing act. Managerial compensation is generally tied to budget and staff size. Reducing either of these usually exposes the manager to an immediate or near term reduction or re-classification to a lower rating (lower pay). Individual self-interest is a very strong motivator and will always trump the collective best interest.

## *Distilling lessons from IMIP*

The Department of Defense (DoD) Industrial Modernization Improvement Program (IMIP) was attached to a number of major weapons systems development projects during the 1990s. The purpose of IMIP was to reduce the cost of government procurement projects. This was done by incentivizing capital improvements in government contractors so that those contractors achieved the necessary return on investment to justify the capital improvements. The net result was lower per unit costs for both the contractor and the governement.

The B-2 Stealth Bomber project, with Northrop Grumman as the prime contractor, was the largest project that participated in IMIP. Northrop Grumman had the foresight to expand the scope of IMIP to include any means of reducing costs on the producing the B2. The key to success of IMIP was the use of Productivity Savings Rewards to incentivize cost reductions on the part of all participants, $464 million was reduced from the B-2 Program as a result of the Northrop Grumman led IMIP project office.

The experience and knowledge that the author of this gained from participating in the IMIP office at Northrup Grumman provides the foundation for the remainder of this document.

## *Why does a cost reduction program need incentives?*

Typically, employee suggestion programs provide some form of incentive to the employee to make suggestions. These incentives can range from recognition to sharing a portion of the savings with the suggesting employee(s). Most programs that offer a financial incentive based on the savings value of the suggestion typically limit the top amount paid as opposed to a percentage with no limit. There have been, however, some programs that do pay a percentage not only of the first year savings but additional payments on out year savings. Of course, such programs require a more rigorous analysis of the suggestion value and a method to monitor and quantify the first and out year savings.

With these employee programs, however, it is very unusual to provide any incentives for the other participants in the analysis/evaluation and implementation of a cost reduction idea. As an example, a manager who may be asked to evaluate a suggestion may have to cover the cost of this out of their existing budget. As it is usually the same manager who would need to take action to implement the suggestion as

well as probably the one whose budget would be reduced to achieve the suggestion's savings, they have little motivation to rigorously evaluate the suggestion much less to return a favorable evaluation.

Suppliers in the value chain, as mentioned earlier, are also in a peculiar situation. With commodity items, normal market pressures drive vendor reductions in price. The real problem appears for services, custom manufacturing, or fabrication contracts that may be cost plus fixed fee. These projects, although subject to award by competitive bidding, are not under any market pressure to reduce costs to the government after the award and during the execution of the project.

Federal government projects (such as DoD weapons systems) provide very good examples. These contracts are typically on a cost plus fixed fee basis where the contractor must expose their costs to government auditors. If the contractor takes some action, such as purchasing a new piece of capital equipment which results in the reduction in cost to perform on the contract, that reduction is taken by the government and the contractor sees a reduction in revenue[2]. Thus, a negative cost reduction incentive is provided to government contractors effectively inhibiting them from making capital investments that would reduce the cost of performing existing (and future) government contracts. In order to achieve their capital investment hurdle rate[3], something has to be added into the mix.

Suggestive[4] cost reduction programs are fraught with obstacles inhibiting the successful implementation of cost reduction actions. All along the process path from the solicitation of suggestions, through their evaluation and implementation, the only vested interest seems to be the owner of the organizational bottom line. Everyone else, whether they are an individual or a business entity, sees no gain in participating in the process. This is the primary reason that any successful cost reduction program must involve a mixture of incentives for the participants.

In addition to incentives, any cost reduction program, whether in private industry or government, must have sufficient senior management support so that valid suggestions are actually implemented and the savings realized through budget reductions, in both current and future years. The program must have the "teeth" to make it a success. Financial incentives can go a long way in reducing the amount of senior management support required since they will create a constructive environment for the implementation of many suggestions. However, human nature being what it is, there will be a need for senior management direction to make some things that need to happen actually happen.

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[2] Not necessarily "profit" but the loss of cost associated overhead and G&A may have a substantial impact on the financial viability of the contractor in the short run.

[3] The hurdle rate is a general term for the company's evaluation criteria for approving capital investment projects. In simple financial terms, it establishes the threshold return on investment that a capital investment must achieve. This takes into account both future savings affecting future potential income that would be generated plus any loss of revenue and other implementation costs. Since loss of revenue on current projects and implementation costs are "real" as opposed to the possible future revenues being projected, they weigh heavily in any rigorous ROI analysis.

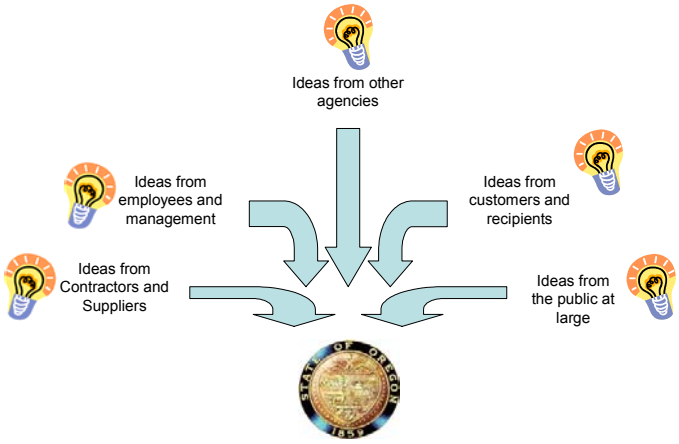
[4] In our context, "suggestive" is used to differentiate a program from mandated. A mandated cost reduction program is one that is typically directed by management with specific reduction goals leaving the how up to those being directed. These manifest their savings in draconian budget cuts, low value but illustrative spending cuts (like no donuts and coffee at meetings or no office supplies) and staff reductions based on head count targets.

## *What is a comprehensive cost reduction program?*

As discussed earlier, cost reduction ideas can be generated from many different sources within a business or government. The most common program is an employee suggestion program; however, there are other stakeholders associated with the enterprise that may have very good ideas to reduce cost. Citizens often have some really good ideas for government cost reduction based on their observations, interactions with the government or based on their industry experience and background. Usually, there is no effective way for these ideas to be brought under consideration.

Supplier and contractors are another source. As part of the value chain, they can not only generate ideas that directly effect what they do or supply; they may also have good ideas that can affect other parts of the government. Again, without a program for them to interact with, there is really no effective way these ideas can be considered.

As discussed earlier in this paper, in a classic suggestion program, employees submit ideas that affect their own group or function. When a suggestion affects some other agency or department that is not associated with the suggestor, most programs classify them out of scope and reject them out off hand. The lack of comprehensiveness can have further negative effects such as excluding suggestions that might involve spending in one agency resulting in savings in another with a net overall savings. Traditionally focused non-comprehensive programs are unable to handle this concept.




A comprehensive program would be an integrated single system[5]. It would be designed using a purpose down approach as opposed to the more traditional (and much less successful) capabilities up process[6]. It would have no constraints on the source or scope of a suggestion. The suggestor would be decoupled from the evaluation. Analysis, administration, incentives and implementation funding would be generated out of the savings captured by the program eliminating any issues associated with who has to spend their budget to obtain the savings.

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[5] "A system is a collection of elements that interact to produce an effect that cannot be produced by any subset of the elements." Stephan H. Haeckel, *Leading on demand businesses – Executives as architects*, IBM Systems Journal, Vol 42, No 3, 2003

[6] Purpose down design is where one starts with the purposes to be served and then works down to required capabilities to serve those purposes. This is a more specific implemention of the "top down" verses "bottom up" process. Inspired by Stephan H. Haeckel, *Leading on demand businesses – Executives as architects*, IBM Systems Journal, Vol 42, No 3, 2003

## *What is an incentivized cost reduction program?*

An incentivized cost reduction program includes various forms (although typically financial) of incentives to all the participants of the program to facilitate the generation, evaluation, selection and implementation of cost reductions that will result in a net savings for the enterprise. In the case of a state government, the enterprise would be the bottom line of the state budget.

The general nature of these incentives is:

- Originators of cost reduction ideas would receive incentives for making suggestions and financial awards for suggestions that are implemented. These could be employees, customers (citizens for state government), suppliers and contractors.
- Evaluating departments will be compensated for their evaluation efforts so that they can perform rigorous unbiased evaluations.
- Managers that offer cost reductions suggestions that would require their department be reduced in budget and/or staff would be rewarded and not penalized.
- Managers of departments that would suffer budget/staff reductions as a result of a cost reduction suggestion that they are asked to evaluate would not be penalized[7] for a favorable evaluation.
- Organizations that had to spend money so that another organization could save money for an overall net savings, would receive the necessary additional funding for implementation of the idea.
- Suppliers and contractors that needed to make capital investments to reduce agency cost would receive a financial award to achieve their hurdle rate (and this award would be factored into the net savings analysis)

## *Who pays for all these incentives?*

All cost reduction ideas have some cost associated with them. These costs include program administration, incentives, evaluation and implementation costs. For any cost reduction to be a true bottom line reduction, it must generate more in savings than it requires in costs. Using this rule, a viable cost reduction would generate enough savings to cover all of its costs for a net reduction. Therefore, the incentives should come out of the savings and be included in the cost benefit analysis used to determine if the suggestion is viable. In this manner, there would be no net cost for the incentives. Taken as an overall multi-year program, an incentivized cost reduction program would have a positive ROI over time with on-going net savings each year after amortizing all program startup costs. This is no different than normal business practices associated with capital investments.

[7] For example not being downgraded, awarded a bonus, etc.

**Table 1 Sample Cost Benefit Calculation**[8]

| | |
|---|---|
| **Savings** | |
| 1st year savings estimate (budget reduction) | $27,000 |
| Out year savings to 5 years | $125,000 |
| Total gross savings | $152,000 |
| | |
| **Costs** | |
| Evaluation | $3,000 |
| Program administration (3% of total 5 year savings | $4,560 |
| Incentive to suggestor (5% of 1st year savings) | $1,350 |
| Implementation cost | $12,000 |
| Total costs | $20,910 |
| | |
| **Net 1st year savings** | **$6,090** |
| **Net 5 year savings** | **$131,090** |

Properly structured, an incentivized cost reduction program should be self sufficient, generating enough savings to pay for itself. If such a program is not able succeed in this manner, then either the enterprise has reached equilibrium and all that can be reduced has been (unlikely) or it is not comprehensive enough to cover the overall program administration costs.

## *How do you make this all work?*

The elements that must be addressed include:

- *Enabling legislation* – To work in the context of state government, a comprehensive cost reduction program would need to be enabled through legislation. In addition to the establishment of such a program including the basic components, scope, etc., there may be a need to modify other existing laws so that the incentives could be provided, budget reductions could be taken, oversight initiated, etc. This necessary additional legislation would require research and analysis to determine what is actually needed. Legislation may also be required to insure that the program has "teeth" to insure that suggestions are properly and quickly reviewed and that reductions are actually realized.

[8] This is a purely fictitious example where the various percentages for suggestion incentives and program administration were selected for computation ease and are not indicative of the actual percentages that may be appropriate. Establishment of these percentages should be after a detailed analysis is performed and subject to periodic review.

- *Seed money for startup* – There will be startup costs to the establishment of this program. These costs include a feasibility study (that includes the legislation analysis mentioned above), setting up the program office, program communications activities, etc. Those costs will need to be funded in the first year and should be considered a loan to the program. One measure of success will be that this loan would be repaid from the savings being generated and would, therefore, be carried as part of the program costs until they are paid off. Failure to pay them off would be a strong indicator that the program should be terminated. The payoff period for the seed money would have to be determined as part of the feasibility study.

- *A single central Cost Reduction Program Office (CRPO)* – A CRPO would be established to manage the program, most likely defined in the enabling legislation. The CRPO would be responsible for development of the processes to be used, marketing and evangelizing the program, communicating and reporting the program to all concerned/interested, providing cost reduction consulting services to other local government agencies around the state, managing the evaluations of the cost reductions, supporting subordinate agency sponsored program offices, training and coaching the evaluators, working with potential participants both within and outside of the state government, documenting and tracking the suggestions and insuring that the savings are actually captured and really occur.

- *Well defined program scope, goals, procedures and guidelines* – The CRPO would be charged with final development of the program scope, goals, procedures and guidelines and maintaining them over time. These should be readily available to all prospective participants in the program.

- *CRPO reporting to the Governor and dotted line to the Legislature* – A key to the success of a comprehensive cost reduction program is that it must report as high up in the executive branch as possible. This reduces resistance to the implementation of cost reductions and places the direction of the program squarely with the state budget bottom line. In addition, it should be overseen by the legislature as a check and balance as well as to insure that the long-term savings are included by legislation and future budget efforts.

- *Communication* – The CRPO should be charged with producing and maintaining an extensive communication program so that the overall cost reduction program is well understood, reported and marketed. An Internet website provides an ideal central focus for this (such as www.saveoregon.gov) providing both communication and a portal for all the functions of the program (idea submission, status, metrics, evaluation, etc.).

- *Ongoing program of metrics collection* – Metrics on the program are vital to its management and the measurement of success. An ongoing comprehensive metrics collection and analysis program is required and should be as automatic and integrated as possible to eliminate any bias that might work its way into manual systems. The metrics should be constantly updated and available for anyone to view.

- *Periodic program health check* – Using the metrics, once past the start up period, the program should be monitored and subject to periodic health checks based on the metrics. Should the metrics fall below values that would indicate a net savings loss, the program should be immediately evaluated for continued operation.

## *Call to Action*

It should be clear that a comprehensive incentivized statewide cost reduction program has significant potential for reducing the cost of state government while improving services. It should be equally clear that to be a success, such a program must be carefully designed using system design methodologies and implemented following a well defined plan. This is not a technology solution. It is a management solution augmented by technology and should be approached in that context.

In order to be successful, this program should contain at least the following cost reduction components:

- *State employee suggestion program* – This component would include all state employees and would pay out a portion of the savings as financial incentives to those making valid actionable suggestions. All employees at all levels should be eligible to participate in such a program and should be encouraged to make suggestions that affect any aspect of state government, not just their own department or agency.

- *Incentivized budget reduction* - Here department and agency management would be incentivized to reduce the cost of providing the services of their department or agency without adversely affecting the services they provide. Managers would not be adversely financially affected by downsizing their departments. The specifics would have to be developed to fit the culture of the agencies but some form of bonus and retention of job rating would be typical. This would have to be carefully managed to make sure that the system was not gamed by managers that might inflate their budgets one year to cut them the next and pocket a reward. But it should reward true savings even to the detriment of the manager's department size or budget.

- *Incentivized contract reductions* - This component would reward state contractors that come up with ways to reduce contracts that they have been awarded to provide goods and services. There would be a sharing of the savings to encourage these reductions. This component could also include a version of the DoD IMIP program to help contractors make capital improvements that would result in immediate and longer term cost reductions for the state.

- *Citizen suggestion program* - A single incentivized statewide program for citizens to make cost saving suggestions and also receive recognition and financial rewards funded from the savings their ideas generate.

The process of moving this program from a concept into a working system involves careful planning. There are many details that need to be defined. There are many participants who need to be informed. At a minimum, the fully working incentivized cost reduction program will produce a cultural change for all stakeholders – and this change needs to be managed. The following three steps are designed provide time for proper planning and familiarization, thus ensuring the greatest possible success for the program:

### Phase One – Feasibility Study

This initial phase would have the following key deliverables: a feasibility study report; an implementation plan; and an initial funding request. The feasibility study would include a review of current organized cost reduction efforts including contacts, metrics and supporting information. It would include:

- A review of the enabling legislation that may be required including potential legal and cultural roadblocks that may inhibit or prevent program adoption;

- Quantified estimates by category of possible cost reduction opportunities would be included to provide some metrics to determine program value;
- Documentation for the establishment of a CRPO including sample charter, staffing, organization chart and reporting structure;
- Proposed cost reduction advisory and facilitating committees and their makeup; functional features requirements document for the IT services that would be needed to support the CRPO and related efforts;
- Public and government staff briefings to explain the proposed program;
- Proposed metrics and analysis items and points to be used to assess program success;
- Project plan for Phase Two along with a documented budget request for Phase Two efforts to support legislative funding.

Phase One can be expected to take approximately 6 to 8 months to properly complete.

### Phase Two – Program Startup

During this phase, funding is released; the CRPO is staffed, and initiates operations. Following the project plan prepared in Phase One, the CRPO gets the program into operation and begins to solicit and process cost reductions. The IT services outlined in Phase One will be established, tested and begin operation in this phase along with the communications program. At the end of approximately one year of operation (to be tied to the government fiscal year so the duration could be longer that twelve months), the CRPO will issue its first annual report. At this time a comprehensive review will be performed to determine how well the program is meeting the proposed expectations including seed money recovery goals. Successful review of the program (which includes meeting the financial milestones established in Phase One) at this milestone should be viewed as an approval point for continuation of the program.

### Phase Three – On-going operations with annual report and sunset review

Upon successful completion of the first year review, the program would then be off and running as a self-funding comprehensive cost reduction program. It would provide constant status and metric visibility through its website and published annual reports. It would be subject to an annual review to insure continued goal achievement. Once it has paid off all seed money, it will be a no cost line item in the budget.

## Summary

A well-developed comprehensive statewide cost reduction program can institutionalize cost reduction into state government providing an ongoing means to control the growth of government spending. Development of such a program must be done in a carefully planned manner to insure success. Components of such a program have been successful in other government and civilian venues and there is no reason that such a program can not be a success for Oregon.

### About the Author

David Rudawitz, PMP, is Vice President of Antevorte Consulting, LLC and a senior IT management consultant with recognized subject matter expertise in cost reduction, IT management, and enterprise architecture. He was a project manager as well as responsible for metrics tracking for the B-2 Stealth Bomber program Industrial Modernization Improvement Program (IMIP) program office at Northrop Grumman Corporation (Northrop Grumman was the prime contractor for this weapons system). This program booked $464 million in cost reductions. He has practiced his craft over 30 years with companies such as IBM, Northrop Grumman, Ameron Corp., General Dynamics and Holmes & Narver, Inc. He is a certified Project Management Professional (PMP) by the Project Management Institute (PMI) as well as certified in the IBM Consultant Profession by the IBM Corporation. He is a member of the Project Management Institute, IEEE, IEEE Computer Society and the Association of Computer Machinery (ACM). Mr. Rudawitz can be contacted at David.Rudawitz@Antevorte.com