

Bend The Curve

Creating Operational Excellence in The Public Sector – Government (v2)[©]

By Arthur S. Davis

Executive Summary

“A desktop computer now costs less than \$400.00. A DVD player or microwave oven can be purchased for the price of a large pizza with the works. Yet the cost of government always seems to be going up.”¹

Operational Excellence (Toyota Production System, aka Lean), the 21st century management method used at successful manufacturing companies like the Toyota Motor company (the leader), Motorola, Caterpillar, Honeywell International (previously known as Allied Signal), Raytheon, 3M, General Electric (introduced by Jack Welch), and a New Balance Shoe Company manufacturing plant in Skowhegan Maine; they have all experienced company-wide, or Plant-wide, Operational Excellence improvements in the following range²:

- Reduced Service or Product Lead Time 50 to 90%
- Recovered Office or Floor Space 05 to 30%
- Reduction in Work-in-Process 60 to 80%
- Increased First-Pass Yields 50 to 100%
- Increase Service or Product Throughput 40 to 80%
- Increased Organizational Productivity 75 to 125%
- Employee produced/maintained improvements
- A fundamental shift in customer satisfaction

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¹ Miller, Ken. “*We Don’t Make Widgets – Overcoming the Myths That Keep Government from Radically Improving*”, Governing Books; 2009

² Six Sigma.us - <http://www.6sigma.us/lean-benefits.php>

These Operational Excellence improvements translate into a minimum of **25% to 30% initial cost improvements plus near infinite continuous improvements**; the latter resulting in additional increased capacity and/or cost reductions in perpetuity. These results have demonstrated themselves to be available to Maine State Government (and other Public and Service Sector players) in four Maine State Government Agencies; the Maine Department of Labor (MDOL), Maine Department of Health and Human Services (MDHHS), a segment of Maine Department of Transportation (MDOT), and elements of Maine Department of Administration and Financial Services (MDAFS).

What's the catch? Success, on the scale of the above private sector companies performance improvements, requires the following; all of which have been demonstrated to be doable:

- Recognition, acceptance, and establishment of a formal Operations/ Operations management component of Maine State Government.
- Leadership, at all levels, must invest in and exercise due diligence to learn and manage consistent with this learning, 21st century Operational Excellence (Lean) management methods tenets.
- A recognition that this is a Journey; it has taken many, many years and an equal amount of effort to 'get here', it will take, quite literally, forever to reach the 'end,' Operational Excellence; however, the basic improvements mentioned above are all but immediately achievable.
- There can be no substitute for learning and doing, learning more and doing more, and then learning even more and doing still more, etc.

Operational Excellence was once alleged to be a manufacturing "tool." The work done in Maine State Government (and other institutions) proves this to not be the case.

Process improvement experts from Deming and Crosby to Womack and George* have long maintained that “All work is a process.” Therefore, all processes can be defined, they can be made to be visible, all processes can be measured and improved, and they can be and should be standardized, and they all have customers. Additionally, when Operational Excellence is used as a “tool” or implemented as discrete project(s), the results are not sustainable, thus the promised improvements are short lived.

When is a good time to start? Frankly, any time is a good time to start; there is seldom a “good time!”

Introduction

“A desktop computer now costs less than \$400.00. A DVD player or microwave oven can be purchased for the price of a large pizza with the works. Yet the cost of government always seems to be going up.”³

Citizens protest that government costs too much. They say they must work too hard to receive government services. Or that services are too long in coming. Or both. The result is a feeling that they are not valued by the faces of the system, those of the government employees they encounter.

On the other hand, government leaders and employees reflect that they are constantly being asked to do more with less. They come to work each day with the intention of doing their best. Even when budgets are flush, both legislators and government employees are concerned

* **William Edwards Deming** - widely credited with improving production; **Philip Bayard "Phil" Crosby**- a contributor to management theory and quality management practices; **James P. Womack** - founder and chairman of the *Lean Enterprise Institute*; and **Michael L. George** - founder and CEO of The George Group, the biggest Lean Six Sigma consultancy in the United States

³ Miller, Ken. “*We Don’t Make Widgets – Overcoming the Myths That Keep Government from Radically Improving*”, Governing Books; 2009

about the distribution of resources. In the current world, it is no surprise when state and federal funds are cut. Despite cuts, government workers consistently strive to meet the needs of their customers, the citizenry, their bosses, and the legislators, with what they have at hand. But even when putting forth their best efforts, they often hear that they've fallen short of the mark.

The Maine State government is no exception. More compelling is how dramatic the reduction in resources. The state of Maine is facing not a reduction of 5 or 10 or even 15 percent. No, the government must consider what a reduction of 25 to 30 percent. When a robust effort is employed, there is a realistic opportunity to reduce cost by 50 percent (yes, 50 % or more), or conversely, to increase capacity by 25, 30, or 50+ percent.

Both groups, citizens seeking government services and government officials and employees, are left to wonder if it is possible to create quality without spending more. Is it possible to meet demands or, in fact, to attain excellence in providing services to citizens, in an arena of reduced resources? Can the needs of the customers and the public be met without devastating the work force and draining the reserves?

Quality services without increased costs. Is it possible? How can it be done?

Bend the Curve.

Bend the Curve (BTC) is the change process proposed by the Maine Department of Labor (MDOL) to address those issues. *BTC* can show the way for government to deliver greater quality of service while reducing costs. At the heart of *BTC* is the belief that, ultimately, increasing quality saves money.

Initiating *Bend the Curve* would indeed put the MDOL on the path of resolving the dilemma that exists between the service provider and the service recipient. *BTC* would reduce costs while maintaining or improving customer service. As important, is the second major

outcome of the change in the work process: the increased participation of the members of the work force. No longer would the process of serving the citizens wear them down. *BTC* can increase customer and worker satisfaction at the same time.

Non-profit or governmental organizations often measure success by comparing expenses to revenue. Ideally, the slope of the incoming funds curve matches the slope of the expense curve. When it doesn't, the organization must *Bend the Curve* of expenses so that it closes the structural gap between that and revenue. With *BTC* changing the process of carrying out the business of providing services to the citizens of Maine the gap will close.

At MDOL, the difference between the expense and the funds curve is extensive. Given that a change in funding is unlikely, at a minimum a 20% reduction in expenses would be required to bridge the gap. It might be possible to reduce expenses using the traditional tools and methods but in a range of 2 – 7%, not at the dramatic 20% required. Such small changes often end by only delaying the impact of cost reduction and doing so by reducing the quality of service, or worse, not delivering services at all. Both the methods used and the success of delivering governmental services must be considered. Public value – the belief in the organization created through customer satisfaction, efficiency of service, compliance with laws, and balanced budgets – has to remain strong. Without a robust process, public value will not be maintained.

State governments are often faced with this dilemma. Funds are cut or frozen (due to decrease tax collection). Public service managers must continue to balance the economic reality against the satisfaction of citizens who seek better or more services. Traditionally, the organization, the local, state, or federal government, moves to make changes to its existing structure – services are consolidated, tighter controls are introduced, more direct oversight is

instituted, and other methods are studied. Some improvements may occur but, in general, results are often lack-luster. Government is not alone in its experience; private sector entities who seek world-class improvement by using 19th century methods see equally lack-luster advancements.

MDOL, faced with the need to bridge the gap between expenses and incoming funds, is aware that most governmental organizations are caught up in management techniques that are at least 100 years old. Old ways may have worked in times past but now, as MDOL has noted, it is the time to turn to more current management practices if they are to close the 20% gap.

The Commissioner of the Department of Labor and the Director of Operations sought methods thorough enough to create effective change. Their research and past experiences led them to *Lean Manufacturing*, a management system derived from the Toyota Production System (TPS). *Lean*, as it came to be called in the mid to late 1990's, demonstrated the type of improvements in both private and business sectors that MDOL's criteria required. With that in mind, they chose to put in place a *Lean* initiative, *Operations Excellence* as it is called at MDOL, to *Bend the Curve*.

Bend the Curve is innovative. It is designed for government, though applicable to any sector. *BTC* assumes that the Maine State Government's transformation system is very similar to the transformation system of a manufacturing plant. Like manufacturing plants, Maine State Government operates a system consisting of two major components. The more visible component of this system is that which creates laws, policies, and rules. The other component, the *operational element*, converts those laws, policies, and rules into forms that can be put into practice or realized.

The primary function of the *operational element* is to transform the legislative and governmental initiatives and programs into services, products, and actions. Like a manufacturer,

the MDOL is, in a way, producing products. Again to use the language of business, the formation of these products, services, and actions results in output. The collective result of output establishes the outcomes of the system; outcomes for government such as public value include satisfied customers, balanced budgets, and compliance with law.

Further, a core belief of MDOL's change initiative is that a deliberate, robust transformation process coupled with a compatible management system will yield, over time, the same world class results in government that have been seen in the business sector by Toyota, Motorola, Caterpillar, Honeywell International (previously known as Allied Signal), Raytheon, 3M, General Electric (introduced by Jack Welch), and New Balance Skowhegan Maine *Operational Excellence* improvements as reported in the private sector include⁴:

- Reduced Service or Product Lead Time 50 to 90%
- Recovered Office or Floor Space 05 to 30%
- Reduction in Work-in-Process 60 to 80%
- Increased First-Pass Yields 50 to 100%
- Increase Service or Product Throughput 40 to 80%
- Increased Organizational Productivity 75 to 125%
- Employee produced/maintained improvements
- A fundamental shift in customer satisfaction

MDOL's *BTC* is designed to create fundamental change. The outcome would be a transformed MDOL well on its way to influencing comparable change in all of Maine State government. At this point, MDOL has influenced or collaborated with elements of the following Maine government agencies: Maine Department of Health and Human Services, Maine

⁴ Six Sigam.us - <http://www.6sigma.us/lean-benefits.php>

Department of Transportation's Operations and Maintenance unit, and the Department of Administrative and Financial Services.

Improving the performance of government is not an easy undertaking. However, it is possible. Committed managers working with teams of employees can *Bend the Curve*. They can effect vital, real changes in the system improving value for its customers and enhancing the organization and its workforce.

Bend the Curve - The Imperative

“Government services, programs, and projects greatly affect the competitive position, progress, and future of the entire society.”⁵ The decision to continue to ignore the problem of waste in the governmental service system is a decision that will eventually affect our standing not only in the state of Maine but in the world. The leadership position of the United States will ultimately be adversely affected by these dramatic inefficiencies at the state level.

Declining resources is not the only challenge confronting the state's government. Of equal concern is the productivity of the service sector. Some studies have found that, from the customers' perspective, there is 30 – 80% waste in the system.⁶ This, in and of itself, is a grave problem.

Bend the Curve recognizes the emerging strategy for public value specific to public institutions. “A public service organization generates public value when it delivers a set of social and economic outcomes that are aligned to citizen priorities in a cost-effective manner. Thus, by increasing either outcomes or cost-effectiveness, an organization increases the value it delivers.”⁷

⁵ Anbari, Frank T. *Aligning Six Sigma Strategy with Current Department Initiatives*. George Washington University

⁶ George, Michael L. *Lean Six Sigma for Service*. McGraw-Hill, 2003

⁷ Cole, Martin, former group chief executive of Accenture's Government Operating Group, and Greg Parston, director of Accenture Institute for Public Service Value. “Unlocking Public Value”. © 1996-2007 Accenture, All Rights Reserved (source: Internet, 10/29/07)

Specifically, when the following questions are answered affirmatively, the Maine Department of Labor can say it is generating public value.

- Are citizens willing to give something up in return for the outcome?
- Does the outcome meet the demands of citizens and elected officials?
- Is there transparency – fairness, efficiency, and accountability?
- Is there adaptability to both political and business environments?

MDOL decided that the *Bend the Curve* initiative needed to do more than reduce costs and provide better customer service. It should also create a shift in the work of the department to better match customer expectations and needs. *BTC* should achieve efficiency by fundamentally changing how work gets done and improve intradepartmental collaboration and service integration. In the area of cost reduction, the goal of *Bend the Curve* would decrease expenditures by at least \$9 million or 20%, rounded, and significantly reduce staffing levels over three years while minimizing layoffs (at least 75% of MDOL’s operating cost, or expense, results from staffing).

To better insure success with *Bend the Curve*, MDOL is adapting “A Thousand-Step Journey: Five Phases of the (*Lean*) Transformation Roadmap.”⁸ The minimal requirements of the adaptation are as follows:

- There must be a commitment from the top-of-the-house, the leadership of the agency involved, to fundamentally change the organization. In state government, the top-of-the-house might include a commissioner of an agency, bipartisan champions in the legislature, the governor with formal legislative support, or a deputy commissioner or a division director of a stand-alone division.

⁸ Adapted from: Flinchbaugh, Jamie, and Andy Carlino. *The Hitchhiker’s Guide to Lean: Lessons from the Road*. Dearborn, Michigan: Society of Manufacturing Engineers, 2006

- There must be an identifiable burning issue or a ‘must-be-solved pervasive problem’ present.
- The aims of the initiative and the aims of the work unit must be one and the same.
- There is leadership commitment and active participation brought together with urgency.
- Necessary resources are made available. Initially some external help is likely to be needed. However, the initiative should focus on building internal qualified resources.
- Measurement and evaluation must be insisted upon – if the transformation can’t be measured, the system can’t be changed.
- Participants must consistently honor the mandates of the new way of doing business. Then the current culture or ‘current reality’ will try to maintain itself.
- No ‘project-sized’ initiatives should be attempted. The change must be sweeping and fundamental.

Governmental workers can meet the current challenge of declining resources. They can do more with less while both delighting their customers and raising their profit, their public value to the society. To do so, governmental leaders and workers must study and use the 21st century management system now in use by successful manufacturing companies.

Government doesn’t need to invent a system. The Toyota Production System (TPS) already exists. An adoption of this system of management will require a fundamental change in our current thinking and methods. It will require a different kind of leadership. Leaders who believe that if manufacturers can dramatically reduce costs, radically improve customer satisfaction, and quadruple the level of quality while providing their investors with record profits, so can government service agencies. It will require, to borrow an oil drilling metaphor, a burning platform, a reason for change that cannot be ignored. It will require a deep commitment to fundamentally change every element of the system – how and what members of the system think, what the system does, how it rewards, measures, and executes its processes. This is a system change process, not simply a project implementation. The solution is far-reaching,

dramatic, and challenging but it is needed and, more importantly, very doable.

Understanding *Bend the Curve*

As Maine government workers begin to handle substantial reductions, they must also devise a means to increase the amount and quality of services and products they deliver.

Is this objective realistic? Is it possible to do more, do it better, with less? The short answer is yes, it is possible. There is a solution.

The solution begins with an examination of successes in the realm of manufacturing. If some manufacturing companies have learned to do more with less, why not government?

In the service sector, specifically governmental service, the inability to do more with less is not because well-intentioned, dedicated, and well-informed people are not trying to do so. They are, in fact, trying their very best. Their best efforts, however, are yielding minimal results, in the range of 2 – 7 % improvement. They consistently work hard but achieve less, not more, output.

Why is this so?

The answer lies in the outdated concept defining the work in government, including the sector of service. We are at a place in our history analogous to one our nineteenth century counterparts found themselves. In that era, products – plows, buggy whips, beds – were manufactured one piece at a time. The form and fit of each product was unique. The quality of items varied greatly as did the method of manufacturing. The production itself was influenced by such factors as weather, availability of materials, and, certainly, the capability of the artisans. Such products took a long time to produce and were often overbuilt. That is, they might consume more raw material than required by the item's intended function. Had you the opportunity to ask

these industrious and ingenious artisans if they could do better, they may very well have laughed in indignation. How could you be so ignorant, they might ask, as to not see that it was impossible to do better? After all, to them, the method of work they used was a marked improvement over what had preceded.

Then along came Henry Ford. His pioneering ingenuity popularized the mass production era. His motto, “Any customer can have a car painted any color that he wants as long as it is black,” defined this era.⁹

Ford’s concept of production has served the United States, indeed much of the world, for more than a hundred years. Mass production was the 19th and, then, the 20th century’s solution to making more with less; the output cost less and was of higher quality while allowing men and women to work less hard doing the needed work.

For years, we have framed the work of the service sector, including that of state government; much like our artisan ancestors framed the work of manufacturing. Like early work situations before the mass production methods of Ford’s factory, work in today’s service sector is a series of discrete events, each with a unique beginning and ending, none having a connection one to the other.

In particular, the thinking goes: the recipients of the Maine government’s products and services are human, therefore unique, so each process involving them must be unique as well. This view of the system of work leads government workers to approach every interaction with service recipients as a new experience. Each action calls for a new discrete action, independent of the last. Indeed, because the service recipients are people, special consideration and care must be made so that they are not treated as widgets – minor pieces of the product that must be clicked into place for the whole to function. Providers of service do recognize that people are more than

⁹ Ford, Henry. *My Life and Work*. 1922

that; they are complex, individual, feeling, and, so, do require special attention.

That line of thought, at first glance, seems to be a worthy approach to work in the service sector. Unfortunately, the results are not always so worthy. Service recipients are often made to wait in lines, complete forms in triplicate, provide identifying information such as social security numbers, addresses, phone numbers, multiple times, sometimes within the same agency. They are sent notices of discontinuation or notices of eligibility from one office, occasionally multiple times. Then, in an office across town, they find themselves put through the same process and pronounced just the opposite. Days, weeks, months may pass before paperwork, tasks that in reality could take hours or minutes, is complete.

Certainly, not all governmental agencies function so poorly. However, all are grossly inefficient. Thus, there are few, if any, government functions that run correctly the first time, every time. However, organizations that practice *Operational Excellence* produce products and services with problems in only 3.4 out of every 1,000,000 opportunities (an exact measure). Therefore, in all of the other encounters the delivery of a product or service exactly matches a customer's expectations. That figure translates into a quality level of 99.9997% and is being achieved "by such non-manufacturing companies as GE Capital, Caterpillar Finance, ITT, and Lockheed Martin."¹⁰

How, then, do government agencies reach that level of success?

Government employees – managers, directors, governors, supervisors, agency workers – do not get up in the morning and say to themselves, "I'm going to work this morning and make as many of the people I serve as disappointed with the product, service, or action I provide as I can." For the most part, people start with the opposite thought. They begin each day with the belief that they will do a great job that day. The problem is not the workers' intentions.

¹⁰ Mackay, Darlene. Presentation: "Introduction to Six Sigma Quality". Six Sigma Conference, *Quality Assurance Institute*. 1999

The problem instead lies in the lack of a comprehensive contemporary understanding or model of what the work of state government is. A government has the authority to make laws, adjudicate differences, and issue decisions directing the affairs of state. This, of course, is a major component of the work of governments. But what is the rest of the *work* of government?

Tadahiko Abe from the Fujitsu Research Institute Economic Research Center says, “there is a strong practice of perceiving (the work of state government) less from a functional or operational perspective than from a spiritual and attitudinal aspect of business, or as a sacrifice that must be provided for free or at very low cost.”¹¹

Further, nineteen years ago, in a presentation entitled *Quality Improvement in Administration* at the National Technological University, William E. Eureka said of the nature of government administration and service that “its output is often intangible; its systems are invisible, complex, and often not well documented. Methods vary, having evolved over time, management intervention is common (indeed critical), and there are few measures.” Eureka recognized these characteristics as different from the shop floor of a manufacturing company though, indeed, the front offices of many such companies look no different from those of a governmental agency.

It is in this dichotomy between the perception of the work of government versus the work of business that the solution to the dilemma of how to do more with less may be found. A closer examination of state government indicates that the belief held by many of its leaders, that its system of work is unique, is not well founded. Indeed, government work systems have two elements: creation – the formation of laws, rules, or regulations on behalf of the citizens, and transformation – the transformation of inputs into outputs of products, services, or actions that must be delivered, by the government workers, to recipients. Generally, the work of government

¹¹ Abe, Tadahiko. *Research Report #246, December 2005*. Fujitsu Research Institute Economic Research Center (2005): page 7

is only 20% creation and the rest 80% transformation. Yet it is the creation element that is given the most weight by leaders of government. In fact, the institutions of higher learning that purport to prepare the next generation of government leaders and workers focus on the same 20% of the system.

A review of the course description for the Harvard University Kennedy School's Master in Public Administration in International Development (MPA/ID) finds this: "The MPA/ID program is designed to prepare the next generation of leaders in international development. It is an economics-centered, multi-disciplinary program, combining rigorous training in analytical and quantitative methods with an emphasis on policy and practice."¹² Here, the focus is on the theory of governing and how to develop the policies that will lead to the rule of law. Certainly, this is a partial answer to the question of what is the work of government but it is not the whole answer.

What is missing is the study of *operations* in this and other Master of Public Administration (MPA) programs. Most schools adequately prepare students for roles in the process of forming laws and policies but few focus strongly on how those laws and policies reach the government constituents, that is, the operation of government. Methods of leading and managing operations are largely overlooked by college and university programs and by those currently working in state government. Moreover, when the need for these methods is considered, it is too often done using 19th or 20th century management techniques and principles. Absent a robust 21st century model of government management, we will continue to prescribe and get lackluster performance.

As early as the 1950's, "Dr. W. Edwards Deming, in his famous lectures on quality

¹² *Masters in Public Administration/International Development*. 2008. Harvard University, John F. Kennedy School of Government. 20 June 2008 <<http://www.hks.harvard.edu/degrees/masters/mpa-id>>

management to Japanese business leaders introduced . . . the concept of *all work is a process*.¹³ This is the same conclusion that Eureka and others also reached – government and service organizations, like manufacturing companies, all have customers, all use methods that can be standardized, all have processes that can be defined, measured, and, so, improved upon. The only difference being is that manufacturers transform physical materials while government operations transform the words of law into a manifestation of the intent, into a product (very often a physical product), or action. To be sure, once the law, rule, or regulation is passed, the primary work of the government then becomes operations.

To return to the original question, how can government do more, do it better, and do it with less?

One must stop defining the government system of work as a series of discrete events and accept Deming's statement that all work is a process. A process is a combination of people, resources, and methods that produce a result. It is a method that transforms inputs into outputs that satisfy customers (the direct recipients) with the aim of creating outcomes. In business, the outcomes are profits. In government, the equivalent is public value, a reflection of the collective benefit for the recipients of government products or services.

As mentioned, a critical look at the work of government and the service sector will uncover no real distinction between the work of the operations component in a manufacturing company and that of the government. They both transform inputs into outputs. They both should seek to satisfy customers.

The TPS management system has become the management system of choice in the 21st century. In the Toyota system all activities relating to the process of doing business, whatever

¹³ Latzko, William and Saunders, David. *Four Days with Dr. Deming*. Adapted from *NetAssets: Intelligence for Workforce Development Professionals* webpage

that business might be, are either classified as adding value or creating waste. Limiting or managing two or more of these activities, for example, managing waste – wasted time, excess inventory wasting space, poor construction wasting materials – can reduce costs. Today, some public service managers try to make TPS fit government processes. All too often, however, they fall into the same trap that many manufacturers fell into 20 – 30 years ago. They narrow the focus on fixing parts of the system, rather than implementing fundamental change of the system itself. Only a robust transformation of the whole system will result in the dramatic change needed.

Bend the Curve encompasses TPS methodologies even as it keeps the specific challenges presented by the needs of the service-oriented environment of public sector at the forefront. *Bend the Curve* can lead to Operational Excellence in government.

Making the Connections

The question of why government leaders must concern themselves with transforming their organizations into an *Operational Excellence* entity should be addressed. The pursuit of *Operational Excellence* is not merely a cost-cutting exercise focused on making government smaller or creating fewer jobs. The result may be a physically, though not necessarily intrinsically, smaller government with fewer employees, achieved without layoffs (unless absolutely necessary), that functions at less cost. However, those results are not the objectives of this pursuit. The objective is to create an enterprise where it is always the case that the organization routinely meets the lofty expectations of continuously doing more, doing it better, and doing it for less.

Moreover, the aspiration of *Operational Excellence* in government can be achieved with the absolute least amount of the finite resources while producing profound and continuously improved products and quality of service delivered to the customer. These outcomes are not achieved at the expense of the worker. Indeed, the workers will take on the critical role of being *the* key resource for change.

Of equal importance, this pursuit will result in an environment where continuous and deliberate improvement is the norm. When this is achieved, by definition of *Operational Excellence*, the organization continuously increases its efficiency and effectiveness, thus productivity, of the enterprise. Productivity means, even in the public sector, output per resource applied

Yet, the question remains, why? Why would a government leader, manager, or worker want to increase productivity? The answer is threefold. The first concerns the here and now. Whatever is the organization's current driving force, or current reality, reality may demand it. Secondly, what lies ahead, as projected by the organization, will very likely require increased productivity. And third, the resources that government use and impact can not be treated as if they are infinite.

Here in Maine, the current reality finds that most citizens believe the following: they are over taxed, their government is doing a poor job providing products and services, and is unable to provide exactly what they, the customers, are looking for when they need it.

“Government ...needs to do (what it already does) better. Public expectations are increasing, for better schools and better health care, reduced crime, more effective immigration (support), and social services. In addition, there is a need to provide new service to support changing household structures and build new skills in the workplace in the face of globalization.

As a result, government will need to improve their effectiveness significantly, which means finding ever-more innovative ways to deliver better public services.”¹⁴

In the current reality, it is a highly likely that the worst is yet to come. Maine’s aging population “will require government to expand already overburdened health care and retirement programs.”¹⁵ These concerns can be resolved, in part, by radically improving the efficiency and effectiveness (productivity) of Maine government.

Achieving Operational Excellence

When we undertake the change necessary to achieve *Operational Excellence*, we are embarking upon a journey. At the culmination of the journey we will have established a robust operating system. One that is led by leaders dedicated to achieving nothing less than true *Operational Excellence*. That journey will fail if the participants don’t re-examine and redefine what the work of government is.

Operational Excellence can cut costs dramatically, typically by 15 to 30 percent, but that is only a part of the benefits gained when it is achieved. When Toyota Production System (TPS) initiated the system of *Operational Excellence*, the aims included the intention to optimize costs, quality, and customer service constantly.¹⁶

Government has often been asked to do more with less, but today the stakes are higher than ever. “American government faces a productivity imperative. Growth in program size, new national priorities and citizens’ demand for increased choice, convenience, and customer service, will require government to do more and do it better – and all this in an era of, at best, constant

¹⁴ Barbar, Michael, Alastair Levy, and Lenny Mendonca. “Global Trends Affecting the Public Sector.” *McKinsey Quarterly Review* (McKinsey & Company 2007) 6

¹⁵ *Ibid.*, p. 6

¹⁶ Bhatia, Nina and John Drew. “Applying Lean Production to the Public Sector”. *McKinsey Quarterly Review* (McKinsey & Company 2006)

levels of spending. Raising productivity will not solve government's most serious long-term fiscal challenges, but it will help; and it is an alternative to a sustained contraction of government or increased taxes."¹⁷ An organization can radically raise its productivity by adopting 21st century management methods; methods developed by the pioneer of these techniques in the 1950's, Toyota Motors, the only consistently profitable volume car manufacturer for 71 years. In the last quarter of 2008, for the first time in all those years, Toyota Motors posted its first losses.

In the June, 2006 issue of the *McKinsey Quarterly Review*, authors Nina Bhatia and John Drew defined an operating system as "the configuration of assets, material resources, and staff" needed to produce output for a direct recipient, the customer, and, in so doing, satisfying an outcome focused on adding value and eliminating waste as defined by the customer. The system of *Operational Excellence*, or *Lean Production* as it is also known, is a "combination of tools, evaluation, internal connection, and *lean thinking* . . . and *lean thinking* is at the core."¹⁸

A robust operating system is likely to be comprised of 80% operations (the management of assets, material resources, and staff) and 20% with the creation component of the system. The creation component consists of visioning methods, strategy development, policy creation, etc. Today, the operating system of government appears, instead, to be 80% policy creation, program and/or grant management, and relationship building, 20% budget and staffing management, and 0 % formal operations management. Given that the 80/20% balance of a robust operating system is not in place, the fundamental work for the needed changes begins with the establishment of a new mind-set, in fact, the development of a "process mind-set." The successful establishment of the process mind-set will determine the government's ability to 'do more with less'.

¹⁷ Danker, Tony, Thomas Dohrmann, Nancy Killefer, and Lenny Mendonca. "How Can American Government Meet Its Productivity Challenge?". *McKinsey Quarterly Review* (McKinsey & Company 2006)

¹⁸ Flinchbaugh, Jamie, and Andy Carlino. Qtd. in *The Hitchhiker's Guide to Lean: Lessons from the Road*. Dearborn, Michigan: Society of Manufacturing Engineers, 2006

Laying the Groundwork for Success

Is change of this magnitude possible? The answer is a resounding, “Yes”.

Where does this confidence come from?

It comes from the knowledge that others, leaders and lay people, working in the private sector have changed their way of work. In fact, since its development by Toyota Motor Company, several other leaders have successfully guided their companies to become *Operational Excellence* enterprises.

But does the work of the private sector parallel that of government? Will the same rules and methods apply? Those are the same questions that some manufacturing leaders raised twenty years ago. Yes, Toyota did it, they said, but they build cars. We build computers. Or, yes, but we design information systems. Or yes, but --- fill in the blank.

The fact is, if other people can do it, then those who lead and work in government can without a doubt, change as well. “In a UK government office processing large volumes of standard documents, *Lean (Operational Excellence)* techniques achieved double-digit productivity gains.”¹⁹

There are also examples of successful starts here in the U.S., though, as yet, no complete makeovers. The Maine Departments of Labor, Transportation, and Health and Human Services have all had some success using *Operational Excellence* tools. But for true, sustainable success they must continue to build upon and expand their early experiences with *Lean* methods.

¹⁹ Bhatia, Nina and John Drew. “Applying Lean Production to the Public Sector”. *McKinsey Quarterly Review* (McKinsey & Company 2006).

Why is this change imperative framed as a journey? Why not just name the change needed and make it happen? Many a leader has tried, and failed, when change did not include consideration of the *process* of change.

Linda Ackerman Anderson, co-founder and transformational change consultant of Being First, Inc. and Organization Transformation, defines “the three most prevalent types of change occurring in an organization as *developmental change*, *transitional change*, and *transformational change*.”²⁰ Transformational change, the most difficult and complex of the three, “is the radical shift from one state of being to another, so significant that it requires a shift in culture, behavior, and mindset to implement successfully and sustain over time.”²¹

Mindset is defined as “our fundamental assumptions about reality and our core beliefs about self, others, and life in general...our mental models. (Our) mindset is comprised of a number of independent variables that collectively work together as one integrated system to form our worldview.”²² To truly change the mindset, we must first expose ourselves to new knowledge through study while simultaneously doing the work and, thus, gain experiential knowledge. Furthermore, transformational change must begin with the leader’s shift in mindset. When that occurs, that change will drive and support the cultural shift throughout the organization.

The first steps in the journey must lead to an answer for the following question: What is the current reality?

“Empirical data have shown that the costs of service (government, marketing, sales, accounting, hospitals, banking, etc) are inflated by 30 – 80%; that is, the processes are riddled

²⁰ Anderson, Dean, and Linda A. Anderson. *Beyond Change Management-Advance Strategies for Today’s Transformational Leaders*. (Jossey-Bass/Pfeiffer, 2001) 31.

²¹ Ibid., p. 39.

²² Ibid., p. 80.

with activities that add no value from the perspective of the customer.”²³ Those of you considering this journey should start with this statement and consider that your agency, bureau, division, office, or unit is very likely operating some place within that range.

Before moving to develop a plan for change, it is perhaps time to state what *Operational Excellence* is and is not. *Operational Excellence* (or *Lean*) is not about tools. *Operational Excellence* is about systems. “An operating system is the process through which (an organization) reaches agreement about how to operate and improve.”²⁴ It is the combination of tools, evaluation, and internal connections.

Operational Excellence is about shared thinking; those in the organization share a common philosophy, a common set of ideas, and a common set of rules and principles. The members of the organization define *what* will be accomplished – the goals, metrics, targets, and strategies, for example. And they decide *how* to operate – developing methods, processes, and practices to achieve the objectives. *Operational Excellence* thinking will lead to an *Operational Excellence* system with shared thinking always at the core.

Traditional program management, grant management, relationship building, and budget/staffing management are not abandoned when using the methods that lead to *Operational Excellence*. However, they are addressed significantly differently in the ‘operating system’ of work. And with far better output and outcomes.

Additionally, *Operational Excellence* is not a finite goal. An organization seeking it is always somewhere on the journey. There will always be a gap between the current reality and where the organization would like to be. Success should be proclaimed not as a finish point in the journey but proclaimed as a marker along the way that recognizes and reinforces behaviors

²³ George, Michael L. *Lean Six Sigma for Service – How to use Lean Speed & Six Sigma Quality to Improve Service and Transitions*. (The McGraw-Hill Companies, 2003).

²⁴ *Ibid.*, p. 95.

and accomplishments. In fact, true success is achieved when the organization moves forward with a pace and a passion that is difficult to slow and impossible to stop, regardless of how well some might say it is performing.

In the process of working towards *Operational Excellence*, you will more than double, perhaps even triple, output, reducing cost by 40 or 50 %. In time, your organization will learn what it is to get it right the first time, every time; that is, with only 3.4 defects per million opportunities – the equivalent of a 99.997% quality level.

This is not about minor improvements. This is not the same old, same old ways. This is about far-reaching, transformational change.

Furthermore, these phenomenal outcomes are literally at your fingertips.

Beginning the Journey

When an organization is ready to begin the journey, the question of how the journey will be completed is raised. The best plan for making such a change is a six-phase plan adapted from *The Hitchhiker's Guide to Lean: Lessons from the Road* by Jamie Flinchbaugh and Andy Carlino. They describe it as “a Thousand-step Journey (in) Six phases; at the “end” is *Operational Excellence (Lean) Transformation*.”²⁵

Like Flinchbaugh and Carlino, this author does not consider that the following phases absolutes. Instead, the phases should be seen as waypoints that might aid those on the journey, suggestions of options to be reviewed. Which precise path is taken will be influenced by the speed at which the leaders are able to make *Operational Excellence (Lean)* a part of their

²⁵ Flinchbaugh, Jamie, and Andy Carlino. Qtd. in *The Hitchhiker's Guide to Lean: Lessons from the Road*. Dearborn, Michigan: Society of Manufacturing Engineers, 2006) pp. 59-92.

mindset, their way of life in the organization. Too, what conditions or issues the leaders must deal with and their willingness and ability to adapt and change influences the journey.

It does not matter what line of work your organization is engaged in. All work is a process, all processes can be measured, all processes have customers, and all processes can be improved. *Bend the Curve* maintains those beliefs whether the processes result in tangible products or in less concrete products such as services or actions. A process is a sum of its parts; the combination of people, resources, and methods. All processes can be measured and, therefore, be improved.

Until perfection is achieved, continuous improvement is a realistic expectation. This frame of mind and the use of the set of well-practiced tools that evolved out of the Toyota Motor Company's experiences in the 1950's will make your, or any, organization a world-class performer.

The Road Map

Phase One – Discover and embrace *a better way*.

To begin, the leaders and, in organizations where there is a workers' union, their union counterparts first educate themselves as to why change is imperative. At the heart of the work undertaken at this stage are both the uncovering of myths that prevent government from radical improvement and determining how significant the benefits will be.

At this point, the leaders discover or reaffirm that they can lead and contribute to the needed change. They educate themselves regarding both the nature and the magnitude of the change. At the same time they introduce themselves to the management approach that results in

the outcome of *Operational Excellence*. The Discovery and Embracing Process is a phase that reinforces the education of the leaders and the work force with experiential learning.

If the majority of the leaders have limited or no experience in *Operational Excellence*, a ratio of 10 – 15% doing, that is – putting *Operational Excellence* tools in practice, to a 90 – 85% study and learn regimen is strongly suggested. On the other hand, if the leader, particularly, has significant experience, then a mix of 30% action to 70% study might be appropriate.

The books and papers described in the author's notes can further illuminate this segment of the journey. In particular, the leaders of the *Operational Excellence* initiative might begin with the work of Linda Ackerman Anderson. As she noted in her work, *Beyond Change Management*, “Organizational change doesn't happen out of the blue. It is catalyzed by a number of forces that trigger first an awareness and then action. These signals for change usually originate in the organization's environment . . . or marketplace.” Transformational change, such as the journey to *Operational Excellence*, requires a shift in one's world view. This cannot happen without a shift in each member's mindset. One's mindset will not change without new knowledge either acquired or created.

Along with Anderson's work on transformational change, those in the government sector will find an excellent avenue to new knowledge to be Ken Miller's book, *We Don't Make Widgets*.

Study missions, visits to companies that have achieved *Operational Excellence* or *Lean* status. are highly recommended. Participants will learn by observing how those companies carried out similar journeys. Seeing the practice successfully at work will give the observers encouragement to try similar processes.

Also, as the leadership team begins to clarify some of the content of the planned change, they should engage an expert to help them pilot one or two projects. Hands-on practice is a significant method of learning. Demo projects can reveal the potential for radical improvement to the leadership team and the organization at large.

In best practice situations, leaders learn and teach to managers. Managers learn and begin to teach their staffs. In time, supervisors will learn and teach or inform their staffs. Of course, as is often true, it is in the teaching that a significant amount of the learning takes place.

In this phase, there are no formal mass communications. Leaders should prepare so they are ready to respond to questions as the rumors surface about the proposed changes. They may share with staff individually the fact that they and their colleagues are studying the most recent management methods.

Change is often unsettling. To keep those natural anxieties at bay, continue to state that in the near future, as the leaders learn more, the staff will learn as well. Whatever the message, the leadership group should be certain that they are consistent in its delivery. Staff meetings and formal learning sessions are encouraged for the entire journey.

How much time is needed to complete Phase One is influenced by two factors. One, how critical is it to the organization that it get started? Is it life or death, or is it simply a good idea? Finding the balance between thorough study and over study is the second factor for each organization. While it is important to do thorough preparation, too long can feel like procrastination to participants.

Phase One Time Frame

1-6 months.

Phase One Activities

- Formal reading and study sessions sharing and discussing selected readings.
- Study missions to other companies.

Phase One Suggested Readings

- *We Don't Make Widgets: Overcoming the Myths That Keep Government from Radically Improving* by Ken Miller. (Governing Books, January 2006).
- *Beyond Change Management: Advanced Strategies for Today's Transformational Leaders* by Dean Anderson and Linda Ackerman Anderson (Pfeiffer, March 2001).
Text describing process mindset techniques.
- *The Hitchhiker's Guide to Lean: Lessons from the Road* by Jamie Flinchbaugh and Andy Carlino (Society of Manufacturing Engineers, December 2005). (Note: *Operational Excellence* is the author's nomenclature; the literature refers to *Operational Excellence* as *Lean* Production, *Lean* Manufacturing, or *Lean*.)

Phase One Expectations

- Demo projects undertaken by segments of the organization will illustrate the potential for radical improvement.

Phase Two - Expand learning and take action in order to learn more.

In Phase Two, leaders, managers, and, when a union is present, union representatives begin to understand how to integrate *Operational Excellence* into the organization. Keep in mind that whatever the circumstance, it has taken nearly a lifetime to know those things that are

currently accepted as routine. Only recently, have the leaders begun the process of replacing their current thinking with a completely different way of thinking, the new mindset.

It is in this phase that leaders will assess their *current reality* and answer the question, how much waste is our organization producing? This is likely to prove to be one of the more difficult tasks to perform. It is an effort to step back far enough to clearly observe what the norm is and make a true assessment of the processes.

In Phase One, the focus was on the exposure to the new mindset of *Operational Excellence*. In Phase Two, first the leaders and, in time, the staff, work to develop a deeper understanding of the underpinnings of *Operational Excellence*. During this phase the participants will continue to establish a *process mindset*, in effect, creating a different worldview within the organization.

Specifically, the exploration is now focused on a new component of work, operations, and a new management method, *Operational Excellence*. A reliable approach is learn, plan, apply, reflect; the organization members learn a concept, method, or tool, then plan what, who, where, and how to apply it, and finally, formally reflect on the results to determine the effectiveness of both the application and the lesson. At this juncture, a concerted reading of the Flinchbaugh and Carlino book, *The Hitchhiker's Guide to Lean; Lessons from the Road* can be very helpful.

Start now to establish a strong lead person from within the organization. This *Initiative Leader* must be a person who many would call one of the organization's strongest resources. Now, too, is the time to look outwards for those with *Operational Excellence* expertise and experience.

As the *process mindset* is established, the leaders are the students. Accepting that there is a different, and better, way of doing work is not easy. It is not unusual for those first students of the new mindset to claim, after only a short distance into the journey, that they now know all there is to know about *Operational Excellence* and *Lean*. The “I get it!” reaction stops the needed reflection. Discovery and dialogue must continue so that plan and process can be formed.

In time, others will also make that same claim as they reach a similar point in their journey. When this occurs, it is important to consider that this is a statement masking something else, resistance to change, perhaps, or fear, or a gross misunderstanding. To counteract this obstacle, suggest, in a supportive way, that they lead the formal discussion groups. Once again, teaching is a reliable way to clarify the process of learning.

However difficult or unsettling it is to accept that the old ways no longer work, it is imperative that this occurs. Accept that the discomfort is natural. Without this cataclysmic shift none of the *Operational Excellence* methods will work for any sustained amount of time. This shift is the act of acquiring the *process mindset*.

Instead of seeing the work as a set of discrete events, members of the organization will come to see the work as flows, connection, and activities, which trigger transformations of inputs into outputs to satisfy customers (meet customers’ expectations). When this occurs, the shift to seeing all work as process, the *process mindset*, is on its way to becoming the new norm.

To proceed during Phase Two, select a controlled number of meaningful processes for improvement and begin by making them visible.

At this stage, the organization is likely to have limited, if any, documented processes. In other words, the organization works with limited or no focus on its processes and, so, is unlikely to measure their functions. Initially in service sector firms (engineering, accounting, and banking

firms, governments, and information technology companies, for example) and the front offices of manufacturing plants, the organization must make each process visible. Value Stream Mapping (VSM) is a method, using graphics or icons, that clearly indicate, or makes visible, all the steps and sequences of every segment of work. The movement of information, materials, and actions can all be mapped. Doing so, in turn, makes it possible to measure the process. This need to see and evaluate the process of work supports the crucial development of the *process mindset*.

The processes that are chosen for mapping should be selected after careful deliberation. They should be significant, but not too complex. That is, not low hanging fruit easily chosen but, conversely, not so important as to be essential to whole structure of the organization. To be effective components of the transformational change that is the goal of this endeavor, the chosen processes should be highly visible and the results, as they come, be widely publicized.

Clear communications should help build or reinforce the organization's burning platform, the undeniable need for action. This will aid in introducing or reinforcing the concept of *Operational Excellence*. State facts about the current reality to substantiate the magnitude and gravity of the needed change. Make it clear that the change is such that the days of business as usual are over. As important, communicate in language that allows the listeners to see themselves surviving the change. This is a critical point. Although you cannot (and should not unless absolutely certain) guarantee no job loss, you **must** do all that you can to reassign displaced persons rather than lay them off.

Phase Two Notes

Experts are not all created equally. As the search for those who can aid the organization on its journey begins, consider the following points. Someone with an understanding of adult

learning methods, one who can articulate that *Lean Manufacturing*, or the Toyota Production System, is a cultural shift, will be one skilled at helping the organization members change both themselves and their culture. Beware the person who speaks of change in the terms of the development and management of a project here, a project there within the organization. Avoid the person who believes that this culture stuff is for the birds.

Phase Two Time Frame

- 3-9 months. It is important to reiterate that it took many years in the lifetime of the organization to come to the *current reality*. Even when we agree strongly that it must change, we cannot expect new knowledge or new experience to quickly or easily replace the *current reality*.

Phase Two Activities

- Value Stream Mapping (VSM) of carefully selected processes, thus making visible the sequence and movement of information, materials, and actions in a work unit's process or value stream.
- Begin using the Kaizen system. Kaizen is a system that involves every employee - from upper management to the cleaning crew. Everyone is encouraged to come up with small suggestions for improvements on a regular, continuous basis.

Phase Two Expectations

- The organization is now basing results on measurable process improvements.

Phase Three - Build the foundation.

As Phase Two concludes, the leaders have discussed and come to consensus that achieving *Operational Excellence* using *Lean (TPS) Tools* is the way to manage the business of this organization. To quote *The Hitchhikers' Guide to Lean*, “Leaders should begin to understand and apply basic *Lean* tools to uncover the true current reality. It is critical for the organization to recognize the tension (between the current state and the ideal state) so that it can embrace the potential of *Lean*.”²⁶

Reaching consensus is vital and it is difficult. It is rare that the original members of the leadership team remain throughout the entire process due to staff turnover, promotion, and people saying, “This is not for me.” Others may opt out due to differences with the goals of the change proposed. Nevertheless, it is key that due diligence be exercised to minimize the exiting of team members. However, in due course, all members of the organization must agree to “get on the train.”

Leaders now begin to become aware of just how different and how potentially powerful the *Lean* management method can be. They may also begin to feel somewhat out of control. To better understand why this may be, the book, *Beyond Change Management* can offer valuable insight. Remember, the process requires us to “learn, plan, apply, and reflect.”

During Phase Three, the organization should ascertain that representatives of all parties within the organization are participating at this point. It's not necessary that the representation is proportionate, but it must be all-inclusive. Also, there should be visible evidence that all areas of the organization are engaged. Such *Lean* tools as Use Kaizens, VSM, and Control Charts may be posted on walls. Keep in mind, a component of establishing a *process mindset* is the commitment

²⁶ Flinchbaugh, Jamie, and Andy Carlino. Qtd. in *The Hitchhiker's Guide to Lean: Lessons from the Road*. Dearborn, Michigan: Society of Manufacturing Engineers, 2006)

to make former invisible processes, visible. Visible means the process can not only be observed but also measured and managed.

By this time, a set of overarching goals, measurements, and time frames should be established or in later stages of development. This is a good time to bring in an external expert. External because the organization will need a “who-said-of-the-greatest-magnitude.” Internal resources are helpful, but may be perceived by some as of insignificant value.

The organization should begin to organize itself for change. For example, the Initiative Leader should gather a small number of capable team members. This team should be a subset of a larger steering committee. Too, there should be an expectation that there will be formal project reviews conducted by the various project teams’ managers. It is of the highest importance to set an expectation that measurements will be taken, recorded, and reported – change can not be demonstrated if it has not been measured!

Continue to build on the concept that your organization teeters on the burning platform. Change is imperative. That message underlies all the other work that has begun and is about to begin.

Understandably, the organization will use its entire formal means of communication to dispense information. However, there are very powerful informal management communication methods at this stage that leaders must capitalize on. Managing itself in a way that gets the organization ‘to get to yes’ as quickly as it takes it to get to “no!” is an important strategy to form. Though “no” is expected, “yes” is change leverage. The Initiative Leader and the change team must build a culture of saying yes because no can too easily stop all progress and innovation.

Phase Three Time Frame

- 6 months to a year. In this period, the rubber is meeting the road.

Phase Three Suggested Reading

- *Beyond Change Management: Advanced Strategies for Today's Transformational Leaders* by Dean Anderson and Linda Ackerman Anderson (Pfeiffer, March 2001).
- *We Don't Make Widgets: Overcoming the Myths That Keep Government from Radically Improving* by Ken Miller. Continue the study started in the earlier phases. Organization members will likely find rereading from the beginning at this stage can deepen understanding or provide new and overlooked insights in the light of their growing experience with *Operational Excellence*.

Phase Three Activities

- Visible evidence that the organization is pursuing *Operational Excellence* such as the sight of VSM maps on walls.
- Evidence of 5S (a method of maintaining an orderly, clean, and efficient working environment) and/or Kaizen events.

Phase Three Expectations

- The leaders have committed themselves and are being closely observed. To reinforce their message of commitment to change, they must continue to learn *Lean* methods, to express dissatisfaction with the current state, to demonstrate

their commitment to *Lean*, and to demonstrate the power of *Lean* mindset both to themselves and the rest of the workforce.

Phase Four - Expand tools and deepen thinking

At the onset of Phase Four, study materials are showing signs of wear. Leading, learning, and capitalizing on projects is a more common occurrence. By now, the organization should have acquired a strong appetite for *Lean*. To go forward, active leadership involvement is required. Without the continued direct involvement of the leaders, obstacles will begin to slow the momentum. If there is anyone in management who is not now fully committed, then success is at risk.

Operational Excellence is close to becoming understood to be **the** method of the current management. The application of *Operational Excellence* tools is no longer an experimental undertaking. The organization is beginning to experience dependence on the tool as a means to an end. *Lean* based roles and responsibilities are clearly defined with key operational leaders established to drive education and execute projects. A *Lean* oversight structure with a steering or management committee that includes senior leadership and operational leaders should now be created and given the responsibility for assessing progress and providing further direction.

In this phase, expand *Lean* education across a wide cross-section of the organization. Leaders must continue their study as well. One can not effectively direct what one does not understand.

Building on the communications in the previous phases, the organization should now clearly show the connection between its efforts and the positive effects on the burning platform situation of the past.

Phase Four Time Frame

- 6 months – 2 years. The length of time will depend upon such factors as the depth of commitment, the amount of resources committed, how fully, directly, and actively the leaders are involved, and how visible the differences between former management, or mismanagement, methods and *Lean* were made to all.

Phase Four Activities

- Continued use of VSM, Kaizens, Plant Layout, Visual Management, and 5S (see glossary).
- Begin use of other *Lean* tools such as Standardized Work, Batch Reduction, Teams, Quick Changeover, Quality at the Source, TPM, and Pull (see glossary).

Phase Four Suggested Readings

- *We Don't Make Widgets: Overcoming the Myths That Keep Government from Radically Improving* by Ken Miller.
- *The Hitchhiker's Guide to Lean: Lessons from the Road* by Jamie Flinchbaugh and Andy Carlino.
- *Decoding the DNA of Toyota Production System* by Steven J. Spear and H. Kent Bowen.
- *Lean Thinking: Banish Waste and Create Wealth in Your Corporation* by James P. Womack and Daniel T. Jones.

Phase Four Expectations

- The tools in use leading up to this stage have enabled the processes to be made visible, able to be documented, measured, and deliberately used and managed. By now, there is visible evidence that the organization is pursuing *Operational Excellence (Lean)*. There are VSM maps and evidence of 5S and/or Kaizens events on the walls.

Phase Five - Integrate and reinforce.

The organization integrates *Operational Excellence (Lean)* in every aspect of its business during Phase Five. Leadership is more critical than ever in this phase. Former President Harry S. Truman said, “Leadership is the ability to get (people) to do what they do not want to do and like it.”

To overcome the natural restraints to change, leaders must indicate a true distaste for the current reality. Though their speech and actions they articulate what the ideal state will be as change occurs. Also, leaders must have the courage to close the gap between the current reality and the ideal state. The leaders must keep the focus on problems. Mechanisms and skills must be in place to bring problems to the surface and allow for their resolution. Management availability is key; managers should be out on the floor or present in the work place. They must cultivate the skills that encourage all members of the organization to present ideas for change in the process.

At this juncture, study missions can again reinforce the ongoing education. Going out to observe and examine organizations that have achieved *Operational Excellence* make it possible for members of the organization to create benchmarks to define not just excellent performance

but world class performance. Members should remind themselves that even this far into the journey the organization is still in the process of changing its mindset.

This is an appropriate time to reexamine the suggested readings. This time, after experiencing and observing *Operational Excellence* and *Lean* methods, it will be easier to read them with a critical eye. Either working in groups or individually, the students of *Operational Excellence* will be better able to discern the essence of what the authors are trying to convey.

The organization should incorporate the application of *Lean* into all areas and all functions of the organization. It must validate the presence of *Operational Excellence* methods with measurable results. Measurable results are indicative of continuous improvement and evidence of desired *Lean* thinking. As Phase Five continues, the whole organization moves away from facilitated events and toward conscious behaviors and activities in the day-to-day business operation.

Leadership for change should begin to trickle throughout the organizational structure. Internal and external *Lean* specialists should start to take a back seat. As soon as it is clear that requisite skills are in place, area and department leaders within the organization should assume responsibility for *Lean* teams. The *Lean* specialists should shift from a coordinating role to a support or coaching role.

Generally, communications established in the previous phases are continued. However, noticeable differences should appear in informal communications. Differences in the working language of the organization will change as *Lean* overtakes what was the current reality when Phase One started. Observers will note, too, differences in the topics discussed and the methods of discussion.

Phase Five Time Frame

- Up to 3 years

Phase Five Activities

- Continue to use the tools introduced in the earlier phases. However, additional and more advanced tools may be required in this phase. It may seem obvious but an organization should always understand the purpose of the tools and methods it employs.

Phase Five Suggested Readings

- *Decoding the DNA of Toyota Production System* by Steven J. Spear and H. Kent Bowen

Phase Five Expectations

- It is apparent to those in the organization that a new way of conducting business has arrived.
- The leader or leadership team conducts an organizational assessment.
- Data gathered is used to reflect on progress and adjust processes as needed.

Phase Six - Build momentum.

By this time it should be apparent that *Lean* is a way of thinking. The journey to *Operational Excellence* has been about understanding and adopting that way of thinking. Not surprising then is the realization that this is a lifelong learning process. For example, after 50 years since their invention of *Lean*, the leaders at Toyota Motor Company still identify themselves as learners. They are also, from all reports, still the best at making use of the management method.

Education is the cornerstone upon which *Operational Excellence (Lean)* will continue to grow and develop. An ongoing series of opportunities to learn formally through seminars, workshops, and study missions must be developed. Coaching, mentoring and organizational scans, too, must be an established part of the culture. Perhaps most importantly, leadership must continue to promote, encourage, and practice both formal and informal avenues of learning.

In Phase Six, the organization should communicate about *Lean* to suppliers, customers, funding sources, and the community at large. *Lean* skills and infrastructure are embedded in the organization of every business unit, regardless of the service or product provided. Roles and responsibilities are clear and standardized at every level. Some form of a centralized *Lean* group may be formed with their primary focus the assessment of the organization in order to identify any gaps or barriers to continued *Lean* transformation.

Phase Six Time Frame

- Open ended.

Phase Six Activities

- Develop a mechanism that aligns and connects the organization's goals with the most effective and efficient application of tools.
- Investigate Hoshin planning or policy deployment and Six Sigma as tool that might be used to undertake corrective actions or improvement initiatives.

Phase Six Suggested Readings

- *Lean Six Sigma for Service: How to Use Lean Speed and Six Sigma Quality to Improve Services and Transactions* by Michael L. George.

Phase Six Expectations

Once an organization has absorbed and adopted the principles of *Lean*, the *process mindset* requires that the tools of *Lean* are always in use. There will be mistakes. As the tenets of *Operational Excellence* or *Lean* inform us, mistakes are treasures. Use them as such.

Author's Notes

I encourage all of you beginning to consider the journey towards *Operational Excellence* to read *The Hitchhiker's Guide to Lean: Lessons from the Road* by Jamie Flinchbaugh and Andy Carlino for a more, if not the most, comprehensive treatment of the operating system concepts. This paper is of a length that a complete explanation is not possible.

My thinking on the matters touched in my paper has been clarified or informed by the authors listed below. I have drawn heavily on their work.

- *We Don't Make Widgets: Overcoming the Myths That Keep Government from Radically Improving* by Ken Miller. (Governing Books, January 2006).
- *Beyond Change Management: Advanced Strategies for Today's Transformational Leaders* by Dean Anderson and Linda Ackerman Anderson (Pfeiffer, March 2001).
Text describing process mindset techniques.
- *The Hitchhiker's Guide to Lean: Lessons from the Road* by Jamie Flinchbaugh and Andy Carlino (Society of Manufacturing Engineers, December 2005).

- *Decoding the DNA of Toyota Production System* by Steven J. Spear and H. Kent Bowen (Harvard Business Review, October 2008).
- *Lean Thinking: Banish Waste and Create Wealth in Your Corporation* by James P. Womack and Daniel T. Jones (Free Press, Second Edition, June 2003).
- *Lean Six Sigma for Service: How to Use Lean Speed and Six Sigma Quality to Improve Services and Transactions* by Michael L. George (McGraw-Hill, June 2003).
- A set of three reports authored by principals at McKinney & Company: Government as a Business by Ian Davis. Applying Lean Production to the Public Sector by Nina Bhatia and John Drew. How Can American Government Meet Its Productivity Challenge? by Tony Danker, Thomas Dohrmann, Nancy Killefer, and Lenny Mendonca.

My premise laid out within has also been defined and honed throughout my 45 years of management experience: 30 years in manufacturing, 9 years in government, and 5 years as an entrepreneur “manufacturing” Bonsai. That time includes a combined 10 years studying and/or leading Large System change initiatives.

APPENDIX I

Operational Excellence (Lean) Transformation Evaluation Criteria

To be considered at different phases of the *Operational Excellence (Lean)* transformation.

1. Tension – Tension differs from stress. Stress arises out of hopelessness. Tension is the gap between the clearly defined, compelling *ideal state* and the understood *current reality*. Tension occurs as the current state keeps ‘visible’ the gap between it and the ideal state.

2. Pull – Tension helps spur momentum for *Operational Excellence (Lean)*. Pull comes from the champions and sponsors for a compelling business need. The leaders of change *pull* the members and their organization onward with their enthusiasm and leadership. Push, pull's opposite, should be limited. However, sometimes push is needed and cannot (and should not) be avoided.

3. Leadership involvement – There are no better champions and advocates for pull than an organization's leaders. It is ideal to have senior leadership actively engaged in the *Operational Excellence (Lean)* journey, not just sitting in a seat, but driving the vehicle. Ultimately, the head of the organization **must** take a stand. If he or she has accepted the premise and need for the journey, then the organization is more likely to complete it. Along with the leader, any union or collective bargaining entity's leaders must be actively involved in the process at all levels.

4. Business conditions – The current condition of the organization determines in what gear the drivers should start the journey. If the business is in survival mode, under extreme pressure to immediately improve, then the focus should be the immediate application of such *Operational Excellence (Lean)* tools as Value Stream Maps (VSMs), Kaizens, waste elimination, or Five S. Development of *Operational Excellence* culture may be put on the back burner for better times. If competitive pressure and recognition of the need to improve are elements of the business condition, begin with the tools and, in parallel, work on changing the culture to sustain and continue the improvements.

5. Baggage – Baggage is the bad taste left by past unsuccessful organizational initiatives, real or perceived. Those feelings should not be ignored.

6. Culture – The culture of the organization is made up of the unique traits and characteristics of the people within it. All the characteristics of the culture must be factored into plans for the change effort for success to be possible.

7. Resources – An organization will need access to resources to develop and dedicate certified *Operational Excellence (Lean)* specialists to the business units, plants, or organizational areas. Such specialists are needed to establish a common language and a common lens for those driving the organization.

8. Integration - *Operational Excellence (Lean)* must be perceived as the vehicle to take an organization to new heights. The addition of other continuing improvement initiatives tools such as Six Sigma should be seen as complimentary tools. Use them when your system requires them, most likely several years into the change process.

9. Measurement /Evaluation – Measurement and evaluation systems dramatically influence organizational behavior. These systems must be consistent with desired *Operational Excellence (Lean)* thinking behaviors.

10. Vocabulary – Vocabulary may seem like an unimportant consideration, but jargon can be confusing. If the name of the initiative is Process Excellence, integrate any new language with the rules, principles and practices of *Operational Excellence (Lean)* unless there is already an existing word in current use having the same meaning.

APPENDIX II

BIO - Arthur Davis is currently the Executive Director of Operations/*Lean Champion*, Maine Department of Labor (MDOL)/Bend-The-Curve Program Coordinator (BTCaka *Operational Excellence*, or “*Lean in Government*”); he created the BTC Initiative and he is the Department’s most proficient internal *Lean* practitioner. Arthur has worked in Maine State government, as an Appointee, for 11 years. Prior to working in state government, he worked for Digital Equipment Corp (16 years), the General Electric Company (5 years), Pfizer Pharmaceuticals (1.5 years), a Shoe Company (10 years; this company was once located here in Lewiston), and he started-up and managed his own company, The Maine Bonsai Gardens (5 years). Arthur studied the *Toyota Production System*, the underpinning of *Lean*, in Japan and managed the implementation of the *TQC (Total Quality Management; a precursor to Lean)* transformation in two US manufacturing plants while working with and learning from Dr. Ichiro Miyauchi, Senior Total Quality Consultant; Union of Japanese Scientist and Engineers. Arthur has worked as Business Owner, a Production Supervisor, Quality Control Engineer, Production Manager, Plant Controller, Manufacturing Engineer, Manufacturing Engineering Manager, Manufacturing Excellence Manager, Internal and External Consultant, Operations Management Executive, and Project Manager. He earned a BS Degree in Business Administration and Management and completed the course work for an MBA at the University of Bridgeport in Bridgeport Connecticut.