Wisconsin Department of Transportation

Lean Government

Annual Report

Fiscal Year 2013

Revised August 2013

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Lean Government Initiative Annual Report

"We can't solve problems by using the same kind of thinking we used when we created them." - Albert Einstein

Executive Order #66, signed by Governor Scott Walker in July 2012, requires each of Wisconsin's cabinet agencies to participate in a Lean Government Initiative to improve customer satisfaction, reduce the cost of government, improve the working environments for our state employees and change government culture. Lean Six Sigma is a continuous improvement methodology, which can be used to reduce the time and cost for the department to deliver critical services to taxpayers.

State agencies have been specifically directed to:

- Establish baselines and metrics to measure improvement;
- Determine whether these metrics can be added to or replace current monthly (statewide) Scorecard metrics;
- Report quarterly on projects chosen for redesign/improvement and project results; and
- Report on their Lean initiative monthly at cabinet-level meetings.

During this time of fiscal constraints, it's imperative for state agencies to practice wise stewardship of taxpayer money. The Wisconsin Department of Transportation (WisDOT) is committed to using all the data-driven decision-making tools available, including Lean Six Sigma, in alignment with the department's MAPSS performance improvement program, to assist in meeting our mission to provide leadership in the development and operation of a safe and efficient transportation system.

I am proud to present results of the hard work of many WisDOT staff over this past year, and look forward to seeing how Lean can be used to further improve our processes over time.

Mark Gottlieb, P.E.
Secretary
Wisconsin Department of Transportation

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How Lean Government aligns with WisDOT's overall performance improvement system

WisDOT's mission is to provide leadership in the development and operation of a safe and efficient transportation system, with a vision of dedicated people creating transportation solutions through innovation and exceptional service. The department achieves its mission employing the values of accountability, attitude, communication, excellence, improvement, integrity, respect and teamwork. The department's performance improvement system provides the framework for getting it done.

Performance measures are a tool to help the department assess our progress in achieving outcomes that align with our strategic goals - mobility, accountability, preservation, safety and service. WisDOT's MAPSS Scorecard represents those corporate measures identified as of greatest interest to the public in demonstrating wise stewardship for the performance of the transportation system.

In addition to the high-priority Scorecard measures, there are additional metrics at management levels of review and reporting. The strategic measures directly support the core MAPSS goals; the operational measures are intended to support program areas in making progress toward meeting the overall mission.

Each quarter, business areas provide key updates showing how the system is trending and whether the department is meeting established targets. The schedule for review and reporting on individual measures is based on pertinent program cycles, the availability of data and the department's business need for the information.

MAPSS CORE GOAL AREAS

Mobility – Delivering transportation choices that result in efficient trips and no unexpected delays.

Accountability – The continuous effort to use public dollars in the most efficient and cost-effective way.

Preservation – Protecting, maintaining and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure, while protecting our natural environment.

Safety – Moving toward minimizing the number of deaths, injuries and crashes on our roadways.

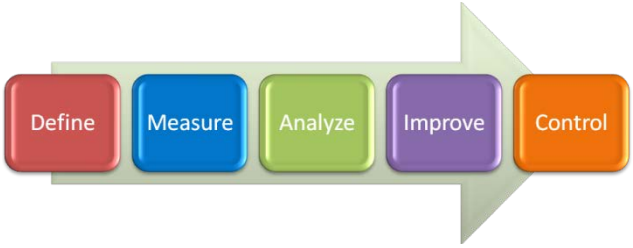
Service – High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.

Strategic initiatives, including the Lean Government Initiative, provide a mechanism for ongoing progress toward meeting performance targets, through the implementation of process improvements aligned with MAPSS core goal areas. There are process metrics associated with these projects to quantify improvements. WisDOT's Lean projects are focused on their ability to contribute to the overall organizational MAPSS goals and progress toward moving performance targets in a positive direction. In short, Lean Government supports the department's overall performance measurement system maturation growth toward using leading metrics to better plan, predict and monitor trends.

WisDOT Executive Offices are tracking project progress and implementing a review process to ensure projects are completed successfully and in compliance with the requirements identified in the Executive Order. WisDOT will be reporting these results quarterly to the Governor's Office. Annually, a report will be compiled and published to the public. Project results are published to the Internet at http://www.dot.wisconsin.gov/about/performance/lean.htm.

The Lean Methodology

WisDOT Lean Six Sigma teams use the DMAIC process to complete their projects. DMAIC is an acronym that refers to the five phases: Define, Measure, Analyze, Improve and Control. The DMAIC process provides teams with a methodological framework to work logically through a process improvement from issue identification through solution implementation and improvement control.



- In the Define phase, teams will have a completed project charter, including an assessment of customer needs, and a high-level representation of the current state.
- In the Measure phase, teams will drill down into the process and produce the baseline data that will be used to measure progress.
- The Analyze phase looks at the linkages between cause and effect. This step also includes an evaluation of the value-added and non value-added steps and identifies "waste." In Lean, waste is something that uses resources but does not add value to the customer. The goal of Lean Six Sigma is to eliminate waste and enable staff to focus on mission-critical tasks of value to WisDOT customers.
- In the Improve phase, teams brainstorm and prioritize potential solutions. At this stage, the team may pilot or actually implement the selected improvement option.
- Finally, the Control phase marks project closure and ongoing controls to ensure the improvement "sticks." The team produces documentation and comparative measures to assess the value-added through the improvement. This is also the time to share the results and acknowledge the work of the team!

WisDOT Lean program metrics

Following is a list of Lean program metrics, which are tracked and reported quarterly to the Department of Administration and Governor's Office:

Number of Lean Six Sigma projects completed

Target: complete 20 Lean projects in CY 2013
Current calendar year-to-date: 10 projects

Fiscal Year 2013 results: WisDOT completed 10 projects in FY 2013. The department currently has 15 active projects and 10 additional projects planned. Individual project results are included in this report, and can also be viewed electronically at http://www.dot.wisconsin.gov/about/performance/lean.htm.

Number of employees trained in Lean Six Sigma

Target: train 150 WisDOT staff in CY 2013
Current calendar year-to-date: 119 employees

FY 2013 results: In FY 2013, 158 WisDOT staff received formal Lean Six Sigma training. The department spent $24,082 on formal training in FY 2013.

Customer satisfaction

Target: establish baseline in 2013
Baseline: 70 percent overall satisfaction

FY 2013 results: The department has achieved its annual target to establish a baseline for this measure, and continues to monitor progress in this area. The updated MAPSS quarterly report, MAPSS Scorecard, and visualizations are available on the MAPSS Performance Improvement web site at www.mapss.wi.gov.

Employee work environment

Target: establish baseline in 2013
Baseline: 126 worker compensation claims, 18 percent severe

FY 2013 results: The department has achieved its annual target to establish a baseline for this measure, and continues to monitor progress in this area. The updated MAPSS quarterly report, MAPSS Scorecard, and visualizations are available on the MAPSS Performance Improvement website at www.mapss.wi.gov.

Summary of FY 2013 results

Steps eliminated	Time saved	Backlogs eliminated	Dollars saved (annually)
• Twelve steps - includes decision points, redundancies, handoffs	• 12,500 FTE hours redirected to other, mission-critical tasks • In addition, the number of Divison staff assigned telecom duties was reduced from 57 to 26	• Average 36 percent reduction for those projects measuring backlogs	• $814,000 • In addition, the crash scene mapping project helps reduce road closure time, valued at $20 per hour per affected vehicle for motoring public and $70 per hour for freight trucks

Projects completed, under a Control Plan:

1. Milestone and resource tracking
2. Crash scene mapping
3. Telecommunications long-term action plan
4. Skills testing availability
5. School bus inspection process
6. Transit procurement improvement
7. Timely aeronautics payments
8. Let project closeout process (phase 1 – Kaizen event)
9. Purchasing Card project
10. Phone bank quality assurance

Individual project summaries for FY 2013 are included in this report.

Active projects

11. Inactive project closeout process
12. Let project closeout process (phase 2) work group 1 – glossary of terms
13. Let project closeout process (phase 2) work group 2 – flowcharts
14. Family Medical Leave Act process
15. Purchasing Card procurement of hardware and supplies
16. Let project closeout process (phase 2) work group 3 – roles and responsibilities
17. Let project closeout process (phase 2) work group 4 – standardize team composition and roles
18. Let project closeout process (phase 2) work group 5 – project tracking
19. Let project closeout process (phase 2) work group 6 – Let project sections in manuals
20. Let project closeout process (phase 2) material certification lead time
21. Let project closeout process (phase 2) payroll clear date
22. In-custody arrest report review process
23. Out-of-state travel process
24. Transit grant application process
25. Timely notifications of local highway aids

Projects planned for FY 2014:

26. Crash scene clearance (analysis, implementation and control of LDP VSM project recommendations)
27. GARM GIS system
28. Process change reporting
29. Consumer online complaints
30. Self-service reports
31. Motorcycle skills test goals
32. Centralized modular training
33. Performance dashboard project
34. Sign selection process
35. Regional purchasing procedures

Wisconsin Department of Transportation

P-card Coding & Approval Lean Six Sigma Project Report

Project Summary

Procurement cards (P-cards) are a convenient mechanism to procure low-cost goods. There are approximately 15,000 P-card transactions annually. They provide adequate oversight of purchases and coding information to be used in the department's accounting system.

The current P-card coding and approval system involves staff throughout the agency, so a streamlined process will benefit many. The goals of this project were to reduce staff time spent coding P-card transactions, and to reduce the error rate of P-card transactions that require additional research and resolution.

This project was completed on April 5, 2013.

Improvements

- Will save 3,200 staff hours annually
- Increased efficiency
- Reduced error rate and time spent researching the cause of coding errors

MAPSS Core Goal Area

- Accountability

Statewide Goal Area

- Cost of government

Issue

The current Procurement card (P-card) coding and approval process involves staff throughout the agency. In addition to the approval and coding related to each P-card, there is also the coding and approval of hard copy P-card logs related to each purchase. Several disadvantages were identified in the current process:

- Redundant data entry of P-card holder information by multiple staff
- A considerable amount of time is spent to recode P-card transactions to the correct Project ID and Object Code
- Approximately 340 hours per year is spent troubleshooting and resolving coding errors

Lean Six Sigma Process

Using Lean Six Sigma methodology, the team mapped the current P-card coding and approval process and identified a number of process components that could be streamlined.

The team identified the resources needed to streamline the coding and approval process, and identified seven process improvements. These improvements include:

- Increased training to P-card holders and their supervisors
- Providing default coding for routine P-card transactions
- Recommendation for further exploration of a software package that would automate a number of processes related to P-card coding and approval

Results

Improved Staff Efficiency: There are currently 350 P-card holders in the department, with approximately 175 P-card logs submitted by card holders every two weeks for processing. It is estimated that through the new process, staff will save 3,200 hours annually in the coding of P-card user information as well as coding for each purchase. This will allow staff to focus their efforts on other mission critical activities within the department.

Data improvements: With the streamlined coding, it is anticipated that the number of coding errors will be reduced by 75 percent and save staff 250 hours annually in time to troubleshoot and resolve coding errors. This time will be redirected to other business area activities.

Next Steps

The Division of Business Management will implement several of the proposed process improvements related to streamlining P-card coding by July 2013. Further investigation of an automated P-card system will be performed by BITS later in 2013 and may result in a future Lean Project.

Wisconsin Department of Transportation

Telecommunications Long-Term Action Plan Project Report

Project Summary

The objectives of this project were to consolidate telecommunications operations centrally and to reduce overall costs for the department. The project team centralized management of telecommunications inventory, incidents, ordering, auditing of invoices and implemented cost reduction strategies.

This project commenced prior to the statewide Lean Initiative and was completed on December 31, 2012.

Improvements

- Created central department wide inventory database, eliminating the need for each division to maintain their own inventory while improving the accuracy of the records
- Reorganized staff duties to free up hours for mission-critical tasks
- Reduced telecommunications spending by $810,800 in FY12

MAPSS Core Goal Area

- Accountability
- Service

Statewide Goal Area

- Cost of government
- Customer satisfaction

Issue

Prior to this project, telecommunications operations were performed primarily by division staff on a part time basis in addition to their primary role. These staff often had insufficient training in information technology and these positions had high turnover rates. In addition, maintenance of telecommunications data was decentralized among WisDOT divisions and performed manually with redundant data entry steps, frequently resulting in incomplete and inconsistent records.

The goals of the project were to improve the workflow of telecom functions; reduce overall telecommunication expenses; integrate telecom data; improve oversight; and instill a culture of customer service in responding to requests for telecom services.

Analytical Methodology

The project team applied process improvement principles to the telecommunications expense management program across the department. The team's mission was to consolidate telecommunications management operations centrally through management of inventory and expenditures, eliminating the need for each division to maintain their own inventory. The project scope was limited to voice communications.

Telecommunications staffing was reorganized to consolidate these duties among fewer division staff. The team established a Technical Support Group and a Telecommunication Advisory Group to share information and receive input from divisions on processes and direction.

Results

Freed staff time: Prior to this initiative, 57 divisional staff members were assigned telecommunications related duties. As a result of this project, the number of divisional staff assigned these duties will be reduced to 26.

Data improvements: A department wide inventory was completed, a central master inventory database was created and a process was implemented to keep the database current. An accounts payable report was created to eliminate redundant data entry steps.

Cost savings: Overall, the department reduced annual telecom expenses by $810,800 from the FY 11 base year, an 18 percent reduction from FY11. An estimated $350,800 of this amount was due the improved inventory and record keeping modifications.

Next Steps

DOT will partner with DOA in assessing an automated telecommunications expense management system.

Wisconsin Department of Transportation

DMV Phone Bank Quality Assurance

Project Summary

The Division of Motor Vehicles (DMV) receives about 1.11 million phone calls every year from individual citizens, business partners and other governmental entities that deserve both timely and quality service.

To measure the quality of these interactions, the division began recording all calls and developed an audit scoring system to evaluate the recordings.

The team used Lean Six Sigma tools to define the customers' expectations and identify root causes for a low quality of service, which were used to modify the initial audit scoring system to more accurately represent customers' needs.

The Driver Information Section's pilot project was completed on March 15, 2013 and over this five month period 564 phone calls were audited.

Improvements

- Improved the methodology for auditing recordings
- Technical skills score, the accuracy of information, improved from 97.6 to 98.1 percent
- Reduced the number of calls escalated from representatives to supervisors
- Created baseline quality score

MAPSS Core Goal Area

- Service
- Accountability

Statewide Goal Area

- Customer Satisfaction

Issue

The Division of Motor Vehicles (DMV) is most well known for serving approximately 2 million customers annually at our 90 Customer Service Centers; however we also receive about 1.11 million phone calls every year from individual citizens, business partners and other governmental entities that deserve both timely and quality service. The DMV has traditionally reported the length of time a customer waited on the phone, but has done little to report the quality of the services provide over the phone.

Lean Six Sigma Process

Based on the recommendation of a call center consultant, the DMV began recording all phone calls and developed a method of evaluating the quality of the call. For the Driver Information Section's pilot project, the initial audit scoring system evaluated 13 categories that were valued at either 5 or 10 point. The team used Lean Six Sigma tools, including Kano Analysis and Cause and Effect Diagram, to define the customers' expectations and identify root causes for a low quality of service.

By applying the information gleaned from the Lean Six Sigma tools, the team was able to modify the initial audit scoring system. The improved audit scoring system evaluates 12 categories, split between customer service and technical skills. The categories' values range from 6 to 15 points based on the effect the categories have on the quality of service the customer receives. The Lean tools also identified difficult customers and lack of training as root causes for a low quality of service, so the team used the recordings of actual calls to develop a difficult customer training session for the representatives.

Results

Improved audit methodology: The new audit scoring system is more robust and more accurately represent the customers' expectations.

Technical skills improvement: From November 2012 through March 2013, the business area witnessed an increase in the average technical skills score among audited calls.

Reduction in call escalation: During interviews with the work units' supervisors, they reported a subjective observation in reduction in calls escalated from the representatives to the supervisors.

Created baseline: The section created a baseline for quality phone performance that can be used to evaluate the effect of future improvement projects.

Next Steps

The Department's recent customer satisfaction survey found that the division's phone service offers the greatest opportunity for improvement. As it begins initiatives to address the survey results, the department now has tools to measure each initiative's impact on the quality of the phone services.

Wisconsin Department of Transportation

Skills Test Availability Lean Project Report

Project Summary

The Division of Motor Vehicles (DMV) is responsible for licensing motor vehicle drivers. A requirement of the licensing process is passing a skills test to demonstrate one's ability to safely operate a motor vehicle.

All Class D skills tests must be conducted by the DMV. Without alternative providers, it is essential customer demand is met in a timely manner. The goal of this project is to increase skills test availability statewide.

Using Lean Six Sigma tools, the team identified the means to predict weekly future demand at each office using data available six months in advance.

This project was completed on December 31, 2012.

Improvements

- Implemented weekly demand forecasting methodology
- 13.6 percent increase in the percent of customers issued a permit and license at the same location
- Statewide projections within 6.8 percent of actual demand
- Maintained number of examiners statewide
- Improved resource management to plan staff levels

MAPSS Core Goal Area

- Service

Statewide Goal Area

- Customer Satisfaction

Issue

Customers who are eligible to schedule a Class D skills test should be able to find adequate appointments available at the same location their instruction permit was issued. A lack of local availability upon eligibility creates an inconvenience for customers who must travel great distances to take a skills test or delay scheduling. The high value our customers put on the availability of skills tests was confirmed by the responses to the Department's recent customer satisfaction survey.

Lean Six Sigma Process

The team began by examining the different customers seeking skills tests and then studying the process that each customer must go through to receive a license. The team determined that the number of customers under the age of 18 (youth permit holders) is the most predictive indicator of future demand. The team reached this conclusion because youth permit holders must possess their permit for 24 weeks before they are eligible to take a skills test and typically want to take the skills test immediately upon eligibility. However, youth permit holders are not the only group of customers that need skills test appointments. Adult permit holders and permit holders who have previously failed a test also need skills tests; however there is significant variation in customer preference for the timing of these tests. To establish a weekly demand-based goal for each location, the team totals the number of youth permits issued and included a multiplier to account for adult permit holders and a statewide fail rate. The demand forecasts are available for reference and planning six months in advance.

Results

Increased Customer Service: From 2011 to 2012, the percent of customers who received their license at the same location they were issued a permit increased by 13.6 percent. This objective data is tied to a subjective observation of a reduction in legislative contacts and complaint letters regarding skills test availability.

Created Baseline: At the end of 2012 the projected demand was within 6.8 percent of the actual number of tests conducted. As a result, the DMV now has year of performance data that will serve as a baseline for improvements in future availability of skills tests.

Improved Resource Management: This tool allows the DMV to better allocate resources to meet varying customer demand. The DMV uses the projections to make data-based decisions about the availability of time off for employees six months in advance.

Next Steps

The DMV has fully implemented the new demand forecasting tool and actively uses the information as part of regular operations. The demand goals have been incorporated into a new MAPSS Performance Dashboard metric which tracks the DMV's progress in meeting demand for skills tests four weeks in advance.

Wisconsin Department of Transportation

Crash Scene Mapping Lean Project Report

Project Summary

One of the responsibilities of the Division of State Patrol is to map specific crash scenes to preserve evidence associated with serious traffic collisions. Officers collect evidence using an electronic total station to accurately document accident coordinates. The goal of this project was to decrease the time required to map crash scenes.

By mapping scenes faster, officers will spend less time in dangerous roadside situations and the likelihood of secondary crashes will be reduced. Research suggests that traffic congestion in Wisconsin costs travelers and businesses in excess of $619 million each year.[1]

This project was completed on December 14, 2012.

Improvements

- Increased officer safety by reducing time at scene
- Reduced mapping time and staffing costs by 70.53 percent.
- Saved 670 staff hours annually
- Pilot implementation of one Trimble S6 Robotic Total Station
- Contributes to reduced road closure time, valued at over $20 per hour per affected vehicle

MAPSS Core Goal Area

- Safety
- Mobility

Statewide Goal Area

- Employee work environment
- Customer satisfaction
- Cost of government

[1] Texas Transportation Institute, "2011 Urban Mobility Report," Texas A&M University System, 2011.

Issue

The current crash scene mapping process requires two law enforcement staff. One operator controls an electronic total station and the other holds a prism pole. Communication between staff requires voice contact, portable radios or hand signals. Several disadvantages were identified in the current process:

- The equipment operator and the prism holder must be on the scene together
- Communication in a two-person system is inefficient
- The current equipment is often difficult to use at night
- The operators may be required to measure points in traffic or other hazardous crash scene locations

Lean Six Sigma Process

Using Lean Six Sigma methodology, the team described the current process and identified major causes of delays in crash scene mapping. Manual equipment requiring outdated communication methods was identified as a key factor that may result in delays in completing mapping.

The team identified the resources needed to reduce the crash scene mapping time, and described three possible future state processes. The most feasible and advantageous solution was to invest in an upgraded total station to leverage wireless data transfer and allow a single officer to complete the mapping process.

Results

Employee work environment: Wisconsin State Patrol completes approximately 300 crash scene maps annually. Each crash scene mapping now takes approximately 56 minutes for one officer, down from the equivalent of 190 minutes (95 minutes x two officers). Every minute saved reduces the risk of secondary accidents and increases officer safety.

Customer satisfaction: While total road closure time depends on factors outside of DSP's control, such as tow truck availability, the new mapping process will likely shorten road closures. Every hour of traffic congestion costs over $20 for each automobile and $70 for each freight truck in delay time and wasted fuel.[1]

Cost of government: Total average reduction in crash scene mapping time and staffing costs are 70.53 percent. Upon full implementation, the new process will save 670 staff hours annually, which will be reallocated to other law enforcement activities.

Next Steps

DSP implemented a pilot of the improved process using a wireless Trimble S6 Robotic Total Station. Full implementation will be phased in as existing equipment reaches the end of its life cycle.

A future Lean project will analyze the post-crash inspection process.

Wisconsin Department of Transportation

School Bus Inspection Lean Project Report

Project Summary

The Division of State Patrol (DSP) is responsible for inspecting all school buses annually to ensure the vehicles are in safe working condition.

The goals of this project were to reduce the time it takes to deliver inspection reports, increase data availability and increase customer satisfaction.

Using Lean Six Sigma methodology, the team achieved efficiencies by analyzing the current process, identifying waste and implementing an electronic inspection form to streamline the process.

This pilot project was completed on January 31, 2013.

Improvements

- Eliminated redundant data entry
- Increased data availability
- Reduced inspection process time by 80.2 percent for 2,500 buses taken out of service
- Reduced inspection process time 56.5 percent for 7,500 buses passing inspection
- Increased customer satisfaction by speeding up certification process by two to three days per inspection

MAPSS Core Goal Areas

- Safety
- Service

Statewide Goal Areas

- Customer satisfaction
- Cost of state government

Issue

The current inspection process for one school bus can take up to 14 days to complete, including two to three days for mailing inspection and certification reports. This puts school buses out of service for longer than necessary. Other disadvantages identified in the current process include:

- The use of paper reports
- Redundant data entry of inspection results and customer information
- Lack of readily available and searchable data
- Postage and paper costs.

Lean Six Sigma Process

The process improvement team described the current process and identified the major causes of delays in the school bus inspection process. Mailing documents was identified as a key factor resulting in excessive lead times within the process. Redundant data entry was also identified as a contributor to excessive process times.

Analysis of options determined that the solution should include an electronic inspection form capable of being emailed. An electronic form housed in a centrally located server will eliminate data re-entry and provide a searchable database.

Results

Reduced cost of government: The division inspects 10,000 school buses annually. Approximately 2,500 buses fail inspections and are placed out of service. Each school bus that has been placed out of service under the improved process takes approximately 22 minutes of process time, down from 111 minutes, an 80.2 percent reduction. For the other 7,500 buses that successfully pass inspection, the new process is reduced from 46 minutes to 20 minutes, saving 26 minutes per inspection, a 56.5 percent reduction. Total hours saved for all inspections translates to 6,958 hours saved annually within the division. The time savings will be reallocated to other law enforcement activities. Using an electronic form will also save DSP printing and postage costs of approximately $1,850 annually.

Increase customer satisfaction: The new process puts certified buses back into service faster. This would affect approximately 2,500 buses. School bus companies will also save postage costs by checking certifications electronically.

Next Steps

Full implementation is expected by July 2013. The improved process will be applied to other DSP inspections in the future, such as ambulance, motor coach and human service vehicles.

Wisconsin Department of Transportation

Timely Payments to Vendors Lean Project Report

Project Summary

One of the responsibilities of the Bureau of Aeronautics is to pay invoices from airport development consultants and construction contractors for planning, land acquisition, design and construction. Project managers approve and submit invoices for payment. The Finance unit qualifies the invoice, determines the correct formula of combined federal, state and local grant funds and accesses those funds to make the payment.

The goal of this project was to shorten payment time without loss of quality. This facilitates our ability to communicate accurately with our customers about when they can expect payment so they can plan their daily cash flow.

This pilot project was completed on February 28, 2013.

Improvements

- Combined two forms into one for contractor payments, reducing staff time and paper consumption
- Contributes to reduced paper, as project managers will send pay estimates to contractors via e-mail, eliminating paper copy sent
- Eliminated items in coding box that can be found elsewhere on the invoice form, and reduced the time spent on coding

MAPSS Core Goal Area

- Service
- Accountability

Statewide Goal Area

- Customer satisfaction
- Cost of government

Issue

The current process to pay aeronautics invoices takes 20 to 30 calendar days. The payment of invoices to vendors has two phases, coding and payment. When invoices are received they are all coded in batches and then paid in batches ranging from five to twenty-five or more at a time. The business area has determined that batch processing invoices is the most effective use of staff time. All invoices are paid by Friday of the current week. However, looking through the current process some duplication of information has been identified.

- The project manager fills out a “pay estimate” form in excel and submits for payment
- The finance area fills out a “pay form” and uses information from the pay estimate to complete
- Half of the information in the “For Office Use Only” coding box needed to pay the invoice can be found on the invoice form

Lean Six Sigma Process

Using Lean Six Sigma methodology, the team described the current process used to code and pay invoices. The team identified areas of duplicate effort between the project manager and finance when making contractor payments. They found that the contractor “check request” form could be combined with the “pay estimate” form submitted by the project manager. Both forms contain most of the same information. Finance can add the information needed to pay the invoice on the pay estimate form when the contract is set up, saving time later when paying the invoice.

The team also determined that consultant invoice forms could be modified to eliminate redundant data entry, saving time with the coding process.

Results

Customer satisfaction: Have successfully met the target goal of completing payment of all invoices in 10 calendar days. Contractors rely on us to pay them in a timely manner so they can pay their sub contractors and staff. Eliminating one form reduces chances for error, saves paper, postage and staff time. Contractors will get notified earlier of the payment amount.

Cost of government: Upon full implementation the new process will save an estimated 78 staff hours annually, which will be reallocated to other priority activities. In addition, the electronic submission of documents to contractors will generate cost savings in paper supplies and postage.

Next Steps

The Bureau of Aeronautics has implemented a pilot of the improved process using a sample of airport projects. The bureau processes a higher volume of contractor invoices in the spring and summer, and will monitor and measure the results of the pilot airports during the upcoming construction season.

Wisconsin Department of Transportation

Transit Procurement Process Lean Project Report

Project Summary

One of the responsibilities of the Transit Section is to provide technical assistance to and oversight of local communities participating in the Rural and Small Urban Area Public Transportation Assistance Program. The Transit Section works to ensure the local sponsors of transit understand state and federal regulations and operate transit services in a compliant manner.

Federal procurement requirements are particularly problematic. Though it varies annually with the number of procurements, transit and local government staff spend significant time on shared-ride taxi (SRT) services purchases. The goals of this project were to reduce the turnaround time on reviews and approvals, reduce staff time spent on each SRT procurement, and enable the local communities to complete their steps of the process more efficiently and accurately.

This project was completed on January 31, 2013.

Improvements

- Reduced average duration of SRT procurement by 50 percent
- Reduced average Department staff hours on SRT procurement by 70 percent
- Saved 36 staff hours per SRT procurement annually
- Implementation of procurement toolkits

MAPSS Core Goal Area

- Service
- Accountability

Statewide Goal Area

- Customer satisfaction
- Cost of government

Issue

Federal transit procurement requirements are complex and the procurement process is lengthy. Local sponsors of transit systems have limited staff capacity and procurements often occur infrequently so there is little opportunity to develop area expertise. The following were identified as recurring issues in the shared-ride taxi (SRT) procurement process:

- Inconsistency in the format and content of information submitted to the Transit Section
- Repeated review by Section staff of procurement documents for approval due to incomplete or inaccurate information submitted
- Excessive use of staff time on local and Department level
- Delays in the overall completion timeline of the procurement process

Lean Six Sigma Process

Using Lean Six Sigma methodology, the project team described the current SRT procurement process and identified major causes of delays. Some parts of the process rest on the local transit system but there are several aspects of the process over which the business area still has influence. The team identified the key points where the transit staff intervenes, probable causes for delays, and resources needed to reduce the procurement time. Lack of understanding of federal procurement requirements by transit systems, incomplete or inaccurate information submitted and insufficient staff resources available for review and approval, were identified as key factors that may result in delays. The most feasible and advantageous solution to address the issues was to provide greater technical assistance to local sponsors early in the process and to prioritize SRT procurements among the various work requirements and commit staff resources to provide reviews and approvals more expeditiously.

Results

Customer satisfaction: While total procurement time depends on factors outside of the department's control, such as hard-coded solicitation periods, the new procurement process will shorten the department's review and approval steps. The average reduction in total number of days to complete SRT procurements is 50 percent. This improvement aids in financial and program management capacity and will help to provide greater continuity of transit services in the community.

Cost of government: The quantity of SRT procurements varies from year to year, but the total average reduction in department staffing costs for a single procurement is 70 percent. The new process is estimated to save 36 staff hours per SRT procurement, which will be reallocated to other business area purposes.

Next Steps

The business area has fully implemented Lean Six Sigma methodology only to the procurement of shared-ride taxi service, but would like to expand the scope to include other types of procurements.

Wisconsin Department of Transportation

Let Project Closeout Process Lean Initiative Report

Project Summary

The Division of Transportation System Development (DTSD) oversees highway construction projects statewide. Projects awarded through public bid letting are called Let projects. The Let project closeout process includes several steps for closing out a project and making a final payment to the prime contractor. The current performance goal for this process is to issue final payment to the prime contractor within six months of the work completion date.

The goal of this project is to increase the number of Let projects closed within six months of the work completion date to 45 percent by July 2014.

The first phase of this project was completed on February 1, 2013.

Improvements

- Identified best practices which lead to quicker project closeout
- Developed a future state process map
- Identified six foundational elements which when addressed will support implementation of process improvement and standardize the process across regions
- Identified top impediments to closing finals projects within six months

MAPSS Core Goal Area

- Accountability

Statewide Goal Area

- Culture of government
- Customer satisfaction
- Employee work environment

Issue

The Let project closeout process includes numerous steps for closing out a project and making a final payment to the prime contractor. The current performance goal is to issue final payment the prime contractor within six months of the "work complete" date. Based on project tracking data, less than 25 percent of regional Let projects are closed out within six months of their completion date.

Lean Six Sigma Process

- As the first phase of a larger project, completed a comprehensive assessment of current state workflow/business procedures at each of the regional offices and statewide local programs
- Developed and validate process maps for each region
- Developed and collected current state performance metrics
- Held a two-day kaizen event with team members and other key stakeholders to develop future state process/workflow
- Developed desired state process map and recommended support tools

Results

Culture of government: DTSD has established baseline data for measuring process improvement. The team identified tools such as a glossary of key terms, process flow charts, a manual section specifically to address Let project closeout, and updates to project tracking systems that support standardization of the process.

Customer satisfaction: Implementing the best practices and next steps recommendations will result in an increased number of projects closing and final payments being issued to contractors within six months of work completion.

Employee work environment: Team members engaged in the process with enthusiasm and a desire to improve the process. Defining team roles and creating a specific section related to project closeout will support the worker in successfully achieving DTSD's goals. During the kaizen event, 38 staff received basic Lean Six Sigma training.

Next Steps

- Share a detailed final report and best practices will team members and division management
- Establish six workgroups to address each of the foundational elements identified to support implementation of process improvement: standardizing key term definitions; defining the Process Owner and Project Lead roles and responsibilities; standardizing team make-up across regions; create process flowcharts; updating tracking software to reflect new definitions; and creating projects closeout sections in the *Standard Specification* and the *Construction Materials Manual*
- Create two new Lean project charters to address the top two impediments to closeout: Materials Certification lead time and Payroll Clear Date lead time

Wisconsin Department of Transportation

Milestones Project Lean Initiative Report

Project Summary

The Division of Transportation System Development oversees numerous active Mega Projects, Major Projects and Transportation Projects Commission Studies. These projects have been increasing not only in numbers but in complexity and reduced delivery timelines over the past years. These changes place increasing demands on the Division resources and supporting entities. The current process had potential for conflicting demands on resources limiting the ability to respond in a timely manner and increasing risk to the Department.

The goal of this project is to increase timeliness of meeting project milestones through improving the ability to do resource planning.

This project was completed on December 30, 2012.

Improvements

- Reduced time invested in providing milestone information to partners by 419 hours per year
- Eliminated ten process steps
- Partners report increased ability to do effective resource planning

MAPSS Core Goal Area

- Accountability

Statewide Goal Area

- Cost of government
- Customer satisfaction
- Employee work environment

Issue

All Division of Transportation System Development (DTSD) Mega Projects, Major Projects and Transportation Projects Commission (TPC) approved studies are supported by common partners, including DTSD Central Office, Federal Highways Administration, Environmental Protection Agency, Wisconsin Department of Natural Resources, and the State Historical Society. Currently, each regional office is responsible for tracking their projects on a project-by-project basis.

Several disadvantages were identified in the current process:

- Supporting partners do not have the ability to plan for potential conflicts in resource demands
- Resource demand conflicts result in DTSD not having the right information at the right time which increases risk and potential delays to the project

Lean Six Sigma Process

The team described the current process and identified which milestones are critical for resource planning. Analysis of the customer needs led the team to develop a new report which could provide a statewide picture of project status.

The team concluded that a proactive approach to providing this Milestones Report on a quarterly basis would allow partners to do better resource planning. The new report was developed and implemented.

Results

Cost of government: In the current state, a single inquiry related to milestones status resulted in over 114 hours of work, with 4 inquiries in the past year. The new process generates a quarterly report which is pro-actively provided to partners. This new process takes a little over 9 hours per quarter, or approximately 37 hours per year, saving 419 hours in labor per year through the elimination of 10 steps.

Increased customer satisfaction: This full implementation of this new report will provide partners with key information necessary for resource planning. This report has already helped FHWA, for instance, to articulate the need for additional resources to assist with the development of DTSD projects.

Employee work environment: This project allows staff to proactively plan, resulting in more efficient and consistent performance. Some tools developed as a result of the project include a project calendar, schedule of standing management meetings, performance milestones and project timeline templates.

The new quarterly milestone tracking report provides a baseline which did not previously exist. This baseline will allow DTSD to assess and identify areas for future process improvement.

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Appendices

The State of Wisconsin

OFFICE OF THE GOVERNOR

EXECUTIVE ORDER #66

Relating to the Wisconsin "Lean Government" Initiative

WHEREAS, in order to create jobs and promote economic growth, government must operate with business-like efficiency; and

WHEREAS, state government should continuously improve its efforts to serve State residents and be a good steward of tax dollars; and

WHEREAS, "Lean Government" initiatives can provide the framework for making fact-based decisions, enable the process to be changed positively, and drive continuous improvement using a structured approach; and

WHEREAS, "Lean Government" initiatives are a tool for state government to increase efficiencies in customer services and provide a safer and more streamlined workplace for employees; and

WHEREAS, Starbucks, 3M, Alliant Energy, Theda-Care Health Systems, Caterpillar, Mercury Marine, and Quad Graphics, Inc. are a sample of the businesses utilizing "Lean Government" initiatives to increase efficiency; and

WHEREAS, states like Iowa, Minnesota, and Connecticut have implemented "Lean Government" initiatives; and

WHEREAS, the Corporation Counsel Office of Marathon County, Wisconsin has incorporated "Lean Government" initiatives with great success, resulting in a 75% reduction in the case processing time for children in need of protection or services (CHIPS); and

WHEREAS, Brown County, the University of Wisconsin-Stout, the City of Appleton, Marathon County, and the Village of Weston are among the units of Wisconsin government that are employing "Lean Government" initiatives;

NOW THEREFORE, I, Scott Walker, Governor of the State of Wisconsin, by the authority vested in me by the Constitution and laws of this State, do hereby direct that:

1. The Department of Administration; the Department of Agriculture, Trade and Consumer Protection; the Department of Children and Families; the Department of Corrections; the Department of Financial Institutions; the Department of Health Services; the Department of Natural Resources; the Department of Revenue; the Department of Safety and Professional Services; the Department of Tourism; the Department of Transportation; the Department of Veterans Affairs; the Department of Workforce Development; the Office of the Commissioner of Insurance; Wisconsin Economic Development Corporation; and Wisconsin Housing and Economic Development Authority shall

    a. Implement a "Lean Government" initiative that can change government culture by engaging leadership and staff in the improvement process to understand how to apply "Lean Government" initiatives to eliminate waste, save time, standardize workflow, and decrease process complexity; and

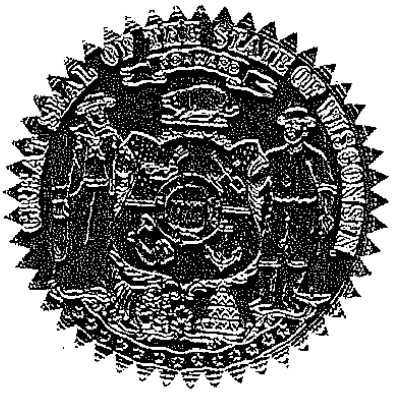
b. Define the agency's mission:
   i. The agency's ultimate goal.
   ii. The customer the agency serves.
   iii. Their customer's opinion of what constitutes a good value.
   iv. The agency's definition of its measure of customer satisfaction and timely service.
   v. The agency's organizational goals for staff involvement in the "Lean Government" initiative.

c. Establish measurement criteria for the services the agency performs with a focus on processes that
   i. Suffer from chronic customer complaints or issues.
   ii. Are visible to staff and customers.
   iii. Show obvious potential for dramatic improvement.
   iv. Currently produce data that enables the agency to track improvement.
   v. Reduce workload, improve customer satisfaction, and improve processes.

d. Focus on processes that do not require statute or rule changes to improve; and

e. Collaborate and provide insight on their "Lean Government" efforts.

2. Each of the above referenced agencies shall track their progress on "Lean Government" initiatives and annually report such progress to the Governor at the beginning of each year.



IN TESTIMONY WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Wisconsin to be affixed. Done at the Capitol in the City of Madison this second day of May, in the year two thousand twelve.

SCOTT WALKER
Governor

By the Governor:

DOUGLAS LA FOLLETTE
Secretary of State

Mission, vision, values and goals

Mission: Provide leadership in the development and operation of a safe and efficient transportation system.

Vision: Dedicated people creating transportation solutions through innovation and exceptional service.

Values

- **Accountability** – Being individually and collectively responsible for the impact of our actions on resources, the people we serve, and each other.
- **Attitude** – Being positive, supportive and proactive in our words and actions.
- **Communication** – Creating a culture in which people listen and information is shared openly, clearly, and timely — both internally and externally.
- **Excellence** – Providing quality products and services that exceed our customers' expectations by being professional and the best in all we do.
- **Improvement** – Finding innovative and visionary ways to provide better products and services and measure our success.
- **Integrity** – Building trust and confidence in all our relationships through honesty, commitment and the courage to do what is right.
- **Respect** – Creating a culture where we recognize and value the uniqueness of all our customers and each member of our diverse organization through tolerance, compassion, care and courtesy to all.
- **Teamwork** – Creating lasting partnerships and working together to achieve mutual goals.

MAPSS core goal areas

- **Mobility** – Delivering transportation choices that result in efficient trips and no unexpected delays.
- **Accountability** – The continuous effort to use public dollars in the most efficient and cost-effective way.
- **Preservation** – Protecting, maintaining and operating Wisconsin's transportation system efficiently by making sound investments that preserve and extend the life of our infrastructure, while protecting our natural environment.
- **Safety** – Moving toward minimizing the number of deaths, injuries and crashes on our roadways.
- **Service** – High quality and accurate products and services delivered in a timely fashion by a professional and proactive workforce.

Strategies and Priorities

WisDOT Lean strategies	Statewide Lean priorities			
	Reduce the cost of government	Improve customer satisfaction	Improve employee work environment	Change government work culture
Implement Lean Six Sigma projects to realize significant quantifiable improvements.	x	x	x	x
Monitor and promote quantitative results to increase the use of Lean Six Sigma tools.	x	x	x	x
Establish baseline data to measure worker satisfaction and working conditions.	x		x	x
Provide Lean Six Sigma training to develop staff and team competence at all levels within the department.			x	x
Leverage Lean Six Sigma methodology to improve external customer satisfaction.	x	x		x
Support management, staff and team use of Lean methodology in daily operations.			x	x

Measures, performance indicators and program goals

Measures and performance indicators:

- Number of Lean Six Sigma projects implemented.
- Number of projects with quantitative results.
- Percent of projects that met the quantitative targets stated in the project charter.
- Dollars saved/ costs avoided.
- Corrections and other defects reduced.
- Staff hours saved that can be redirected to mission-critical tasks.
- Non-value-added wait times and process times reduced.
- Number of handoffs eliminated.
- Employee satisfaction scores.
- Customer satisfaction scores.
- Number of department staff trained in Lean Six Sigma methodology.

Program goals:

1. Implement 20 Lean projects in 2013.
2. Achieve quantitative improvements within six months of project implementation for 90 percent of completed Lean projects.
3. Report Lean results monthly to the WisDOT Board of Directors as projects are completed and periodically thereafter to ensure controls are maintained.
4. Draft and present scheduled Lean cabinet updates.
5. Develop a baseline for employee satisfaction and report on results.
6. Establish a baseline for overall customer satisfaction in each WisDOT business area.
7. Provide a wide range of training in Lean Six Sigma principles and tools with attendance of at least 150 WisDOT staff in 2013.
8. Develop and report four monthly Lean metrics to the Governor's Office by January 31, 2013.
9. Develop internal training resources that increase the department's capacity in team methods and tools and reduce the ongoing cost of Lean training by June 1, 2013.
10. Create a comprehensive electronic repository of templates and other resources for project teams by June 1, 2013.
11. Compile and issue annual Lean Report to the Governor's Office by June 1, 2013.

Wisconsin Department of Transportation