

The Mobile-Shop System Aramark Pilot Test Results: Vanguard University



Executive Summary

June 2011

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BACKGROUND:

The **Mobile-Shop** system is a complete, cart based facility maintenance system designed to conform to sound lean design principles (5S and Lean Sigma). The cart allows Aramark personnel to quickly transport over 400 needed tools and parts directly to the job site. Because the cart is arranged in such an organized manner, any tool or part necessary for a job is instantly available to the Technician when they need it. In addition, the system can be sight-inventoried in less than a minute, making it simple to establish and maintain accountability for all issued tools.

The **Aramark Group** at **Vanguard University** in Costa Mesa, CA made their first purchase of a Mobile-Shop unit and associated Golf Car Attachment in **September of 2010**. Since that time, they have purchased four additional sets and put them into service. **Bruce Crouch** is the Facility Manager for Aramark and has conducted the study of the Mobile-Shop system. The following is a summary of the results Bruce obtained.

SUMMARY:

Prior to using Mobile-Shop, each individual had their own system. Tools were basically kept in a pile and there was no way to establish accountability. Now, each cart delivers the ability to inventory the complete set of tools and parts in less than a minute.

Prior to Mobile-Shop, most needed tools could be carried to the job site but it was impossible to be sure everything you would need was there. Locating a tool often required searching for it. With Mobile-Shop, technicians and supervisors are sure they have what they need and can locate it instantly. **They are able to fix at least 80% of the problems they encounter with the tools and supplies in the cart.**

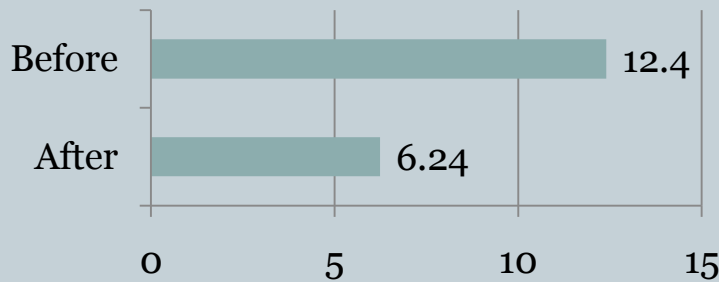
Using the Mobile-Shop Systems has reduced return trips to the shop by 2.5 trips per day per person. By itself, this frees up approx 30 minutes of labor per person per day. Vanguard has 8 technicians with an average labor cost of about \$25 per hour. This creates an extra 4 man hours per day for productive labor and represents **\$100 per day in saved labor cost**. Based on 260 work days per year, this time savings alone allows for \$26,000.00 per year to be devoted to productive labor rather than driving a golf car

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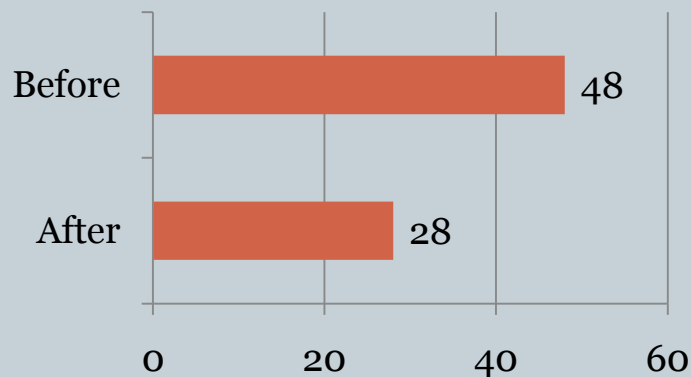
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Bruce measured the increase in productivity by looking at work order throughput for the same employees for a period a year ago compared to now. We found that **Technician productivity has increased 9-11%**. Based on an average of 10%, this returns an additional \$20 per day per technician. Department-wide this represents an additional \$160 per day or \$41,600.00 in productive labor utilization per year. The throughput of work orders from our updated processes has allowed the average time to close a work order based on ISIS pro to drop from 12.4 hours to 6.24 hours. The average production time worked on a work order has decreased 13-18%.

Hours to Close one Work Order Before & After Mobile-Shop



Number of Trips to Tool Shop Before & After Mobile-Shop



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The average length of a trip to and from the shop at Vanguard is six minutes each way or twelve minutes total. Based on 2.5 trips per day per person, with 8 technicians, this delivers 5,200 minutes or **86.6 hours per year in reduced** wear and tear on vehicles. The energy savings is estimated to be \$60-\$100 per year.

All indications are that the Mobile-Shop system has had a positive effect on customer satisfaction. Our technicians have received many complements from students.

Mobile-Shop locks securely and protects tools from the weather and theft, reducing the need to repurchase the same tools and practically eliminating the need to search for missing tools. The fact that everyone is issued the same kit creates an easy system to manage. The standardization allows for easier training and a solid way to set expectations.

Based on the above time savings and labor productivity increase alone, **the Mobile-Shop system creates an additional \$67,600.00 per year in productive labor gains at Vanguard.** Based on a \$36,507.36 cost to Aramark to purchase 8 Complete Engineering Carts and 8 Golf Car Attachments, the Mobile-Shop system **delivers a return on investment of approximately 6.5 months.** This does not include the 86.6 hours saved in energy wear and tear on vehicles.

Labor savings from reduced trips to shop	\$ 26,000.00
Savings from increased labor productivity	\$ 41,600.00
Energy Savings	<u>\$100.00</u>
<u>Annual Total</u>	<u>\$ 67,700.00</u>
Total cost for 8 complete Mobile-Shop sets	\$ 36,507.36
<u>Return on Investment to Aramark</u>	<u>6.5 months</u>

The Mobile-Shop system raises the level of operations and maintenance professionalism and has made a positive impression on Vanguard faculty, staff and students. Aramark engineers are proud of their systems. The investment in Mobile-Shop is seen as recognition of the importance of their jobs. The Mobile-Shop system has also reduced the frustration associated with tools being borrowed or lost. The Mobile-Shop system keeps tools secure and has had a very positive effect overall on employee morale.

Bruce says, “The Mobile-Shop system is more a way to operate than a tool kit. It helps set the professional tone in the department and instills pride in the team. This enhances our image and that of Aramark around the University. The Mobile-Shop system allows us to deliver exceptional service in an efficient manner and **helps distinguish Aramark as a company committed to excellence, innovation, and to delivering value to our customers every day**”.

Testimonials:

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"The Mobile-Shop has organized my cart and makes it look efficient and professional. I have even received comments from students about how nice my cart looks!" -**Mario (Maintenance Technician)**



"All of my tools are so much easier to transport, it saves me a lot of time while I am working on a project and prevents me from having to make extra trips."
-**Rene (Maintenance Technician)**