



2015 TOCICO International Conference

Working with the SUCCESS Framework on the Inside, for Success on the Outside

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Agenda

- Lessons Learned from the SUCCESS Program at Utah Correctional Industries
 - Focused Value Stream Analysis and Capacity Management for the Furniture Shop
 - Print Shop Capacity Management with Simplified Drum Buffer Rope
 - Critical Chain Project Management for Construction



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State of Utah Target and Vision

"Our obligation to the taxpayer requires that we continue delivering outstanding results over the next four years...[our] target is to improve government operations and services by at least 25% (a combination of quality, cost, and throughput) by January 2017."

- Governor Herbert



State of Corrections in Utah

- Inmates: 6,696
- Probation & Parole: 17,865 (as of 9/3/2015)
- Parole Recidivism rate: 63.4%
- Overall Recidivism rate: 46%



Utah Correctional Industries (UCI)

- UCI provides public safety and reduces recidivism by offering opportunities for offenders to make successful choices
- UCI is a high performing organization that utilizes a quality management system to ensure continuous improvement to build quality products and improve offenders' lives....



Steve Gehrke



UCI Goals

- Better throughput = more jobs
- Be profitable – UCI funding structure
- More inmates graduating the program
- Inmates trained for job skills
- Resulting in less recidivism
- Increasing the reliability of on-time delivery and quality

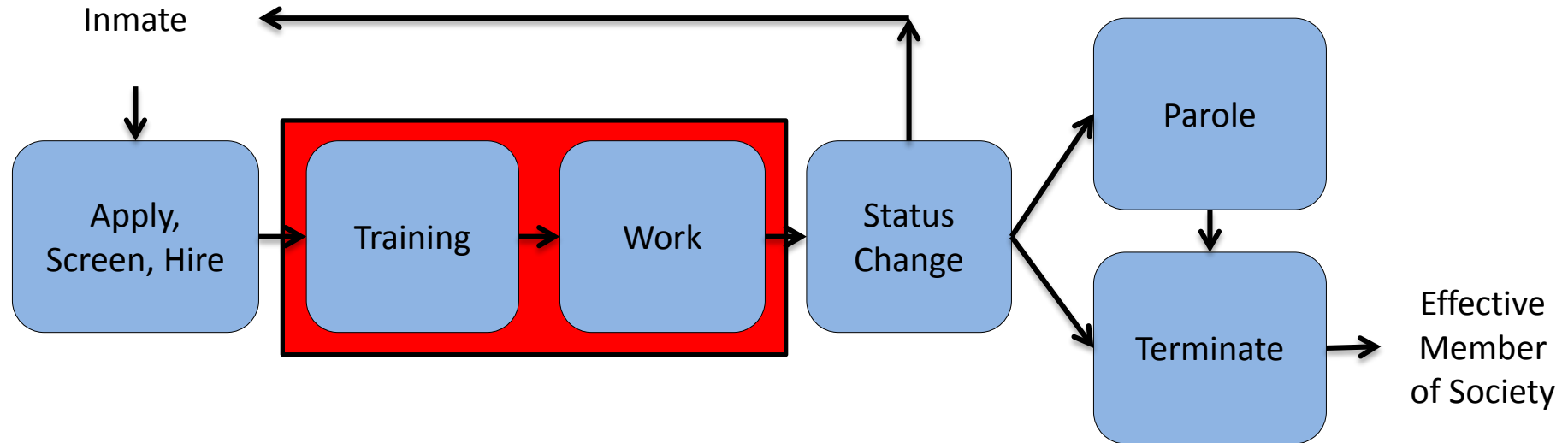


Alan James



Utah Correctional Industries System Map

Goal: Reduce recidivism
Throughput: # of UCI work positions filled by inmates
Operating Expense: TBD



What Good Looks Like (WGLL)

Feeding the Critical Activity

- Prioritize hiring based on time to release
- Coordinated case action planning with UCI as a party
- Pool of inmates ready to work

WGLL – At the Critical Activity

- All work-eligible inmates have opportunity to work
- Inmates are trained in marketable skills
- Inmates gain life skills (work ethic, teamwork, etc.)

WGLL – After the Critical Activity

- Comprehensive transition plan coordinated with other stakeholders (AP&P, Programming, community)
- Ex-Offenders hired

Furniture Shop



PROBLEM

- Perception of lead times are longer.
- No accurate completion date.
- Takes too long, resulting in lost opportunity to increase business.
- Throughput stifled

GOALS

- Better throughput = more jobs
- More revenue
- More Inmates graduating the program
- Inmates trained for job skills
 - Resulting in less recidivism.

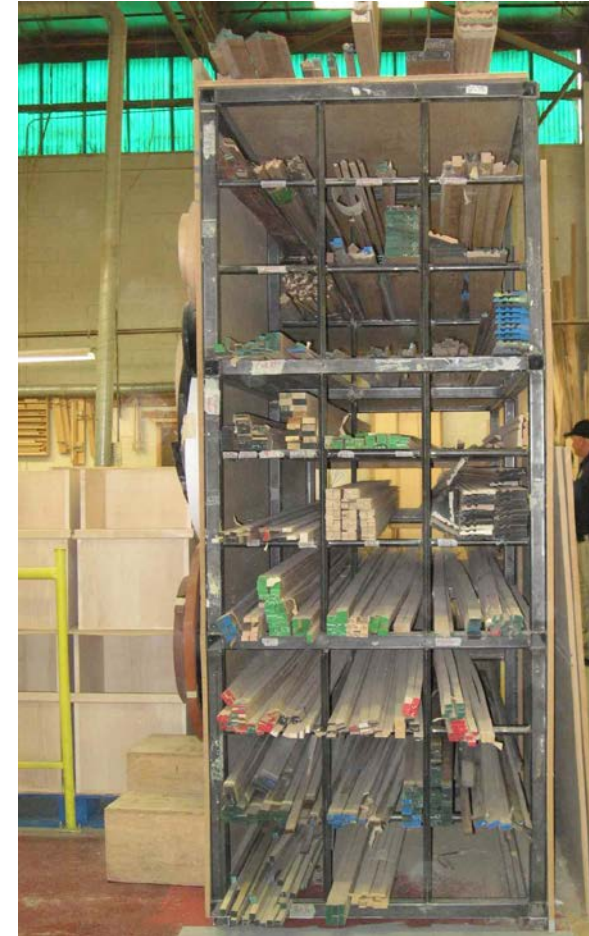
Capacity Planning



- Addressing the “bottleneck”
- Match the flow of production with the flow of the bottleneck.
- Find the bottleneck and analyze units needed
- Adjust units to floor space (2 days storage)
- Adjust personnel to maximize capacity
- Sanding identified as bottleneck.
- Capacity is defined as 1 Unit = 60 sq ft of natural “Moab” surface or one hour of work per sander.

Furniture Production Results

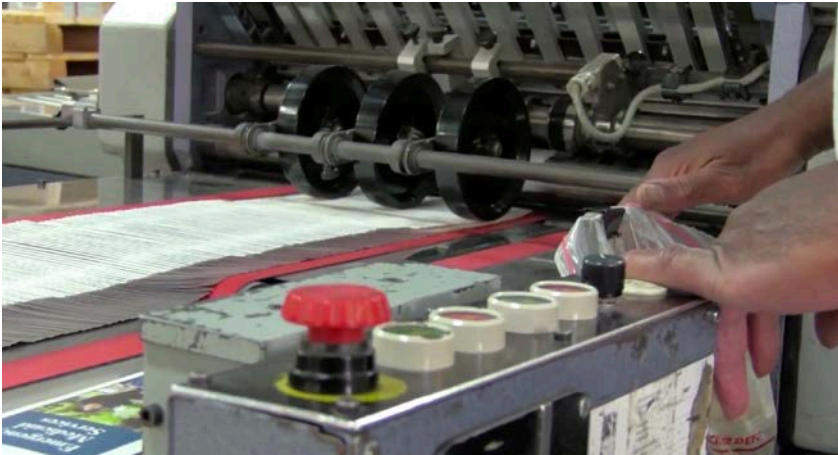
- All lead times available and accurate at any time.
- Completion dates are easily determined and met.
- Shop space is maximized by monitoring throughput.
- Shop is more stable, and revenue is increased and steady.
- Capacity will allow more Inmates into the workforce.
- More skilled Inmates with proper training = less recidivism.
- Created a stabilized flow that resulted in:
 - The ability to track the production status of each piece of furniture
 - Reliable completion dates are now available for the customer
 - Furniture production capacity has doubled
 - Revenue increased by \$357,548 for FY15
 - A production baseline has been established that can be continuously improved



The “Crew”: Broke all time sales record!



Print Shops



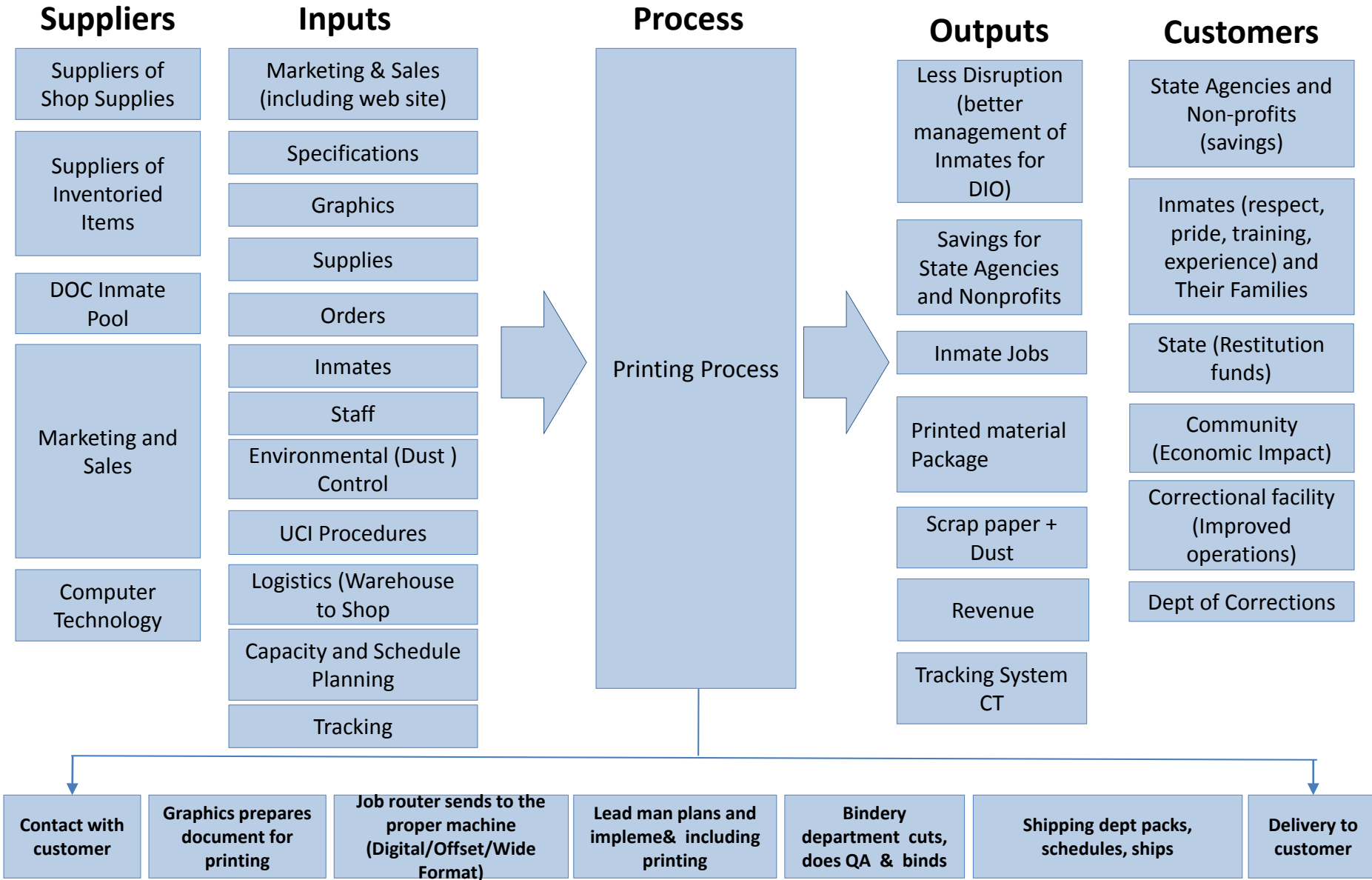
PROBLEM

- Flow is frequently interrupted
- Priorities set by screaming

GOALS

- Creating a good even flow for jobs going through
- Increasing the reliability of on time delivery and quality for the Print Shops

SIPOC



Results of SDBR Application

Customer	Job ID	QTY	CAT	P/LT	Reorder	%Touch Time	Days TT	Days NTT	%Status	Days TTL	Days Left	B Days Left
7	40	13		40	13	50%	2400%	1600%	0.3	1680%	-12d	-2880%
2	45	15		45	15	30%	450%	4050%	0.8	90%	-10d	-1090%
1	20	7		20	7	80%	800%	1200%	0.5	400%	-14d	-1800%
4	10	3		10	3	80%	300%	700%	0.5	150%	-11d	-1250%
3	10	3		10	3	20%	200%	800%	0.7	60%	-9d	-960%
8	10	3		10	3	20%	700%	200%	0.3	490%	-13d	-1790%
4	10	3		10	3	40%	400%	600%	0.4	240%	-9d	-1140%
9	10	3		10	3	80%	800%	200%	0.3	560%	-14d	-1960%
6	10	3		10	3	50%	500%	500%	0.3	350%	-9d	-1250%

- Print shop is able to track job in real-time, and forecast the capacity and the load accurately.
- There has been a 32% increase in jobs handled, **30% increase in sales revenue**, and lead times have been shortened by 12%.
- Revenue increased by \$323,633 in FY15 as a result
- “...the method of calculating touch time, buffer penetration, and scheduling start dates accordingly is **“meshing really well with the numbers we calculated”**.”
- “The approach ...is working out **“amazing”** for us in determining touch times etc. for scheduling jobs.”



Critical Chain for Construction

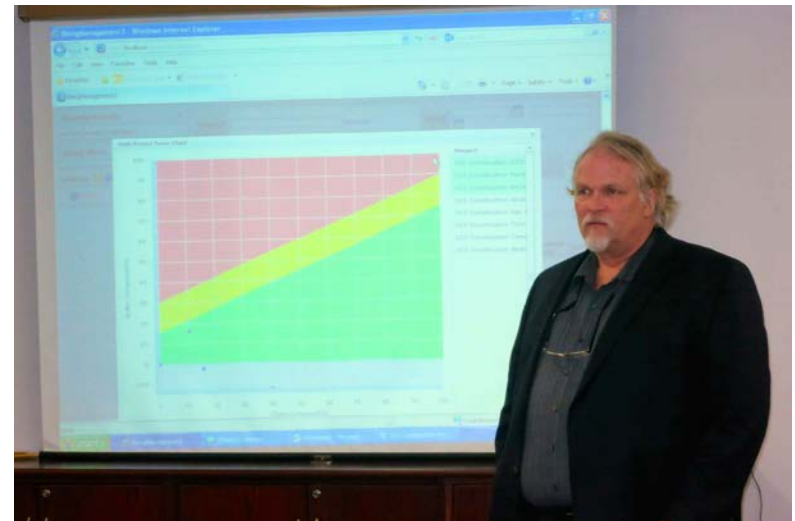


PROBLEM

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Construction Division – Critical Chain for Project Portfolio

- Teaches the group proper scheduling of their time and resources.
- It is already playing a crucial role as a visual tool to see exactly when to start and where they should be in the process.
- Leading UCI Construction to confidently provide accurate due dates on a still-realistic but more aggressive timeline
- It helps UCI construction managers more effectively work with customers on time frames and aligns various stakeholders in the process around a common understanding and project vision.



Dave Updegrave

CCPM in Practice



- Sgt. Major Headquarters
- Overcame all obstacles including weather delays
- Completed “impossible” schedule on time
- Staff and inmate workers are excited about the prospects.
- “We can now guarantee on time completion.”
- “The Theory of CCPM is helping the thought processes even early on...”

Challenges in Implementation

- Training and Education
 - Help from GOMB/Consultants
- Buy-in
 - Comes with time, involvement and results
 - High level support from UCI and Department
- Perception of added work
 - It's a way of thinking to enhance existing work

Results

- Greater participation and team mentality
- Business side improvements
 - Production, lead time efficiency, quality
- Working smarter – not harder
- Everybody has a voice
- Greater customer satisfaction, improving image
- Other quantifiable results discussed earlier
 - Inmate jobs
 - Enhances UCI sustainability

“SUCCESS” Testimonies



“SUCCESS” Summary

- TOC produces great results even in a Prison Environment!
 - Focused Value Stream Analysis and Capacity Management for the Furniture Shop
 - Capacity Management with Simplified Drum Buffer Rope for the Print Shop
 - Critical Chain Project Management for Construction

Questions?



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