



Managing Change Data

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Presentation Objectives

- ✦ To illustrate a connection between BTC and VSM
- ✦ To show the need for a modification to the VSM process and consistency in the metrics we develop.
- ✦ To show examples in the use of data and develop some conversions to use in the absence of more specific data.
- ✦ To show how these fit into the immediate BTC objectives.

Purpose of Managing Data

✦ Convenience.

- Access to VSM and process forms, instructions, and numbers on demand.
- Universally accessible.

✦ Consistency

- Agreement on definitions, conventions, meanings.
- Promote the same data, processes, structure for like situations.
- Discussion and agreement on significance and appropriateness.

✦ Agreements to disagree.

✦ Avoid redundancy, confusion, overlaps, and gaps.



Initiatives

- ✿ Using VSM process to estimate savings in time, dollars, and positions.
- ✿ Organizing data and activity into useful information to facilitate the VSM and other assessment work.
- ✿ Organizing data for assessment and prioritization.

Modifications to VSM Process

- ✦ Using VSM for BTC involves looking at staff time as well as process timing.
- ✦ Conversion of time to money and time to positions.
- ✦ Need the number of cycles in a year.
(Clarification.)
- ✦ Need for cost of recommendation?
- ✦ Need for unit cost?

Current Instructions

INVENTORY
AMOUNT OF INVENTORY BEFORE NEXT PROCESS
THE AMOUNT OF TIME ASSOCIATED WITH THE INVENTORY

NAME OF THE STEP/PROCESS	
# OF PEOPLE DOING THIS STEP AT THE SAME TIME	NOTATIONS ABOUT SPECIAL NEEDS, SUCH AS TRAINING, LIMITATIONS, ETC
C-T CYCLE TIME	The amount of time it takes to complete one piece from the end of the previous operation to the end of the current operation
V-A VALUE ADDED	An estimate of the percentage of Value Added Time in the total time
C-O CHANGE OVER	The amount of time it takes to change over the machine or program from the last good piece of the previous set-up to the first good piece of the current set-up
U-T UP TIME	The amount time the program, printer, copier, etc are available compared to the time they are expected to run, expressed as a percentage
FPY FIRST PASS YIELD	The percentage of time that quality standards are met the first time through
NOTES	Any other information about the process that is important and not captured in other data boxes

Modified Form

INVENTORY		Name of Process	
		# People	Special Considerations
		C-T CYCLE TIME	
		V-A VALUE ADDED	
		C-O CHANGE OVER	
		U-T UP TIME	
		FPY FIRST PASS YIELD	
		NOTES	

S-T STAFF TIME	
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Modified Instructions

INVENTORY	
AMOUNT OF INVENTORY BEFORE NEXT PROCESS	
THE AMOUNT OF TIME ASSOCIATED WITH THE INVENTORY	

S-T STAFF TIME	The amount of staff time involved in this step in the process.
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NAME OF THE STEP/PROCESS	
# OF PEOPLE DOING THIS STEP AT THE SAME TIME	NOTATIONS ABOUT SPECIAL NEEDS, SUCH AS TRAINING, LIMITATIONS, ETC
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Guidelines for Estimating Staff Time

- ✦ Include all time spent doing the work in this value stream.
- ✦ Include time waiting if performing alternate work is unlikely.
- ✦ Exclude time spent waiting for the work if it is likely the worker would do something else (i.e. in a different value stream or different cycle in same stream).
- ✦ Requires judgment, possibly for each step/situation.
- ✦ Relation to Value added—NONE.

After Step Data.....

- ✦ Sum Cycle Time time to get Total Lead Time.
- ✦ Sum Value Added to get Total Value Added Time and ratios.
- ✦ Sum Staff Time to get Total Staff Time. (New)
- ✦ Other savings totaled.

Conversions

- ✿ Cost of a potentially productive minute.
 - Total cost of personal services and benefits.
 - Number of productive minutes.
 - Questions on overtime and over 40 overtime.
- ✿ How many potentially productive minutes for a position?
 - Number of productive minutes.
 - Number of FTE's

Time is Money

(Converting staff time to dollars.)

Objective: Cost per minute of potentially productive time

All numbers are for the year from December 2003 through November 2004

Time	=	1,084,660 hours	(Source OAS/TAMS Regular)
	=	65,079,600 minutes	(Multiplying the above by 60 minutes per hour)
	=	61,012,125 minutes adjusted for breaks	(Multiplying the above by 15/16ths)
		61,012,125	Number of potentially productive minutes in a year for all employees a
Cost	=	\$ 35,589,124.00	dollars (Source PS/PB costs for MDOL 12/2003 through 11/2004)
<u>Cost per minute:</u>		<u>\$ 0.58</u>	cost per potentially productive minute of the average MDOL employee
		\$ 0.58331	

Notes:

This is for a full year and is open to the criticism of whether it was a representative year.

This partially represents accruals.

Time is Positions

(Converting staff time to positions)

Converting Minutes to FTE's			
All numbers are for the year from December 2003 through November 2004			
	61,012,125	Potentially productive minutes from Cost page.	
Divided by	622.0	Part-time-adjusted number of FTE's on staff.	
=	98,092	Potentially productive minutes per FTE.	
=	1,635	Hours per productive FTE.	
=	204	Productive person-days per FTE.	

Checking the Math (1)

		Hypothetical lowest case		
		1	employee	
		365	days per year	
less		104	weekend days	
less		12	holidays (in this time period)	
=		249	Potential work days	
less		24	vacation	
less		12	sick days	
less		3	personal days	
=		210	work days	
less		13	Break days	
		197	Productive days	

Checking the Math (2)

Hypothetical highest case			
	1	employee	
	365	days per year	
less	104	weekend days	
less	12	holidays (in this time period)	
=	249	Potential work days	
less	12	vacation	
less	0	sick days	
=	237	work days	
less	15	Breaks	
	222	Productive days	

● Why the data estimate is better:

- ✿ Hypothetical highest case 222 days.
- ✿ Hypothetical lowest case 197 days.
- ✿ Average 209.5 days.
- ✿ Data-derived average 204 days.

VSM Plan

Job Match Process Value Stream Map Pla

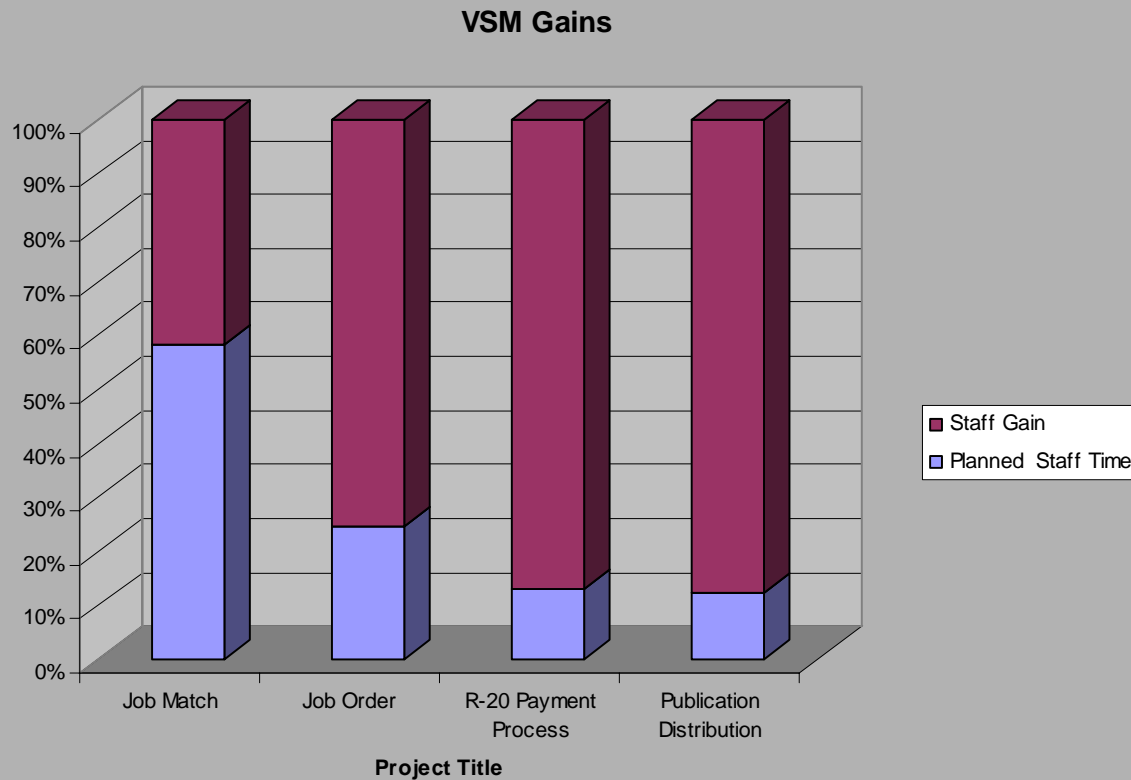
RECOMMENDATION	APPRVD	RESP PERSON	DUE DATE	PERCEIVED BARRIERS	DATE COM P
Create and implement better web presence (on-line services)		Dept Web Site Group / Nicki	Long Term	Implementation of enterprise server	
Standardize the Job Seeker Orientation process		Anita	12/3/04		
Kaizen - Codes - Standardize and Simplify - Link with Job Orders and UI - Favorites - O-Net??		Kaizen	11/16 & 17		
Determine when next Kaizen will be - Matching Criteria - Look at old matching design - Link with UI claimant - Link Profiles with Job Orders -		Kaizen - Nicki/Jon	11/19/04		
Kaizen - Determine When - Info Center Desktop Design - Review Past Design - Need Software Changes - Software will need to do some checking - Change "Referral to "notice".		Kaizen - Nicki/Jon	11/19/04		
Potential savings once totally implemented					

BTC Projects Summary Sheet

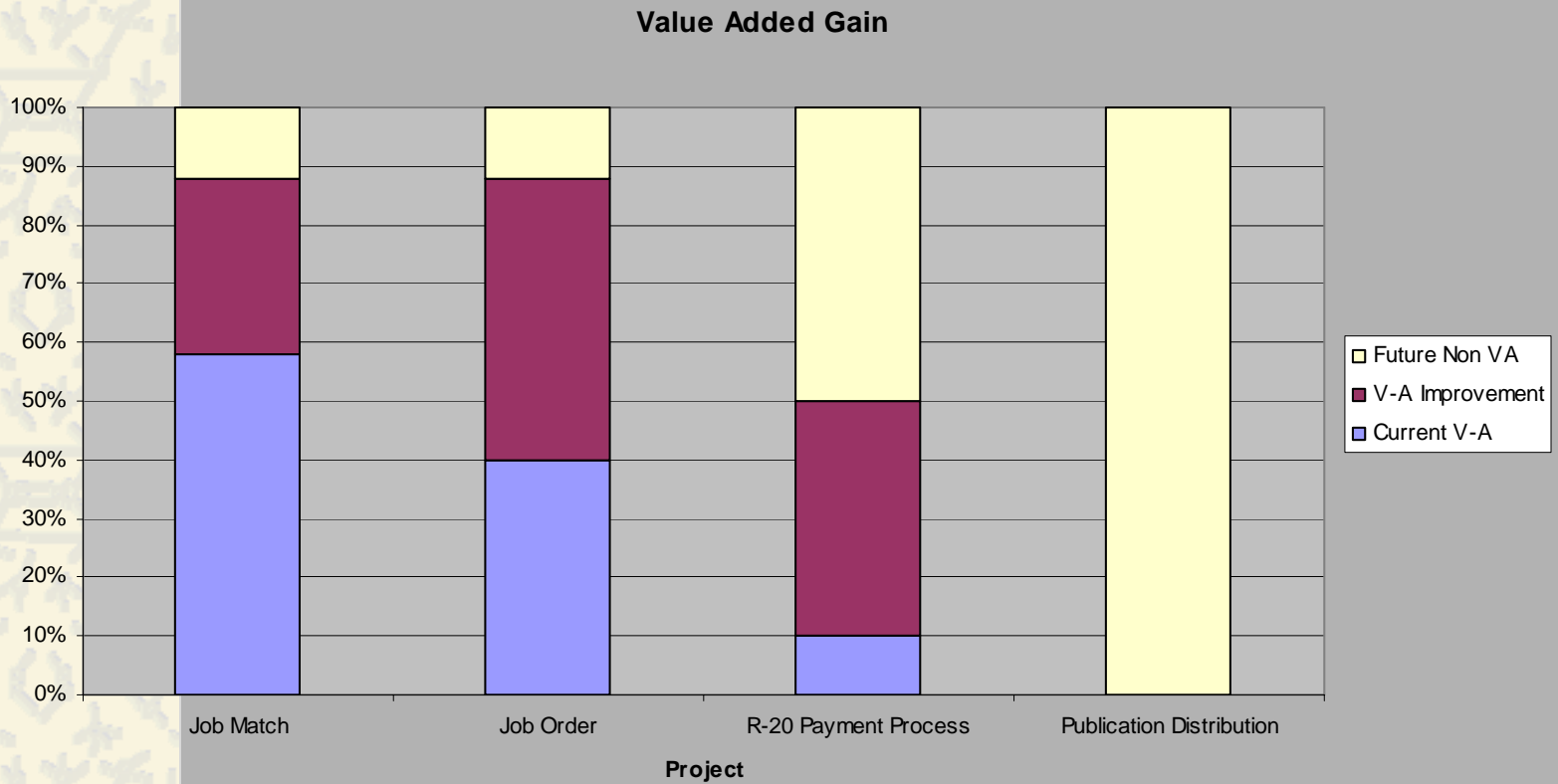
The "To Be" FORECASTED results Bureau, Division, and Office →											
	PLANNED					ACTUAL					
PROCESSES (PROJECTS) ↓	Lead time	Staff (Include fractional savings)	\$ Saved	# of Steps	Value Added	Lead time	Staff (Include fractional savings)	\$ Saved	# of Steps	Value Added	\$ VARIANCE (as a %)
Job Match	3.216	0.1639282	\$9,326	6	88%	0.065571	\$3,731	7	80%	40%	
Job Order	19.72	0.8041451	\$45,750	6	88%	0.321658	\$18,300	8	80%	40%	
R-20 Payment Process	22.07	0.1124967	\$26,400	10	49%	0.044999	\$2,560	12	40%	10%	
Publication Distribution	676.9625	0.345066	\$19,632	10	1%	0.138026	\$7,853	12	5%	40%	



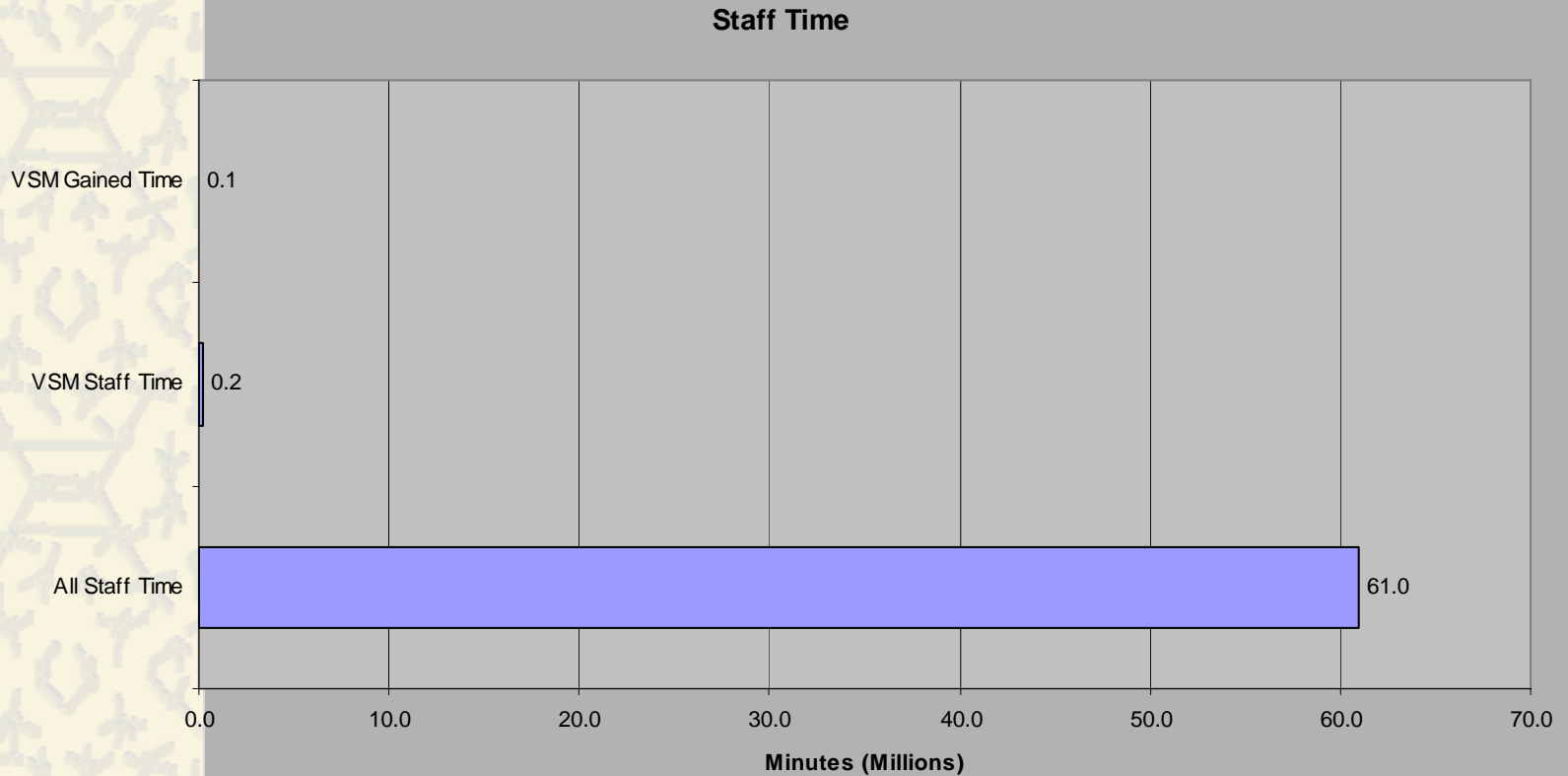
VSM Project Staff Time Gain Graphic



VSM Project Value Added Gain



We Have a Long Way to Go.....



Learning Exercise 1

- ✦ What might you need to know in determining if the time in these situations belongs as “staff time” in VSM?
 - A worker codes a report waiting for the computer to display a screen.
 - A worker gets voice mail messages while waiting for e-mail messages to load into Outlook.
 - A worker uses his cell phone on his way to a meeting.
 - A worker reads the newspaper while waiting for the next phone call.
 - A worker waits for the fax machine to scan the documents.

Learning Exercise 2

- ✿ What are the possible uses of the following VSM data
 - Number of steps
 - Lead time
 - Value-added percent
 - Staff time saved
 - Staff time mapped