



Crafting A Contractor PBL Organization

By John Kotlanger & Ron Giuntini

www.PBLprograms.com

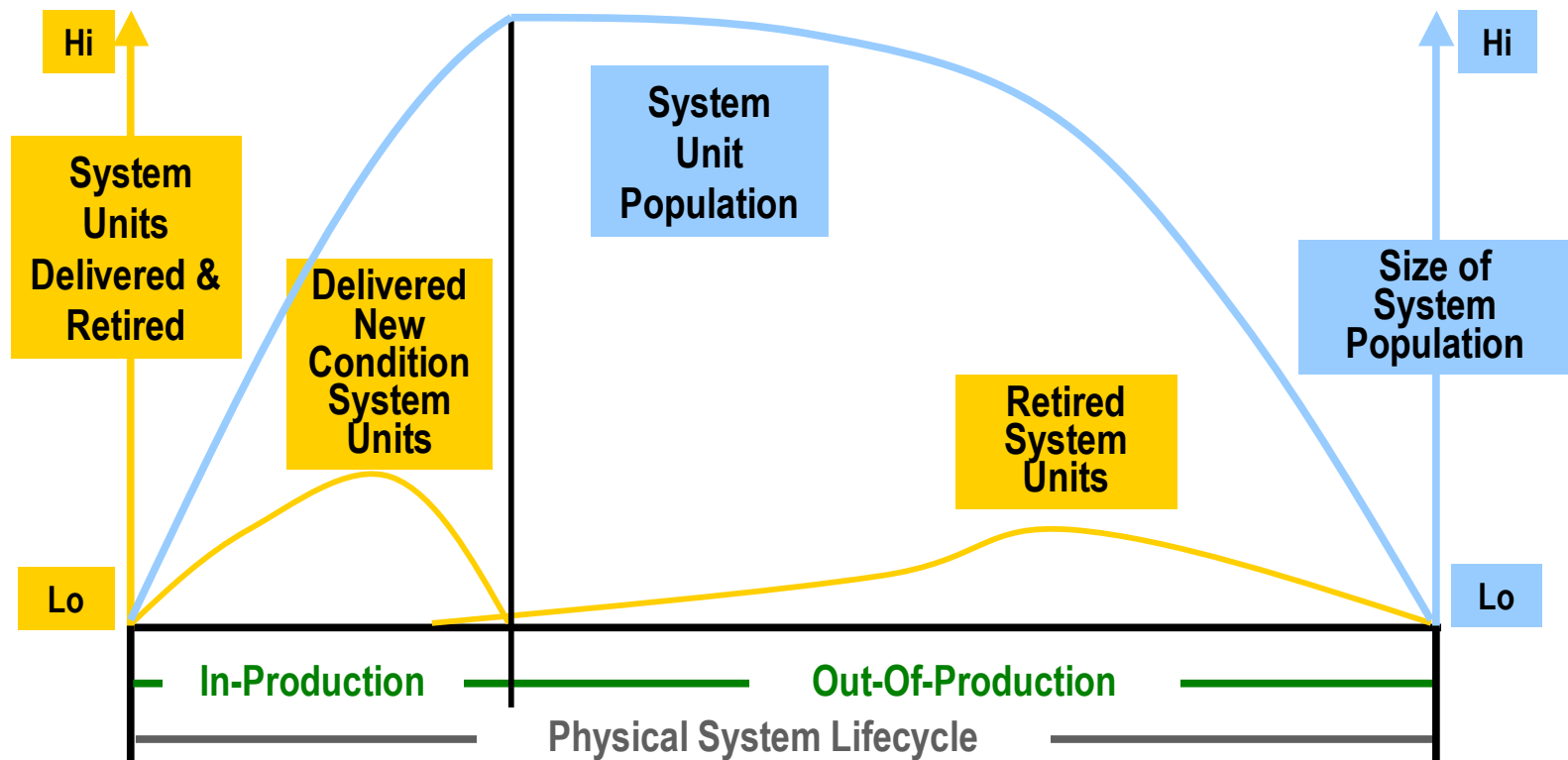


Outline

- The Many Flavors Of PBL Programs Will Impact Organizational Requirements
- Define Processes To Be Integrated & Performed
- Define People Resources That Are Required To Be Employed For Managing Processes
- Define Whether Specific Processes & The People They Employ Will Be Outsourced
- Structure Organization By Aligning Processes And Positions
- Define Drivers Of Employee Resource Requirements
- Forecast Driver Activity
- Employee Salaries
- Forecast Personnel Expenditures: Start-up & On-going
- Selecting Application Software; The Enabler Of Employee Efficiency and Effectiveness
- Conclusions

The Many Flavors Of PBL Programs Will Impact Organizational Requirements

A PBL Program Can Be Introduced Throughout Most Of The Lifetime Of A Weapon System



of fielded units, reliability data, complexity of technology and size of supplier base for parts are some of the primary drivers of the construct of the PBL Program organization structure

The Many Flavors Of PBL Programs Will Impact Organizational Requirements

Area	Description (Note: Below is not all inclusive)	PBL Flavors		
		PBL-Pure	PBL-Lite	CLS-Plus
Supply Chain Mgt.	Planning, sourcing, purchasing, in-bound transport of parts requirements, storage of the supply of parts, forward/reverse distribution of the supply of parts to/from customer sites	X	X	X
Performance	Parts supply availability	X	X	-
	Repairables renewal TAT	-	X	X
	Reliability improvements	X	-	-
	Footprint minimization	X	-	-
	Obsolescence and DMS mitigation	X	-	-
	System/component configuration management and control	X	-	-
	Total asset tracking of serialized assets	X	X	-
Pricing	Cost plus fee plus award for performance	-	-	X
	Cost plus award for performance, no fee	-	X	X
	Fixed price per system-unit supported for integration costs only	X	X	-
	Fixed price per system-supported per use for parts+integration costs (i.e. power-by the-hour)	X	-	-

Note: Both PBL-Pure and PBL-Lite have transitional periods that validate a program's efficiency and effectiveness before going "live"

"The Many Flavors of PBL Programs" http://www.pblprograms.com/white_papers.html

Define Processes To Be Integrated & Performed

Manage demand for the supply of parts	Manage supply			Manage program
	Increase the supply of parts	Maintain the supply of parts	Reduce the supply of parts	
<ul style="list-style-type: none"> ■ Increase (Capture customer order, Change forecast upwards) ■ Maintain (Monitor order status, Retain forecast) ■ Decrease (Fulfill customer order, Change forecast downwards) 	<ul style="list-style-type: none"> ■ Plan ■ Source ■ Acquire ■ Accept 	<ul style="list-style-type: none"> ■ Prevent supply from impairment (warehouse, package, secure, test) ■ Correct impaired supply (recertify, repair, remfg/overhaul: repairables and non-repairables) ■ Track supply (PN, qty, condition, configuration, site) 	<ul style="list-style-type: none"> ■ Beyond Economic Repair disposition ■ Returns from warranty analysis and disposition ■ Returns from footprint reduction ■ Obsolete disposition 	<ul style="list-style-type: none"> ■ Oversee personnel ■ Report financial performance to Leadership Team ■ Comply with contract performance requirements

Note: Parts supply can be only owned by government, or only owned by the contractor, or it can owned by a combination

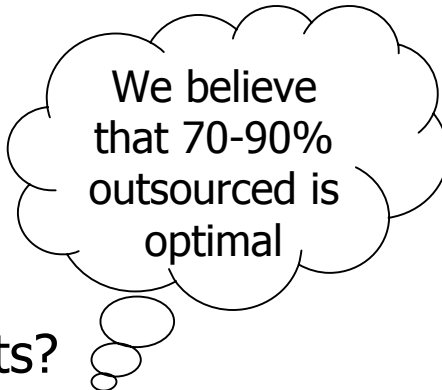


Define People Resources That Are Required To Be Employed For Managing Processes

- People That Are Directly Employed In Parts Management Processes
 - Non-professional (warehouse, clerks, drivers)
 - Professional (planners, buyers, engineers)
 - Leadership (program manager)
- People That Are Indirectly Employed In Parts Management Processes
 - Capital investment management
 - Facilities: Office, Warehouse, Shop
 - Equipment: Office, IT
 - Software
 - Supplies & services management
 - Financial reporting management
 - Others

Define Whether Specific Processes & The People They Employ Will Be Outsourced

- Outsource management of in-bound/outbound transport processes?
- Outsource management of part renewal processes?
- Outsource management of IT software and hardware?
- Outsource management of facilities?
- Outsource management of the material handling of parts?
- Outsource planning/sourcing/acquisition management for high volume COTS non-repairables?
- Outsource management of auditing Government-furnished property?
-many more options



We believe that 70-90% outsourced is optimal

The decisions above have a significant impact on the size of the organization that supports a PBL program, as well as the ability to “flex” when volumes are higher or lower than planned

Structure Organization By Aligning Processes And Positions

In-House Position	Processes				
	Manage Demand	Manage Supply			Manage Program
		Increase Supply	Maintain Supply	Reduce Supply	
Customer Rep	X	-	-	-	-
Asset Planner	-	X	X	X	-
Engineer	X	X	X	X	-
Business Analyst	-	-	-	-	X
Program Manager	-	-	-	-	X

Above example of 90-10 organization; all other personnel resources employed in the processes required to deliver the PBL Program are outsourced



Define Drivers Of Employee Resource Requirements

Examples

- Part numbers to be supported
- Supply availability level (95% order fill or line item fill) for each part
- Sites generating demand; CONUS and OCONUS
- "Workdays" and their "clock" (24/7 vs. 8/5)
- Part lifeing types (non-repairables and/or repairables)
- Demand transaction types (no-return, exchange, loaner, fix/return)
- Part ownership types (Govt. furnished and/or contractor furnished and/or Third Party furnished)
- System supported lifecycle stage (LRIP, in-production, out-of-production, phase-out)
- Configuration change frequency
- Government return-cycle-times to Contractor
- Accuracy and timeliness of data sets presented by Government (system configuration change, system utilization, parts issues, etc)
- Upper/lower level of demand "collars"
- Others

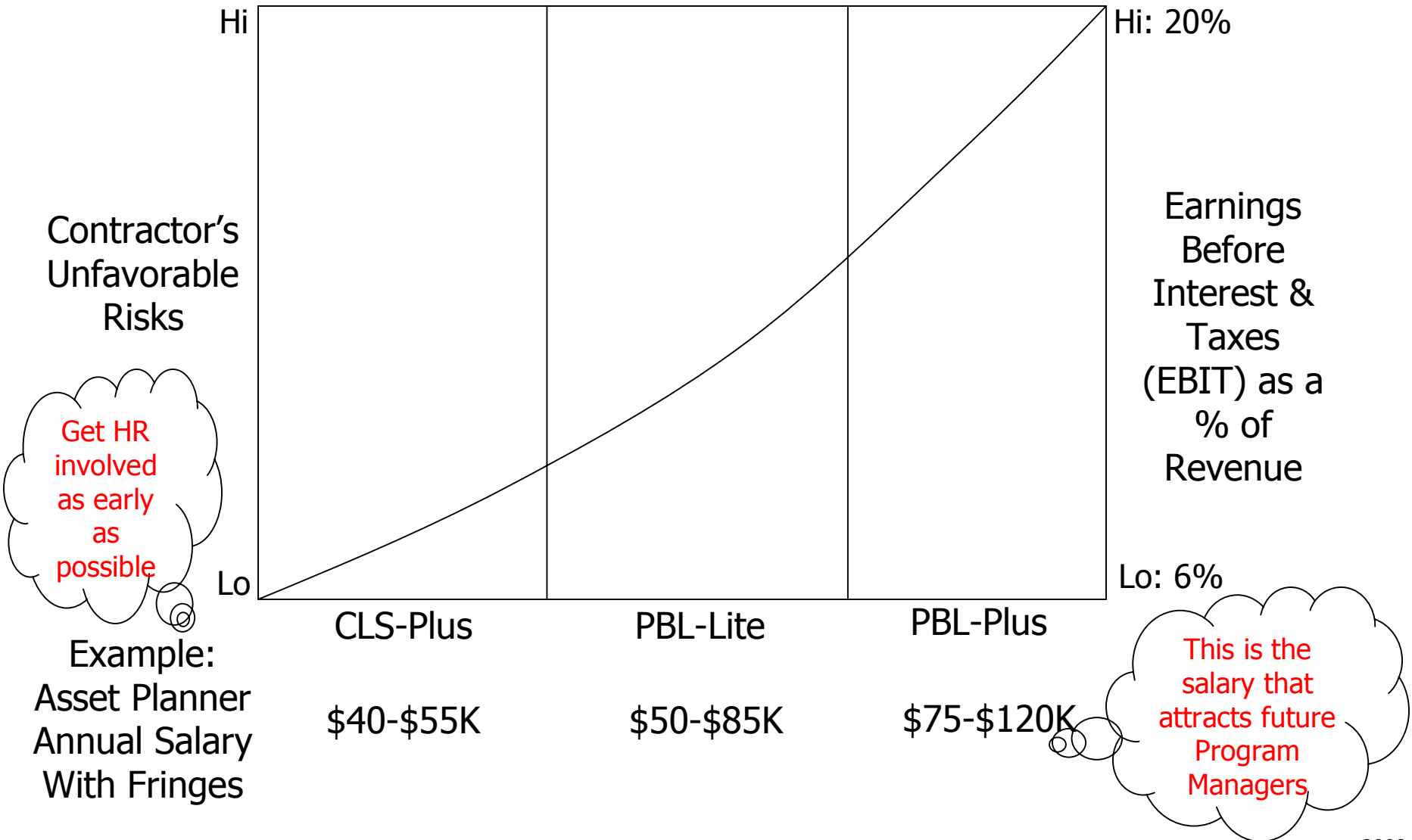
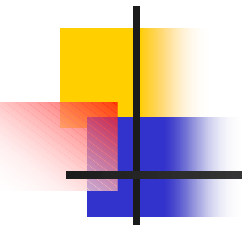


Forecast Driver Activity

Examples

- # of demand quantity per part number that will be supported per demand-site
- # of demands that will be "mission critical"
- # of demands that will be required to be fulfilled "off-hours"
- # of demands that will require substitutions
- # of demands that will be challenged with Diminishing Material Sources (DMS) or obsolete issues
- # of parts that will require configuration changes
- # of Government returns to Contractor that will experience unfavorable cycle times
- # of data sets presented by Government that will be inaccurate and/or untimely
- # of time upper or lower level of demand "collars" will be breached
- Others

Employee Salaries



Forecast Personnel Expenditures: Start-Up

Example: Professionals Resources Requirements For The Process Of Increasing The Supply Of Non-Repairable Parts: Start-Up

Index	Personnel Resource Requirements	Input/ Calculate
A	# of non-repairable part numbers supported	1,000
B	% of parts managed in-house versus outsourced to broker	70%
$A*B=C$	Net part numbers managed	700
D	Man hours to set-up item master, demand forecast, cycle stock, safety stock, supplier and others per part number	0.75
E	Man hours per part number to place/transfer initial supply orders	0.30
$D+E=F$	Total man hours to initialize supply of a part number	1.05
G	Productivity when at work; chaos reigns when initializing	50%
$F*(1/G)=H$	Net man hours to initialize a part number	2.10
$C*H=I$	Total man hours required to initialize supply of non-repairable parts	1,470
J	Hourly pay for combination of employees and contractors	\$85
$I*J=K$	Total expenditures	\$125,000

The low productivity is driven by the extensive training required for all members of the team to understand the performance assured to the customer, as well as to the Leadership Team

Should I wait until Program Team is all hired to proceed with start-up? Should I use consultants to do all the work? Should I use a combination?

Forecast Personnel Expenditures: Start-Up

Position	Employee Expenditures Per Start-Up Process (\$000)					
	Manage Demands	Manage Supply			Manage Program	Total
		Increase Supply	Maintain Supply	Reduce Supply		
Customer Rep	X	-	-	-	-	\$\$
Asset Planner	-	\$125	X	X	-	\$\$
Engineer	X	X	X	X	-	\$\$
Business Analyst	-	-	-	-	X	\$\$
Program Manager	-	-	-	-	X	\$\$
All	X	X	X	X	X	\$\$\$

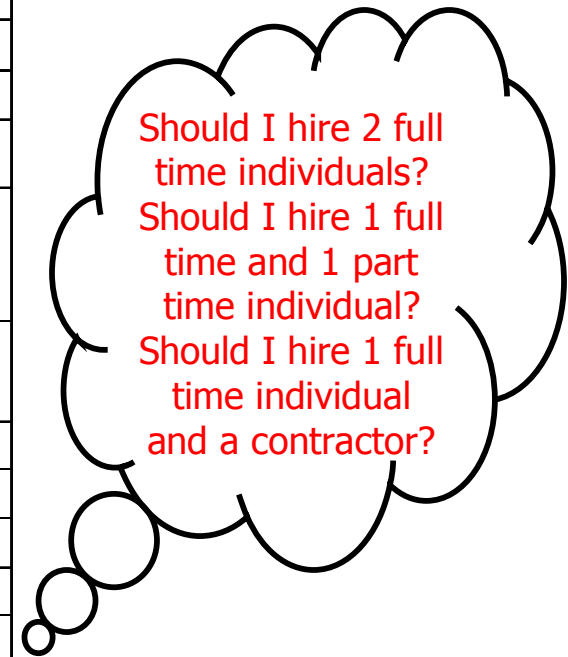
Employee resources for each process must be calculated

Feeds into income statement & cash flow

Forecast Personnel Expenditures: On-Going

**Example:
Asset Planner Resources Requirements For
The Process Of Increasing The Supply
Of Non-Repairable Parts: On-Going**

Index	Personnel Resource Requirements	Input/Calculate
A	# of non-repairable part numbers supported	1,000
B	% of parts managed in-house versus outsourced to broker	70%
A*B=C	Net part numbers managed	700
D	Median cycle stock in yrs	0.25
C*(1/D)=E	Part numbers ordered/yr	2,800
F	Man hours to increase supply: review requirements, plan quantity, source part, place PO and monitor each line item ordered	0.75
E*F=G	Annual man hours required to increase supply of non-repairable parts	2,100
H	Working hours per year	1,900
I	Productivity when at work	70%
H*I=J	Productive man hours/yr	1,330
G/J=K	Full Time Equivalent (FTE) required	1.58
L	Annual compensation for FTE: salary and fringes	\$100,000
K*L=M	Personnel Expenditures only: others are office space, supplier relations, furniture and others	\$158,000



Forecast Personnel Expenditures: On-Going

Position	Employee Expenditures/Yr Per On-Going Process (\$000)					
	Manage Demands	Manage Supply			Manage Program	Total
		Increase Supply	Maintain Supply	Reduce Supply		
Customer Rep	X	-	-	-	-	\$\$
Asset Planner	-	\$158	X	X	-	\$\$
Engineer	X	X	X	X	-	\$\$
Business Analyst	-	-	-	-	X	\$\$
Program Manager	-	-	-	-	X	\$\$
All	X	X	X	X	X	\$\$\$

Employee resources for each process must be calculated

Feeds into income statement & cash flow



Selecting Application Software; The Enabler Of Employee Efficiency and Effectiveness

Application software codifies processes; it forces all program team members to use the same processes...without it, there is often "anarchy"

Actions that will surely decrease personnel efficiency and effectiveness:

- Employing a manufacturing-based ERP/CRM system
....internal allocations will often materially increase program costs
- Sharing software programming resources with that of manufacturing
....many changes are required immediately upon program initialization
- Using MS Access/Excel to kluge together those processes "not covered"
....many activities become opaque to the entire Team, resulting in a "silo" environment
- "Bastardizing" part numbers to identify supply condition
....results in many problems for planning and order entry
- Others



Selecting Application Software; The Enabler Of Employee Efficiency and Effectiveness

Actions that could ensure personnel efficiency and effectiveness:

- Choose Software-as-a-Service (SaaS) solution
....can allocate most IT costs specifically to the program. Should be in the 15-20% range of costs to manage supply availability processes
- Select point solutions that meet needs and have them hosted by one integrator
....users get the functionality that they truly need
- Attempt to minimize ERP interface except for Income Statement and Balance Sheet GL accounts
....the accountants will require this
- Others



Conclusions

- The organization crafted in support of a PBL Program is the result of many strategic decisions that are made in deciding whether to manage specific processes in-house or to outsource them
- Keep the in-house program organization “lean” by having a “robust” IT infrastructure
- If you want a “high performance” organization you will have to pay your team members materially higher than traditional logistics personnel
- Work closely with HR in designing organization; you want them to be on your team
- Everyone on the program team must understand the drivers for meeting the availability level assured to the Government and the financial performance promised to the Leadership Team
- The program team that is fielded can become the seed stock for future PBL programs