

CECS Inventory and Asset Management Measure Phase

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ESI 5227 Total Quality Improvement

Agenda

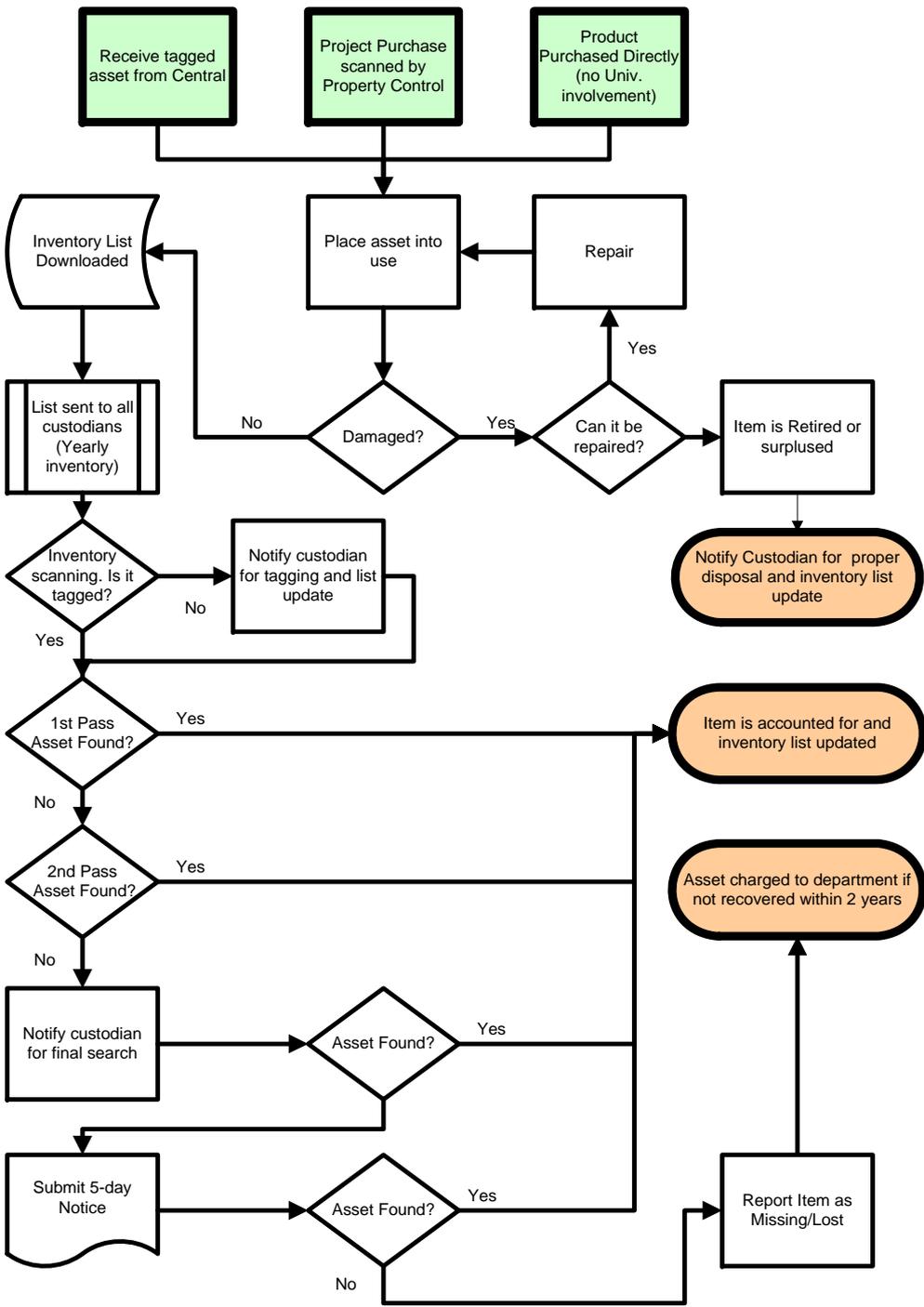
- Current State
 - Process flow chart
- SIPOC
- Cause-and-effects
- Critical to Quality (CTQ) characteristics
- Key Metrics
 - Surveys
 - Inventory Lists
 - Scanning Rate
- Items for resolution (IFR)
- Next Steps



Current State

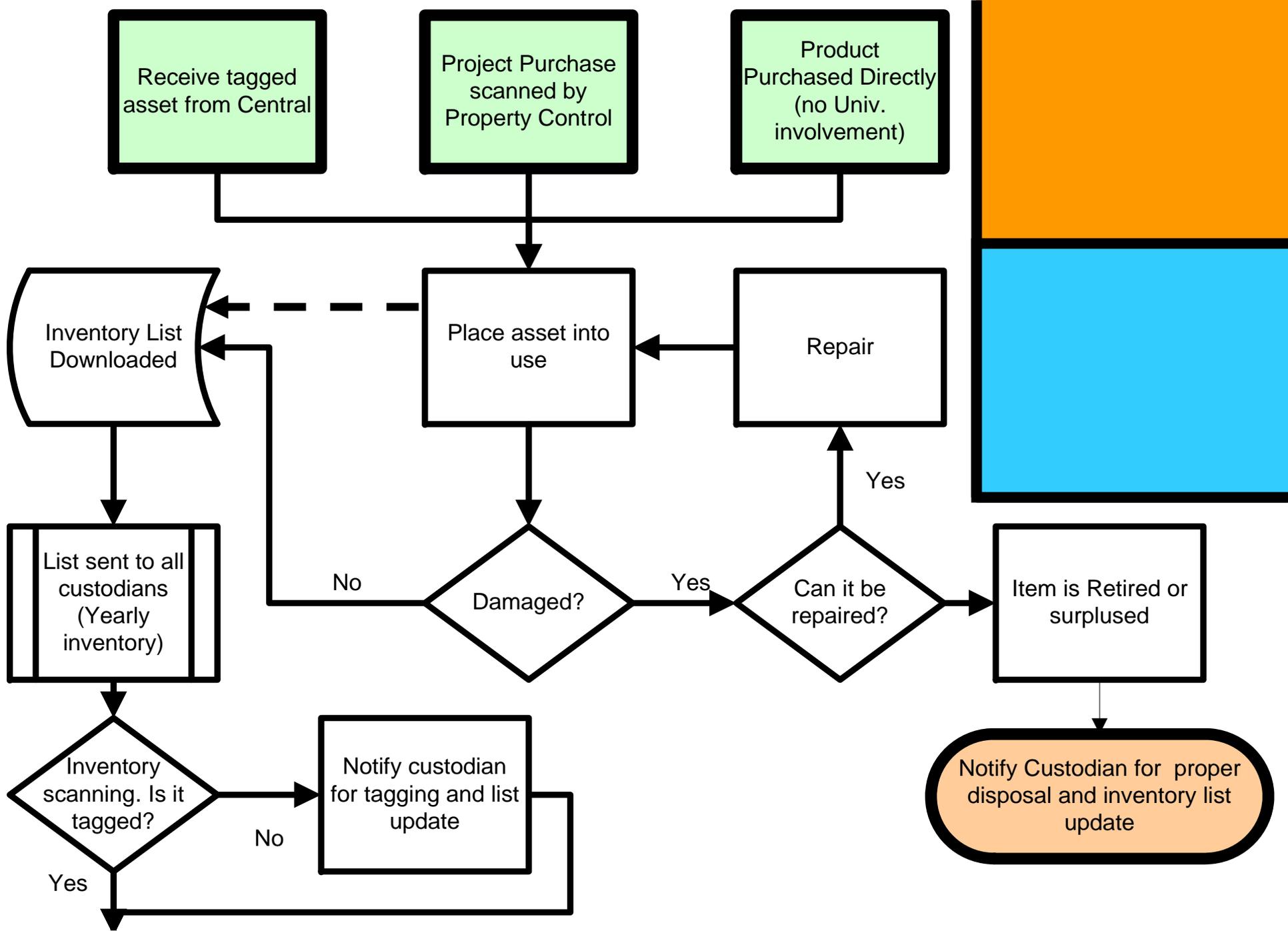
- Over 4800 items in CECS inventory
- Items are scanned in three passes
- Items may be surplus or cannibalized.
- Items not found by end of fiscal year are considered lost.

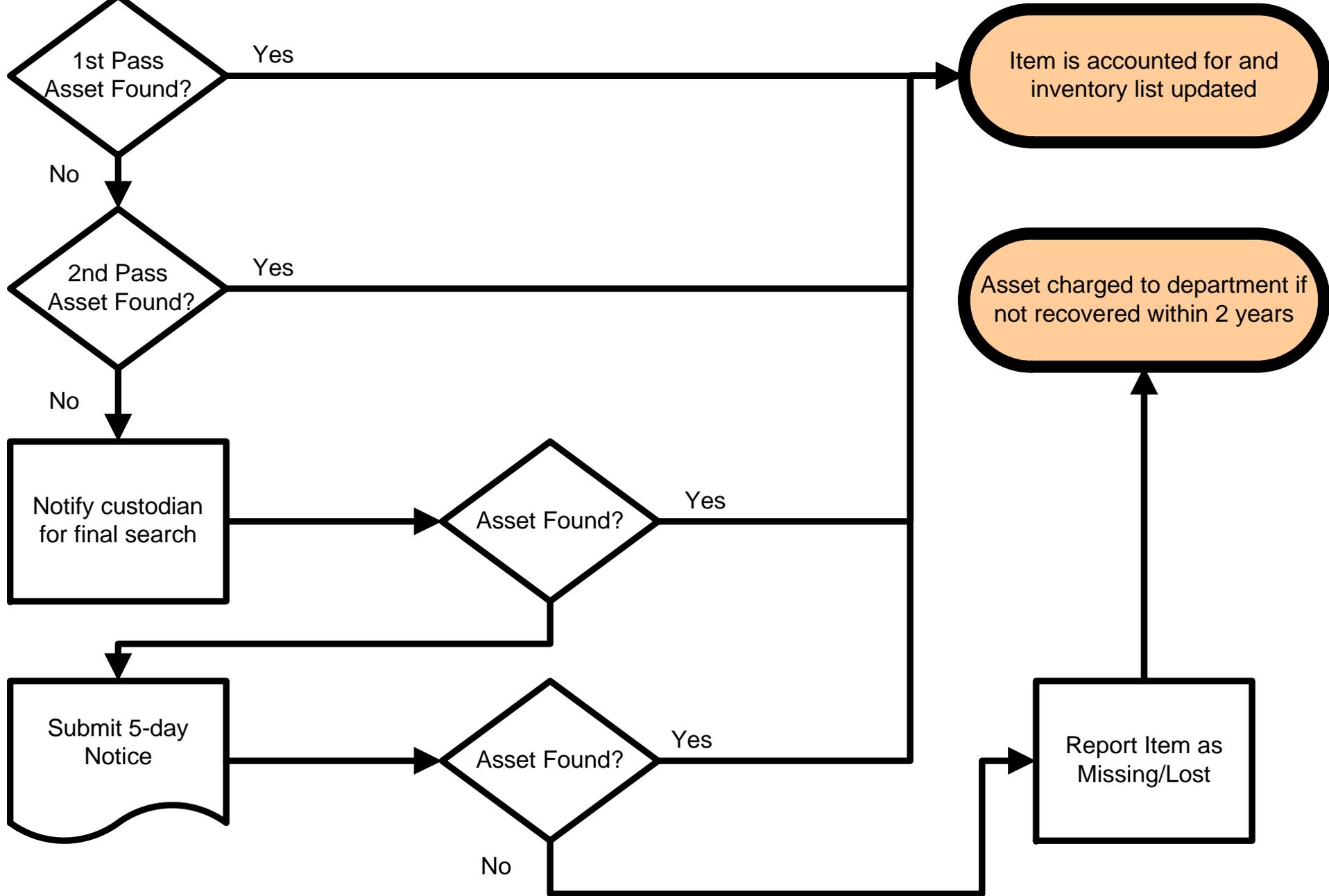




Process Flow Chart







SIPOC

Start boundary: Receipt of an item

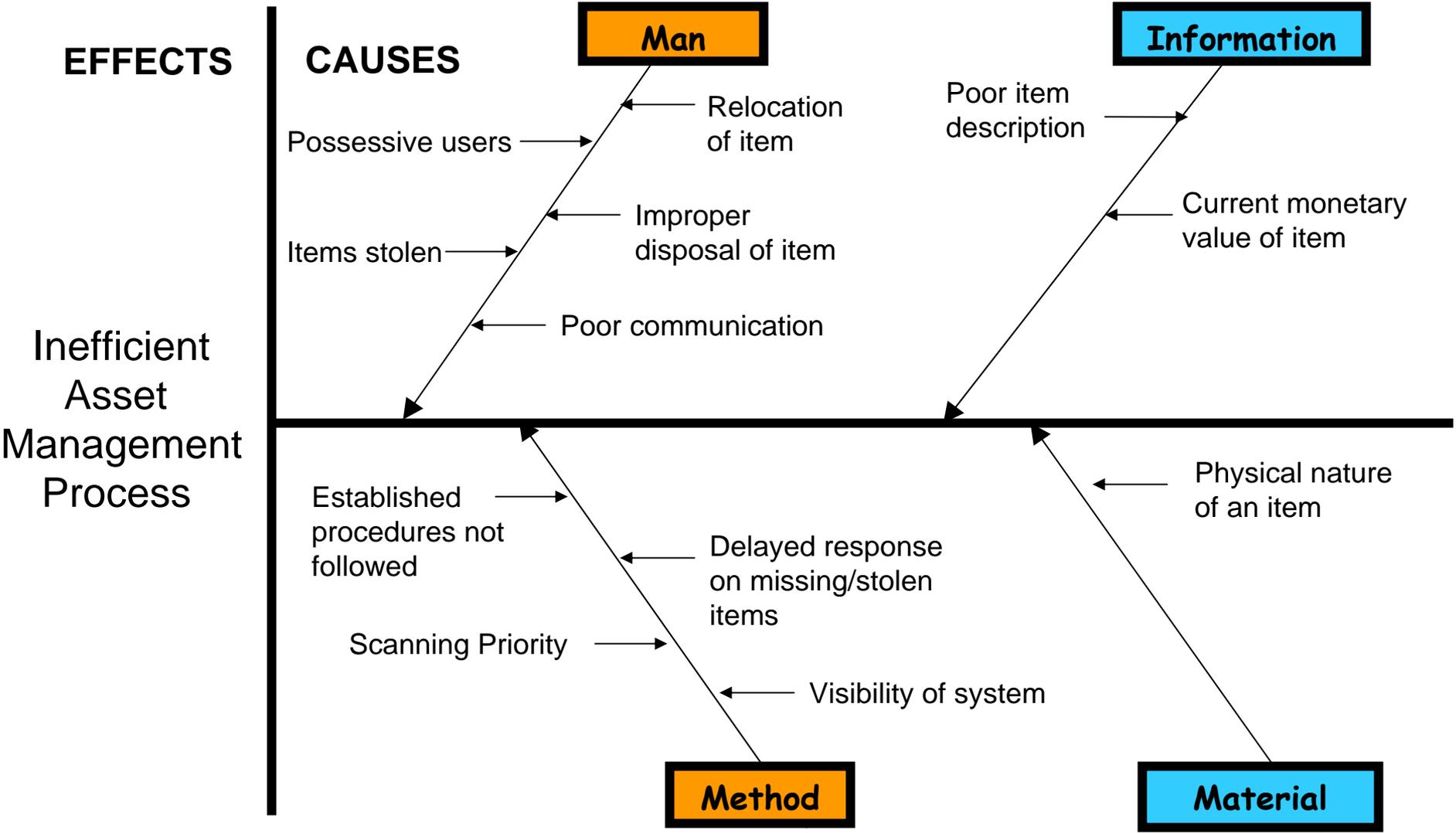
End boundary : Declaration of an item status

Supplier→	Input→	Process→	Output→	Customer
<ul style="list-style-type: none">•Faculty•Staff	<ul style="list-style-type: none">•Tagging•Recording•Transfer of location on Peoplesoft	<ul style="list-style-type: none">•Receipt of an item•Yearly scan	<ul style="list-style-type: none">•Items found•Lost/stolen items•Surplus items•Cannibalized items	<ul style="list-style-type: none">•UCF Property Control•Dept. Property Manager•Dept. Heads•Faculty and staff

Input Indicator: Approval of the request, monetary value of \$ 1000 or more.

Output Indicator: Declaration of an item status

Cause & Effect Diagram



Critical to Quality

CTQs	Metrics
Faculty/Staff Awareness of Process	Proportion of faculty/staff using system
Documented Location of Assets	Proportion of items located in "proper" area
Identification of Assets	Number of items unidentifiable by description on inventory list
Efficiency of Yearly Scanning	Proportion of items found on first try as compared to total effort
Value of Assets Lost	Items on "Missing/Lost list" for over 2 years
Number of Assets Lost	Items on "Missing/Lost list" for over 2 years
Undocumented Assets	Number of notifications (requests) for tagging as opposed to Non-tagged assets found
Efficiency of List Update	Misreads by equipment, missing or damaged tags, time to update lists
Sorting Efficiency of Lists	Time required to update scanned list for missing items
Loss Avoidance	Timely reports of missing items

Key Metrics

Surveys

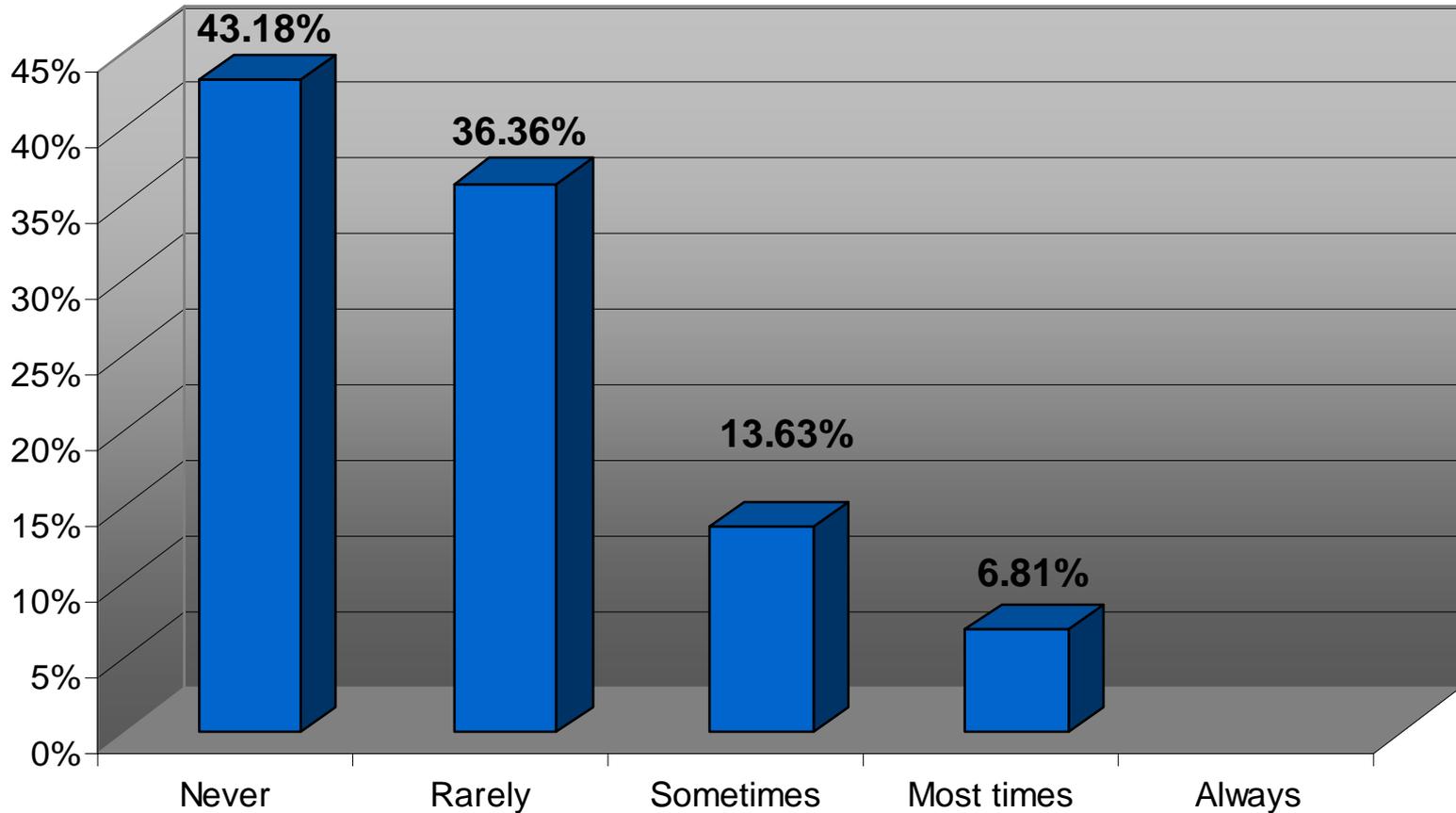
- Aimed towards faculty and staff
- 163 Possible targets
- 44 respondents
- 9 Questions



Population	Sample Size				
	50%	40%	30%	20%	10% ^d
100 ^e	81	79	63	50	37
125	96	93	72	56	40
150	110	107	80	60	42
175	122	119	87	64	44
200	134	130	93	67	45
225	144	140	98	70	46
250	154	149	102	72	47
275	163	158	106	74	48
300	172	165	109	76	49
325	180	173	113	77	50
350	187	180	115	79	50

Survey Responses

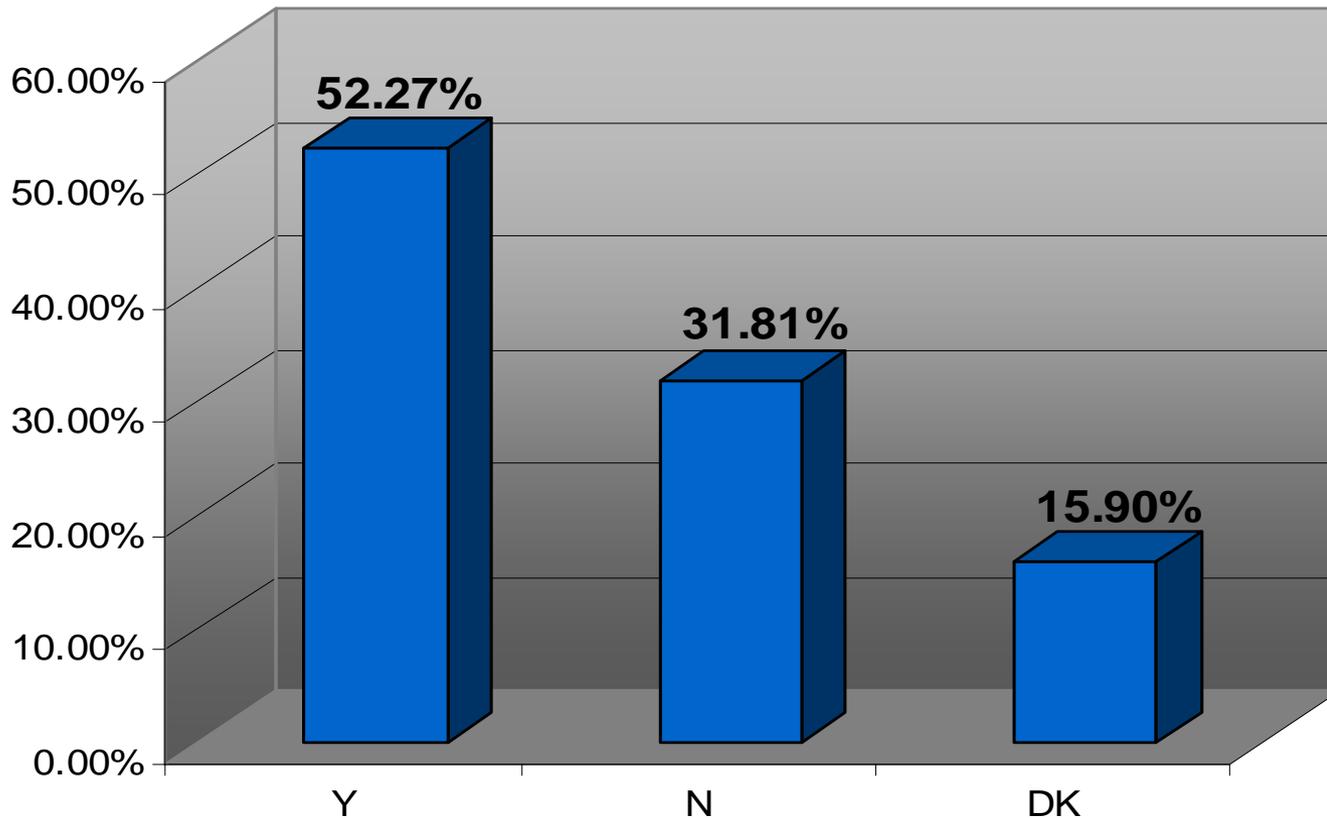
Question 2



I have had a situation in which an item I needed for class or research was lost and not recovered.

Survey Responses

Question 7



I am aware of the SUS policy on care and reporting of state and federal funded assets.

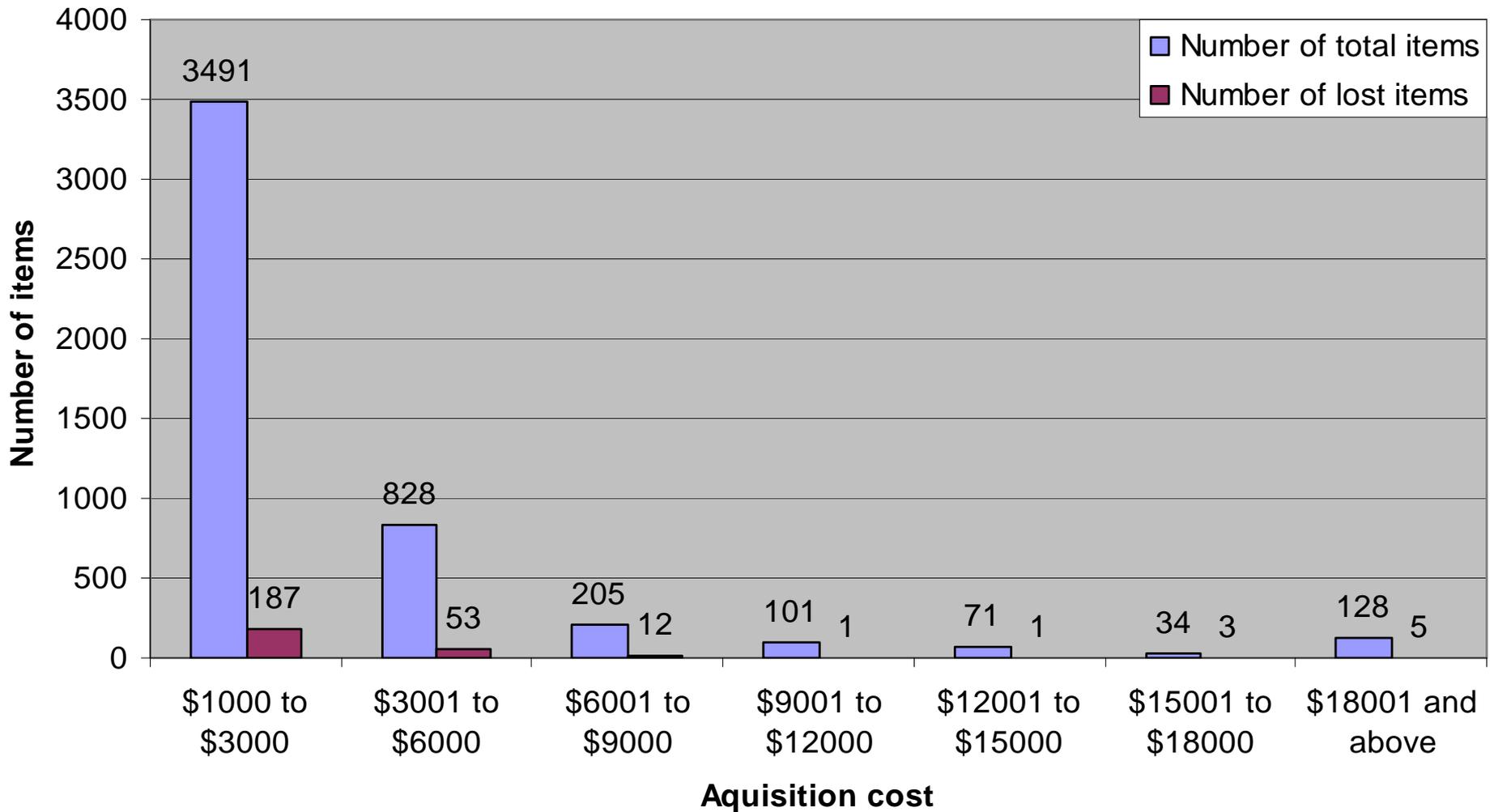
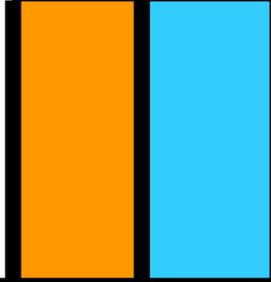
Key Metrics

2. Asset lists for CECS

- Current inventory 2005-2006
- Lost/Missing Items

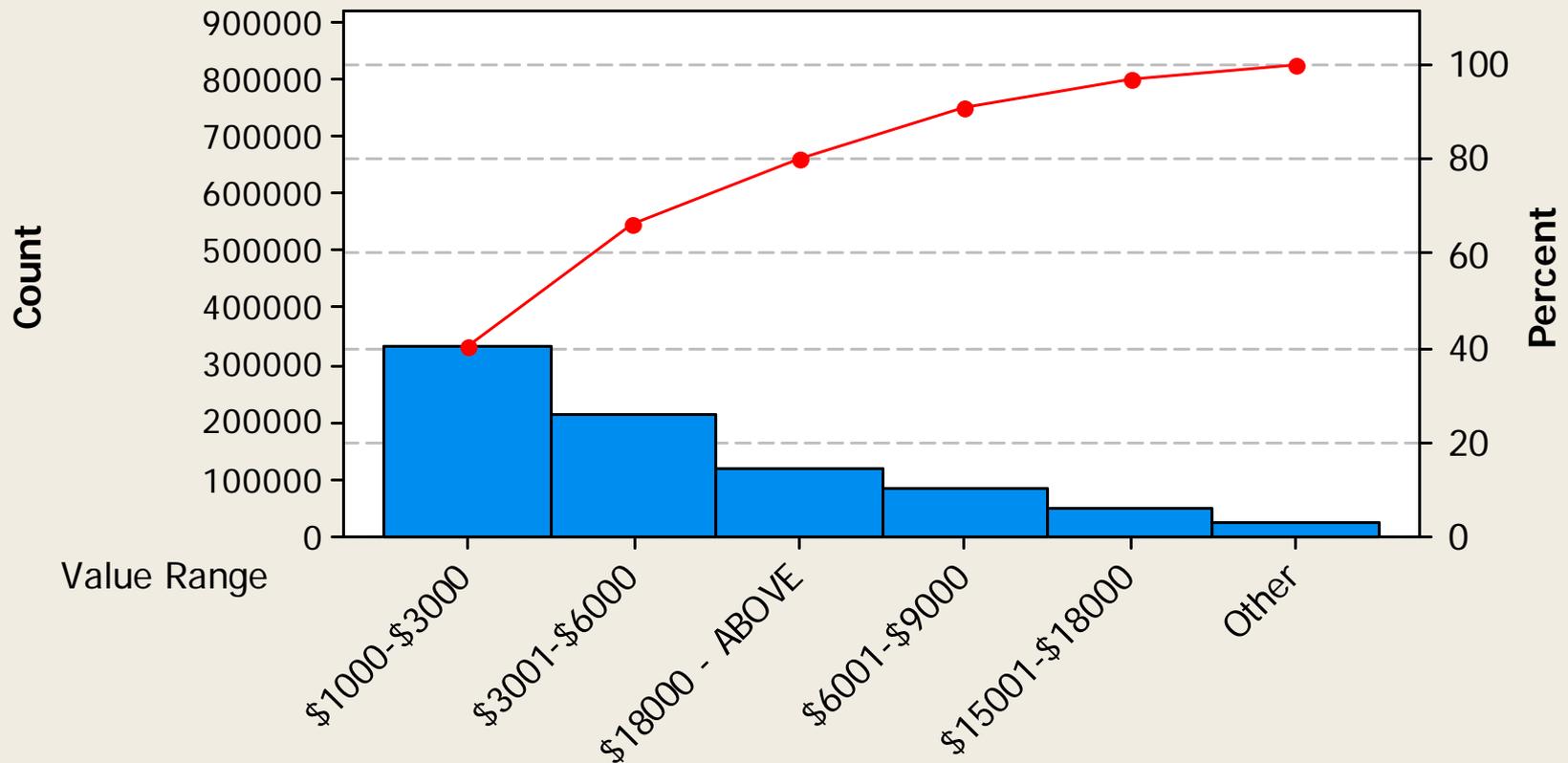


Total Items vs. Lost Items



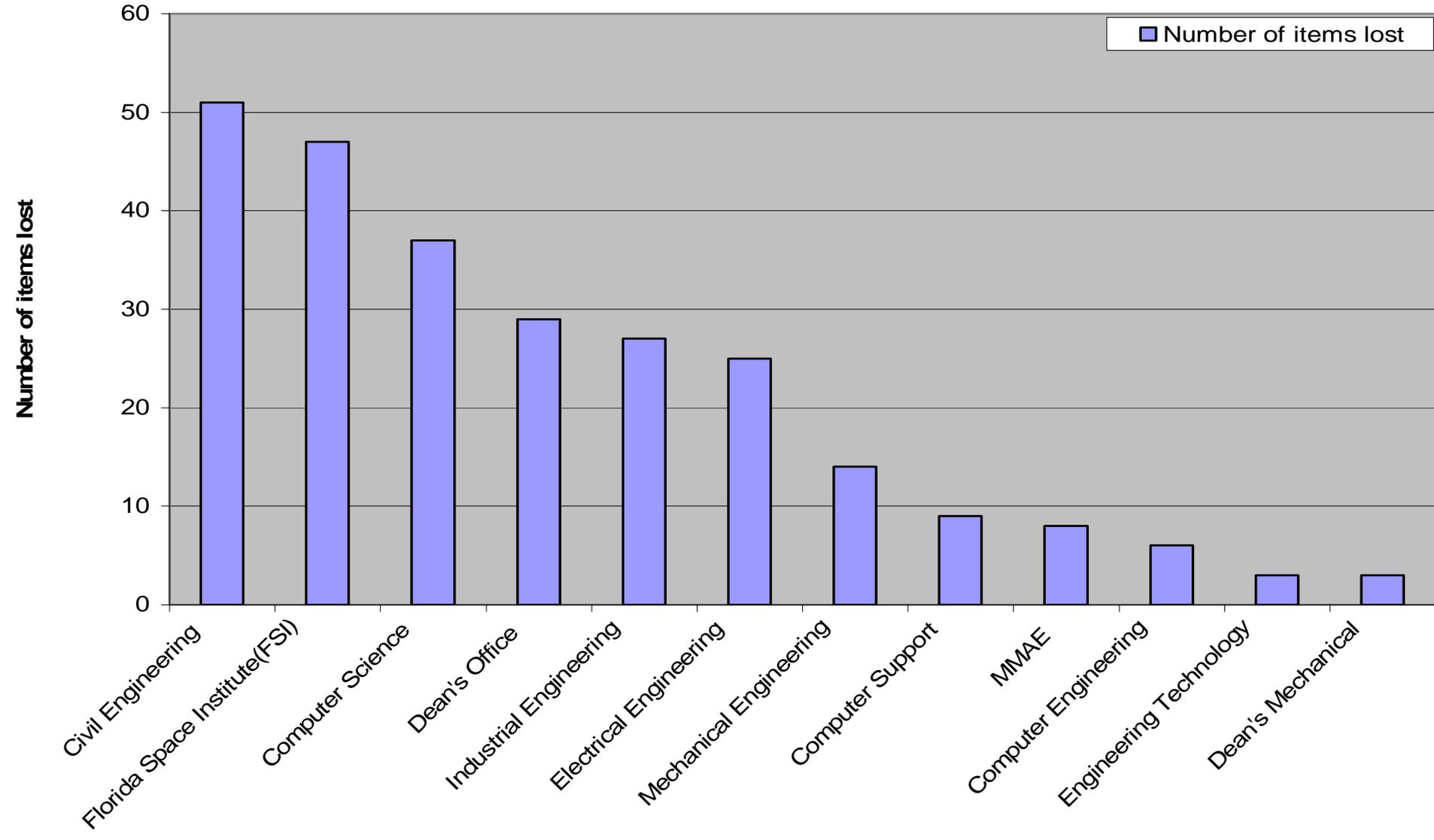
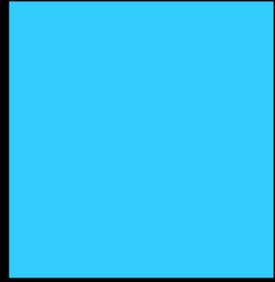
Combined worth of items within value ranges

Pareto Chart of Value Range



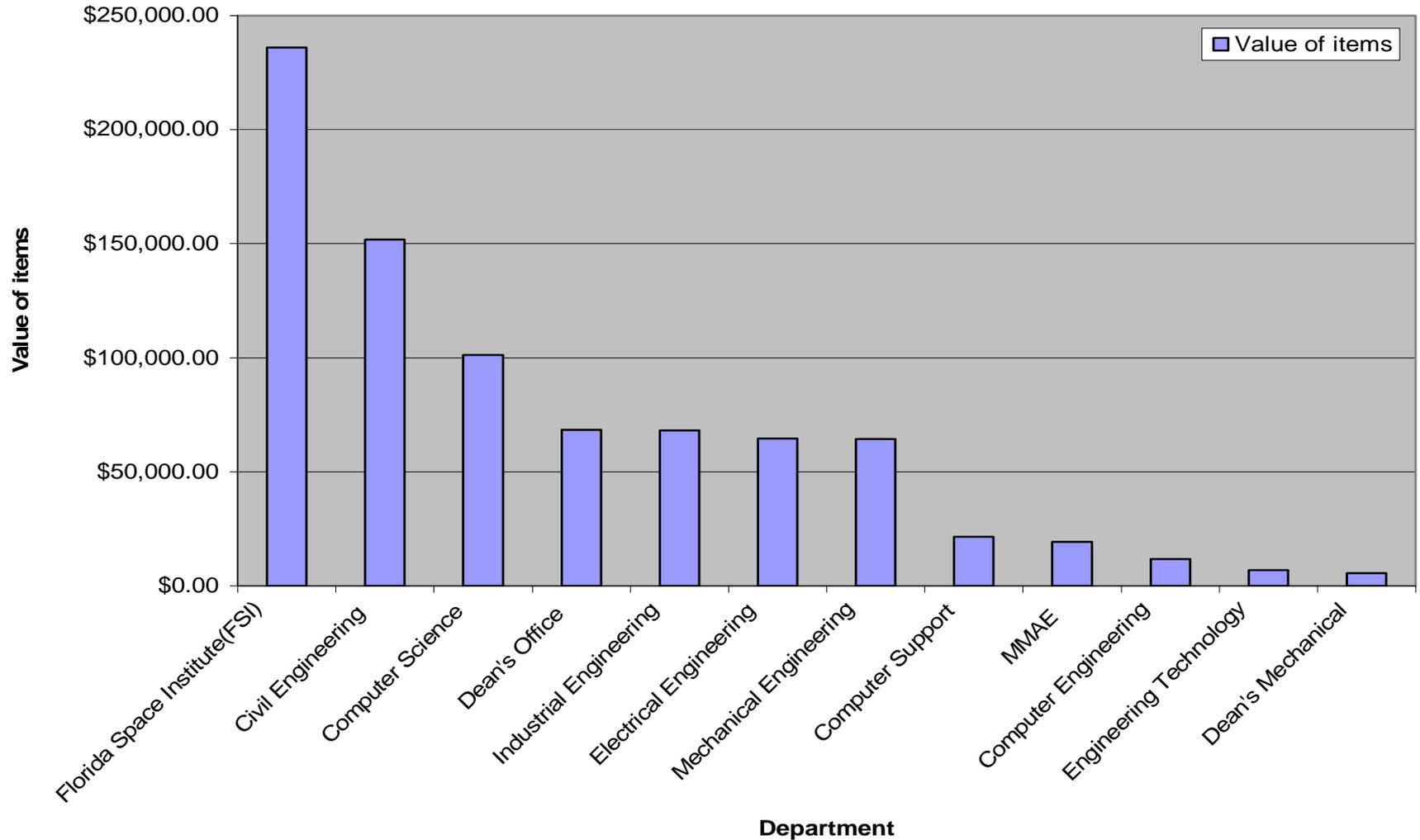
Count	334133	212436	117736	85700	50278	24164
Percent	40.5	25.8	14.3	10.4	6.1	2.9
Cum %	40.5	66.3	80.6	91.0	97.1	100.0

Number of items lost by department



Value of items lost by department

Cost of lost items by department



Key Metrics

- Non-descriptive items
 - Ambiguous descriptions
 - Descriptions of no use to the scanner
- Count of items with poor descriptions



Non-descriptive items

	Items not recognized	Total Items	% of Total
Current Inventory List	134	4865	2.75%
Lost/Missing Item List	28	264	10.61%



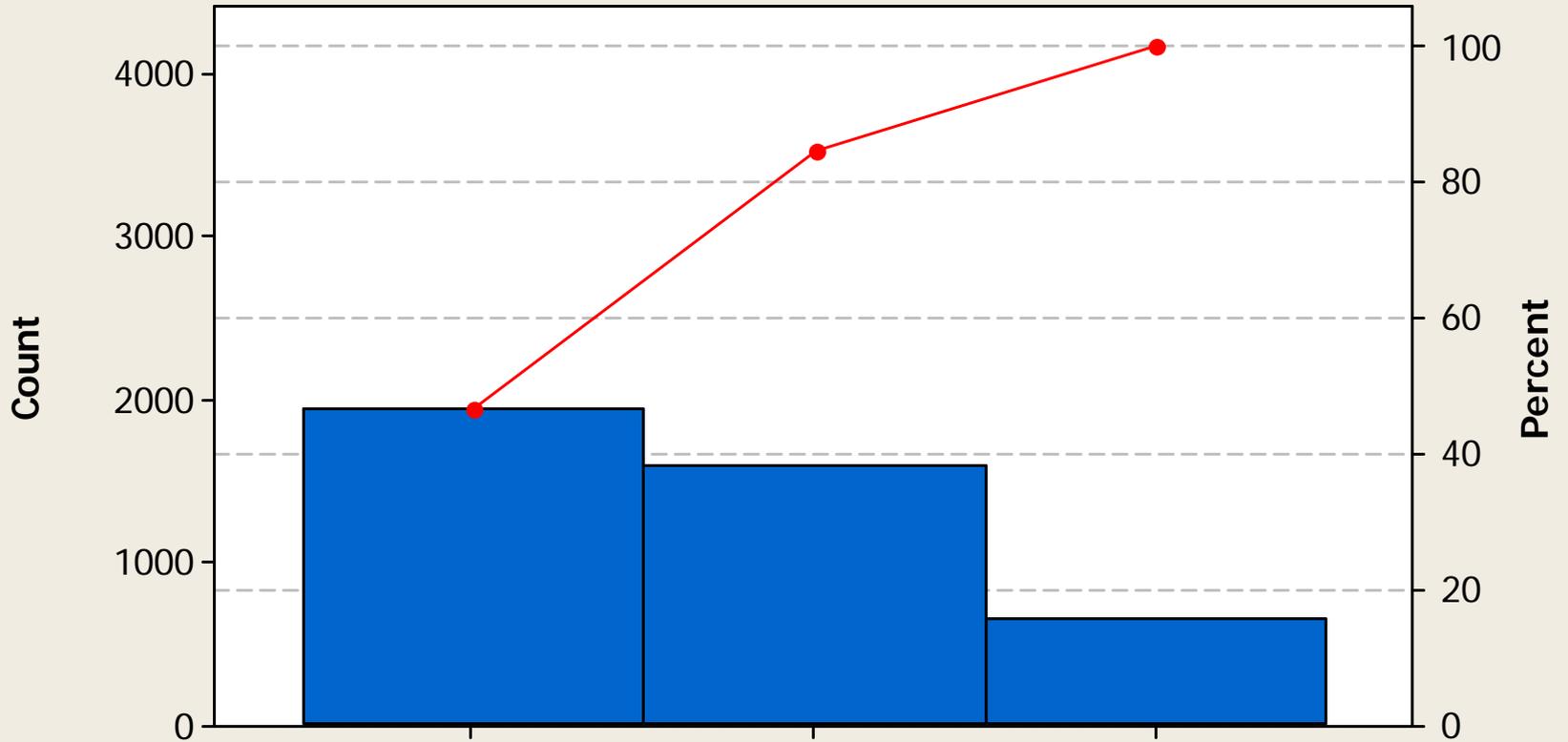
Key Metrics

- Rate of item scan throughout the year
 - 1st Pass (July 1st – September 30th)
 - 2nd Pass (October 30th – December 1st)
 - 3rd Pass (January 1st – June 30th)



Items scanned throughout the year

Number of items scanned during 1st, 2nd and 3rd pass



C1	1st Pass	2nd Pass	3rd Pass
Count	1935	1577	647
Percent	46.5	37.9	15.6
Cum %	46.5	84.4	100.0

Items for Resolution

Item	Priority	Status	Owner	Open Date	Resolved Date	Resolution
Financial Information for Assets (Depreciation Formula)	1	Further contact needed	Felix	10/20/05	TBD	
Benchmarking other systems – how assets are charged, how protected.	2	Further research needed	Bob	10/20/05	TBD	
CTQ – Portion of Items Located in Proper Areas	3	unresolved	team			Unlikely to be resolved due to lack of data
CTQ – Undocumented Assets (untagged)	3	unresolved	team			Unlikely to be resolved due to lack of data
CTQ – Misreads by Equipment	3	unresolved	team			Unlikely to be resolved due to lack of data
CTQ – Sorting Efficiency of missing Items	2	Further contact with P.C.	Felix	10/20/05	TBD	
CTQ – Loss Avoidance (timely reporting)	1	Further contact with P.C.	Bob	10/20/05	TBD	

Next Steps

- Address IFRs according to priority
- Begin Analyze phase
- Investigate benchmarked system of UF



THE END

CECS Inventory and Asset Management

