



# **Six Sigma Addressing, Level #1**

## **Define & Improve Your Addressing Process**

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Mike Tate – VP Postal Strategy

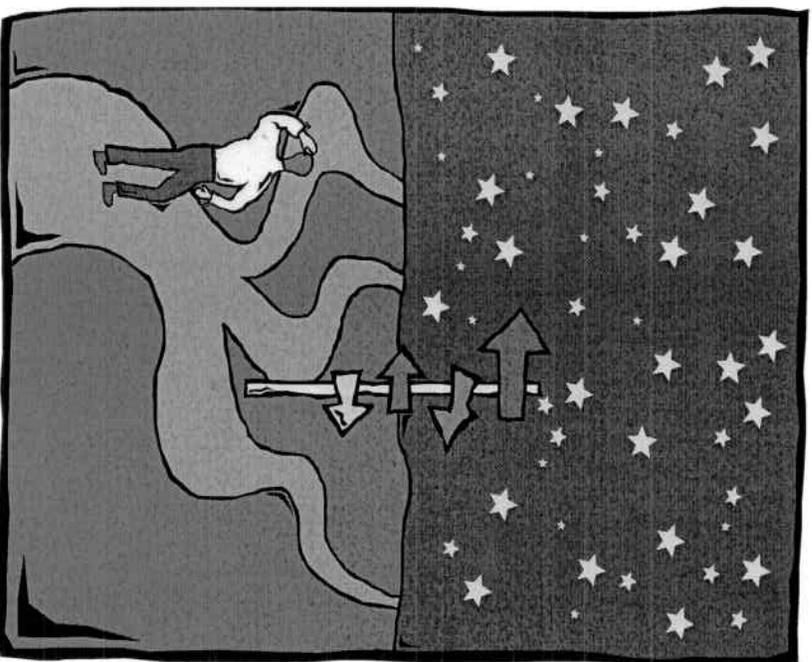
**Bank of America**



## How Many Address Tools Exist Today?

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- CASS, DPV, LACS, ANK, STE
- NCOA, FASTforward, Ancillary Endorsements
- E911
- Consumer Information Sources
- Multiple Deployment Methods
- Multiple Vendors

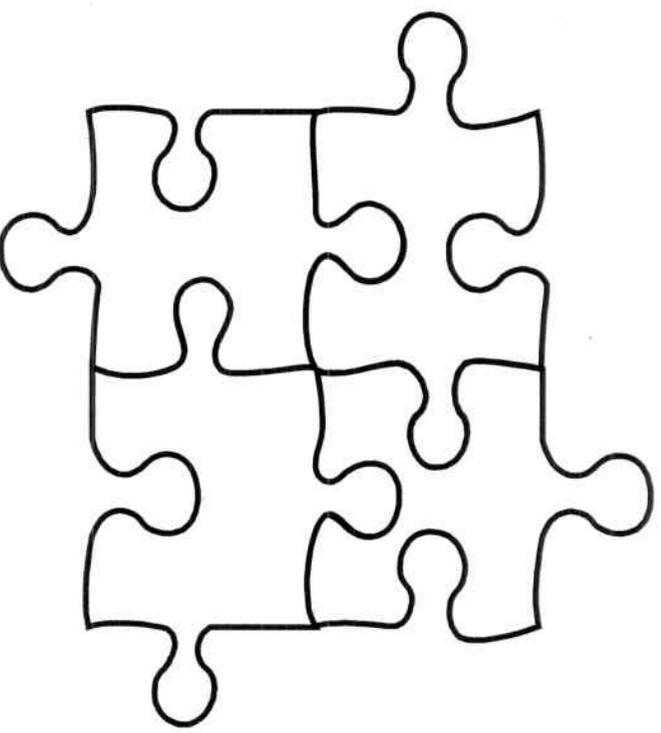


## **Which tools and deployment methods will best tackle your addressing? issues?**

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What are your addressing issues?

- Return Mail
- Customer Moves
- Direct Marketing
- Customer Correspondence



**What is the Root Cause of the Addressing Problem?**



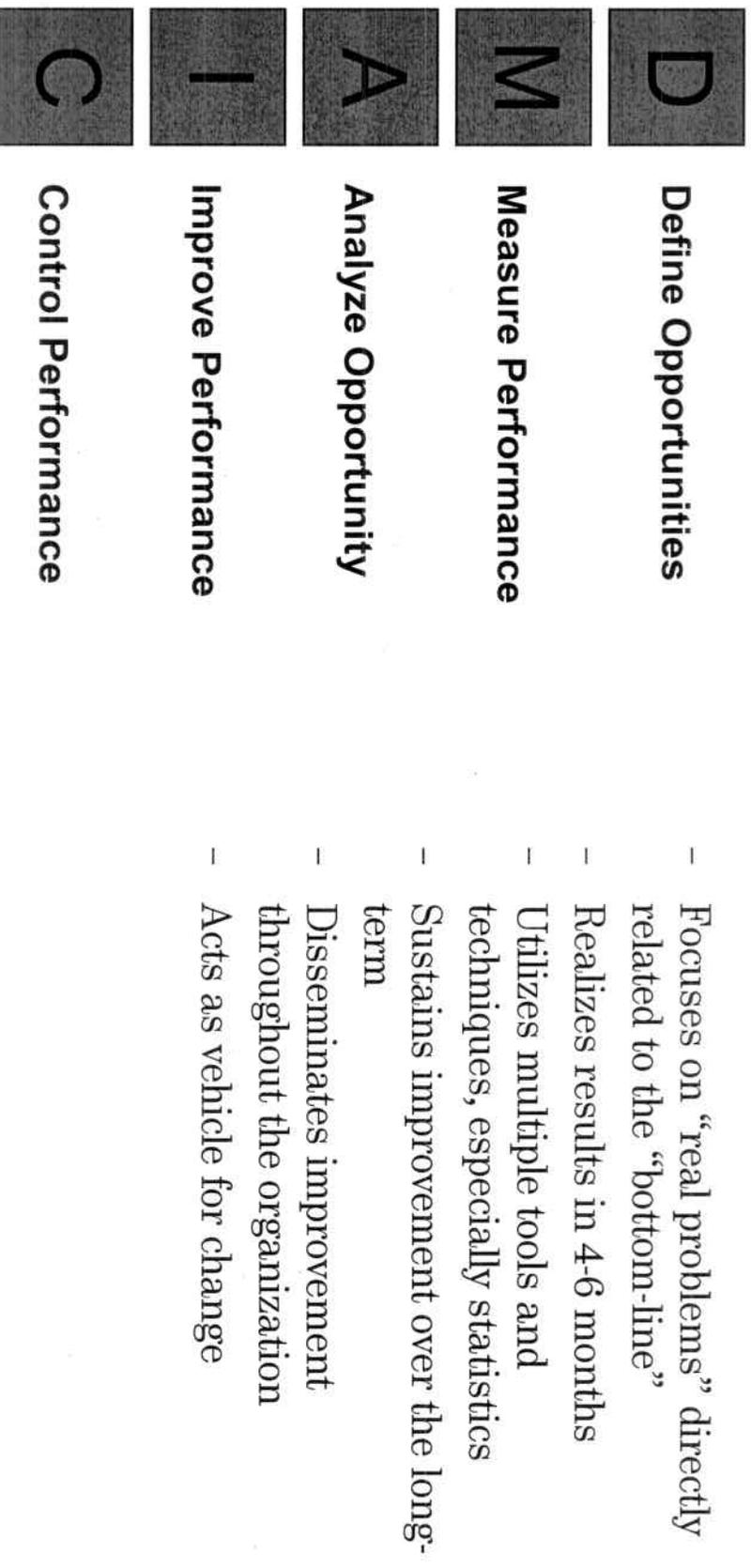
# Introduction to 6 Sigma

**Everything is a process!**  
**Variation is the enemy!**

**If it can be measured, it can be managed!!!**

**The incremental Six Sigma improvement methodology is referred to by its phases or “D—M—A—I—C.”**

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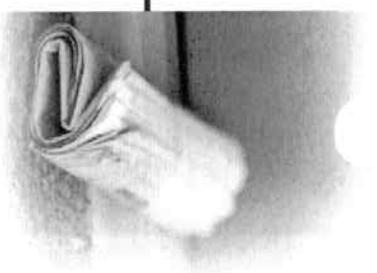
## Customer – “What’s Up!” Daily

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Nationwide daily newspaper targeted toward children & teens  
Orders taken on-line, phone, direct marketing

### Addressing Problems:

- Invoices constantly returned as undeliverable
  - Billing address doesn't match delivery location (College & University)
  - Addresses entered on-line are frequently incorrect
  - How to follow-up and get paid?
- Can't find customers to deliver papers
  - Generates calls to call center / dissatisfied customers
- Low response rates for direct marketing campaigns
  - No visibility to delivery rate for direct marketing

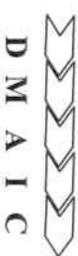




**Define**

# Define Tools

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- Charter
  - Document goals and objectives
  - Define the scope of the project
  - Identify the team
- Financial Assumptions
  - Quantify the opportunity
- Voice of the Customer
  - Convert the customer statements into something that can be measured

# Project Charter



<p style="text-align: center;"><b>Business Case</b></p> <p>100,000 invoices are mailed to customers who have ordered newspaper. 5% (5000) invoices are returned as undeliverable. The cost associated with each piece of return mail is significant. There is wasted postage, print &amp; production costs. Return mail is being stored until it can be worked through, so there are inventory and management costs and the cost of lost revenue.</p>	<p style="text-align: center;"><b>Opportunity Statement</b></p> <p>We have the opportunity to reduce return mail, reducing the wasted costs of mailing and production, while decreasing accounts receivable by increasing invoices that are deliverable and eligible for payment.</p>																																				
<p style="text-align: center;"><b>Goal Statement</b></p> <ul style="list-style-type: none"> <li>• Correct 50% of undeliverable addresses (2,500 monthly).</li> <li>• Establish a process for connecting with lost customers so that payment can be received and future business attained.</li> <li>• Use this process to fix on-line ordering addresses, increase direct marketing success</li> </ul>	<p style="text-align: center;"><b>Project Scope</b></p> <ul style="list-style-type: none"> <li>• Pre-Print data processing             <ul style="list-style-type: none"> <li>– Start: Records are sent to vendor for address cleansing</li> <li>– Stop: Mail Piece is produced and mailed, database is updated</li> </ul> </li> <li>• Out of Scope:             <ul style="list-style-type: none"> <li>– Can't change on-line order processing</li> </ul> </li> </ul>																																				
<p style="text-align: center;"><b>Project Plan</b></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Activity</th> <th style="text-align: center;">Time</th> </tr> <tr> <th></th> <th style="text-align: center;">wk 1   wk 2   wk 3   wk 4   wk 5</th> </tr> </thead> <tbody> <tr> <td>• Form Team</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Finalize Charter</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Gather Data</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Analyze Data</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Select Solution</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Meet Management</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Develop Plan to Implement</td> <td style="text-align: center;"> ----- </td> </tr> <tr> <td>• Closure &amp; Recognition</td> <td style="text-align: center;"> ----- </td> </tr> </tbody> </table>	Activity	Time		wk 1   wk 2   wk 3   wk 4   wk 5	• Form Team	-----	• Finalize Charter	-----	• Gather Data	-----	• Analyze Data	-----	• Select Solution	-----	• Meet Management	-----	• Develop Plan to Implement	-----	• Closure & Recognition	-----	<p style="text-align: center;"><b>Team Selection</b></p> <table style="width: 100%;"> <tr> <td>Vinnie Deepockets</td> <td style="text-align: right;">Sponsor</td> </tr> <tr> <td>Ima Bigshot</td> <td style="text-align: right;">Master Black Belt</td> </tr> <tr> <td>Choppa Yu</td> <td style="text-align: right;">Black Belt</td> </tr> <tr> <td>Yu Kant Findme</td> <td style="text-align: right;">Address Vendor</td> </tr> <tr> <td>Outta Door</td> <td style="text-align: right;">Mailing Vendor</td> </tr> <tr> <td>Putta Stampont</td> <td style="text-align: right;">USPS Rep</td> </tr> <tr> <td>Who Cares</td> <td style="text-align: right;">Customer Service</td> </tr> <tr> <td>Find DaDollar</td> <td style="text-align: right;">Acts Receivable</td> </tr> </table>	Vinnie Deepockets	Sponsor	Ima Bigshot	Master Black Belt	Choppa Yu	Black Belt	Yu Kant Findme	Address Vendor	Outta Door	Mailing Vendor	Putta Stampont	USPS Rep	Who Cares	Customer Service	Find DaDollar	Acts Receivable
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# Financial Assumptions



## Return Mail Volume

Assumption	Monthly	Annual
Total Mail Volume	100,000	1,200,000
Return Mail Pieces	5,000	60,000

## Wasted Mailing Costs

Paper	\$0.045	\$225.00	\$2,700.00
Envelopes	\$0.045	\$225.00	\$2,700.00
Lost Postage	\$0.326	\$1,630.00	\$19,560.00
<b>Total Wasted Mailing Cost</b>	<b>\$0.416</b>	<b>\$2,080.00</b>	<b>\$24,960.00</b>

## Operations Costs

Time spent picking up and sorting return mail from paid invoices	\$100.00	\$1,200.00
Transportation	\$50.00	\$600.00
Inventory	\$200.00	\$2,400.00
<b>Total Operation Costs</b>	<b>\$350.00</b>	<b>\$2,400.00</b>

## Accounts Receivable

Number of Return Mail Pieces	5,000	60,000
Average Order Value	\$20.00	\$1,200,000.00
<b>Total Accounts Receivable from UAA</b>	<b>\$100,000.00</b>	<b>\$1,200,000.00</b>

## Total Return Mail Cost

**\$102,430.00      \$1,227,360.00**

# 6 Sigma Translation Guide

Voice of Customer/Business to Process Improvements

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## English

- Mail Center “This stuff keeps coming in mixed with invoices.”
- Mail Center “A tub of return mail just fell on one of my employees”
- Finance “Why are we letting all this revenue go without any follow-up?”
- Finance “What is the point in sending this if it is just going to come back?”

## 6 Sigma

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## 6 Sigma

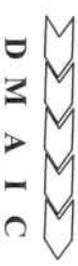
- Can we open a separate PO Box for return mail, separating it from invoices?
- Can we change the inventory process to allow mail centers to shred return mail that is older than 1 month?
- Can we send return mail to collections / customer service reps for follow-up, reduce non-payment by 50%?
- Stop sending 100% of mail that does not match CASS data without further investigation.



# Measure

# Measurement Plan

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- What do you want to measure?
  - Return Mail
  - NCOA
  - CASS Non-Matches
  - DPV Non-Matches
  - Reason Codes
- Available Tools:
  - NCOA, CASS, & DPV Reports
  - Reason code reports
- Why measure the pre-mailing address information?
  - This is the process you are going to change!
  - More detailed information is available (reason codes)

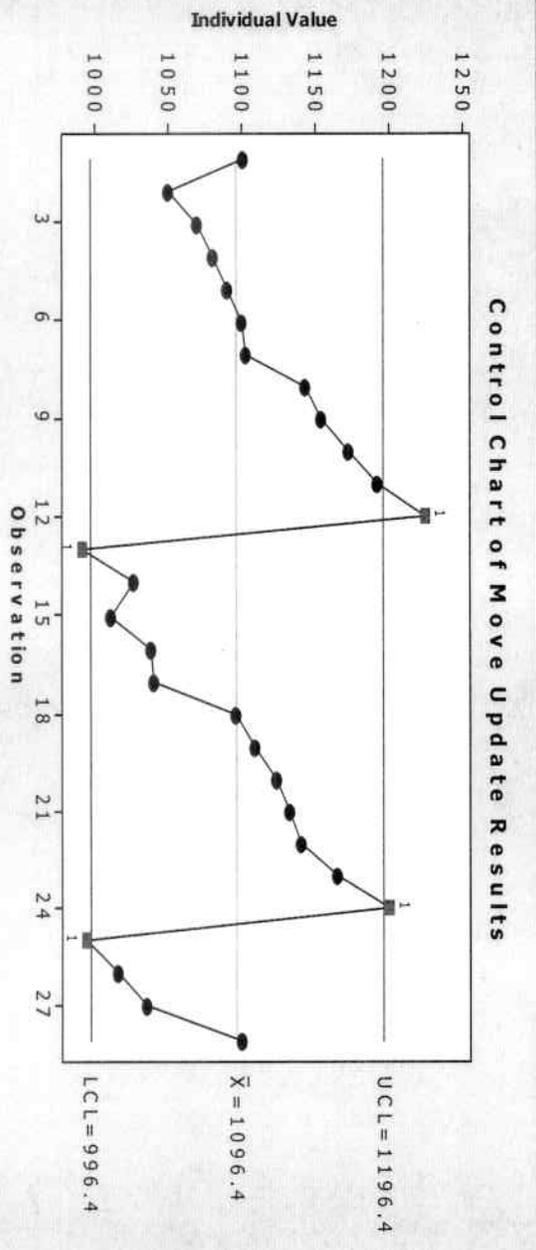
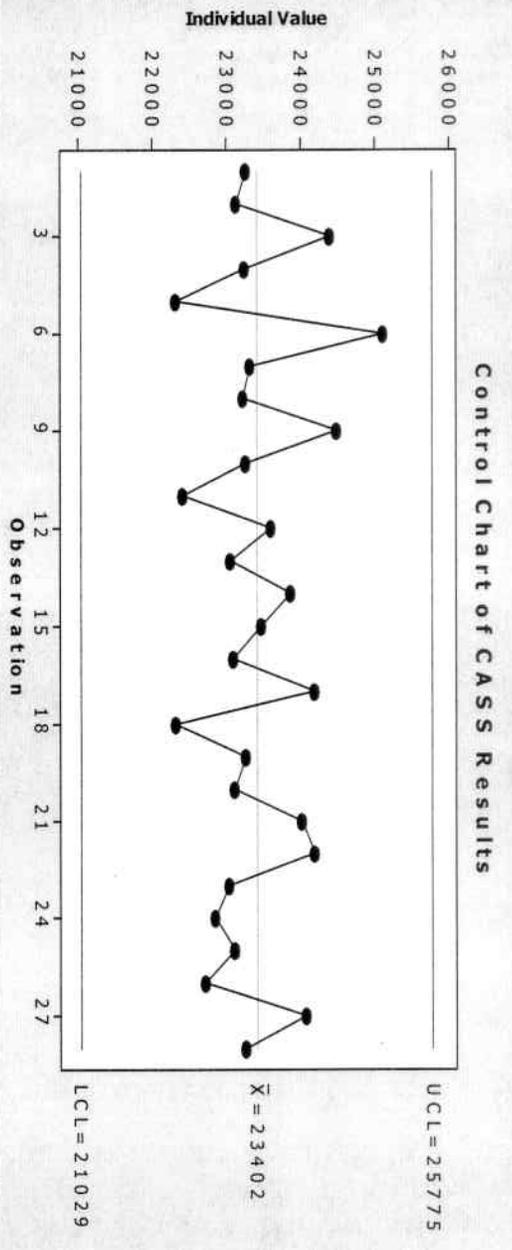
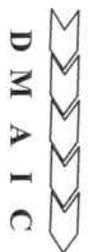
## Measurement Tools

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- Control Charts
  - Display data over time
  - Shows how much variation is in the process
  - Outline trends in data over time
  - Is the process in control?
- Pareto Chart
  - Bar Chart
  - Cumulative measurement of defects
  - Categorize the defects to find root cause
- Process Maps
  - Identify what is being done today
  - Tie measurements to the process

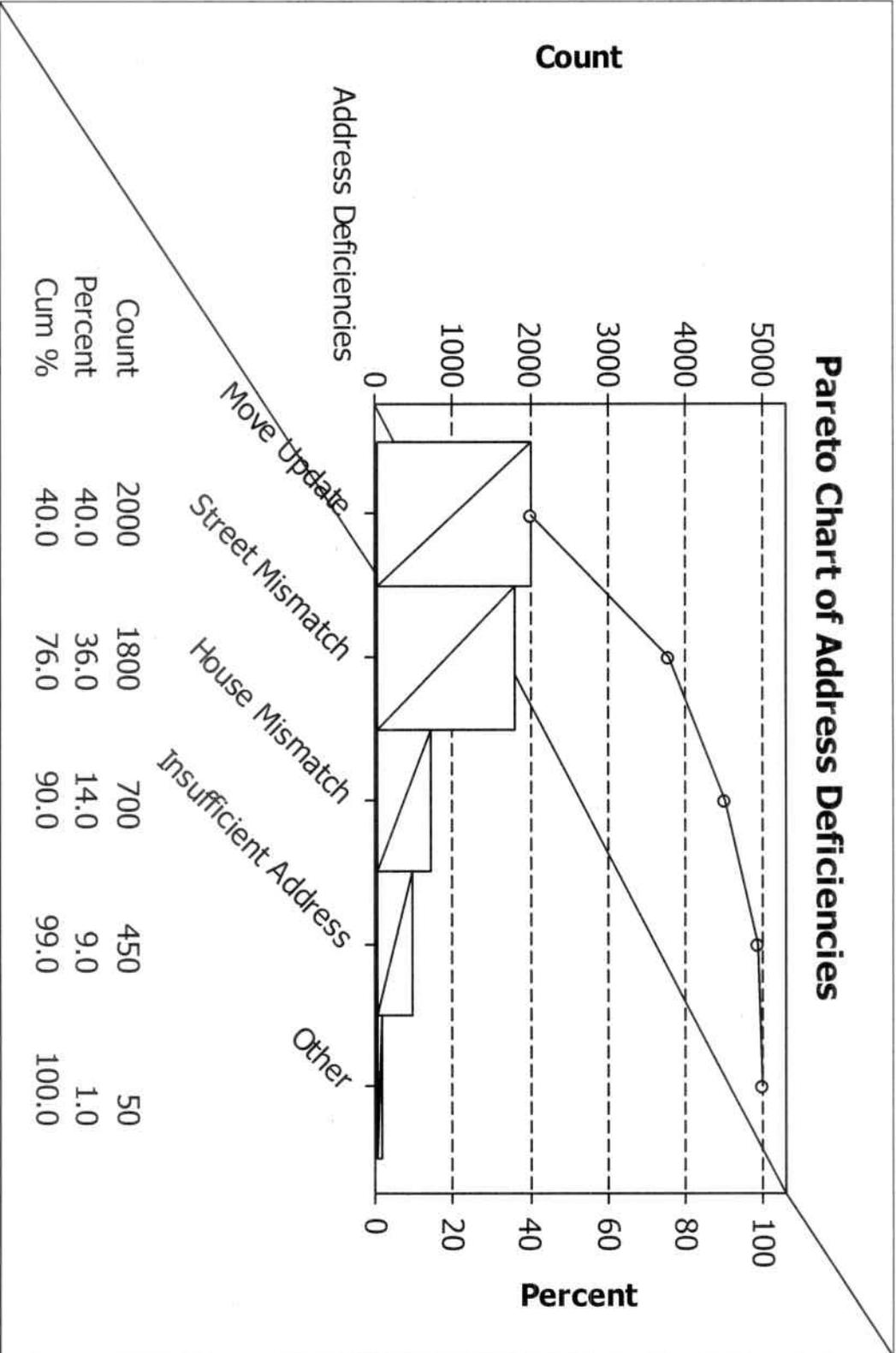
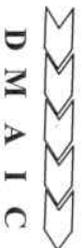
# Control Chart

## Measure Variation of the Process

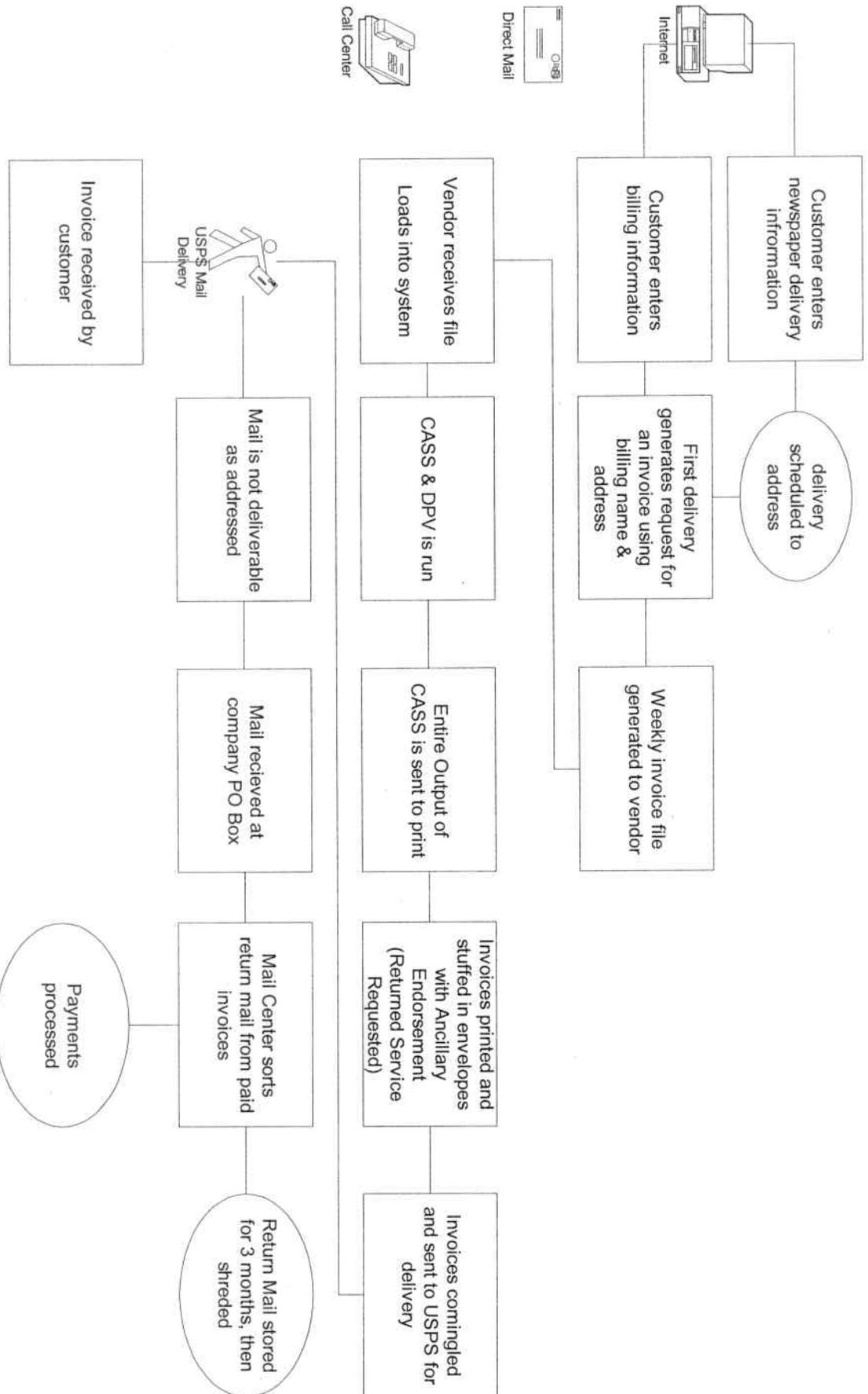
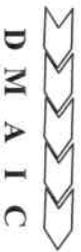


# Pareto

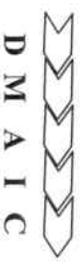
Segmentation of Address Deficiencies



# Understand Your Process



## Quick Wins



- Send return mail to collections / customer service for follow-up.
  - Reduce lost revenue by 10% (\$120,000 annual)
  - Change inventory policy. Don't maintain return mail for longer than 1 month (\$1,200 annual)
- Separate team (Billing) to investigate the impact of credit card billing.

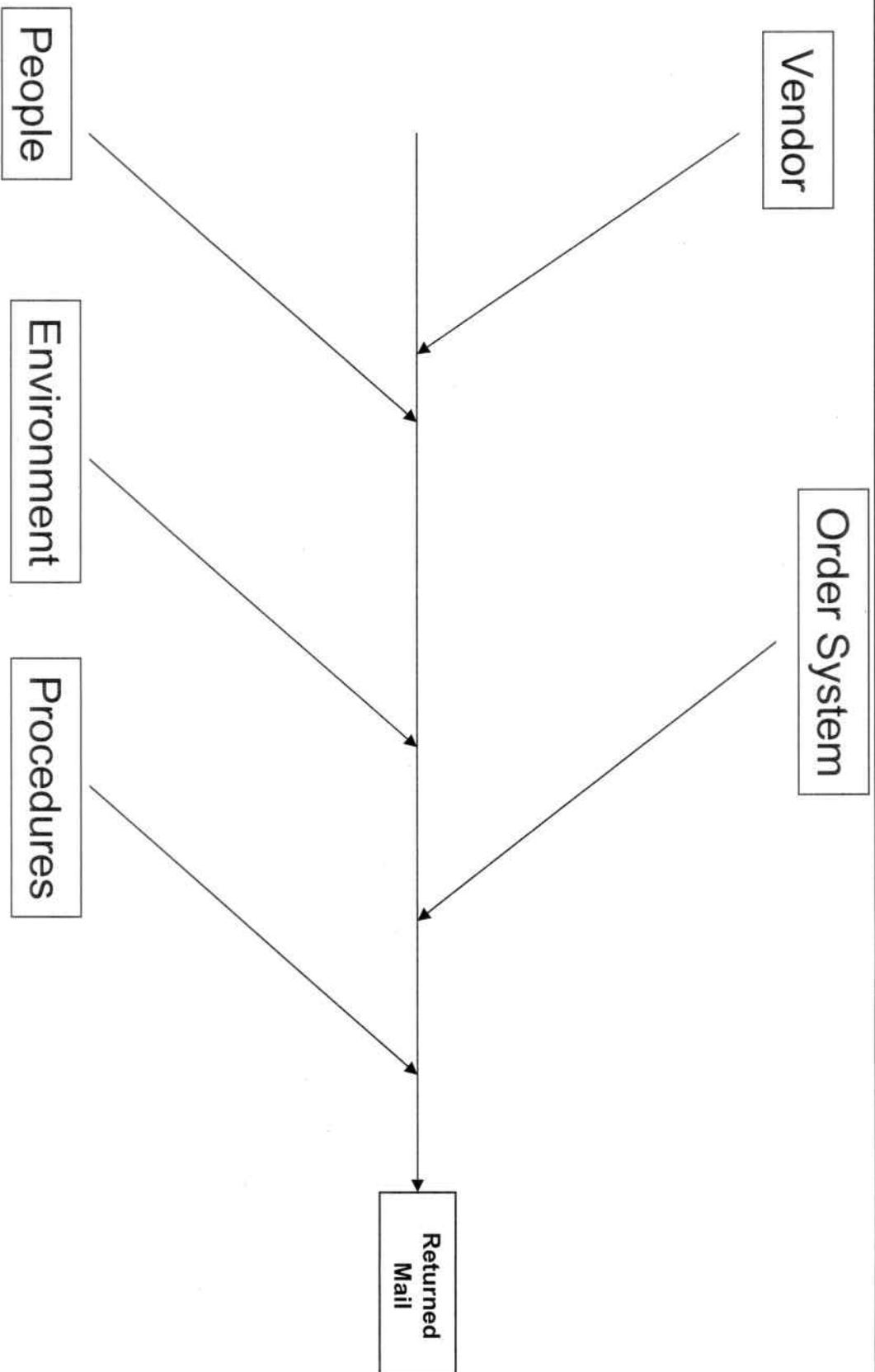
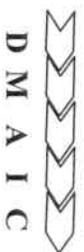




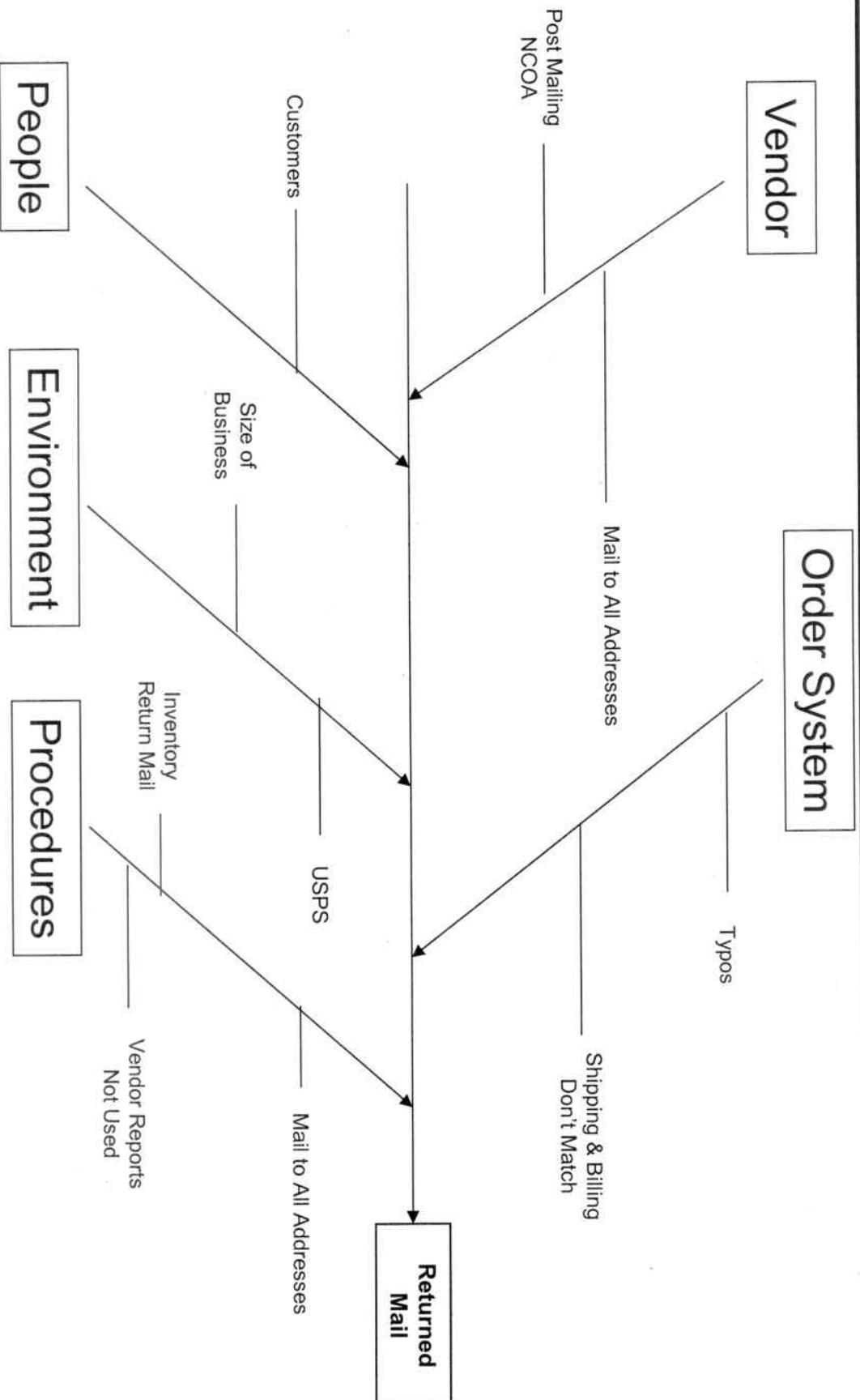
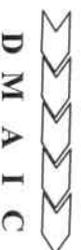
**Analyze**

**Finding Nemo**

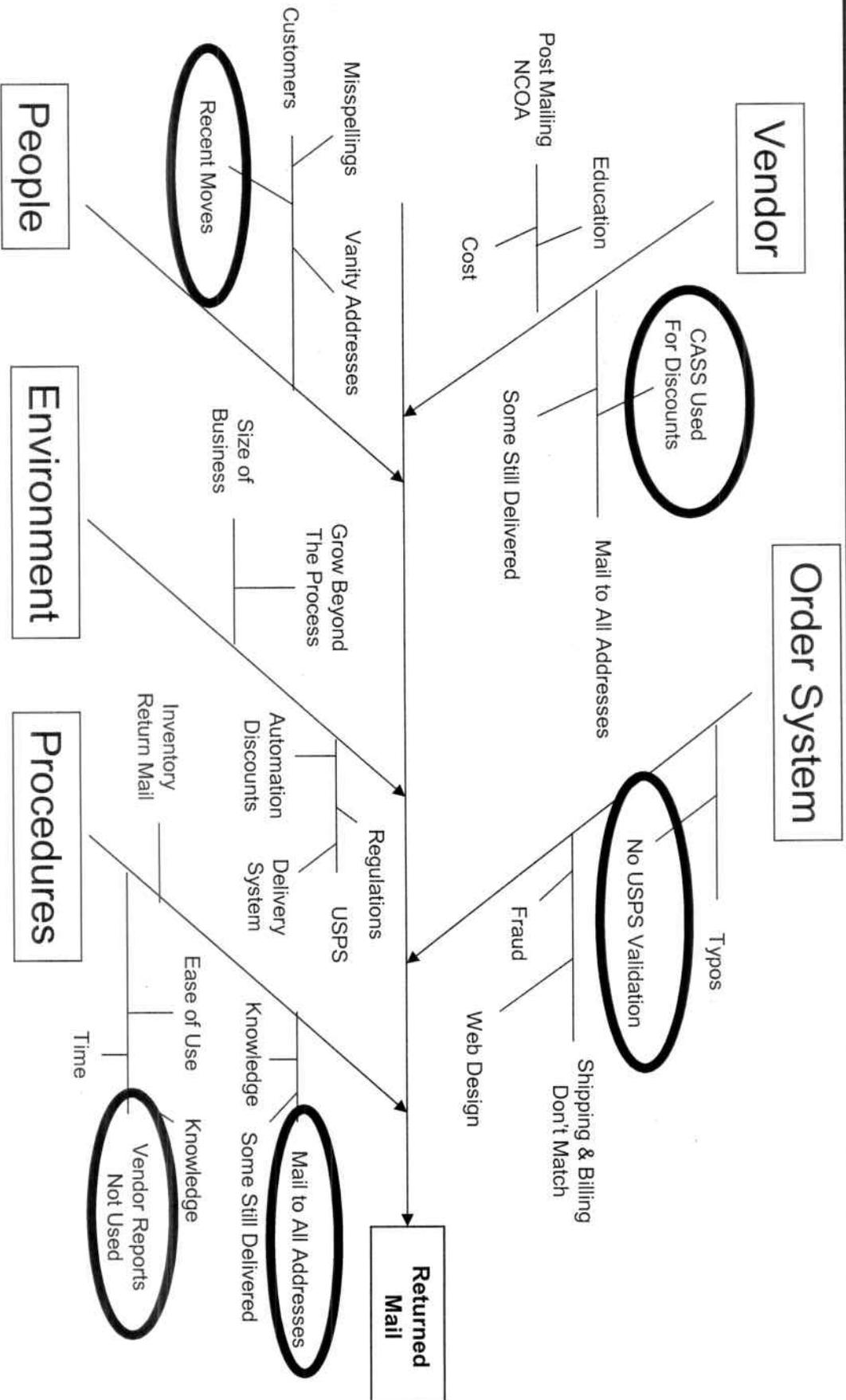
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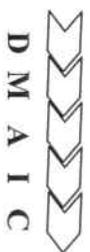




**Improve**

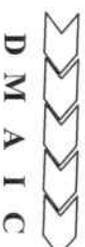
## Improve Tasks

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- Brainstorm Solutions
- Solution Selection
- Revise Process Maps
- Pilot Solution
- Risk Assessment

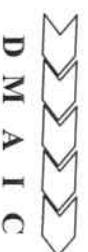
# Brainstorming Solutions



- ***Exception / Reject Report Solution***  
Obtain a daily exception reject report at the end of every CASS run which enables identification of addresses that need to be fixed and create a process that will attempt to correct them prior to mailing.
- ***Vendor Products Solution***  
Utilize multiple CASS engines to work rejected addresses, cleansing more addresses with each engine pass (i.e. Code 1 Plus, Finalist, GeoStarr). Automated option which requires customized integration.
- ***Suspend / Cancel New Accounts Solution***  
Suspend and cancel delivery for accounts who were unmatched during the CASS run. Create a process where addresses which do not standardize during CASS run are either held or cancelled.
- ***Inputs Data Entry Solution***  
Front end user has software application that uses zip code to look up address and minimize keystrokes. Requires training of front end user of new system. Automated option which requires customized integration.
- ***USPS Address Element Solution***  
Outsource reject file to postal service to have them cleanse using postal carrier data.
- ***3<sup>rd</sup> Party Consumer Information Solution***  
Using Consumer data to correct problem addresses through name and address identification. Consumer data tends to be costly and requires further validation through USPS CASS engine to pass compliance.
- ***Increase Move Update Frequency***  
Increase the frequency that Move Update is being performed. There will be a cost associated with it, but the charge is minimal.
- ***Account Flag***  
Identify accounts that are unmatched during CASS run. Separate flag indicators for activity (i.e. Flag A - accounts that had a bad address found and corrected, Flag B - accounts that had a bad address found and did not correct, etc.).

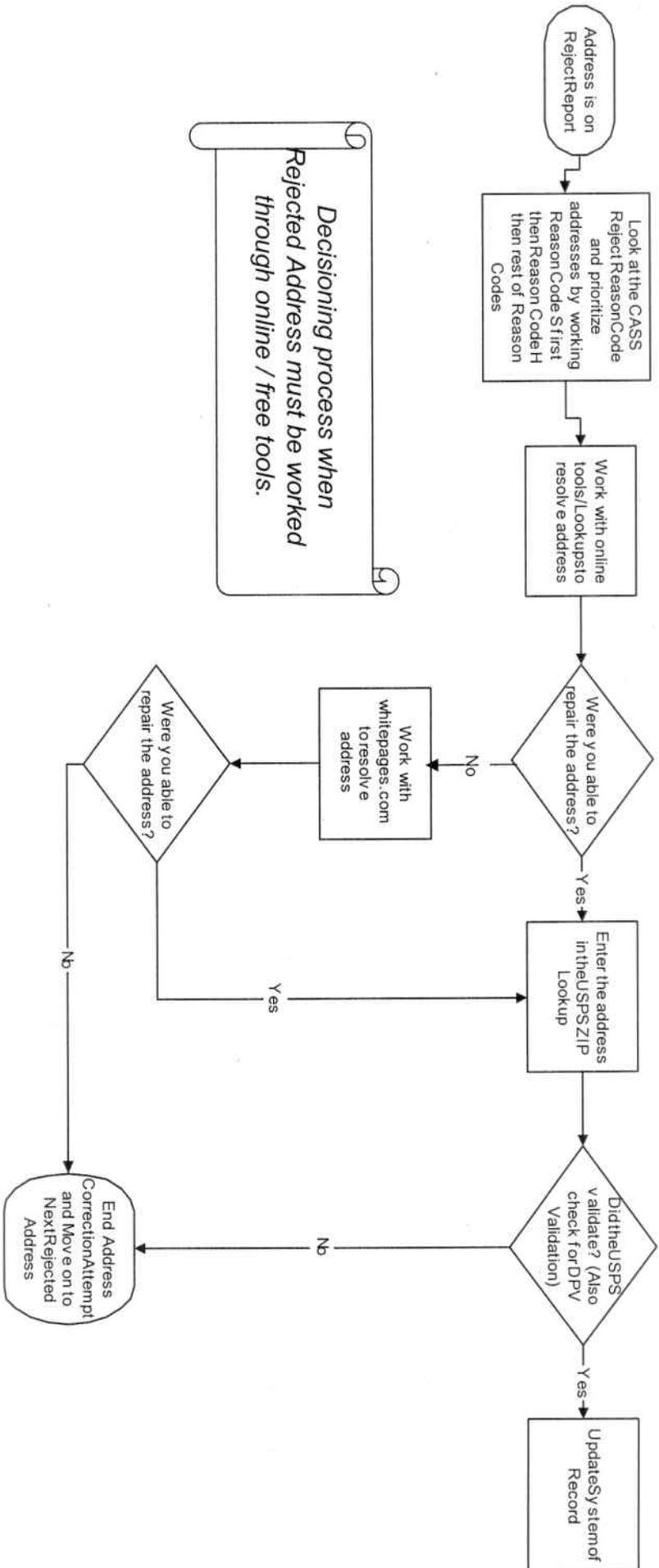
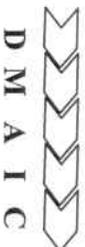
# Solution Selection

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- Rank Solutions
  - How much of the root cause does each solution resolve? A Pilot test may be needed.
  - Do we need more than one solution in order to meet the goals in the Charter?
  - Other criteria – Cost, Time to Implement, Sustainable, etc.
- Return On Investment
  - Assure the solution does not cost more than the total opportunity.
- Team Effort
  - Team expertise is used to rank solutions based on criteria and measurements.
- What's Up Daily...
  - Team ranked solutions and decided to implement 3 solutions
    1. Increase frequency of Move Update processing
    2. Print & prioritize the CASS rejects for manual rework
    3. Flag accounts that are undeliverable

# Revised Process Map



*Decisioning process when Rejected Address must be worked through online / free tools.*





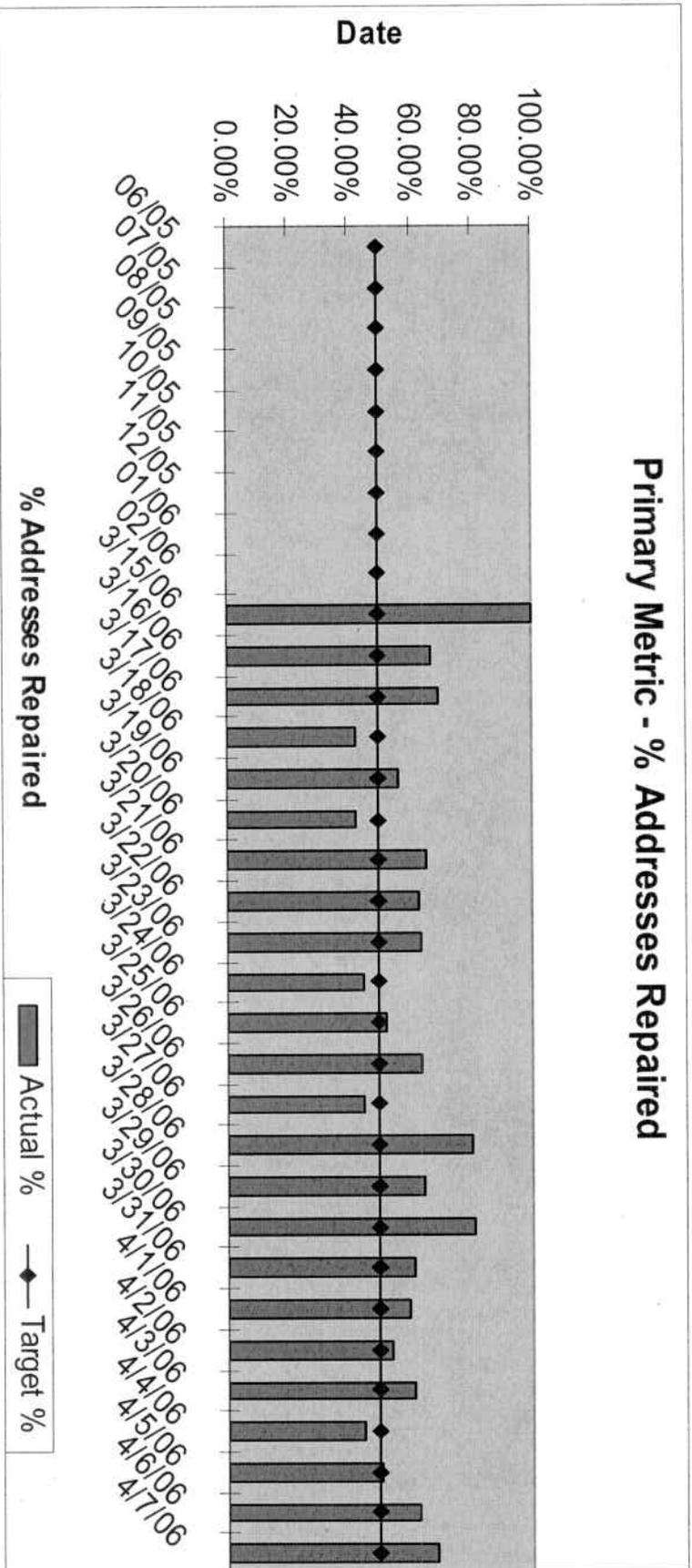
# Control

## Control Tasks



- Implementation
  - Hand-off project to the team that will manage the process going forward
  - Set up continuous measurements – Assure new process meets objectives and stays under control
  - Training and communication materials
- Review Financial Data
  - Did we meet our objective?
- Reproduce & Replicate to solve other addressing problems (Direct Marketing)

# Primary Metric - Addresses Repaired



60.8% average repair rate, not including Move Update changes!

# Revised Financials



*\$1,200,000 cost reduced to \$492,000!*

**Return Mail Volume**  
 Total Mail Volume  
 Return Mail Pieces

Assumption	Monthly	Annual
	100,000	1,200,000
2%	2,000	24,000

**Wasted Mailing Costs**

Paper  
 Envelopes  
 Lost Postage  
**Total Wasted Mailing Cost**

\$0.045	\$90.00	\$1,080.00
\$0.045	\$90.00	\$1,080.00
\$0.326	\$652.00	\$7,824.00
<b>\$0.416</b>	<b>\$832.00</b>	<b>\$9,984.00</b>

**Operations Costs**

Time spent picking up and sorting return mail from paid invoices  
 Transportation  
 Inventory  
**Total Operation Costs**

	\$100.00	\$1,200.00
	\$50.00	\$600.00
	\$200.00	\$2,400.00
	<b>\$350.00</b>	<b>\$2,400.00</b>

**Accounts Receivable**

Number of Return Mail Pieces  
 Average Order Value  
**Total Accounts Receivable from UAA**

	2,000	24,000
\$20.00	\$40,000.00	\$480,000.00
	<b>\$40,000.00</b>	<b>\$480,000.00</b>

**Total Return Mail Cost**

**\$41,182.00**      **\$492,384.00**



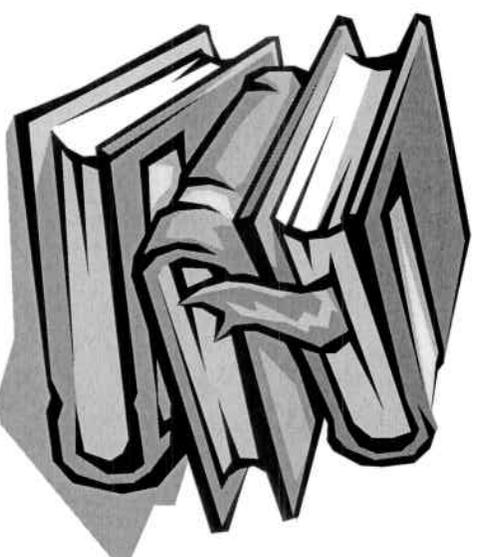
## More Information?

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### Books

- The 6 Sigma Way - Pande & Neuman
- Strategic 6 Sigma - Blakeslee & Smith



# Questions

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## Question 1

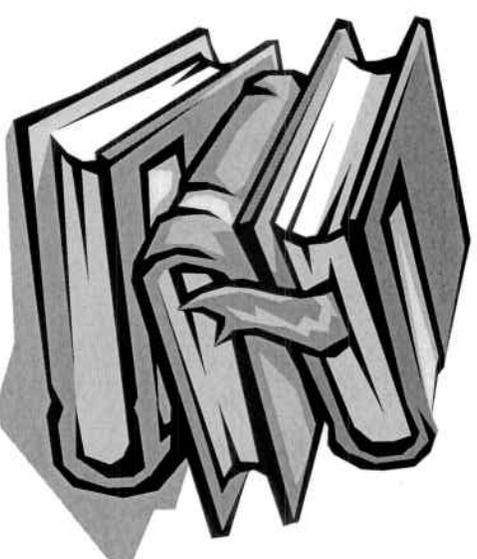
Do all 6 Sigma projects need to achieve zero defects?

## Question 2

Are bad addresses a defect of the mailing process?

## Question 3

Is return mail a cost of doing business?



**Bank of America**

