



Lean Six Sigma DMAIC Improvement Story

Green Belt Project Objective:

**To Reduce the Difference between Budget and Actual
Special Assessments for Guard Districts**

Last Updated: 4-13-18

Team: ***Tax JENRLS***

**Juan Armas (Co-Team Leader) Ryan Lafarga (Co-Team Leader)
Silvia Lopez Elaine Ramirez Lorena Guerra-Macias Nadine Blake
Suzanne Torano and Armando Gonzalez (SME)**

Maria Nardi (Sponsors)

Christina Salinas Cotter (Process Owner)



Identify Project Charter

3. ✓

The team developed a team Project Charter and secured signed off from sponsor.

Project Charter

Business Case	Project Name:	Reduce Variation in Tax assessment for Special Assessment Guard districts
	Problem/Impact:	Miami-Dade County's Special Assessment Guard Districts are facing unacceptable levels of assessment rate variations. Variation in tax assessment from expectations create a number of problems including, but not limited to: a) Complaints from residents; b) lack of trust toward county govt; c) Volatility of asmts; d) increased admin costs
	Expected Benefits:	Improved Res. satisfaction, reduced complaints; increased credibility, less admin cost
Objectives	Outcome Indicator(s)	Q1 - % (Absolute Value) Difference between Budget and Actual Tax Asmt (Rev & Exp)
	Proposed Target(s)	Target= 5%
	Time Frame:	Nov 2017 thru March 2018
	Strategic Alignment:	RC2-2, NI4-2, NI4-3 (see strategy map)
Scope	In Scope:	Special Assessment Guard Districts (Compliance with state law, county codes, ordinances)
	Out-of-Scope:	Ad Valorem , Lighting and Multipurpose Special Tax Districts
	Authorized by:	Mayor and BCC
Team	Sponsor:	Maria Nardi
	Team Leader:	Juan Armas (Co-Team Leader) Ryan Lafarga (Co-Team Leader)
	Team Members:	Silvia Lopez Elaine Ramirez Lorena Guerra-Macias Nadine Blake
	Process Owner(s):	Christina Salinas Cotter
	Mgmt Review Team:	Michael Bauman, Gil Delgado, Christina Salinas Cotter, Maria Nardi
Schedule	Completion Date:	3/30/18
	Review Dates:	Monthly and Final Review in March 2018
	Key Milestone Dates:	See Action Plan

Define

Measure

Analyze

Improve

Control

2












Develop Project Timeline Plan

The team developed a Timeline Plan to complete their Project.

Legend:	
	= Actual
	= Proposed

WHAT: Reduce Differences in Tax Asmt Budget and Actuals for Spec Asmt Districts

HOW	WHEN						
	Month 2017-2018						
	Nov	Dec	Jan	Feb	Mar	Apr	May
1. DEFINE		  Completed 12/15/17					
2. MEASURE		  Completed 1/5/18					
3. ANALYZE			  Completed 1/19/18				
4. IMPROVE				  4/13/18			
5. CONTROL							

On-going

Define

Measure

Analyze

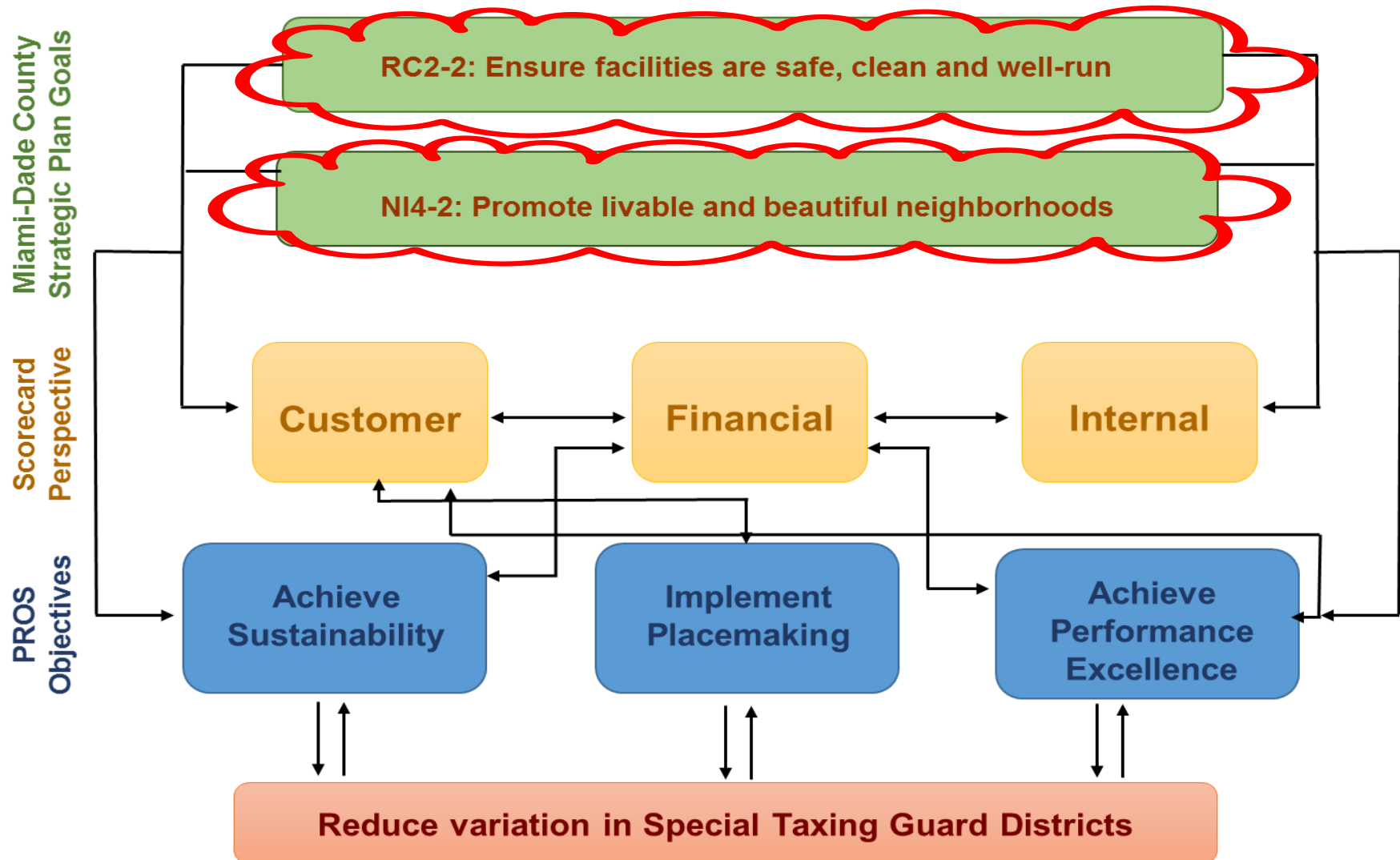
Improve

Control



Project Alignment to Strategy

Our Project directly supports two (2) Miami-Dade County Strategic Plan Goals.



A Special Assessment District is a designated area where a majority of **property owners agreed to allow Miami-Dade County, through Chapter 18 of Miami-Dade Code, to levy a special property tax in exchange for a specific service.**

Special Assessment Districts give communities the opportunity to make improvements in the public areas of their neighborhoods which could not be conveniently or equitably done otherwise. **Improvements include: street lighting; security guard services; multipurpose maintenance and capital improvements/road maintenance.**

Parks, Recreation and Open Spaces (PROS) Special Assessment Districts Division (SADD) is responsible for the management and operation of 1,070 active special assessment districts providing services to approximately 389,740 households. **Of these 1,070 special assessment districts, 44 (4%) are Special Assessment Guard Districts, comprised of 13,845 households and 46% of the overall Special Assessment Districts Division budget.**



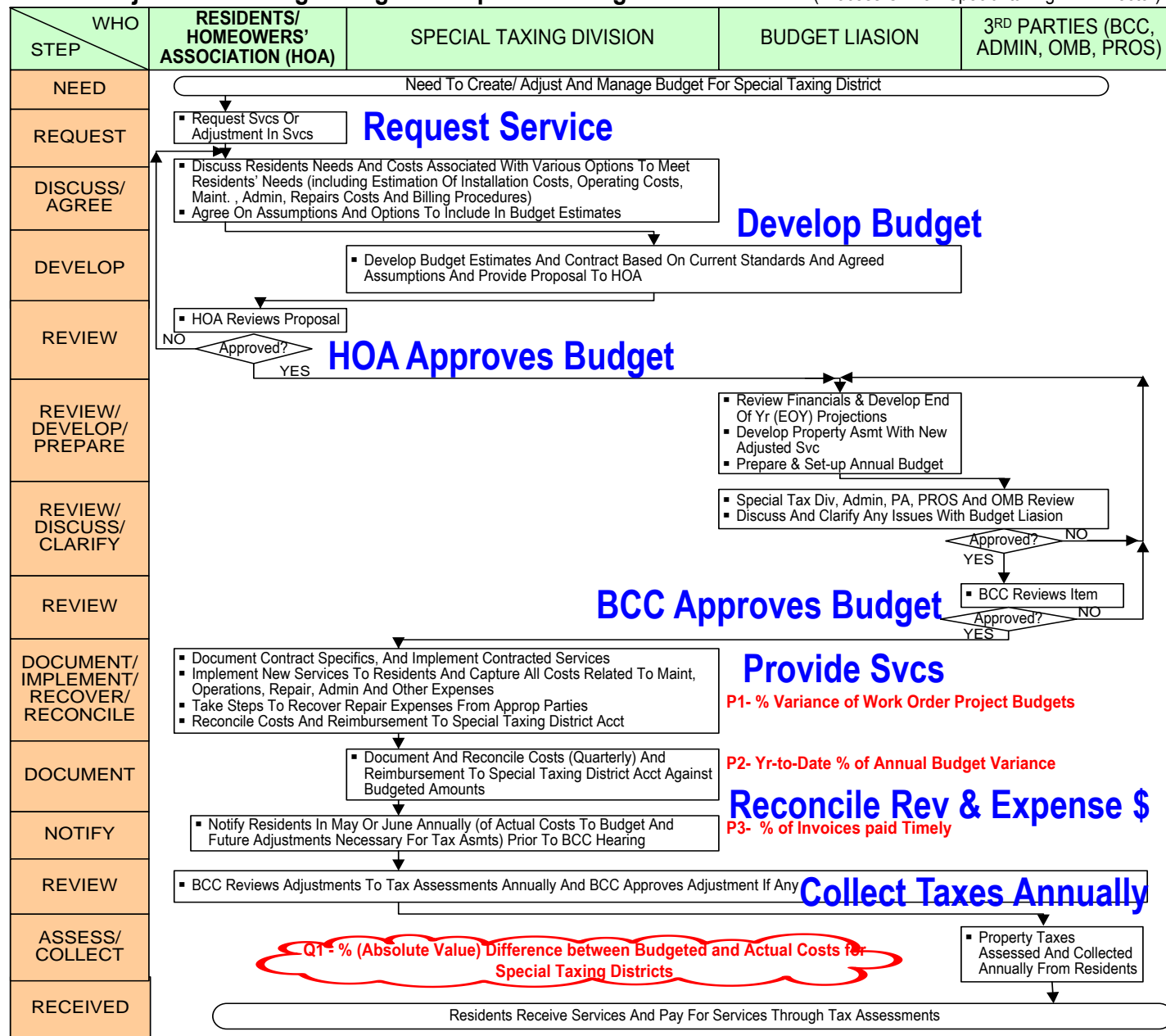
Construct Process Flow Chart

5.

The team constructed a Process flow chart describing the Process.

The team next looked Stakeholder process needs

Create/ Adjust And Manage Budget For Special Taxing Guard District (Process Owner: Special taxing Div Director)



The team identified stakeholder needs for the process outputs.

Stakeholders Needs	
Stakeholders	Process Output Needs
Homeowners in the Special Assessment Guard Districts	Accurate tax assessments
	Quality/reliable guard services
	Safe and aesthetically pleasing neighborhoods
Mayor and Board of County Commissioners	Reduced complaints from constituents
	Accurate tax assessments
County staff	Reduced complaints from constituents
	Accurate tax assessments
	Stable workload and efficient budgeting practices



Cost of Poor Quality

6. ✓

The team identified the hidden costs of the volatile annual tax assessments.

Stakeholder	Pain Experienced	Annualized "Costs"
Homeowners in the Special Assessment Guard Districts	Dissatisfaction with Variances	(Special tax Guard Districts with Variances)*(30 hrs FTE)*(\$103 per hour)= 32*30*103= \$98,880
Mayor and Board of County Commissioners	Loss of credibility with constituents	AD costs \$113 hr* 30 hrs = \$3,390
County staff	Loss of credibility with constituents Stressful work environment Reconcile differences	Staff Costs = \$29,568 <ul style="list-style-type: none">Budget Liaison \$52 hr*15 hrs*16 weeks= \$12,480AD \$113 hr*5 hrs*16 weeks=\$9,040Chief of Tax Div \$89 hr* 2hrs* 16 weeks =\$2,848SPA of Tax Div \$66*5hrs*16 weeks = \$5,200

Total Cost of Poor Quality Savings = \$131,838 Annually



Identify Data Collection Needs

8.

The team developed a spreadsheet to help analyze the process.

Special Assessment Districts Summary *(each row is a Special Assessment District Info for 1 year)*

BCB <
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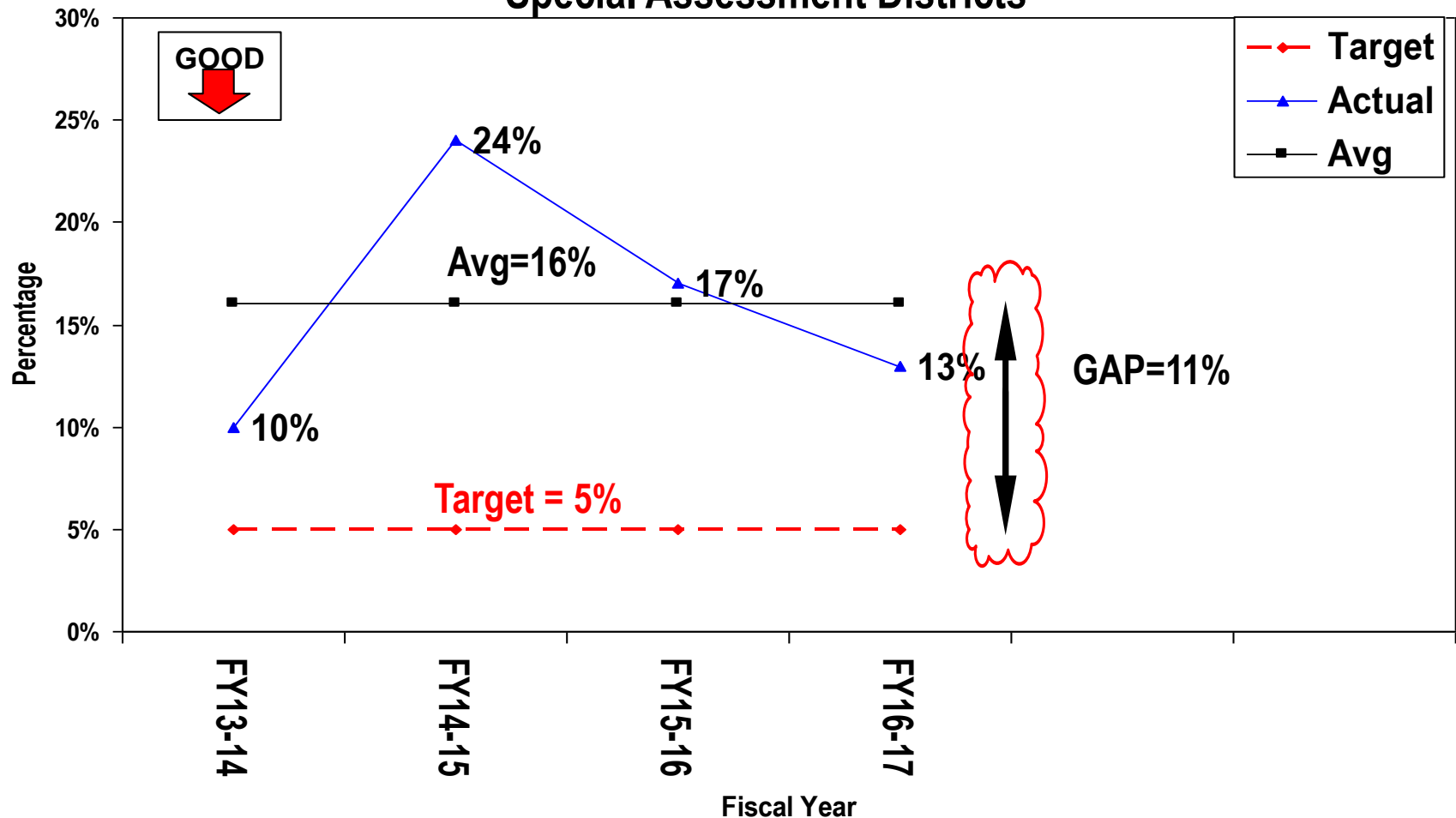
				WHERE	WHAT	WHERE	WHAT						
Taxing Difference			S Absolute Value Percent Difference	T	U	V	# of Folios/ Units Assessed			Folio Breakdown			
P	Q	R					W	X	Y				
Dollars Difference	Absolute Dollars Difference	Percent Difference		Location Incorp or UMSA)	Type (Apt or Single Family)	Commis- sion District	Budget	Actual	Differ- ence	% Devel- oped	% Vacant	% Condo	
Total		% Avg		% Wtd Avg	% Incorp	%F Prctc	%Y	Total			Avg		
\$1,864,687		45%		20%	0%	0.0		310	280	-30			0.6
Q1													
-\$11,880	\$11,880	-5%	5%	Incorp	1								
-\$10,573	\$10,573	-5%	5%	Incorp	1								
-\$25,574	\$25,574	-4%	4%	Incorp	1								

Define Measure Analyze Improve Control

Display Indicator Performance “Gap”

The team collected Q1 indicator data and reviewed performance trends:

Q1 - % (Absolute Value) Difference between Budgeted and Actual Costs for Special Assessment Districts

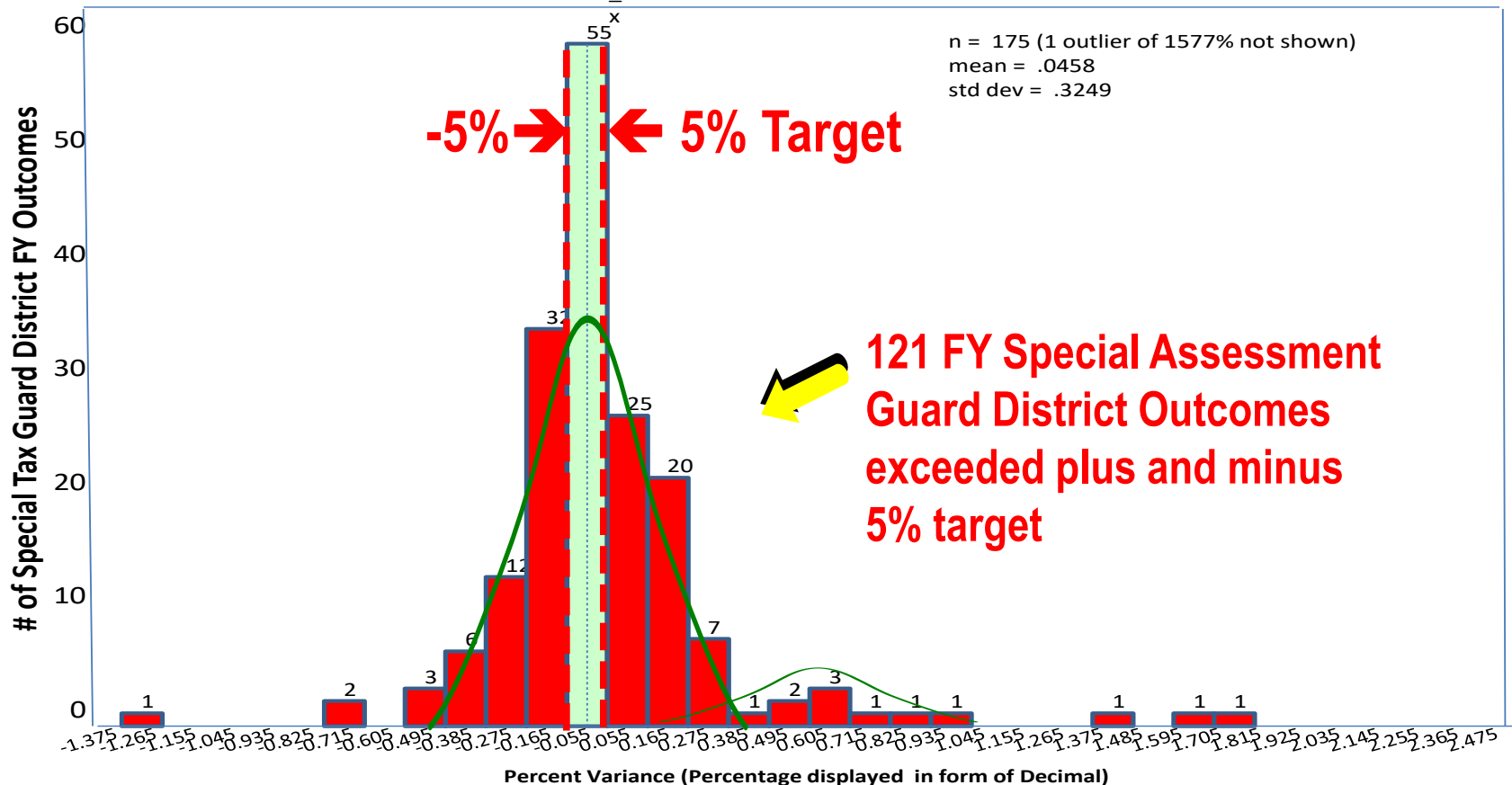


Stratify Problem

8. 

The team stratified the 176 Special Assessment Guard Districts Outcomes many ways and found...

Special Tax Guard District Budget Year Outcomes
FY13-14 through FY16-17



The team looked closer at the 121 Special Assessment Guard District FY Outcomes exceeding target.

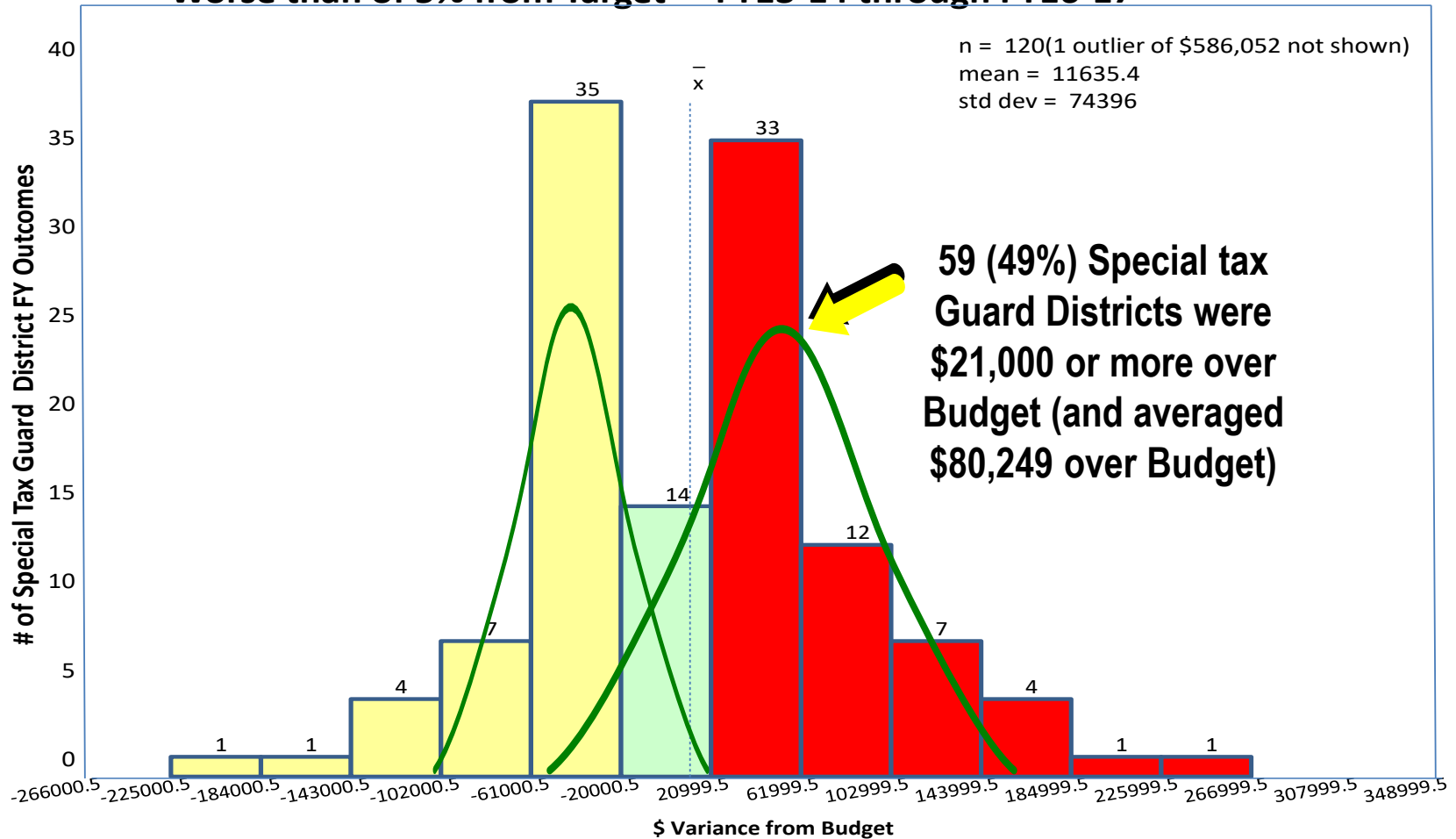


Stratify Problem

8. 

The team stratified the 121 Outcomes (not achieving target) many ways and found...

Special Tax Guard District Budget Year Outcomes Worse than of 5% from Target - FY13-14 through FY16-17

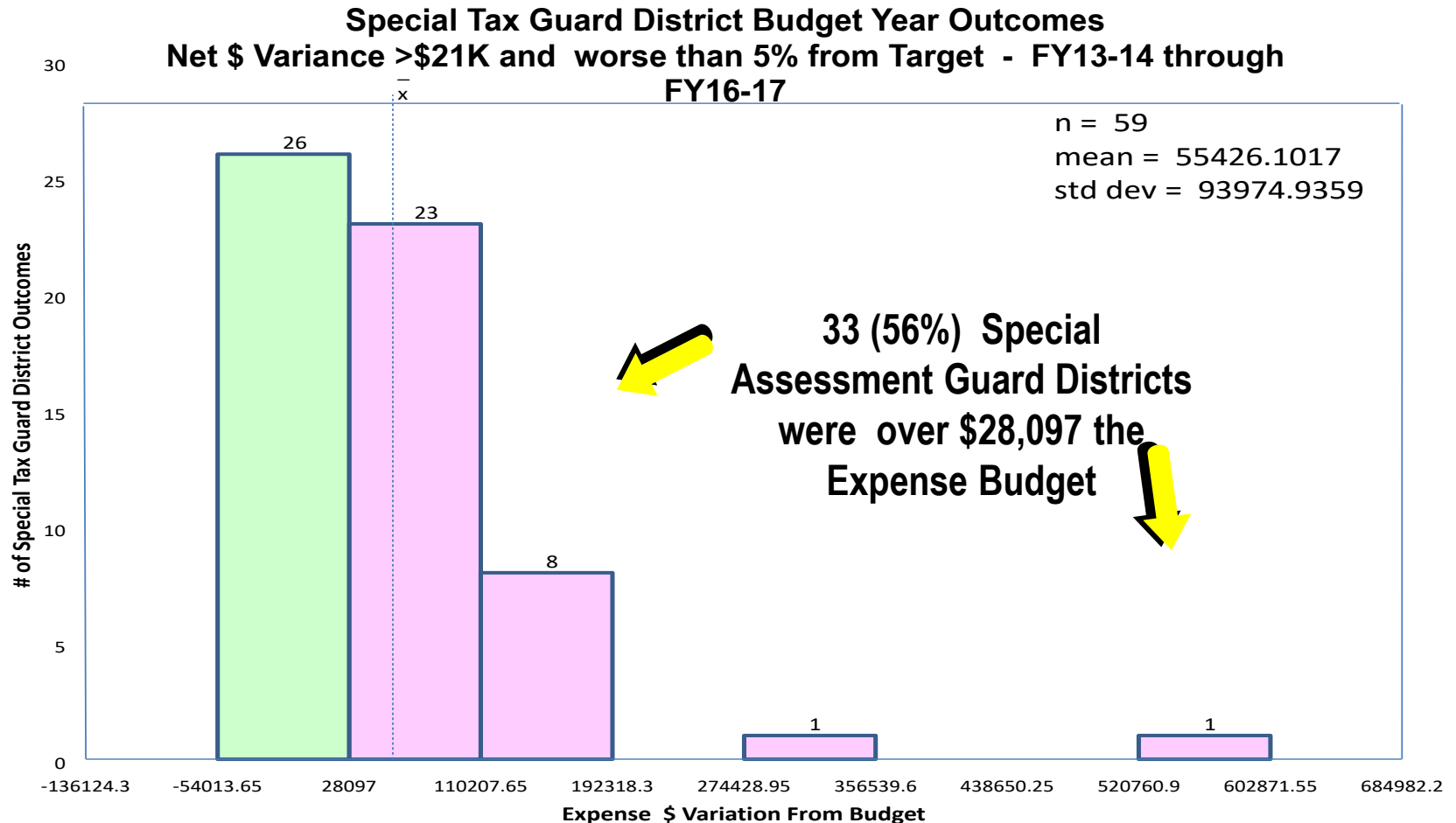


The team looked closer at the 59 Special Assessment Guard District FY Outcomes.

Stratify Problem

8., 9., 10. 

The team stratified the 59 outcome years many ways and found...



Problem Statement: “33 Special Assessment Guard District FY13-14 through FY16-17 Budget Year Outcomes that exceeded the targeted 5% variance had a Net \$ Variance >\$21K with each outcome incurring \$28,097 or more in Expenses over budget ””

Define Measure Analyze Improve Control

Identify Potential Root Causes

11., 12. 

The team conducted Single Case Bore Analysis...

Single Case Bore Analysis

Problem Statement: *“33 Special Tax Guard District FY13-14 through FY16-17 Budget Year Outcomes that exceeded the targeted 5% variance had a Net \$ Variance >\$21K with each outcome incurring >=\$28,097 in Expenses over budget”*

Reasons or Factors <i>(that contributed to an Expense variation)</i>	Random Sample of 15 of the 33 Districts															Total	Percentage
	1-905253-HAM	2-905014-SAN	3-905227-EAS	4-905021-EAS	5-905242-FALL	6-905253-HAM	7-905005-N D	8-905003-MIA	9-905018-OLD	10-905849-LA	11-905004-HA	12-905012-BE	13-905005-N	15-905235-KI			
1) Underbudgeted based on previous year Actual (despite Variance from Previous yr budget)	X				X											2	14%
2) New District (was less than 2 years)	X					X				X						3	21%
3) Large Fund Balance from previous year	X	X	X	X	X	X				X			X			8	57%
4) Actual Charges for County Svcs Higher than other years	X	X	X	X	X	X	X	X	X		X	X		X		12	86%
5) Actual Revenue Greater than Budget					X	X										2	14%
6) Large Variance in Admin Costs			X			X	X	X	X	X	X	X	X	X		10	71%
7) Insufficient Revenues	X									X						2	14%

The team will include these 3 major factors in in cause and effect analysis.

Define Measure Analyze Improve Control

Identify Potential Root Causes

12., 13. ✓

The team completed the Fishbone Analysis...

**A –Actual Charges for Contractual Services
Higher than other Years other (86%)**

County was not receiving Invoice timely form Guard
venders and did not accrue the expected expense

County tax District Staff did not accrue the late expected expenses

County tax District Staff not aware of the accrual policy

A1

County tax District Staff not
adequately trained on accruals

A2

No Written Procedures for how to
claim an accrual for late guard invoices

Fund Balances were higher that reality

County tax District Staff did not
accrue the late expected expenses

A1

County tax District Staff not
adequately trained on accruals

Admin costs were changed during
the year and not in the Budget

B


Budget Process does not
anticipate all future
adjustments known prior to
budget

**C –Large Fund Balance from
Previous Year (57%)**

**B- Large Variance in Admin
Costs (71%)**

C & E Diagram
Problem
Statement

**"33 Special
Tax Guard
districts over
5% variance
and over
\$21,000
overage had
Over \$28,000
over in
expenses"**

 =Potential
Root Cause

Define Measure Analyze Improve Control

The team collected data to verify the root causes and found....

Root Cause Verification Matrix		
Potential Root Cause	How Verified?	Root Cause or Symptom
A1 County Tax District Staff are not adequately trained on accruals	Interviewed Workers and Supvs and found not all were adequately trained on County and tax District accrual policies	Root Cause
A2 No Written Procedures for how to claim an accrual for late guard Vendor invoices	Review Procedures and verified no written procedure for how to claim accruals for late invoices and other variances	Root Cause
B Budget Process does not anticipate all future adjustments known prior to budget	Review Budget Process Procedures and verified no written procedure to consider all future adjustments known prior to budget	Root Cause




All three (3) were validated as root causes.



Identify and Select Countermeasures

14., 15. 

The team brainstormed many countermeasures and narrowed them down to these for evaluation:

Countermeasures Matrix						
Problem Statement	Verified Root Causes	Countermeasure	Legend:			
			5=Extremely 4=Very		3=Moderately 2=Somewhat 1=Little or None	
			Ratings			
			Effective-ness	Feasi-bility	Overall	Take Action? Yes/No
"33 Special Tax Guard districts over 5% variance and over \$21,000 overage had Over \$28,000 over in expenses"	A1- County Tax District Staff are not adequately trained on accruals	A1- Develop training involving Miami-Dade Accrual Policy and how it applies to Taxing Guard District activities	4	5	20	
	A2- No Written Procedures for how to claim an accrual for late guard Vendor invoices	A2- Develop procedure for how to handle late Invoices and other activities appropriate for the accrual process	4	5	20	
	B- Budget Process does not anticipate all future adjustments known prior to budget	B1- Develop Checklist Budget tool (and include in process) to assist in identify known possible future adjusts to be considered in the coming budget	5	5	25	

The team selected 3 Countermeasures for implementation.



Identify Barriers and Aids

16.



The team performed Barriers and Aids analysis on the selected Countermeasures.

Countermeasure(s): **Implement 3 Countermeasures to Reduce Tax District Variances**

Barriers		Aids
Impact (H, M, L)	Forces against Implementation	Forces For Implementation
L	1) Push Back from Staff <i>(Supported by Aids: A, B)</i>	A) Management very supportive of efforts
H	2) Limited staff time to spend on training away from work <i>(Supported by Aids:A,B,C)</i>	B) Benefits \$ Savings, Customer Satisfaction, Political environment improved, increased credibility
		C) Knowledgeable Trainers

The team next sought to incorporate this analysis into the team's Action Plan.



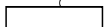

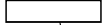

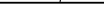




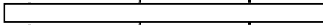
Develop and Implement Action Plan

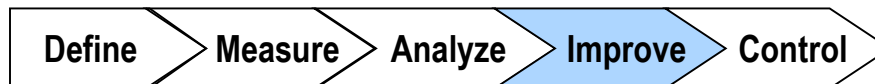
Legend:
 ■ = Actual
 □ = Proposed

The team implemented an Action Plan for the team's Countermeasures.

17. 

WHAT: Implement 3 Countermeasures to Reduce Taxing Guard District Variations form Budget

HOW	WHO	WHEN						
		2018						
		Jan	Feb	Mar	Apr	May	Jun	Jul
1. Develop Countermeasures/ Practical Methods:								
A1- Develop training involving Miami-Dade Accrual Policy and how it applies to Taxing Guard District activities	Lorena, Juan, Elaine	 	2/19/18					
A2- Develop procedure for how to handle late Invoices and other activities appropriate for the accrual process	Lorena, Juan, Elaine	 	2/19/18					
B1- Develop Checklist Budget tool (and include in process) to assist in identify known possible future adjusts to be considered in the coming budget	Ryan, Silvia, ,Nadine	 	2/19/18					
2. Secure Management Approval of Countermeasures (share benefits and savings)	Team			3/30/18				
3. Communicate/Train Staff in Countermeasures and related policies/procedures (share benefits and Mgmt Support)	Team				4/30/18			
4. Implement Countermeasures	Team						5/31/18	
5. Establish On-going responsibilities and standardize countermeasures into operations	Team							On-Going



Estimated Return on Investment (ROI)

21. 

The team estimated the net benefits and ROI.

ROI WORKSHEET for: Reducing Variation from Budget to Actual in Special Assessment Guard Districts

ITEMIZED COSTS (DESCRIPTION)	\$ VALUE (ANNUALIZED)	ITEMIZED BENEFITS (DESCRIPTION)	\$ VALUE (ANNUALIZED)
A1- Develop training involving Miami-Dade Accrual Policy and how it applies to Taxing Guard District activities	\$500	Improve customer satisfaction, improve county credibility, reduce staff time (see Cost of Poor Quality)	\$131,838
A2- Develop procedure for how to handle late Invoices and other activities appropriate for the accrual process	\$200		
B1- Develop Checklist Budget tool (and include in process) to assist in identify known possible future adjusts to be considered in the coming budget	\$200		
Total Annualized Costs	\$900	Total Expected Annualized Benefits	\$131,838
Net Benefits==> \$130,938 ROI==> 145: to 1 ratio			



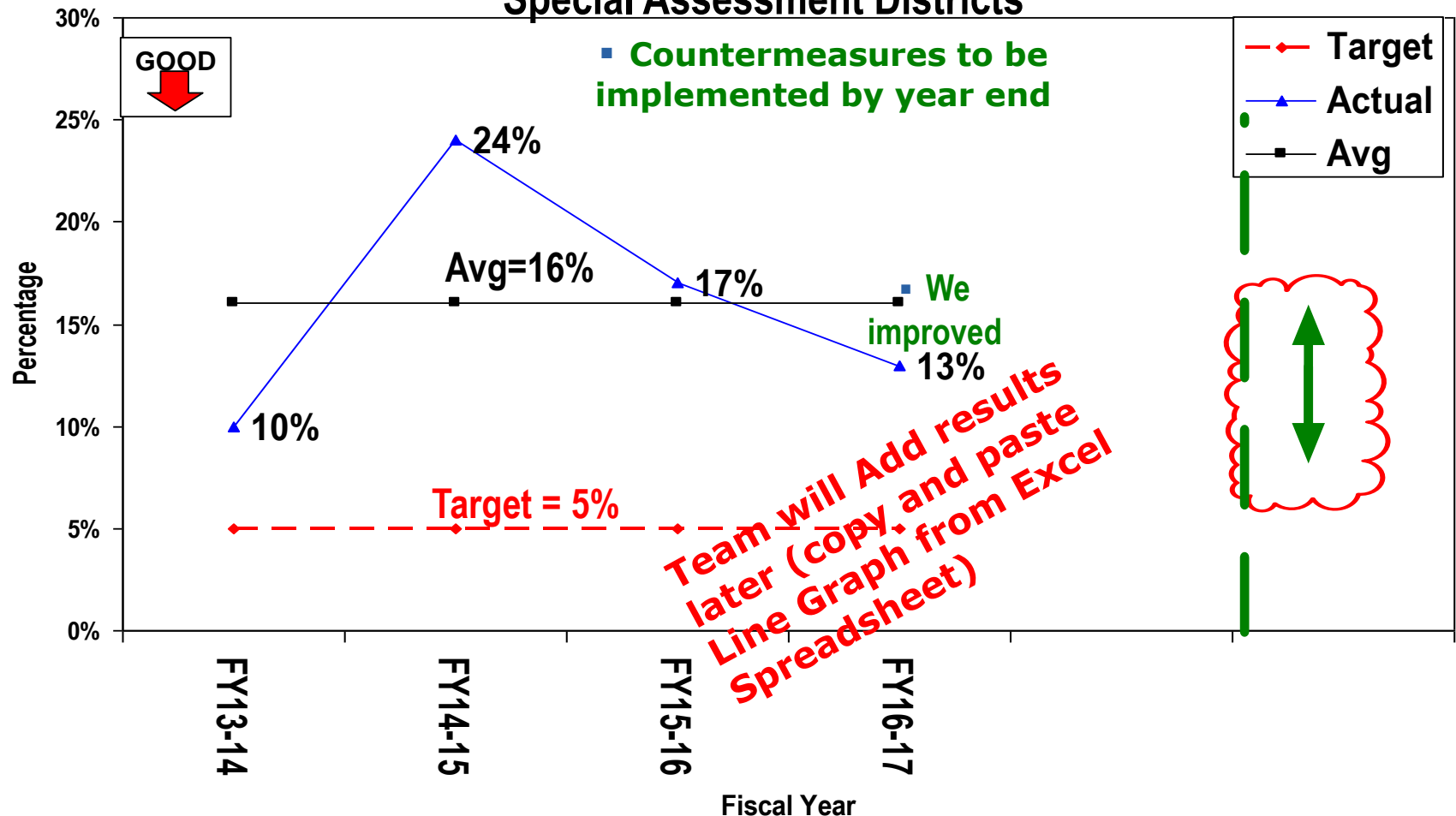
Review Results

19., 21.



The team collected indicator data and reviewed performance trends:

Q1 - % (Absolute Value) Difference between Budgeted and Actual Costs for Special Assessment Districts

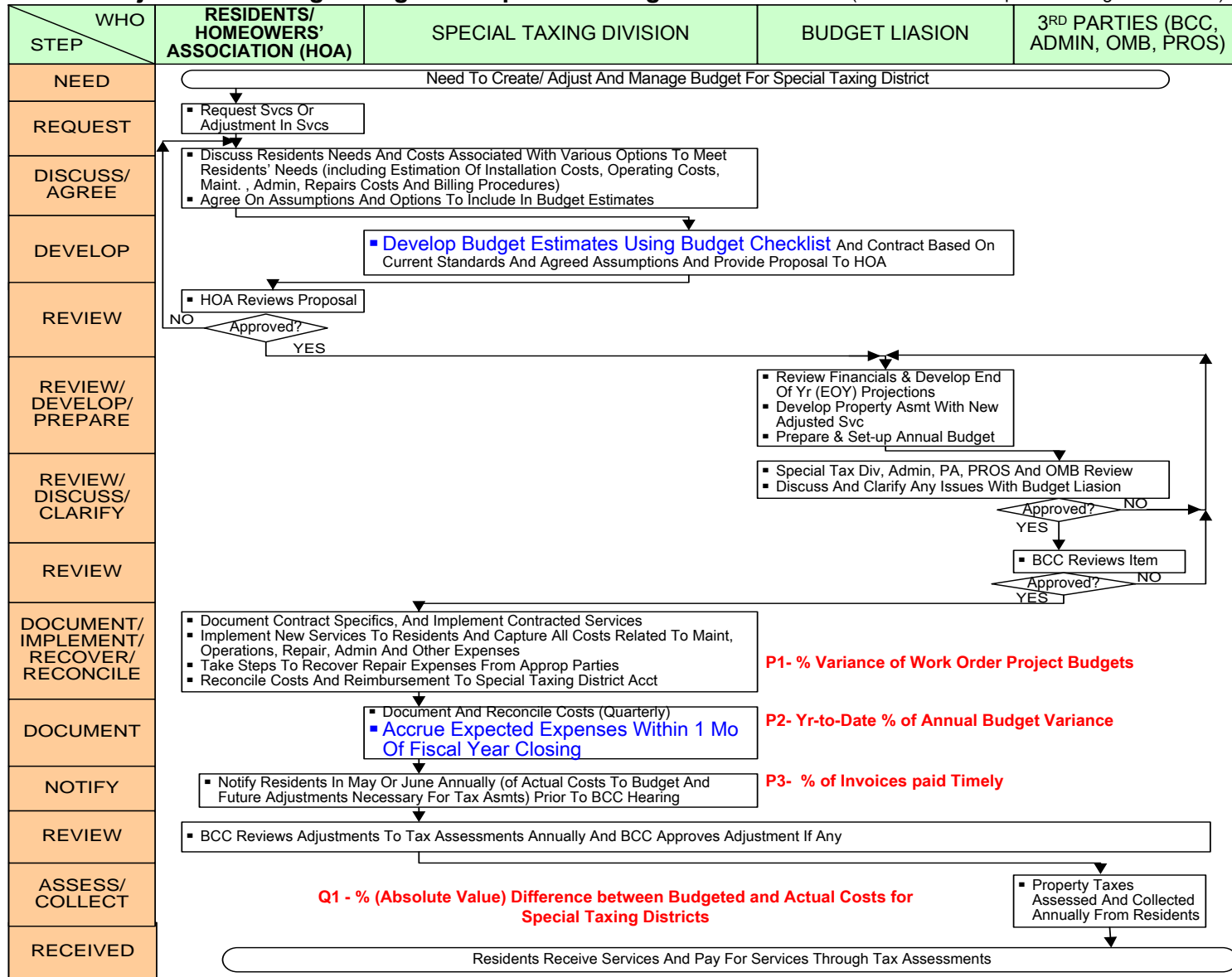


The team will continue to monitor the countermeasures.



The team incorporated their countermeasures into their Process Flowchart.

Create/ Adjust And Manage Budget For Special Taxing Guard District (Process Owner: Special Taxing Div Director)



MD DMAIC Story: Reduce Tax Asmt Variations from Budget FLOW/CHART_12-18-17 vsd 2/4/18

Define Measure Analyze Improve Control

Standardize Countermeasures

23. 

The team completed the Process Control System form for the Process.

Process Control System						
Process Name: Create/ Adjust and Manage Budget for Special Taxing Guard District			Process Owner: Special Taxing Div Director			
Process Customer: Residents in Taxing Guard Districts			Critical Customer Requirements: Provide Guard Services and manage costs			
Process Purpose: Provide Guard Services and collect costs from property Taxes			Current Sigma Level: TBD			
			Outcome Indicators: Q1			
Process and Quality Indicators			Checking / Indicator Monitoring			Contingency Plans / Misc. • Actions Required for Exceptions • Procedure References
Process Indicators	Control Limits	Data to Collect	Timeframe (Frequency)	Responsibility		
And						
Quality Indicators	Specs/ Targets	What is Checking Item or Indicator Calculation	When to Collect Data?	Who will Check?		
P1	% Variance of Work Order Project Budgets	5%	100* (\$ WO Actual-\$ WO Budget)/ (\$ WO Budget)	Monthly	Mgr	Spreadsheet; escalate to Mgmt
P2	Yr-to-Date % of Annual Budget Variance	5%	100* (\$ Actual-\$ Budget)/ (\$ Budget)	Monthly	Mgr	Spreadsheet; escalate to Mgmt
P3	% of Invoices paid Timely	TBD	100* (# of Invoices paid timely)-/ (# of Invoices paid)	Monthly	Mgr	Spreadsheet; escalate to Mgmt
Q1	% (Absolute Value) Difference between Budgeted and Actual Costs for Special Taxing Districts	5%	100* (# received within 3 days)/(# Received)	Monthly	Mgr	Spreadsheet; escalate to Mgmt

Approved: _____ Date: _____ Rev #: _____ Rev Date: _____

These measures will be monitored in ActiveStrategy Enterprise.



Lessons Learned

- 1) It was important to follow the data as the team's first assumptions as to the cause(s) of the problem were not correct.
- 2) The Single Case Bore was very helpful to more clearly see issues that were repeated from the data.
- 3) QCTools is a great MS Excel add-in and can be used for future problems

Next Steps

Continue to implement countermeasures and monitor performance results.

