Six Sigma Project Charter

Name of project: Streamline Incomplete Applicant Follow-ups Black belt: Green belt: X Submitted by: Emily Vazquez & Angela Love E-mail: <u>evazquez@purdue.edu</u> & <u>ajcampbe@purdue.edu</u> Date submitted: October 4, 2012

I. Project Selection Process

Item	Yes	No	Comments
Key business issue	х		
Linked to a define process	х		
Customers identified	х		Applicants & Admissions
Defects clearly defined	х		

Describe how and why project was selected. Reference any tools used, such as SIPOC, VOC plan, Affinity diagram, KANO model, CTS tree, etc....

II. Project Description

Project Title								
Streamline Incomplete Applicant Follow-ups								
Date Charted	Target Completion Date	Actual Completion Date						
05/17/12								
Project Leader	Team Facilitator	Team Champion						
Emily Vazquez &	Pamela Horne	Rebekkah Porter &						
Angela Love		Debra Emerson						
Estimated Cost Savings	Actual Cost Savings	Costs of implementing project						
There is not really a cost savings;								
it's more of an efficiency savings.								
Team members								

Emily Vazquez, Angela Love, Rebekkah Porter, Debra Emerson, Pamela Horne

Problem Statement

The current process of sending follow-up notifications to applicants, who have been incomplete for 45 days and 90 days, is a five-step process within three different computer systems. Each entry term (spring, summer and fall) must be ran individually, which adds to the amount of time it takes. Because it is so time consuming, what should be a daily task, has become a weekly one.

Y =process time. Defect occurs when process time is 5+ steps.

Project Goal and Metrics

Stream line the follow-up procedure to improve/condense processing time.

Describe the challenges and support required While on the quest to improve the current follow-up procedure, we are also challenged to learn the existing process (In short, we must learn it, so that we can change/improve it). The Competency Center will be supporting our efforts in this project. **Project Schedule** D1. Select the output characteristic. Date: Criteria: Is there a measurable output? Yes Is there a performance standard for the output? Yes Does variation currently exist? Yes Is there a process associated with the problem? Yes Is the solution unknown? Yes Y = process time – It takes 3 hours to create/send letters. New Y = To take 1 hour or less to create/send letters. D2. Define the output performance standard. Date: We are concentrating on electronic emails. Processing notifications daily would alert the applicant sooner so the necessary information would arrive in the office quicker and the application would become complete. Therefore, saving future time dealing with each application and applicant. D3. Describe the process. Date: Required tools: SIPOC, Detailed process map See attached SIPOC & RACI M1. Validate the measuring system. Date: Required tools: Gage R&R/Attribute Agreement Analysis We are working as a team on this project and we have discussed why we feel that we are on the same page many times. We are in agreement that we will track our measurement of time in the exact same manner. Our start time begins the minute we sit down to begin working on the process and our end time will be the point that we conclude the last step of the process. M2. Establish current process capability for the output. Date: Required tools: Process capability, Control chart What will we improve on? **TIME** Due to the time restraints, we can't obtain enough data to complete this portion therefore we are providing a baseline. Time: 210 minutes / 135 Emails = Baseline 1.04

	rev 12
M3. Determine project objectives.	Date:
A1. Identify and list all potential causes (inputs). Required tools: Process map, Brainstorming, Fishbone diagram, Ca matrix, Potential "X" matrix	Date: ause and effect
See attached Fishbone diagram	
A2. Screen potential causes. Required tools: See A1	Date:
See attached Cause & Effect Matrix	
A3. Determine the f(x) – key input variable(s) Required tools: One factor at a time experiment	Date:
See attached Potential "X" Matrix	
I-1. Establish operating tolerances for key inputs and ou	Itput. Date:
This process will be more automated than the current process (savin money). Our project is to investigate and build SOREMAL.	
I-2. Re-evaluate the measuring system. Required tools: Gage R&R/Attribute Agreement Analysis	Date:
Because of the time crunch, we did not have enough time to gather	more data.
I-3. Establish final capability for key input(s) and the out Required tools: Process capability, Control chart	tput. Date:
The use of the SOREMAL email process is expected to become vit means to communicate to our incomplete applicants in a more expe SOREMAL process will allow us to eliminate the preparation and r these follow-ups. Our expectation is that SOREMAL will be an ex tool that saves time. Instead of using the many steps from the previ- goal that the SOREMAL email process will use only 3 steps.	editious manner. The manual emailing of cellent communication
C1. Implement process controls for the key inputs.	
Required tool: Four levels of control, error proofing	Date:

process will function in a manner which to save time. The process results have been

evaluated and documented for future reference as well as the process procedures. When we receive enough data in the real world, we will run the process in the live environment.

Follow-up to ensure effectiveness.

Date:

We do not really have any follow-up activities other than to continue on with the new process to ensure that we are saving time.

Black Belts must utilize the following additional tools: FMEA, hypothesis testing, regression, design of experiments, and one lean tool of their choice.

Six Sigma Project

Step: D2

RUMBA Specification Checklist

WRITE YOUR SPECIFICATION HERE:

Alert applicants of their incomplete applications sooner so they can send the necessary documents needed to complete their applications.

 ${\bf R}$ is the specification realistic? If not, write what needs to be changed to make the specification realistic:

Yes, it is realistic.

U IS THE SPECIFICATION UNDERSTANDABLE? IF NOT, WRITE WHAT NEEDS TO BE CHANGED TO MAKE THE SPECIFICATION UNDERSTANDABLE:

Yes, it is understandable.

M IS THE SPECIFICATION MEASURABLE? IF NOT, WRITE WHAT NEEDS TO BE CHANGED TO MAKE THE SPECIFICATION MEASURABLE:

Yes, it is measurable.

B IS THE SPECIFICATION BELIEVABLE? IF NOT, WRITE WHAT NEEDS TO BE CHANGED TO MAKE THE SPECIFICATION BELIEVABLE:

Yes, it is believable.

A IS THE SPECIFICATION ATTAINABLE OR ACHIEVABLE? IF NOT, WRITE WHAT NEEDS TO BE CHANGED TO MAKE THE SPECIFICATION ATTAINABLE OR ACHIEVABLE:

Yes, it is both attainable and achievable._____

Submitted By: Emily Vazquez & Angela Love Step: D3

Steps to Creating and Sending Incomplete Applicant Follow-up Letters

The Office of Admissions sends follow-up emails (or postal mail letters) to applicants who have been incomplete for 45 days and 90 days. Each year, applications for the following calendar year become available on August 1. Follow-up emails/letters are created using the Banner letter generation process and we begin sending them 45 days into each Admissions cycle. Emails/letters are sent to incomplete applicants for all of the terms for which Admissions is currently admitting. So, initially, we are sending follow-ups to spring, summer, and fall incomplete applicants. As the cycle progresses, we eventually stop sending emails to the spring term incompletes (because the term begins and it's no longer necessary) and continue to send them to summer and fall term incompletes until we reach the point where we are closing admission for those terms and it's no longer relevant to request missing information.

- 1. <u>GLBDATA</u> (Population Selection Extract) run the popsel to produce a list of PUIDs who meet the criteria of the popsel.
- 2. Use dropdown to choose Parameter Set, run letter generation jobs for selection ID WAD_FUP_1 (UG Adms Follow-Up 1)
- 3. Next Block
- 4. Submit & Save
- 5. Enter From_Date and To_Date
- 6. Enter Term (1. Spring, 2. Summer, 3. Fall) separately
- 7. Submit & Save
- 8. You will have a Sequence Number for the job that is running
- 9. Review Output if there are 0 results, you will simply rollback and repeat step #5, but with the next term. If there is a number in the results, you will continue on to the next step GLBLSEL.
- 10. <u>GLBLSEL</u> (Letter Extract) run the letter extract process to extract the data elements desired for the letter file.
- 11. Choose the same Parameter Set WAD_FUP_1
- 12. Next Block
- 13. Enter Application Term and Term (same)
- 14. Submit & Save
- 15. You will have another Sequence Number
- 16. Review Output (the number should be the same as the one you got while running GLBDATA)
- 17. <u>GLRLETR</u> (Letter Generation Print Report) run the job to produce the data file to be used in the Word mail merge.
- 18. Choose the same Parameter Set again WAD_FUP_1
- 19. Next Block
- 20. Enter Term Code
- 21. Submit & Save
- 22. You will have another Sequence Number
- 23. Review Output
- 24. Show Document
- 25. Open Notepad
- 26. Copy & paste all output info into Notepad

- 27. Save as a text file on the LAN (WAD_FUP_1_EMAIL)
- 28. Open the saved text file in Excel (comma delimited)
- 29. Review the data before the mail merge is run.
- 30. Clean up the data file by make sure there are no duplicate records.
- 31. Determine from Banner which app is the correct one to send a follow-up message.
- 32. Delete the data for the incorrect app from the spreadsheet.
- 33. Verify that all apps have an app status of 'incomplete items outstanding'.
- 34. Verify that all apps have a decision code of WA or null.
- 35. Filter the columns and make sure that all apps have an email address.
- 36. If there are any records with a blank email address, copy and paste those rows to a new blank spreadsheet.
- 37. Delete those rows from the original spreadsheet.
- 38. Filter the columns and make sure that all apps have a Web Login ID.
- 39. If there are any records with a blank Web Login ID, copy and paste those rows to the new blank spreadsheet.
- 40. Delete those rows from the original spreadsheet.
- 41. In the personal email column, verify that only one email address is listed for each person.
- 42. If any row has two email address listed in the personal email column, check Banner.
- 43. Verify which address was most recently sent to Purdue.
- 44. Delete the older email from the data file and from Banner.
- 45. Format the WEB_PIN column to be 6 digits to correct any dropped leading zeros.
- 46. In Banner, on SAAEAPS, look up any Web IDs in the WEB_LOGIN_ID column that are numbers.
- 47. Enter each number in the Web ID box on SAAEAPS.
- 48. Verify that the person it returns is the person in the file. If the ID in the file doesn't return anyone (or the wrong person), add a zero to the front of the Web ID and try again. If that doesn't work add two zeroes, etc., until the person in the file is pulled up on SAAEAPS. (If the number in the spreadsheet is missing leading zeros, format the field as a text file and add however many zeros to the front of the Web ID as were needed.)
- 49. In the LNAME, FNAME, and MNAME columns, verify that the applicant's name is in title case (not all small letters or all large letters).
- 50. Save the file
- 51. Answer 'Yes' to the dialogue box asking if you'd like to keep the file in its current format.
- 52. Close the file, chose 'Save' again, and 'Yes' again.
- 53. If you pulled out any records from the original file to send paper letters, clean up the new Excel spreadsheet by verifying that the names are in title case, the mailing address is clean, and if United States is listed in the Nation column, delete it.
- 54. Then save the new paper letter file as WAD_FUP_1_POSTMAIL.xlsx.
- 55. Open Word and open the WAD_FUP_1_EMAIL Word document in S:\template\Banner Letters.
- 56. If the data file was saved as the same file name that the mail merge document pointed to previously, select yes to open the document and it should find the correct current data file. If the data file was saved with a different name, say no, go to the Mailing tab in Word and search for the data file on the LAN.
- 57. Preview the results on the Mailings tab and make sure that everything looks correct.
- 58. Click the Finish & Merge button.
- 59. Select 'Send Email Messages...'
- 60. Use the EMAIL_EP email type in the To: field, Your Purdue Application as the subject line, HTML format as the email type, and select All to send to all records in the data file.
- 61. Then click OK.

- 62. The email will be sent to all addresses in the data file from the account of the user logged in.
- 63. When the emails have finished sending, click Finish & Merge again.
- 64. Select 'Edit Individual Documents ...,'
- 65. Select All records and OK. Emails will be displayed in a new Word window.
- 66. Format the new documents by changing all margins to .3, selecting Portrait orientation, and choosing 'from this point forward' so that the documents will page break correctly to be indexed.
- 67. Save the file as a PDF and import into Xtender to be indexed.
- 68. Run mail merge for the paper letter file (if there is one) as well, using the WAD_FUP_1_POSTMAIL Word document in S:\template\Banner Letters, only skip the 'send email messages step'.
- 69. Print the letters to be folded, stuffed, and mailed.
- 70. Save the paper letter file as a PDF.
- 71. Import into Xtender to be indexed as well.
- 72. Do the same process to run the WAD_FUP_2 emails/letters.

Six Sigma Project Charter

Submitted By: Emily Vazquez & Angela Love

Step: D3

SIPOC								
SUPPLIERS		INPUTS		PROCESS		OUTPUTS		CUSTOMERS
List Suppliers, internal and external.	-	List Inputs to Process: Data, information, materials, manpower, environment, equipment, resources.		Map Process Below. Do not get led by the form! List as many steps as necessary to describe the MACRO process.	•••	List Outputs to Process: Data, information, materials, manpower, environment, equipment, resources.	1	List customers, internal and external.
Rebekkah		GLBDATA Run pre defined popsel]	The purpose of his exercise is to examine scope, to list primary inputs and outputs, and to list high-level customer		List of PUIDs which met the criteria		Rebekkah
Rebekkah	-	GLBLSEL Extract data from Banner	-	expectations.		Letter file was created		Rebekkah
Rebekkah	-	GLRLETR Run jcb to produce data file	-		1	Info for Word mail merge		Rebekkah
Rebekkah		Run macros to pull data for cleaning/matching in Banner	•			Cleaned data file for mail merge	••••	Rebekkah
Rebekkah	-	Word Mail Merge, print letters, & prepare Xtender Batches	-			Output of emails & letters		Rebekkah
Indexers & Donna		Index emails & fold letters	•			View Letters in Xtender & Students receive letters & emails.		Indexers, Donna, Counselors, Analysts, & Applicants
Run Popsel		Pull Variables		Match Variables		Mail Merges		Mail/Email

Step: D3

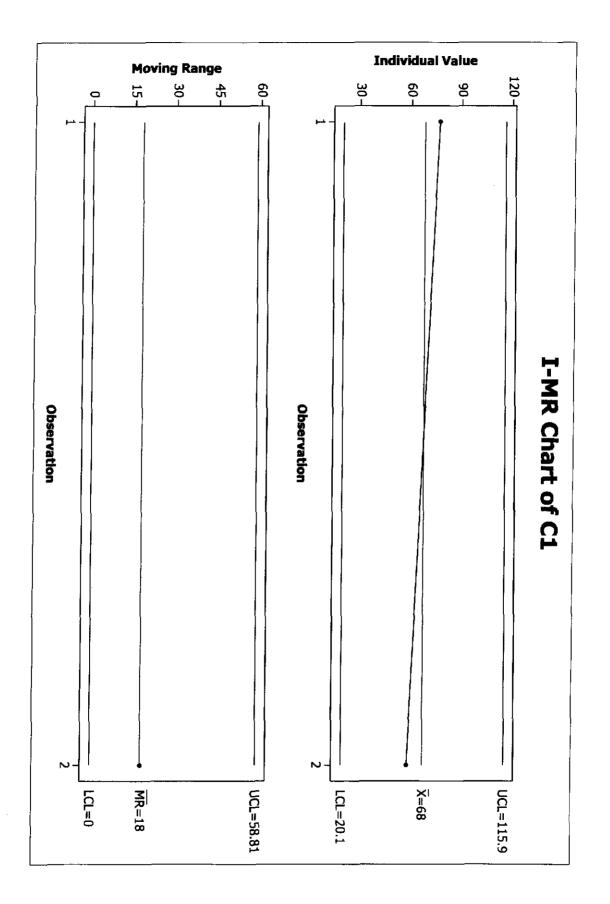
Detailed Process Mapping

RACI Di	agram	R B E K K A H	I N D E X E R S	D O Z Z A	
	Run GLB Data	RA			
	Run GLB Sel	RA			
	Run GLR Ltr	RA			
	Save Output in Notebook	RA			
	Import Data to Excel	RA			
	Format Data	RA			
	Clean Data	RA			
	Save Data	RA			
	Import Data to Word	RA			
	Finish/Merge	RA			
	Send Email Message	RA			
	Finish/Merge	RA			
	Save Data to PDF format	RA			
	Create Batches in Xtender	RA			
	Manually Index		RA		
	Mail Ltrs	CI		RA	

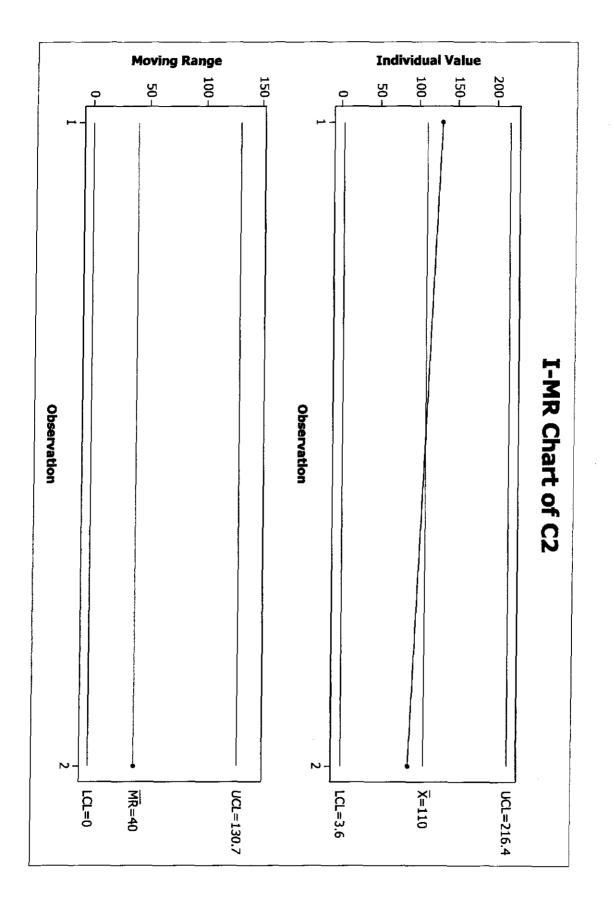
R-persons **Responsible** for doing the work **A**-the person **Accountable** for the output **C**-persons **Consulted** before & during the step **I**-persons **Informed** during or after the step

- 1. List the steps in rows
- 2. List job functions or people across columns
- 3. Assign R,A,C, I or nothing
- 4. There R's and A's for every step
- 5. Use C and I where necessary.
- 6. ONLY one A should be assigned for each step

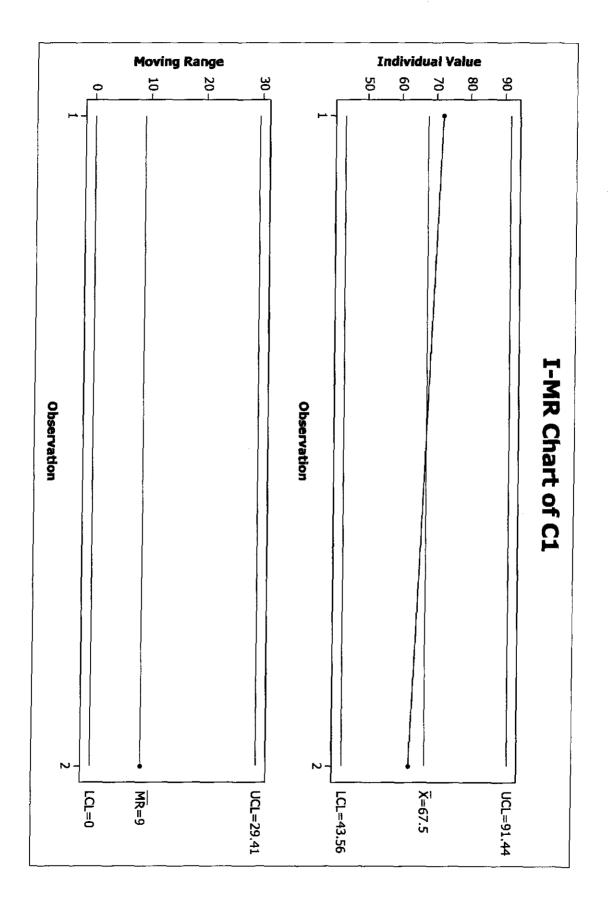
Six Sigma F	Project	Submitted By: I	Emily Vazqu	ez & Angela Love		Step: M2
RPs Folder			Amount	Minutes	Baseline	Average
		Electronic Email Electronic Email TOTALs Averages	72 63 135 33.75	120 90 210 52.5	0.642857 0.642857	1.039916 1.039916
	•	Electronic Email Electronic Email TOTALs Averages RP + Xtender	77 59 136 34 67.75	130 90 220 55 107.5	0.618182 0.618182 0.630233	



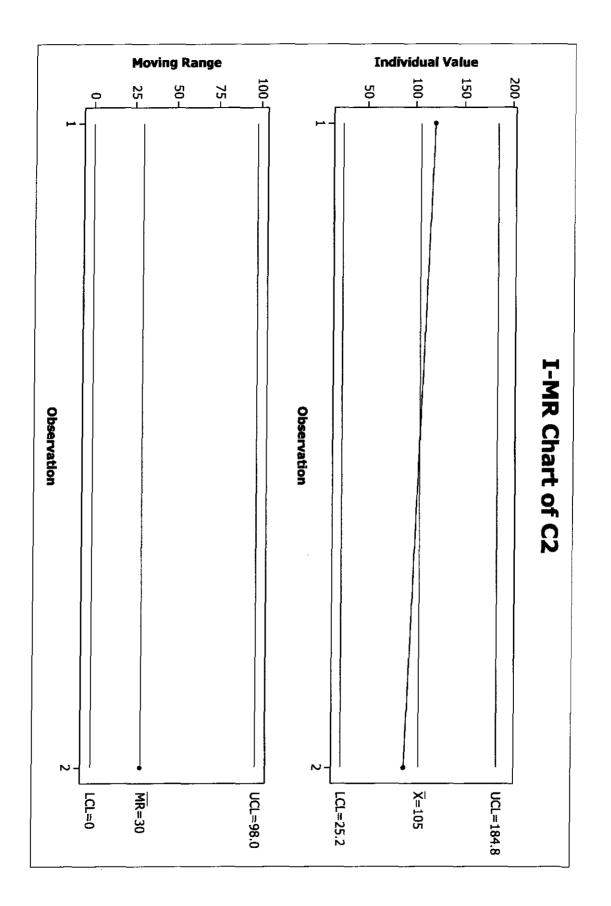
Stender



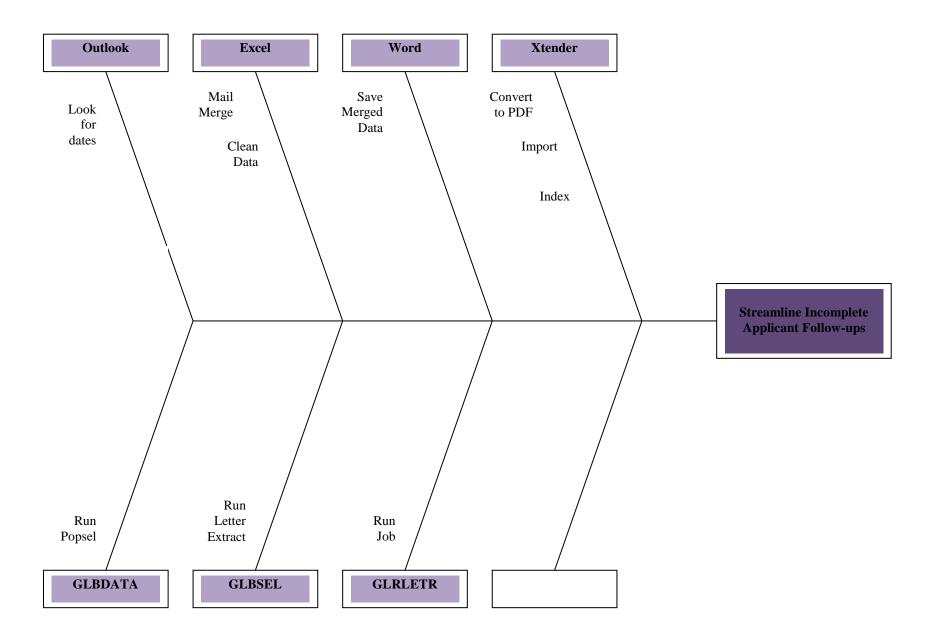
Xtrender



RP Folder



RP Folder



Submitted By: Emily Vazquez & Angela Love

Cause & Effect Matrix Pg1a

- 1. Incomplete Beginner apps
- 2. Incomplete Transfer apps
- 3. Inc. Reclass apps
- 4. Inc. X-fer apps
- 5. Inc. Statewide apps
- 6. Inc. Non-degree apps
- 7. Incomplete Fall apps
- 8. Inc. Summer apps
- 9. Inc. Spring apps
- 10. Applicant completes incorrect application
- 11. Applicant sends incorrect correspondence
- 12. Applicant omits information
- 13. No email address for student
- 14. Indexing errors
- 15. High school errors
- 16. Correspondence destroyed/damaged by postal service
- 17. GLBDATA
- 18. GLBLSEL
- 19. GLRLETR
- 20. Notepad
- 21. Excel
- 22. Word
- 23. Create batch names
- 24. Import into Xtender
- 25. Indexing emails
- 26. Student communication
- 27. Re-do processes again
- 28. Interruptions that take place during processing
- 29. Phone calls
- 30. People asking questions
- 31. Instant chats/messaging
- 32. Everyday problems
- 33. Short-staffed
- 34. Incompetent staff
- 35. Too many other tasks at hand
- 36. Time of year
- 37. Data push
- 38. Data push errors
- 39. Not enough time
- 40. Computer issues

Relevance to Customer (Y)		2	1	5	4	3	
		А	А	E	М	Т	
	0	р	р	m	а	е	
		I.	Т	а	р	с	
	U	i	i	i	0	h	
		с	с	I.	w	n	
	Т	a	a	s	e	0	
		t	n	5	e	Ŭ I	
	Р	i	t		r	0	
	ſ		Ľ		Ľ 1		
		0				g	
	U	n	S			У	
	_	S					
	Т	S					
	S						Coord
INPUTS			0	2	1		Score
Incomplete Beginner apps		9	9	3	1	9	73 73
Incomplete Transfer apps		9	9	3	1	9	
Inc. Reclass apps		9	9	3	1	9	73
Inc. X-fer apps		9	9	3	1	9	73
Inc. Statewide apps		9	9	3	1	9	73
Inc. Non-degree apps		9	9	3	1	9	73
Incomplete Fall apps		9	9	3	1	9	73
Inc. Summer apps		9	9 9	3	1	9 9	73
Inc. Spring apps		9	9	3 1			73
Applicant completes incorrect application		9 3	9		3 3	3 3	53
Applicant sends incorrect correspondence Applicant omits information			9	3 1	3		51 41
No email address for student		3 3	9	9	3	3 3	41 81
Indexing errors		-	9	3	9		
High school errors		9 9	9	3	3	9 0	105 54
Correspondence destroyed/damaged by postal service		9	9	3	3	0	54
GLBDATA		3	9	5 9	9	9	123
GLBLSEL		3	9	9	9	9	123
GLBLSEL		3	9	9	9	9	123
Notepad		3	9	9	9	9	123
Excel		3	9	9	9	9	123
Word		3	9	9	9	9	125
Create batch names		3	3	9 1	9	9	77
Import into Xtender			3	1	9	9	
		3					77
Indexing emails		3	3	9	9	9	117

Cause & Effect Matrix Pg1

Relevance to Customer (Y)		2	1	5	4	3	
		А	А	Е	М	Т	
	0	р	р	m	а	е	
		1	Ι	а	р	с	
	U	i	i	i	о	h	
		с	с	I	w	n	
	т	а	а	S	е	0	
		t	n		е	I.	
	Р	i	t		r	0	
		ο				g	
	υ	n	s			y y	
		s				,	
	т	s					
	_	_					
	s						
INPUTS							Score
Student communication		9	9	3	3	3	63
				-	5	5	63
Re-do processes again		3	9	9	9	5 9	63 123
Re-do processes again Interruptions that take place during processing		3 1	9 3				
				9	9	9	123
Interruptions that take place during processing		1	3	9 3	9 9	9 3	123 65
Interruptions that take place during processing Phone calls		1 1	3 3	9 3 3	9 9 9	9 3 3	123 65 65
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems		1 1 1	3 3 3 3 3	9 3 3 3	9 9 9 9	9 3 3 3	123 65 65 65
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging		1 1 1 1	3 3 3 3	9 3 3 3 3	9 9 9 9 9	9 3 3 3 9	123 65 65 65 83
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems		1 1 1 1	3 3 3 3 3	9 3 3 3 3 3	9 9 9 9 9 9	9 3 3 9 3	123 65 65 65 83 65
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems Short-staffed Incompetent staff Too many other tasks at hand		1 1 1 1 1	3 3 3 3 3 3 3 3 3 3	9 3 3 3 3 3 3 3 3 3	9 9 9 9 9 9 9 9 9	9 3 3 9 3 3 9 3 3 3	123 65 65 83 65 65
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems Short-staffed Incompetent staff Too many other tasks at hand Time of year		1 1 1 1 1 1 1 9	3 3 3 3 3 3 3 3 3 9	9 3 3 3 3 3 3 3 3 3 9	9 9 9 9 9 9 9 9 9 9 9 9	9 3 3 9 3 3 9 3 3 3 3	123 65 65 83 65 65 83 65 117
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems Short-staffed Incompetent staff Too many other tasks at hand		1 1 1 1 1 1 1 9 9	3 3 3 3 3 3 3 3 3 9 9	9 3 3 3 3 3 3 3 3 9 9 9	9 9 9 9 9 9 9 9 9 9 9 9 9	9 3 3 9 3 9 3 3 3 9 3 9	123 65 65 83 65 65 83 65
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems Short-staffed Incompetent staff Too many other tasks at hand Time of year Data push Data push errors		1 1 1 1 1 1 1 9	3 3 3 3 3 3 3 3 3 9	9 3 3 3 3 3 3 3 3 9 9 9 9	9 9 9 9 9 9 9 9 9 9 9 9	9 3 3 9 3 3 9 3 3 9 9 9	123 65 65 83 65 65 83 65 117
Interruptions that take place during processing Phone calls People asking questions Instant chats/messaging Everyday problems Short-staffed Incompetent staff Too many other tasks at hand Time of year Data push		1 1 1 1 1 1 1 9 9	3 3 3 3 3 3 3 3 3 9 9	9 3 3 3 3 3 3 3 3 9 9 9	9 9 9 9 9 9 9 9 9 9 9 9 9	9 3 3 9 3 9 3 3 3 9 3 9	123 65 65 83 65 65 83 65 117 135

Cause & Effect Matrix Pg2

	Factor (X)	Rating from C&E Matrix	Measurement, Technique and Units	Currently Collected
1	Data push	135	Report	Yes
2	Data push errors	135	Report	Yes
3	GLBDATA	12	Computer Process	Yes
4	GLBLSEL	12	Computer Process	Yes
5	GLRLETR	123	Computer Process	Yes
6	Notepad	123	Computer Process	Yes
7	Excel	123	Computer Process	Yes
8	Re-do processes again	123	Computer Process	Yes
9	Indexing emails	117	Manual Compter Process	No
10	Time of year	117	Calender	No
11	Computer issues	117	Computer Process	No
12	Word	114	Computer Process	Yes

Potential X Matrix