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# Lean Six Sigma Analyze/Improve/Control Gate Review

**Connect**  **Help**™

December, 2009

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**Sponsor:** Lynn Engel

**Team Members:** Shari Morgan, Elizabeth Radcliff, Ann Hartman, Joy Owen,  
Charlotte Shoulders

**Champion:** Denise Dickson

**Black Belt:** Pam Greer



Answers That Matter.

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# Project Charter Overview

## Problem Statement

Connect2Help is a nonprofit agency that facilitates connections between people in Central Indiana who need human services and those who provide them. In fiscal year 2008/2009, call volume increased 42% over the previous year to 221,000 calls. As a result of the increased call volume, the percentage of abandoned calls (calls in which the caller hangs up before reaching an I & R Specialist) has increased from 5% in 2005 to 21% in September 2009. In addition to the increased call volume, the number of needs per caller have increased. It is anticipated that the volume of calls and caller needs will continue to increase due to a number of factors including the continued economic situation, more awareness of the 211 service within the community, and growth in the number of Spanish-speaking callers. As the volume of calls has increased, funding and staffing have not increased at the same rate. In the last several years, the skill and training requirements for I & R Specialists have significantly increased, resulting in a shift from volunteer staff to more paid staff.

## Goal Statement

- Decrease the average call time from 5.2 minutes to x minutes while maintaining same level of quality.
- Decrease the abandoned call rate from 26% to 5%.

## Potential Benefits

Abandoned calls represent a missed opportunity for Connect2Help. For some customers, not getting connected to the needed service could be a minor inconvenience, for others it could be a life or death situation. By reducing the abandoned call rate, Connect2Help is able to meet more needs in the community. The abandoned call metric could also potentially impact Connect2Help's accreditation status.

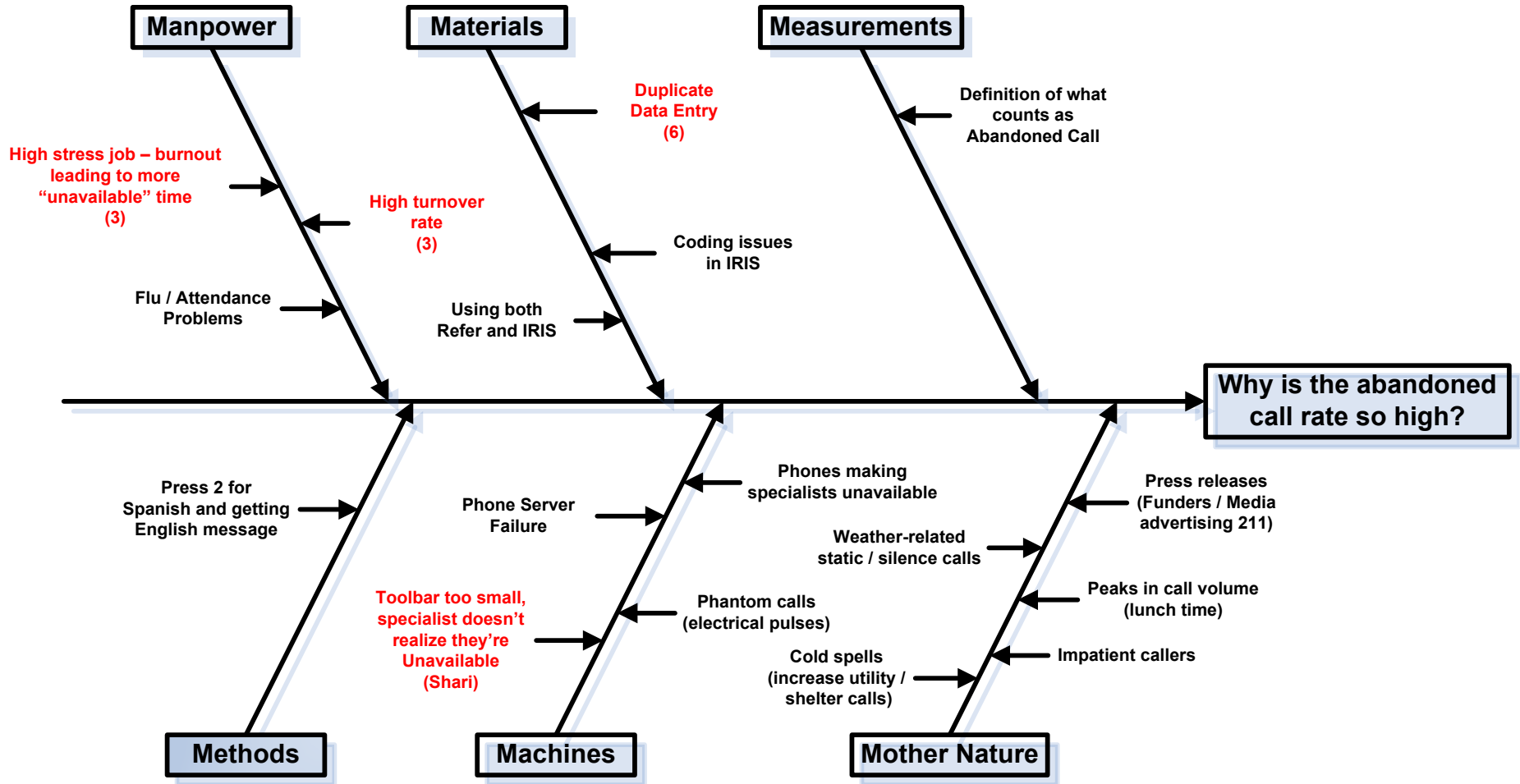
## Scope

The project will focus on the call center process.  
Out of Scope: Retention of Specialists, Funding

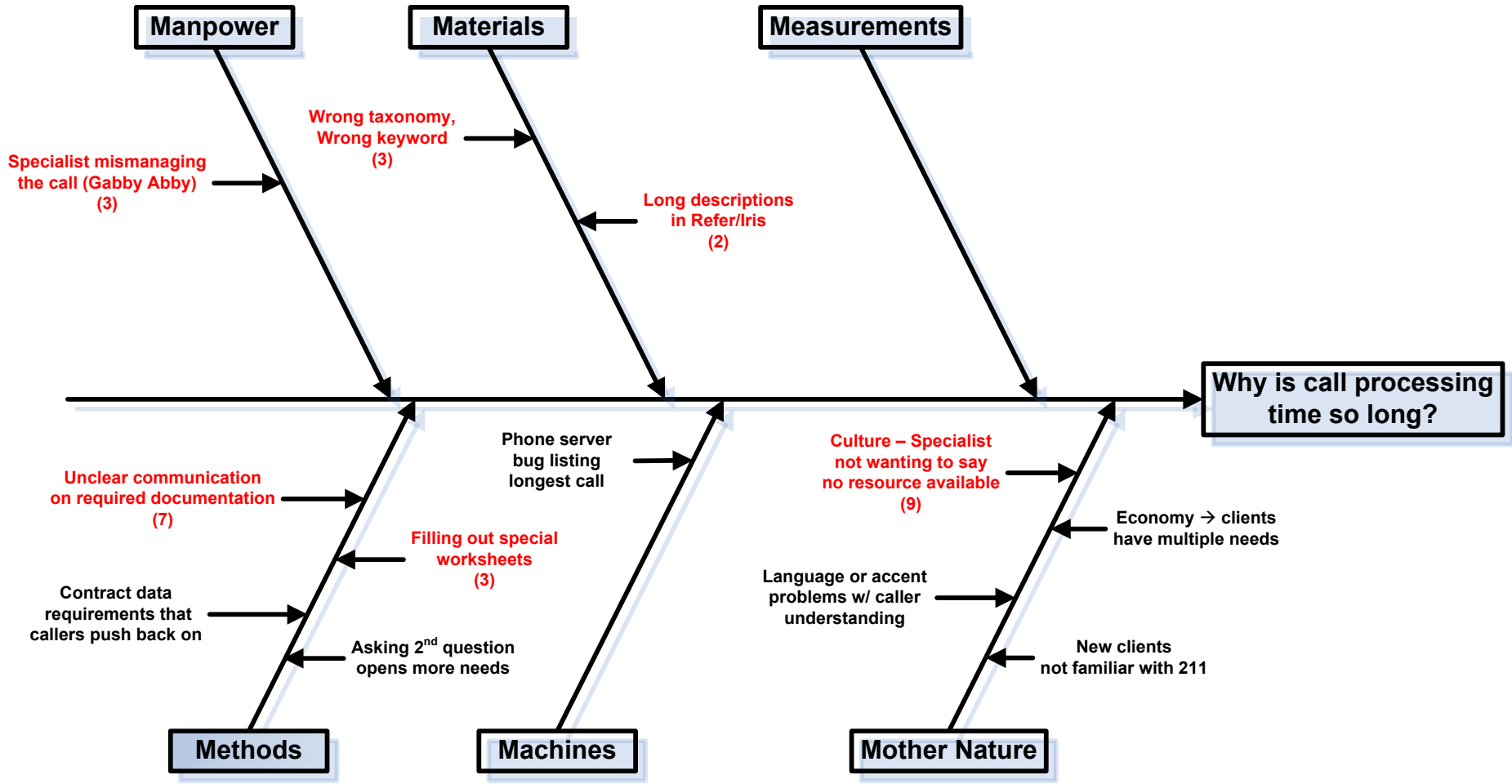
## Team

**Team Members:** Shari Morgan, Elizabeth Radcliff, Ann Hartman, Joy Owen, Charlotte Shoulders  
**Sponsor:** Lynn Engel  
**Black Belt:** Pam Greer  
**Champion:** Denise Dickson  
**Process Owner:** Shari Morgan

# Root Cause Analysis



# Root Cause Analysis



# Root Causes (in order of most “votes”)

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- 9 Culture – Specialist not wanting to say No Resource Available
- 8 Unclear communication on required documentation
- 8 Duplicate data entry
- 8 Wrong taxonomy, wrong keyword, too many resources, long descriptions in Refer/IRIS
- 3 Specialist mismanaging the call
- 3 Filling out special worksheets
- 3 High stress job / burnout leading to “unavailable” time
- 3 High turnover rate
- Toolbar too small (Shari to check into this)

# Specialist Input

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Participation at next team meeting (11/18/09)

Survey Questions:

1. What is one thing you feel you could eliminate from your calls that would not effect the quality of the call?
2. When you're gathering information from clients, which data field is the hardest to collect (because the client doesn't understand why you're asking or doesn't want to provide the information)?
3. Which type of calls or callers take the longest to address?
4. Do you have suggestions for how Connect2Help can take more calls or lower our abandonment rate?

# Solution Brainstorming

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Brainstormed over 62 solutions, grouped into these categories (in order of most impactful):

- Refer Changes
- Database Maintenance/Cleanup
- Training
- Internal Communications
- Phone System Changes/Self-Service
- Process Changes

Prioritized and agreed to implement 22 of these solutions

# Implementation Plan

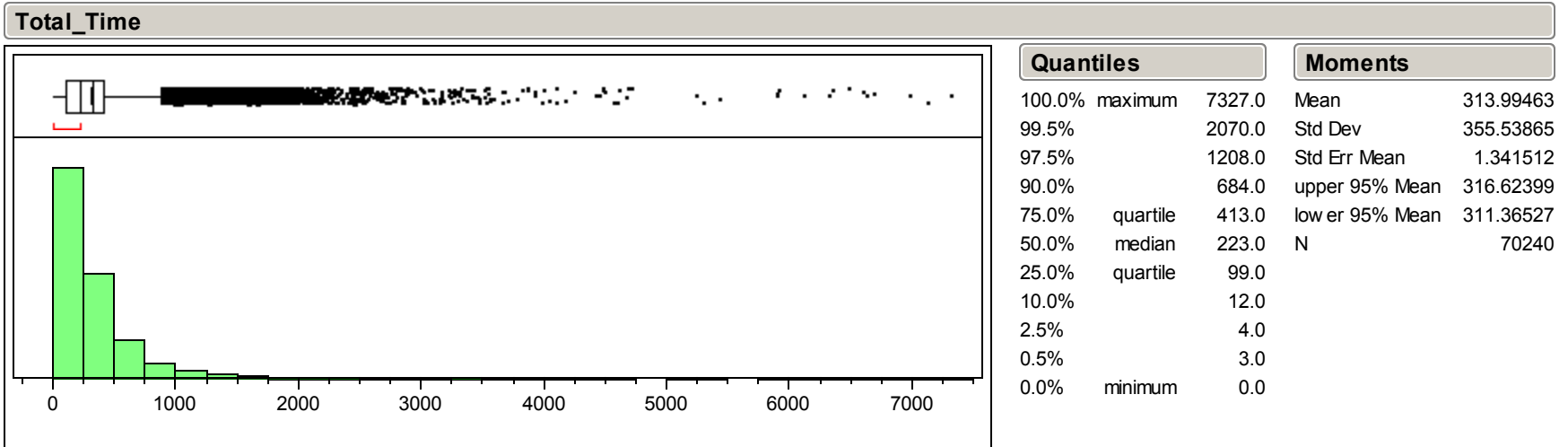
Project Name: Connect 2 Help																	
ESS #: 8521						<b>R = Responsible</b> – The person who performs the action/task. <b>A = Accountable</b> – The person who is held accountable that the action/task is completed. <b>C = Consult</b> – The person(s) who is consulted before performing the action/task. <b>I = Informed</b> – The person(s) who is informed after performing the action/task.											
Solution						2010											
(Below each Solution description, itemize the tasks needed to implement each Solution.)						2009	2010										
Responsible	Accountable	Consulted	Informed	Forecasted Completion Date	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<b>Solution #1 - Refer (Rank = 9)</b>																	
Required fields, remove duplicate fields, require data sheets based on line called	Elizabeth	Shari	Managers	Specialists	1-Jan-10												
FSSA Filters	Elizabeth & staff, Charlotte	Shari	Kathryn	Specialists	23-Dec-09												
Export info from CSL data sheet to Access / Fax from copier	Ann, Elizabeth, Kathryn	Shari	FSSA, Refer, Sharon	CSL Specialists	1-Jan-10												
<b>Solution #2 - Database Maintenance/ Cleanup (Rank = 12)</b>																	
Dedicated station for DB Staff in call center	Elizabeth	Shari	Shari, Joy, Charlotte	DB Staff and Specialists	1-Feb-10												
Clean up DB, refine program descriptions for top programs	Elizabeth/Ann	Shari	DB Committee		28-Feb-10												
Clean up DB, refine program descriptions for remaining programs	Elizabeth/DB Staff	Shari	DB Committee		31-Dec-10												
<b>Solution #3 - Targeted Training (Rank = 16)</b>																	
Maps (3 hours) - small group meetings?	Charlotte	Shari	Lynn, Joy, Latasha	Specialists	28-Feb-10												
Self Care (2 hours) - evening mtgs or large group meeting in January?	Charlotte	Shari	Lynn, Joy, Latasha	Specialists	31-Jan-10												
Assessment/Active Listening (4 hours)	Charlotte	Shari	Lynn, Joy, Latasha	Specialists	30-Apr-10												
List of needs we don't have resources for (unmet needs)	Joy	Shari	Charlotte, DB Staff	Specialists	31-Mar-10												
CSL Calls Training, Create stock phrases, Listen to calls	Shari	Lynn	Charlotte, Joy	CSL Specialists	31-Mar-10												
Clean up maps for Community Centers and Township Trustees	Shari	Lynn			31-Jan-10												
<b>Solution #4 - Internal Communications (Rank = 18)</b>																	
Consistent information updates through appropriate channel (at Staff Mtg)	Lynn	Lynn	Managers	Everyone	15-Jan-10												
Visual displays - video monitor or projector with messages	Shari/Ann	Lynn	Luminet		30-Jun-10												
Visual displays - proposal on white boards in window wells (put counties only on white boards)	Joy/Charlotte		Elizabeth														
Communicate where/how/when to access P drive documents (Taxonomy and Wonky Sheets)	Elizabeth	Shari	DB Committee and Managers	Specialists	31-Jan-10												
<b>Solution #5 - Phone System Changes/ Self-Service (Rank = 24)</b>																	
Create ACD and specialize (e.g. food pantry, utilities, taxes). Direct callers to website for self-service.	Shari	Lynn	Luminet	Everyone!	1-Jul-10												
Caller self service with data capture (e.g. zip code)	Ann	Lynn	Luminet	Everyone!	1-Jul-10												
Change comfort message to prevent people from hanging up (free and confidential, live person)	Shari	Lynn	Luminet	Everyone!	1-Jul-10												
Put email form on website for 211 requests	Shari	Lynn	RTM	Everyone!	1-Jul-10												
<b>Solution #6 - Process Changes (Rank = 26)</b>																	
Set protocol for serving out of area needs	Lynn/Joy				31-Dec-09												
Stop taking out of area calls if they don't provide current data	Lynn/Joy				31-Dec-09												
Point system for specialists (quality control on data sheets)	Shari/Ann				1-Jul-10												



# Baseline Process Performance

Jul 1 – Oct 25, 2009

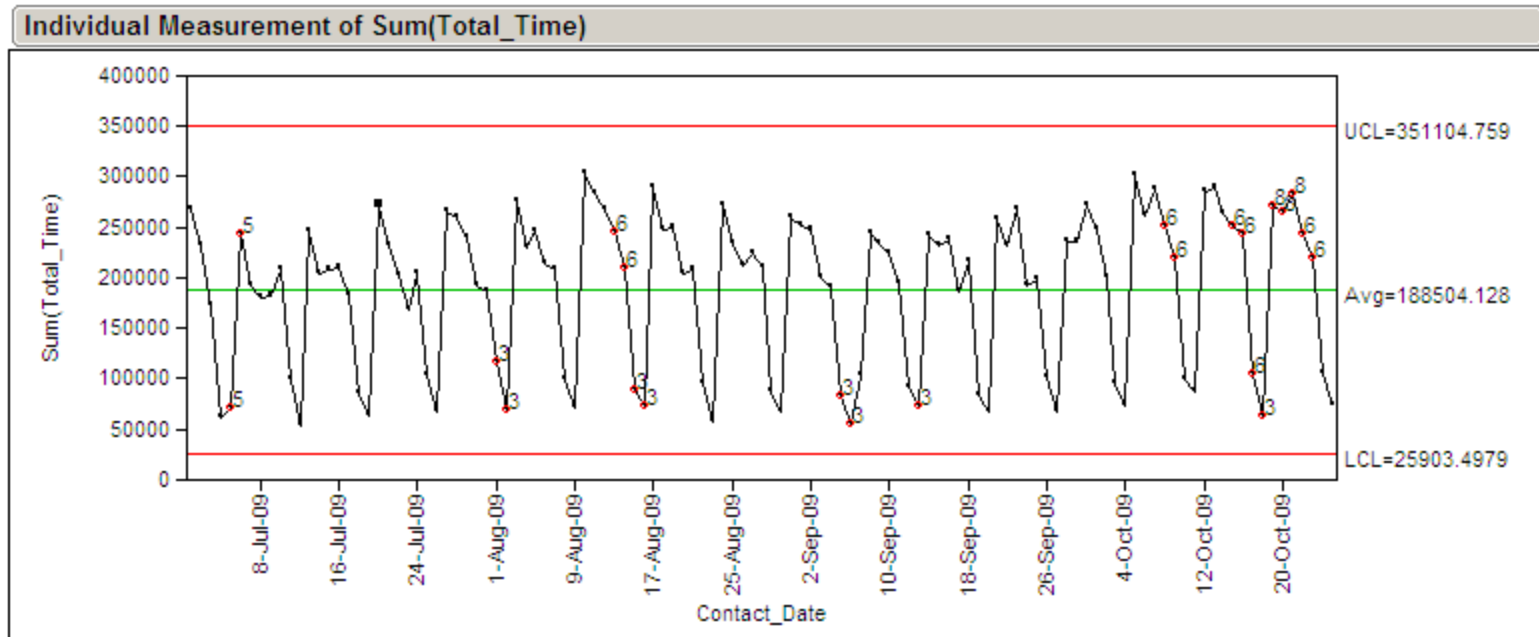
Analyze



- Average Call Time for the 4 month period from July 1 – October 25, 2009 was 314 seconds (5.2 min)
- Median call time was 223 seconds (3.7 min)
- Very high variation in Call Time - 356 sec (5.9 min)
- 2.5% of calls last more than 20 min

# Total Call Time per Day (Cumulative Call Time)

Jul 1 – Oct 25, 2009

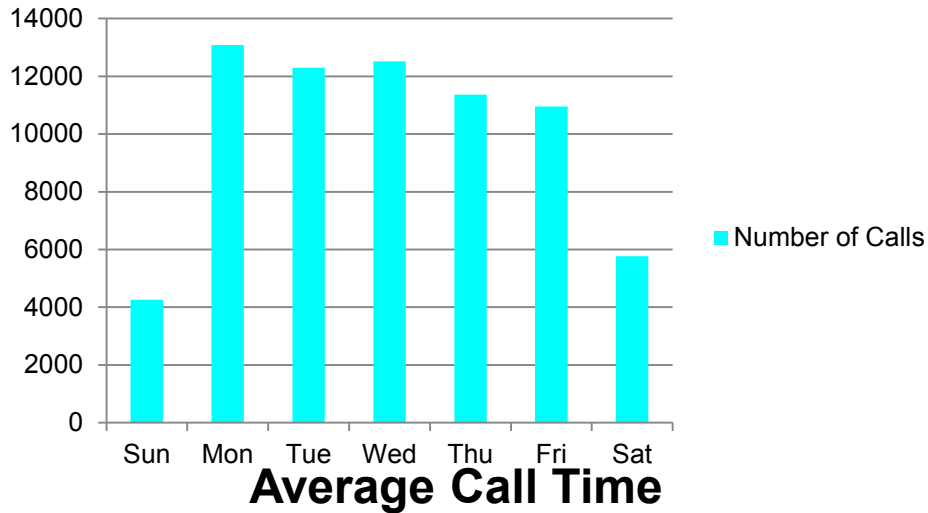


- Average Total Call Time per Day is 188,504 sec (52.4 hrs)
- Total Call Time is generally highest on Mondays, with a few exceptions on Wednesdays
- Total Call Time appears to be stable over last 4 months, following predictable 7-day pattern

# Calls by Day of Week

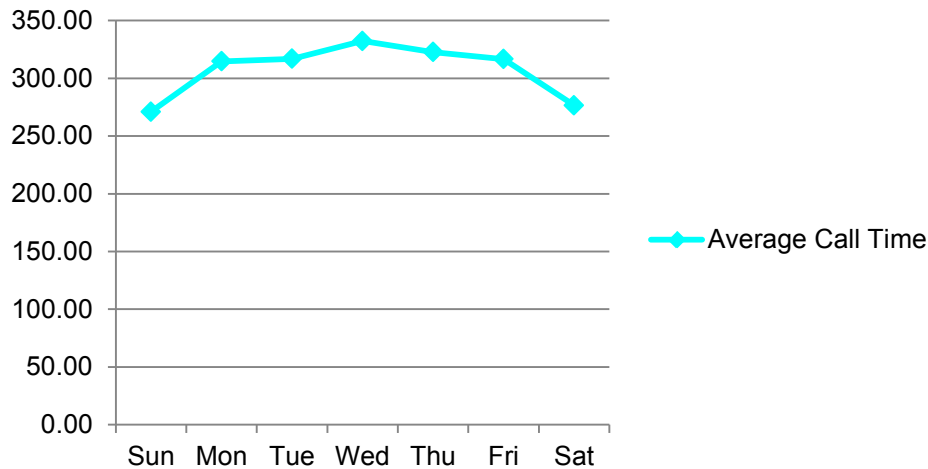
Jul 1 – Oct 25, 2009

## Number of Calls



Call volume is highest on Mondays

## Average Call Time



Average Call Time is longest on Wednesdays

# Needs for Calls > 20 minutes

Need Name	Count	Cum %
Shelter	335	9.46%
Addiction Counseling/TX	295	17.80%
Food Pantry	277	25.62%
Job Search/Placement	201	31.30%
Low-Cost/Subsidized Housing	165	35.96%
Z Other Legal	153	40.28%
Electric/Gas	148	44.46%
Rent or Mortgage Payment	127	48.05%
2-1-1 info	121	51.47%
Legal Issue	114	54.69%
Z Other Case Management	82	57.01%
Food Stamps	76	59.15%
Support Group	73	61.21%
Baby/Children's Clothing	68	63.14%
Adult Clothing	65	64.97%
Gas	58	66.61%
Counseling	58	68.25%
Z Other Housing	55	69.80%
Electric	52	71.27%
Z Other Health Issues	52	72.74%
Z Other Mental Health	50	74.15%
Furniture	50	75.56%
Suicide Intervention	44	76.81%
Z Other Financial Assistance	38	77.88%
Z Other Utility Assistance	36	78.90%
School Supplies/Books	35	79.89%
Mental Health Treatment	32	80.79%

# FSSA Calls

Jul 1 – Oct 25, 2009

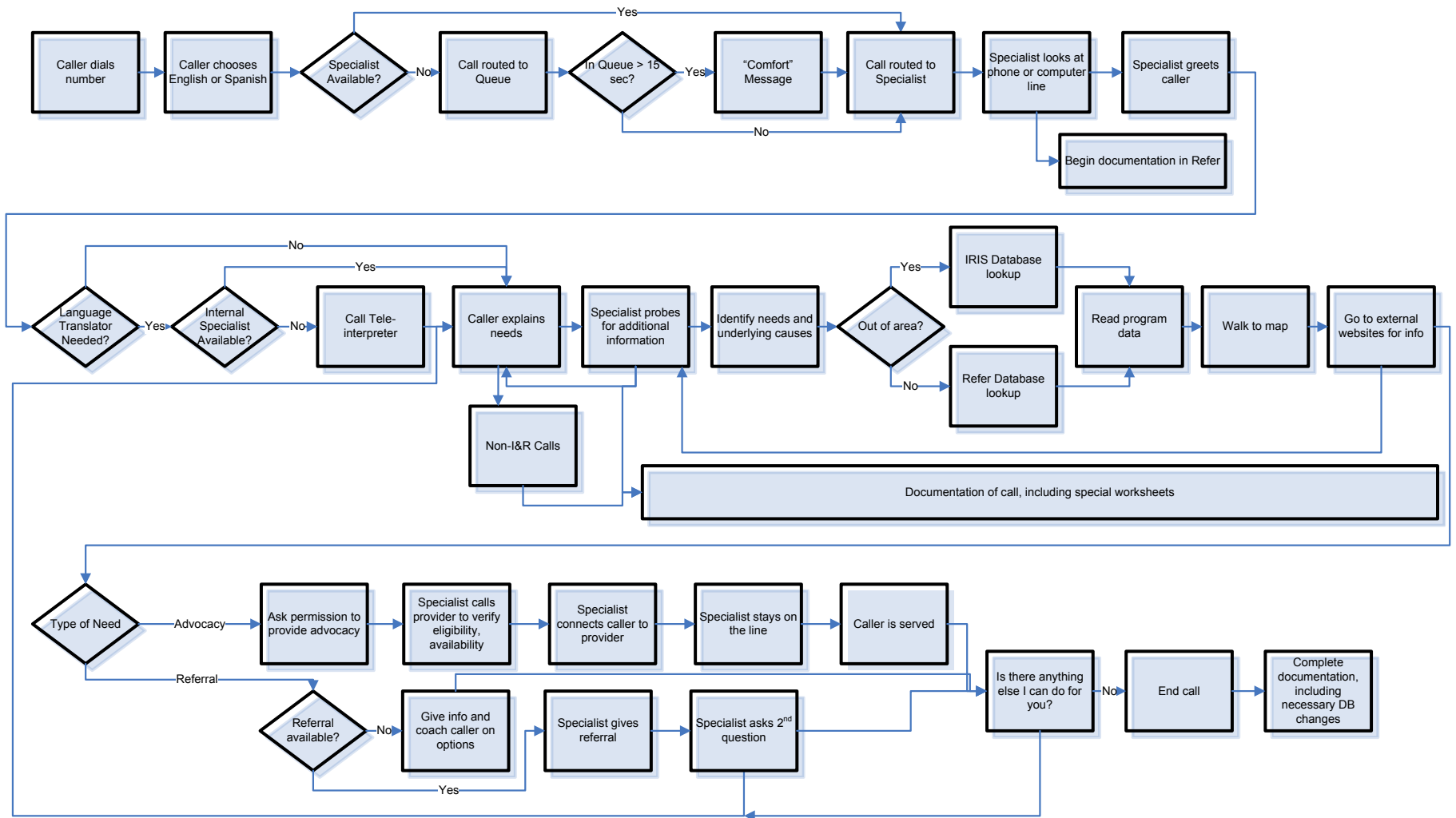
<b>Total Appropriate Addiction Calls In Refer</b>	1,486	51 inappropriate	Total of 1,537 addiction calls					
Median Call Time	11.17 minutes	670 seconds						
Average Call Time	12.77 minutes	766 seconds						
Shortest Call	1.03 minutes	62 seconds						
Longest Call	76.9 minutes	4,615 seconds						
Standard Deviation	7.4 minutes	444 seconds						
ACD Abandonment Rate	12%	233 of 1,872 Addiction ACD calls (includes ALL Addiction calls; even inappropriate)						
<b>Total Appropriate Gambling Calls in Refer</b>	426	808 inappropriate						
Median Call Time	12.95 minutes	777 seconds						
Average Call Time	14.87 minutes	892 seconds						
Shortest Call	.78 minutes	47 seconds						
Longest Call	66.42 minutes	3985 seconds						
Standard Deviation	8.12 minutes	487 seconds						
ACD Abandonment Rate	27%	649 of 2,403 Gambling ACD calls)						
<b>Total CSL Calls in Refer</b>	494							
Median Call Time	9.22 minutes	553 seconds						
Average Call Time	14.47 minutes	868 seconds						
Shortest Call	.1 minutes	6 seconds						
Longest Call	74.37 minutes	4,462						
Standard Deviation	13.68 minutes	821						
ACD Abandonment Rate	18%	112 of 623 CSL ACD calls)						

# Voice of the Customer (VOC)

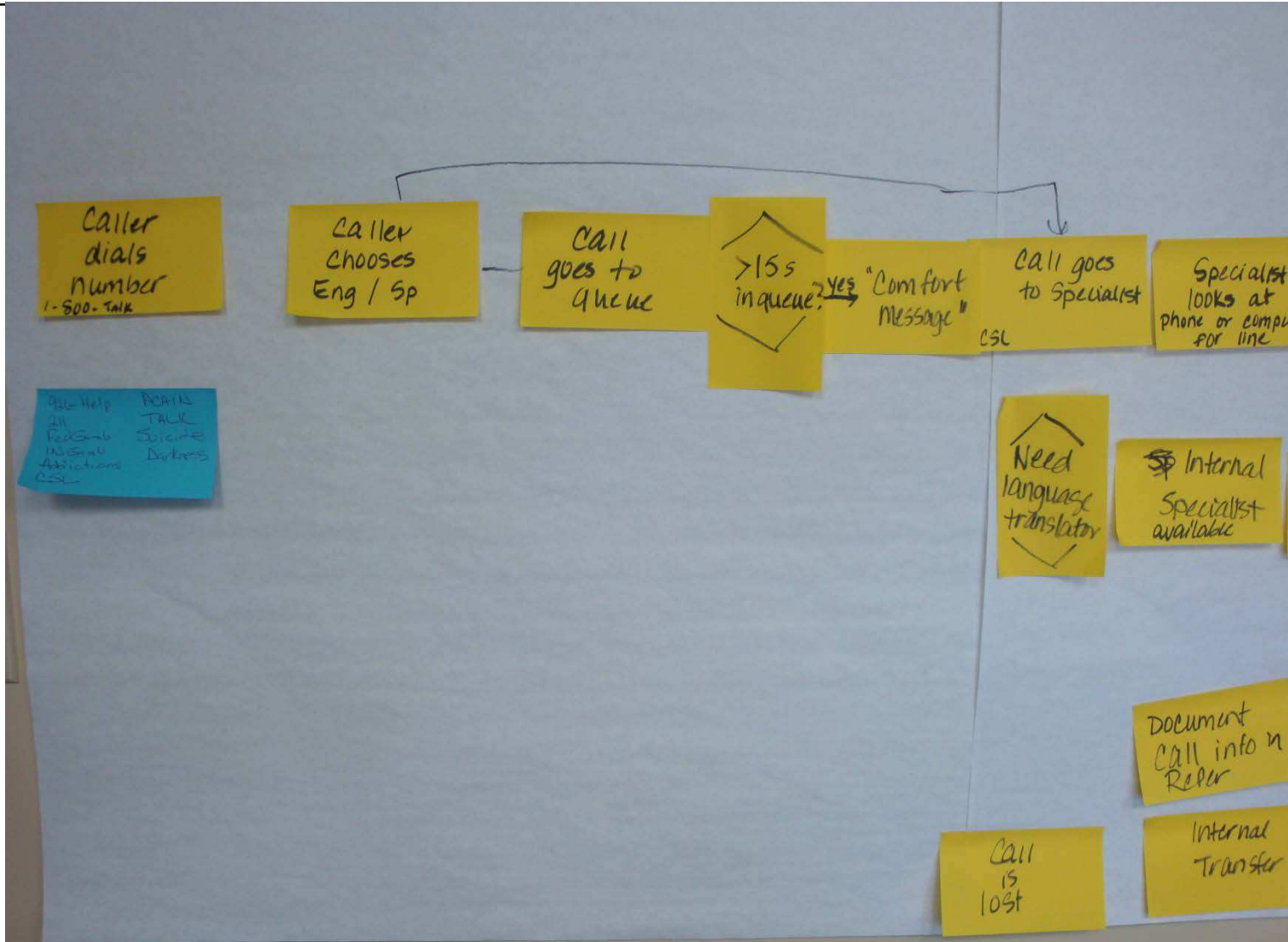
Define

Customer	Voice of the Customer	Key Customer Issue(s)	Critical Customer Requirement
<b>Who</b> is the Customer?	<b>What</b> does the customer want from us?	<b>What</b> does the customer want from us? We need to <b>identify</b> the issue(s) that prevent us from satisfying our customers.	We should <b>summarize</b> key issues and <b>translate</b> them into <i>specific and measurable</i> requirements
Callers	Receive appropriate referral in least amt of time, asking only appropriate questions per the caller's need		Outcome survey data (answer quickly, respectful, did we understand what you needed) Minimal amt of time in queue Minimal amt of time on phone with specialist
Contracts	Required data that must be collected		
United Way	Requested data that is collected		

# Call Center Process



# Process Map – p. 1





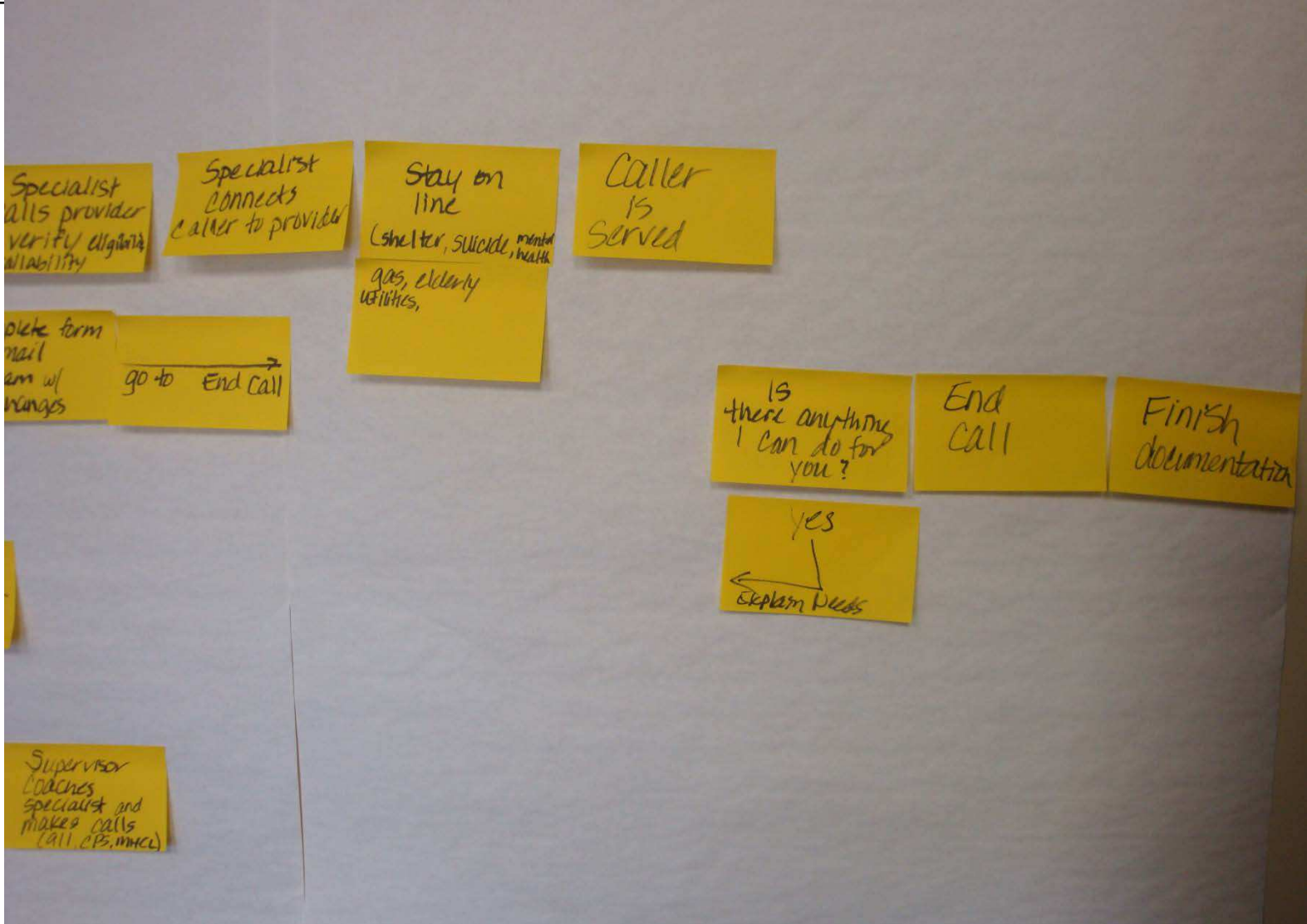
# Process Map – p. 2



# Process Map – p. 3



# Process Map – p. 4



# Operational Definitions

**Abandoned Call** – the caller enters the queue and hangs up before the call is answered by a live, trained Specialist.

**Advocacy/Assistance Calls** – the specialist makes a call to a service provider on behalf of a specific client. All suicide, homicide or domestic abuse calls requiring a lethality assessment should be coded as Advocacy/Assistance.

**Information-only Calls** – caller knows exactly what he/she wants, no assessment is required. Examples: request for phone number or address of specific agency or hours of operation. Also includes calls more appropriately served by 411.

## Non 211/I&R Calls:

- Staff – calls that are directed to staff members
- Misdirected – I&R is not the number the person was expecting to reach (e.g. trying to reach cell phone company, attempting to get change from pay phone)
- Operator Error – Caller incorrectly dialed the 7 or 10 digit number (e.g. wrong numbers)
- Lost Calls – call is disconnected before a need can be expressed by the caller. Also includes attempts to returns calls where a message has been left on voice mail or with an answering service, but after 3 attempts on 3 different days, the center is unable to reach the original caller.
- Prank Calls – calls reaching IN211 through a mischievous act or joke; no information or human services needed.
- Static/Silence – phone rings in the center, specialist answers but there is only static or silence on the line.