



Business Case
 After the attack on 9/11 security in the United States has been revamped drastically. As citizens, we can witness these changes when we travel through airports and even when we attend sporting events. The measures taken to keep us safe are necessary however, the amount of time it takes to get through security can be annoying and often feel like a waste of time to the customer. Our team decided to address this concern by observing how long it takes on average for a person to get through the security checkpoints at Bankers Life Fieldhouse in Indianapolis Indiana. Professor Dietz from Purdue University allowed us to tag along with his research team while he focuses on large events security and the publication of a book.

Goal Statement
 The goal is to decrease the time from fan entry at security check to ticket scanning before entering the arena.
 Y → Decrease of time it takes to get through security checkpoint
 X → Wand after one denial from the metal detector
 X → Have an updated sign indicating what will be rejected by the metal detector

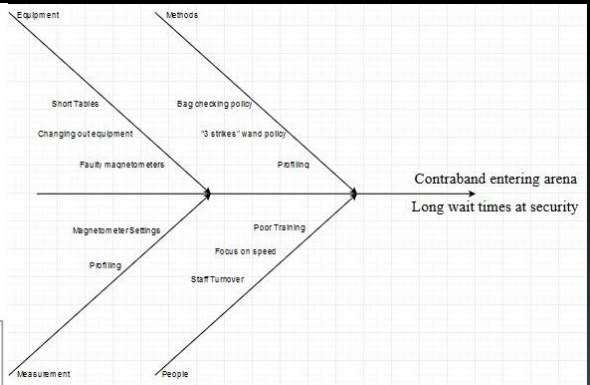
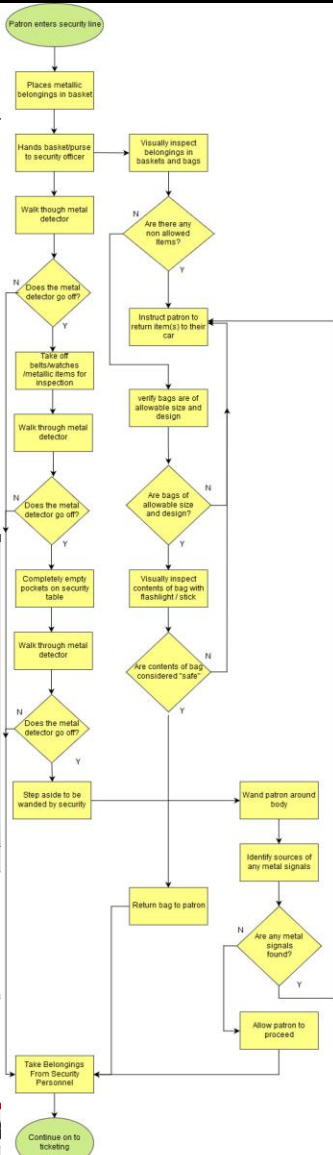
Project Plan

Activities	Time	wk1	wk2	wk3	wk4	wk5	wk6	wk7	wk8	wk9	wk10	wk11	wk12	wk13	wk14	wk15
Form Team																
Finalize Charter																
Initial Site Visit																
Gather Data																
Analyze Data																
Select Solution																
Meet Management																
Develop Plan to Implement																

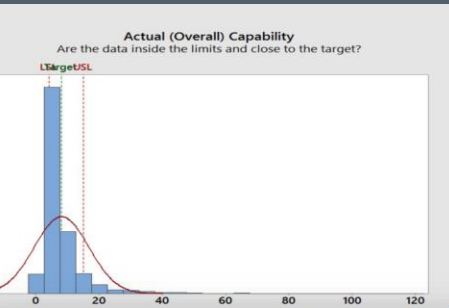
Opportunity Statement
 Currently it takes on average 8 seconds for one person to get through the security check-point. This process is currently operating at 530,183[DMPO which is 1.45 sigma.

Project Scope
 IN: Modifying procedures to improve the time it takes for customers to get through security
 Make recommendations for overall instruction signage to display proper instructions
 OUT: Less contraband through
 Quicker process time

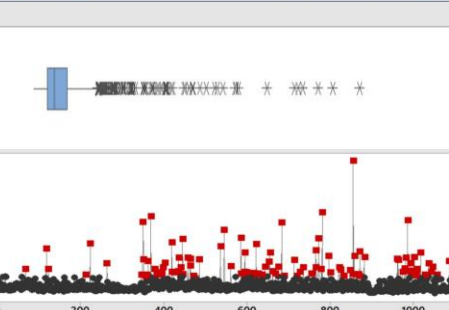
Team Selection
 Sponsor - James E. Dietz
 Active Members -
 - Christien Alexander
 - Shanice Matthews
 - Ryan McCavitt
 - Roneisha Watkins



Critical Customer Requirements	Key Customer Issue	Voice of the Customer
1. Decrease the average number of alarms that are set off	Time	Want a quicker flow from security check into the game
2. Utilize the metal detecting wands more frequently	Time	No repeat through metal detectors
3. Decrease the number of prohibited items from entering the area	Technological/Training	Want a safer environment



Supplier	Inputs/Requirements	Process Steps	Outputs/Requirements	Customer
		Patron Enters Line		
		Puts items in Basket		
Banker's Life (Security Staff)	Proper just-in-time training	Security Checks Basket	Accurate Bag check	Ticket Scanners
	Decreased amounts of contraband	Security Checks Basket	Efficient/timely bag check	
	Timeliness of passage through line	Items Cleared	Safe entry into the game	
Pacers (Spectators)		Patron Takes Items Back	All personal items received back	Employees/Spectators/Vendors



- Future Recommendation**
- The security should alter the sensitivity of the detectors in order to detect more contraband
 - The type of bag that is allowed into the games needs to be changed to clear bags only.
 - Make it a part of security procedures to wand every x person that comes through the detectors.
 - Update the signs so that the explain the current security regulations a fan must go through to enter the game.

Process Step/ Input	Potential Failure Mode	Potential Failure Effects	Severity	Potential Causes	Occurance	Current Controls	Detection	RPN
Metal detection	Allow metal through	Harm to injury to persons	9	Too low of settings	10	Low detection settings	1	90
Staff using wands	Not wandng when necessary	Contraband entry	8	Laziness	7	Wandering after 3 failures	4	224
Baggage Check Procedure	Not checking efficiently	Increased wait time	3	Lack of training	6	Flashlight and vague eye check	8	144

Solution	Weight factor	Minimize Contraband		Reduce Wait Time		Safer Environment		Cost- Effectiveness		TOTAL	RANK			
		Factor	Score	Factor	Score	Factor	Score	Factor	Score					
Wandering every x-person	10	6	60	7	7	10	8	80	8	10	80	227	3	
Update signage	10	2	20	7	7	49	10	4	40	8	6	48	11	
Designate separate lines	10	2	20	7	8	56	10	3	30	8	9	72	8	
Alter bag regulations	10	9	90	7	8	56	10	8	80	8	5	40	266	2
Change detector settings	10	8	80	7	3	21	10	9	90	8	10	80	271	1
Outsource Security/ Police	10	8	80	7	2	14	10	10	100	8	1	8	202	6
Just in time training	10	4	40	7	5	35	10	5	50	8	6	48	173	9
Strip search	10	10	100	7	1	7	10	10	100	8	0	0	207	4
Body scanner + Xray	10	9	90	7	3	21	10	8	80	8	2	8	199	7
Shoe/sock removal	10	5	50	7	3	21	10	6	60	8	9	72	203	5
Longer tables	10	2	20	7	9	63	10	3	30	8	7	56	169	10