

Black Belt Six Sigma Project Report Out  
Korrina Thomas  
Ohio Shared Services  
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# AR PROCESS STANDARDIZATION

# AGENDA

## AR PILOT PROJECT

### DEFINE

- Project Charter
- Map the Process
- Define the Problem
- VOC

### MEASURE

- Baseline data
- Data collection
- Measures of Success

### ANALYZE

- Identify waste/pain points
- Explore causes
- Identify value add/best practices

### IMPROVE

- Brainstorm solutions
- Clean sheet redesign
- Action Registers
- Implementation Plan
- Identify additional opportunities

### CONTROL

- Standard work
- Train to standards
- Measure performance of new process
- Communicate progress
- Act on additional opportunities

## AR PROCESS STANDARDIZATION KAIZEN

# DEFINE

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## BACKGROUND AND PROBLEM STATEMENT

In 2013, Ohio Shared Services collaborated with PUCO and TOS to:

- Transition PUCO accounts receivable (AR) activities to OSS (proof of concept).
- Created a scalable lockbox structure/account with Huntington National Bank (HNB).
- Develop an interface between OAKS Financials and HNB.

In 2014, OSS began working to transition AR activities from four additional agencies DAS, JFS, AGE, and DODD (pilot)

- Variation was identified across agencies' current state AR processes and payment types.
- Customer expectations for future state OSS processes were not aligned.

2015: To recognize the “Voice of the Customer” and effectively involve OSS customer agencies in defining AR standards, we held a Kaizen Event (February 23-27)

*For more details, please reference Appendix A:*

- Project Charter
- Operational Definitions
- Kaizen Scope Document

# DEFINE

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## GOAL

Define standard and scalable processes for OSS to complete AR deposit transactions within OAKS to the satisfaction of our customers and the Treasurer's Office.

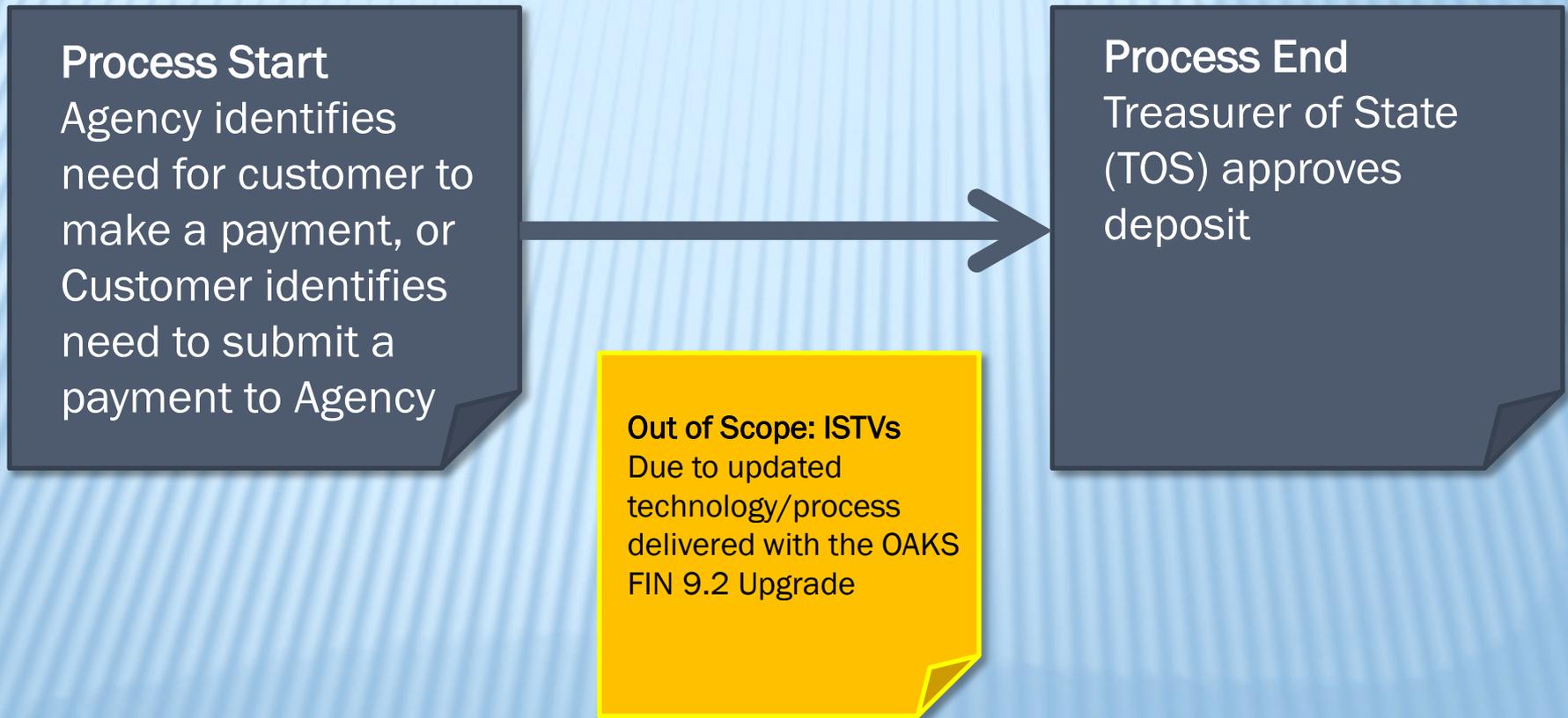
## BENEFITS

- A standard AR process will allow for improved control and capability analysis as well as continuous process improvement activities to drive down costs and improve quality.
- Create the opportunity to develop standard AR reporting within OAKS/BI, and to improve bank and deposit reconciliation processes for the State.
- Generate agency and enterprise cost savings through the introduction and continuous improvement of an OSS AR solution, allowing OSS agency customers to focus resources on mission-critical activities.

# DEFINE

## SCOPE

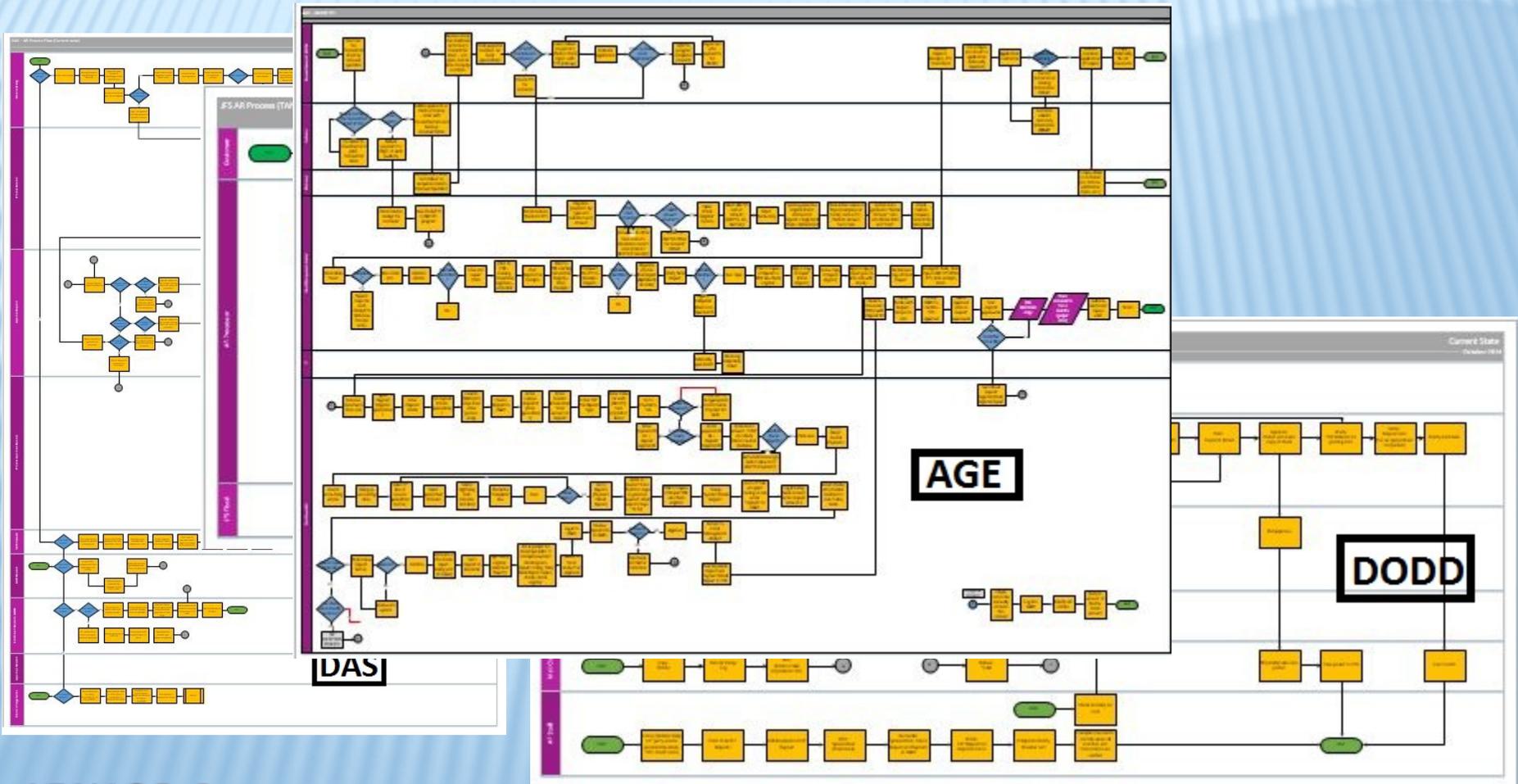
Clarifying project boundaries to keep the team aligned



# DEFINE

## MAP THE CURRENT STATE

Worked with each pilot agency to document current state AR processes



# MEASURE

## PERFORMANCE METRICS

The Ohio Shared Services' focus is to deliver a single, standardized approach for processing all business transactions. This standardization is done in an effort to bring cost savings through efficiency, thereby enabling state agencies to focus on their core mission while Ohio Shared Services grows as a best-in-class, high-performing organization.

Measure	Significance	Current	Goal
# of payment/check handoffs within agency	Quality	Up to 7	0
# of AR decision points	Quality/Time	Up to 20	1
Avg. AR processing time (per check)	Time/Cost	1:30-9:00 (agency)	<1:30 (OSS)

# MEASURE

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## DATA COLLECTION

### Initial (Baseline) Collection

**What is the current cycle time for creating/approving OAKS AR Deposit transactions?**

- Four two-member teams (OSS Green Belts)
- Established Operational Definitions and standard template/approach for data collection
- Worked with agencies to schedule data collection times
- Encountered Challenges
  - Quarterly billing cycles
  - Low volume (checks and deposits)

**What is the current OSS cycle time for creating/approving OAKS AR Deposit transactions?**

- Evaluated data gathered in June-July 2014
- Gathered new data

**What is the average yearly check and deposit volume for each agency?**

- Pulled FY14 deposit data from OAKS BI
- Validated deposit data with agencies
- Agencies provided estimates of yearly check volume (data not available in OAKS BI)

# MEASURE

## BASELINE DATA (AGENCIES)

- Observed eight (8) deposits/161 checks
  - Cyclical billing cycles made gathering data a challenge
- Validate AGE cost per check (16.04) with additional observations
- Data does not include costs to maintain ancillary billing systems, but should include in the future (trouble gathering data)

Agency	FY14 OAKS Deposit Totals	Estimated Yearly Volume Checks Received	Cost per Check	Estimated Yearly Cost
DAS	1562	3800	2.80	10640.00
JFS	387	6793	1.30	8830.90
DODD	5028	3600	4.29	15444.00
AGE	999	5000	16.04	80200.00
<b>Total</b>	<b>10199</b>	<b>19193</b>	<b>6.11 (avg)</b>	<b>115114.00</b>

# MEASURE

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## BASELINE DATA (OSS)

- Observed nine(9) deposits/22 checks in June-July 2014
- Observed 16 deposits/61 checks in March 2015
- Avg. cost per check 2014: 2.72
- Avg. cost per check 2015: 2.12

## Additional Data Observations:

- Deposits with only one or two checks appear to increase the cost per check.
- Cost per check seems to decrease with the implementation of a Lockbox.

## Hypothesis:

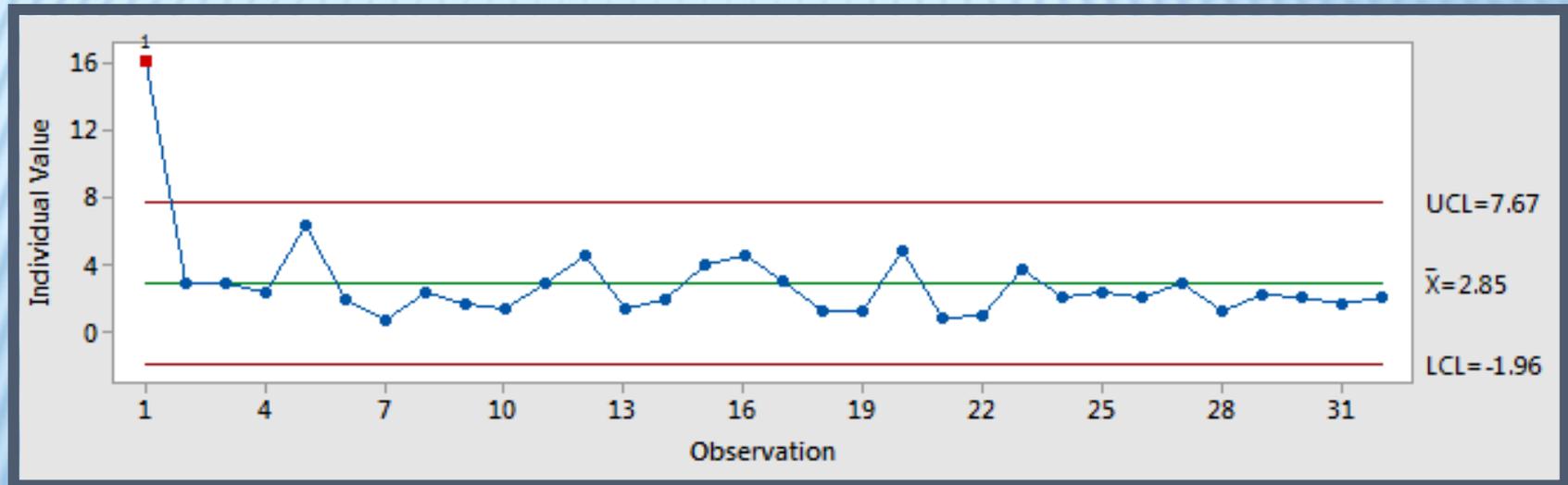
1. There is no statistical difference in cost per check between those processed at OSS and checks processed at the agency.

See Appendix A for Baseline Data

# MEASURE

## DATA STABILITY

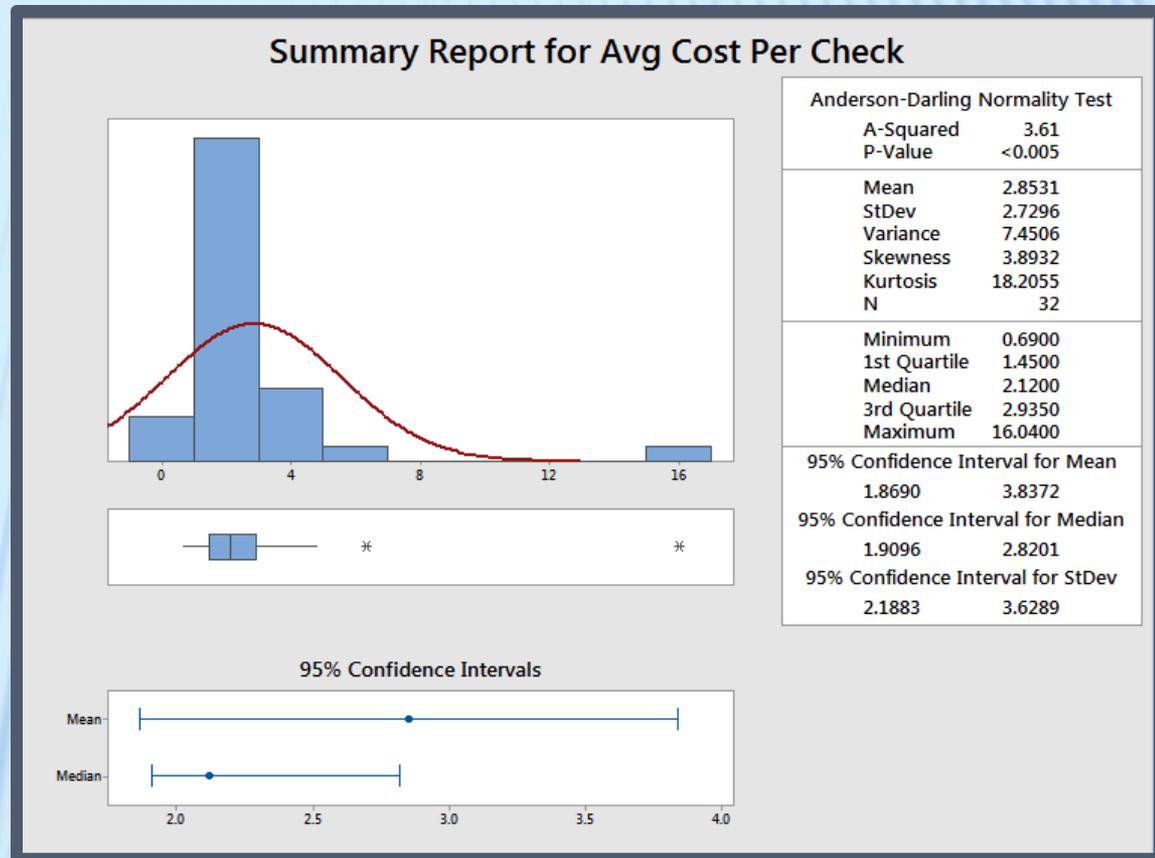
- Control Chart used to validate that AR processes/costs are in control. Apart from one outlier, this seems to be the case.



# MEASURE

## DATA NORMALITY

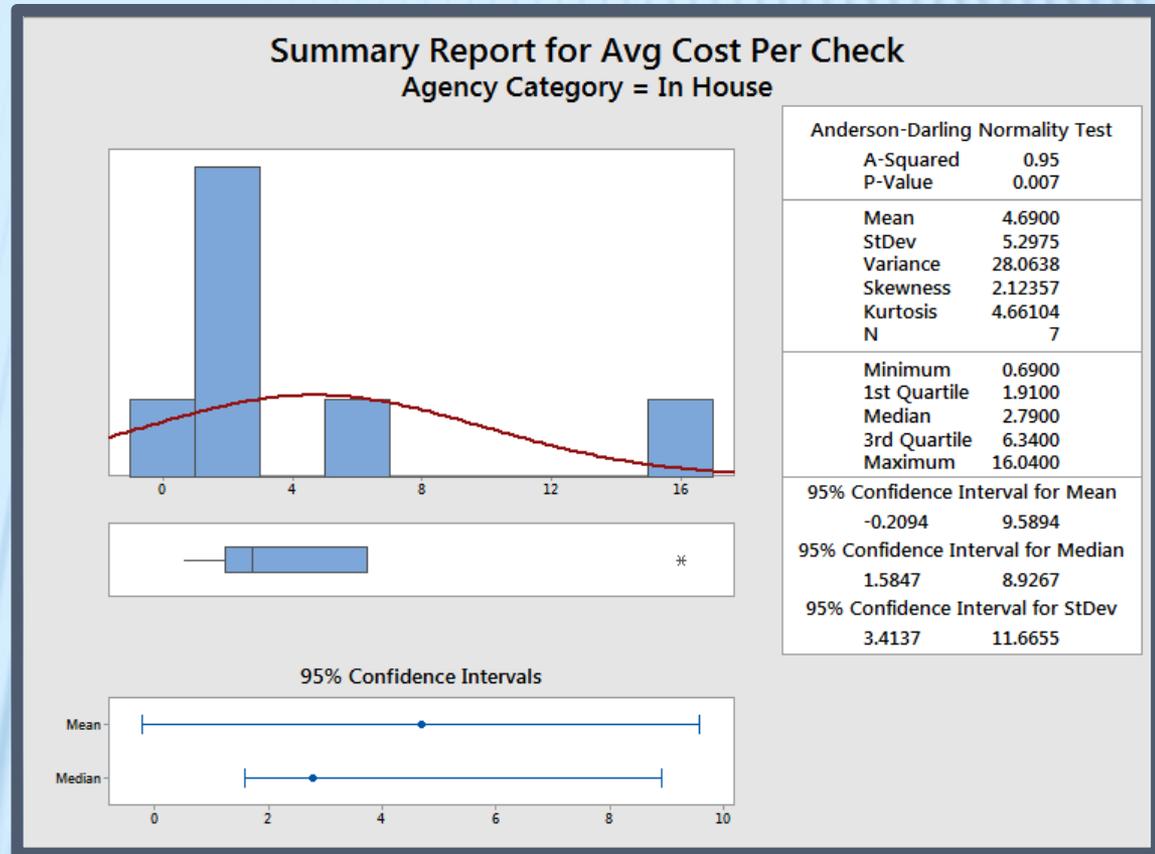
- N= 32 (OSS and agency observations)
- P-value is less than .05 (State's accepted confidence interval is 95 percent).
- Data is left-skewed.
- Data is **NOT** Normal.



# MEASURE

## DATA NORMALITY : Agencies

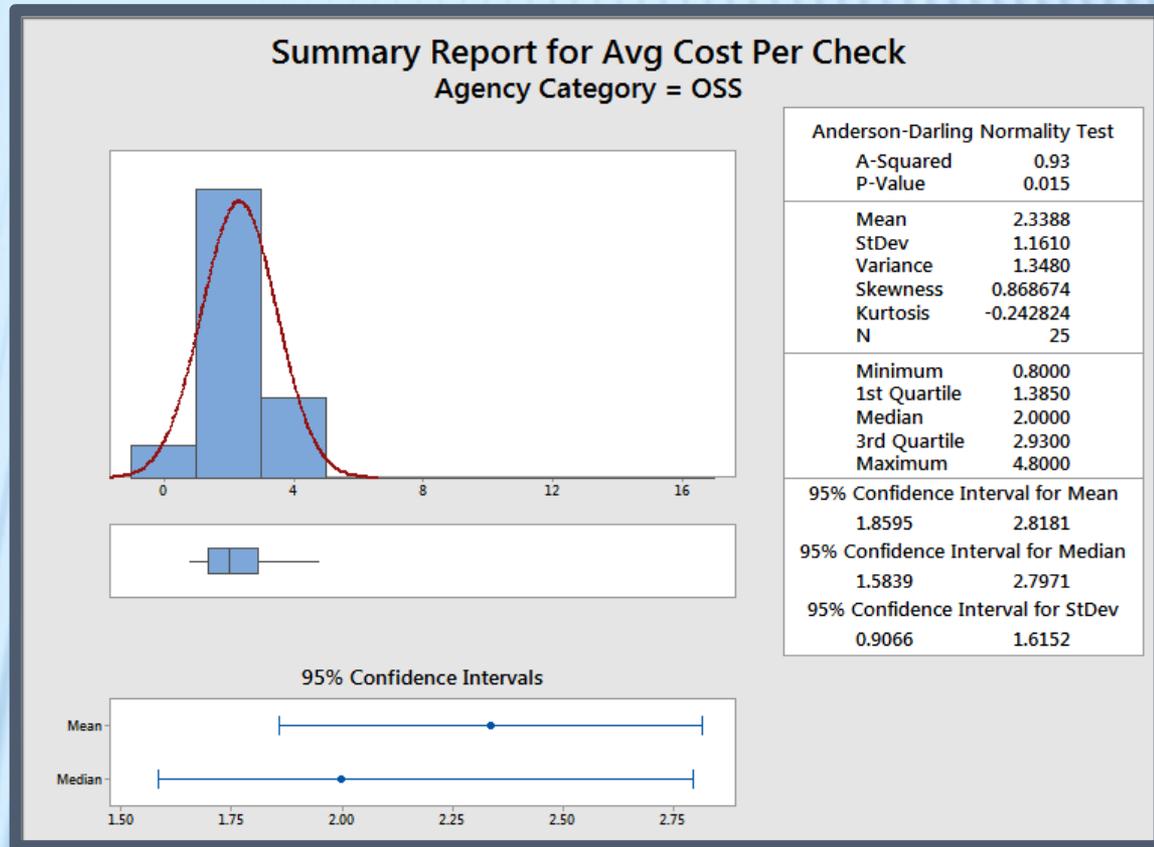
- N= 7
- P-value is less than .05  
Data is left-skewed.
- Data is NOT Normal.



# MEASURE

## DATA NORMALITY : OSS

- N= 25
- P-value is less than .05
- Data is **NOT** Normal.



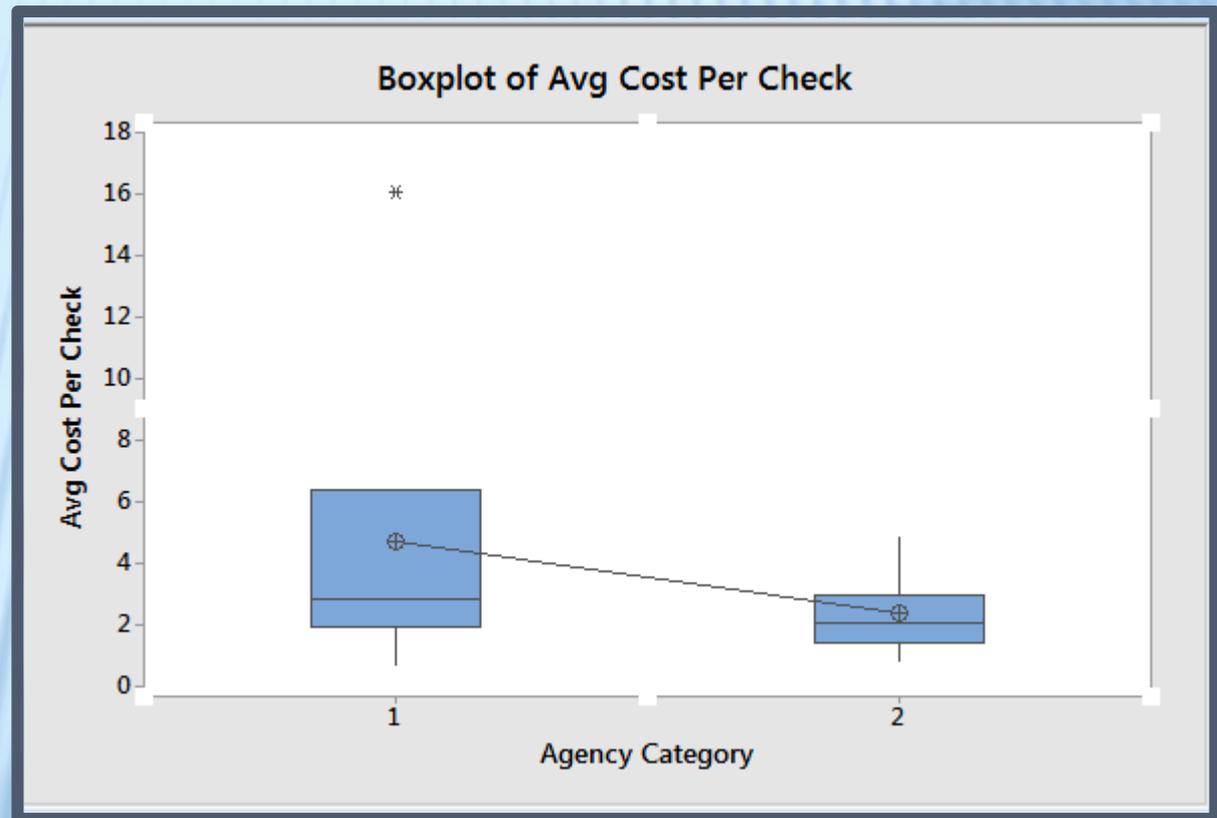
# MEASURE

## BOX PLOT: OBSERVABLE DIFFERENCES BETWEEN AGENCY AND OSS COST TO PROCESS

The shape of the data...

- Mean (centering)
- Spread
- Distribution

...is different when comparing OSS cost to Agency cost.



# MEASURE

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**DATA ISSUE:** not enough observations (low N values)

- Agency Observations: 7
- OSS Observations: 25

**Opportunity:**

- Additional data gathering with pilot agencies
  - Plan cycle time events around quarterly/monthly billing cycles
- Gather cycle time data for all agencies as part of a standard onboarding process
- Continue to periodically measure cycle time/cost at OSS to look for changes

# AR PROCESS STANDARDIZATION KAIZEN



- Customer-focused
- Right people changing the process
- One week—quick and action-oriented
- Necessary resources available immediately
- New process implementation begins next Monday

## Kaizen

A five day intensive study, decomposition, and re-engineering of an organizational process, typically targeting process steps, handoffs, and delays with a goal to improve by a minimum of 50 percent.

# KAIZEN DAY 1

- Reviewed Kaizen Scope Document
- Validated accuracy of current state process maps/began waste identification
- **SIPOC:** Documented high-level process, suppliers, inputs/outputs, and customers

SUPPLIERS	INPUTS	PROCESS	OUTPUTS	CUSTOMERS	
Banks	Payments	<b>1. Identify need for payment.</b>	Revenue	Banks	
Treasurer of State	Invoices		Reporting	Treasurer of State	
OBM	Registrations		<b>2. Payment is received.</b>	Invoices	OBM
State Agencies	Rules/Orders			Deposits	State Agencies
Federal/State Programs	OAKS FIN		<b>3. Process Payment as part of a deposit.</b>	Reconciliations	Federal/State Programs
Constituents	Chartfield Coding	Audits		Constituents	
	External Systems	<b>4. Approve deposit.</b>	Modifications		
			Bank Fees		
		<b>5. TOS approves deposit.</b>	NSF Payments		

# KAIZEN DAY 2

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- **TIM U WOOD:** Identified waste and value-added activities within each agency's AR processes; reported out on specific pain points and best practices within each agency.
  - Paper handling/making multiple paper copies of documents/checks
  - Checks are passed around—risk of loss or misplaced items
  - OAKS is slow
  - No enterprise customer database
  - No ability to report on receivables from the enterprise level
- **Brainstorming:** Completed silent brainstorming activity to generate AR process improvement ideas.
- Used an **“Affinity”** approach to improvement ideas:
  - Categorized ideas (Billing/Coding, Training, IT Solutions, Going “Green,” Automation)
  - Small teams focused on analysis of ideas within each category
  - Prioritized top 3-5 ideas; identified payoffs and challenges

See Appendix A for Affinity Idea Registers

# KAIZEN DAY 3

- **Clean Sheet Redesign:** Broke into three teams and designed the ideal future state AR processes, shared ideas between groups
- **Future State Process Maps** (near-term and long-term) were created and reviewed by the team





# KAIZEN DAY 5

- Finalized Implementation Plans
- Measured process improvement (reduction in steps, decision points, handoffs)
- Developed Implementation Timeline & Milestones
- Completed Report Out

Measure	Current Level	NEW	Change
Process Steps	80-157	21	74-87%
Decision Points	4-24	3	25-88%
Functions	4-10	5	Up to 50% Reduction

# COST SAVINGS SCORECARD

Processor	Avg cost to Process Check
Agency	6.11
OSS	2.34
Savings per Check	3.77
Overall Savings*	72,357.61**

\*Overall estimated savings will be re-evaluated routinely as part of the project's control metrics.

\*\*Overall estimated savings does not include agency maintenance of external billing systems, nor does it factor in lockbox costs. This information is planned to be included as part of an OSS cost study currently underway.

# KAIZEN OUTCOMES: IMPROVEMENT SUMMARY

## Current Key Issues

Paper handling/making multiple paper copies of documents and checks

Checks are passed betw. multiple depts. (not secure)

No enterprise customer database or reporting

## How We Are Improving

Transition to Lockbox service/OSS for check payments

Set up alternative payment options (credit card, ACH)

Retire legacy billing systems, transition to OAKS Billing Module, set up single customer DB

# PROJECT BENEFITS - INTANGIBLE

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- Reduced risk of lost or stolen receivables
- Coordinated AR reconciliation processes
- Improved agency and enterprise reporting
- Participating agencies will adopt a standard approach
- Increased payment options for customers
- “Reduction in frustration” –Angela Gonzales, JFS

# IMPLEMENTATION PLAN

Task	Who	When	Status
Adopt Standard Invoice format	AR Pilot Agencies	3/2/2015	Complete
Set up/modify AR SpeedChart coding	AR Pilot Agencies	4/2/2015	In progress
30 Day Check-In	LeanOhio, OSS, AR Pilot Agencies, TOS	4/2/2015	Planned
60 Day Check-In	LeanOhio, OSS, AR Pilot Agencies, TOS	5/2/2015	Planned
Transition DODD, AGE to Lockbox	OSS, TOS, DODD, AGE	5/31/2015	In Progress
Training for OSS, agencies, customers	OSS, TOS, pilot agencies	5/31/2015	In Progress
Communications to customers	Pilot Agencies	9/30/2015	In Progress
Work with OAKS to clearly understand new Billing and AR functionality delivered with 9.2 Upgrade	OSS, OAKS, Pilot Agencies	6/30/2015	Planned
Retail Lockbox Pilot	OSS, TOS, PUCO	8/1/2015	Planned
Discovery: Automated Image Upload to OAKS	OSS, OAKS, OBM OIT, RACM	9/30/2015	Planned
Adoption of OSS Billing Module	Pilot Agencies	7/1/2015	Planned
Discovery: customer payment portal	OSS, OAKS, OIT, OBG	1/1/2016	Planned
Ongoing data collection and analysis (control)	OSS, Pilot Agencies	Perpetual	Planned

# SPECIAL THANKS TO...

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## AR PROCESS STANDARDIZATION KAIZEN TEAM MEMBERS

*Amanda Akers, OSS*

*Kim Bright, AGE*

*Teri Gardner, MHAS (Fresh Perspective)*

*Kevin Flanagan, AGE*

*Angela Gonzales, JFS*

*Vicki Gordon-Smith, DODD*

*Diane Hare, OSS*

*Janet Jackson, AGE*

*Cathy McNamara, AGE*

*Tim Ogonek, OSS*

*Michael Rhoades, TOS*

*Gerry Sadorra, OSS*

*Kelly Salomone, OBM*

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*Mary Sen, DAS*

*Shawn Smith, PUCO*

*Korrina Thomas, OSS*

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Bryon Moore

## Project Mentor & Kaizen Facilitator

Brandi Crowley

## Kaizen Facilitator

Scot Burbacher

## OBM Lean Liaison

Betsy Bashore

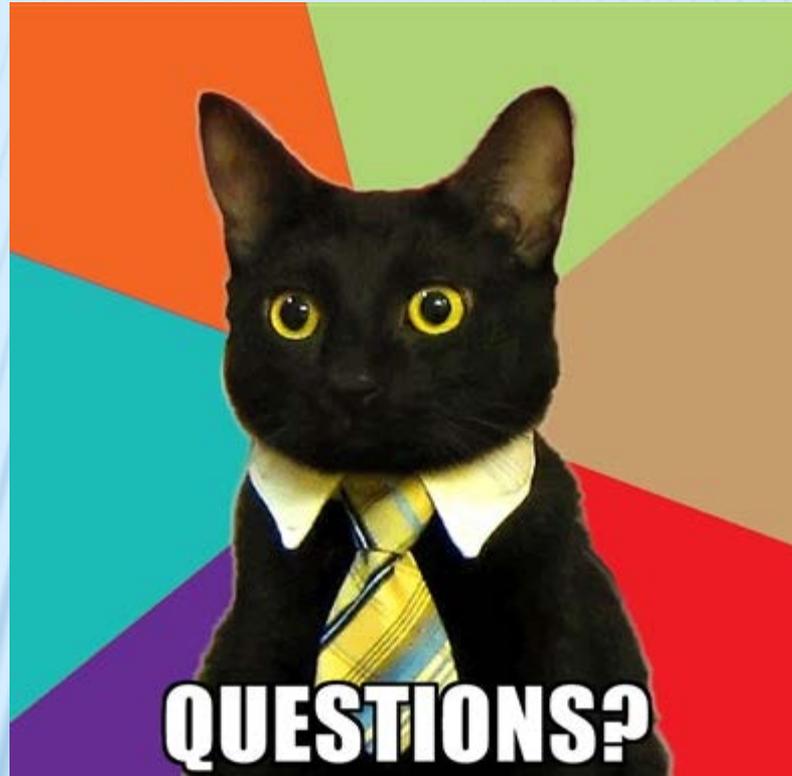
Rick Terry

John Palermini

Ed Martin

# QUESTIONS/COMMENTS

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# APPENDIX A: SUPPORTING DOCUMENTS

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- [AR Pilot/Process Standardization Charter](#)
- [AR Project Team Contact List](#)
- [AR Project Team Organizational Chart](#)
- [AR Kaizen Scope Document](#)
- [AR Operational Definitions](#)
- [AR Kaizen Affinity Idea Registers](#)
- [AR Kaizen Report Out](#)
- [AR Kaizen Fact Sheet](#)
- [AR Process Cost Data](#)