



Green Belt Six Sigma Project Report Out
Geoff Dutton and Patrick Wilson
Ohio Department of Public Safety
March 11, 2013

OHIO EMS CERTIFICATION PROCESS

TEAM MEMBERS: TRAIL CHART

ODPS – Ohio EMS

- Geoff Dutton, Green Belt
- Patrick Wilson, Green Belt
- Melvin House, EMS Director
- Ellen Owens, EMS Certification Supervisor
- Jean Booze, EMS Certifications
- John Sands, EMS Audits
- Sarah Hansen, ODPS IT
- Kathy Mahl, IT Relationship Manager

Outside Agencies

Ohio EMS Board
Ohio Fire Academy
Butler Tech
Great Oaks
Mid-East CTC

STAKEHOLDERS

- State EMS Board
- ODPS Director's Office
- State Division of EMS
- Paramedics
- Emergency Medical Technicians
- Advanced EMT
- EMS Instructors
- Schools and Training Facilities

BACKGROUND

- EMS offers certification processes both online and on paper
 - Certifications number over 100,000 EMT's, firefighters, instructors and inspectors
 - Fire and EMS certifications must be renewed every 3 years
- Too many applications for certifications require manual processing by EMS Staff
 - Paper Applications
 - On average, 672 of the 14,303 certifications are done manually, or about 5% annually
 - Defects
 - Many online applications require manual processing:
 - Incomplete
 - Errors
 - Potential Disqualifying Information

SCOPE OF PROJECT

Beginning
Step

Applicant submits
forms to EMS for
approval

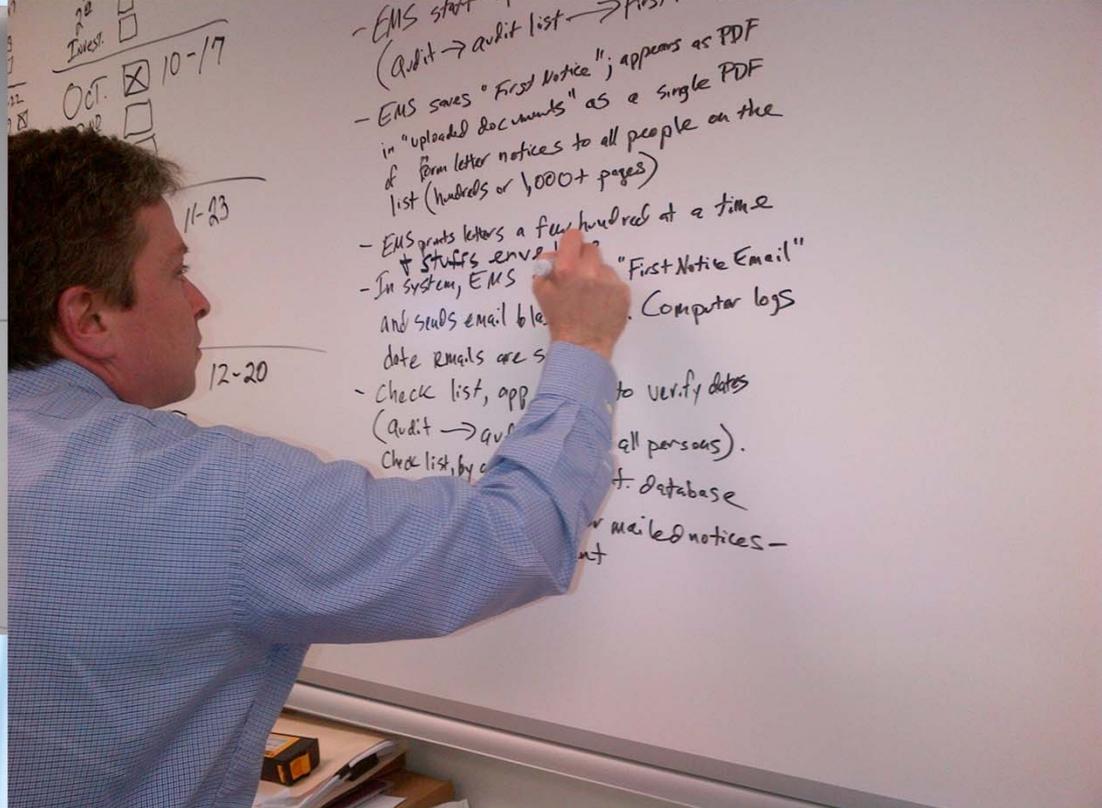
Ending
Step

Applicant receives
notice of certification
from EMS

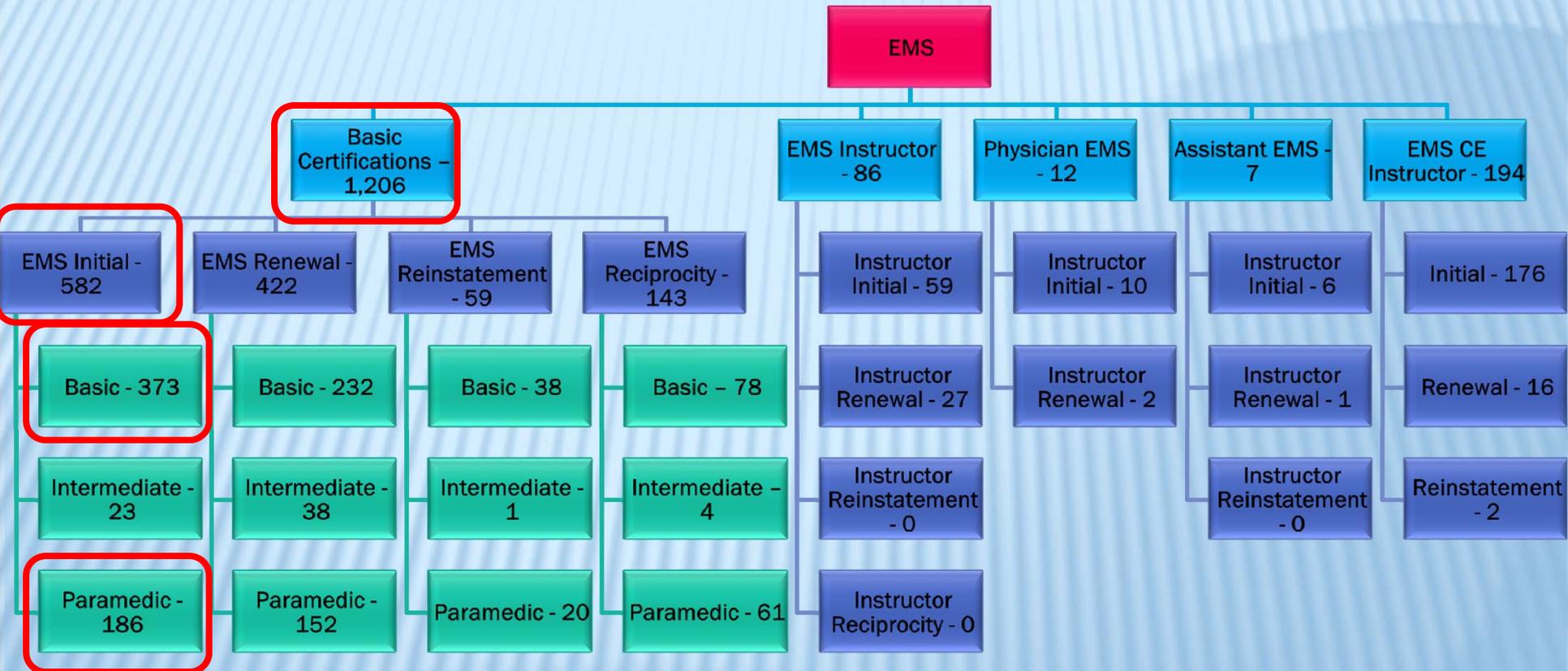
PROJECT GOALS

- Clarify EMS and Fire certification processes
- Streamline certification processes
- Ensure certifications are processed accurately and in a timely manner
- Allow for the routine tracking of applications as they move through the process

TEAM BRAINSTORMING



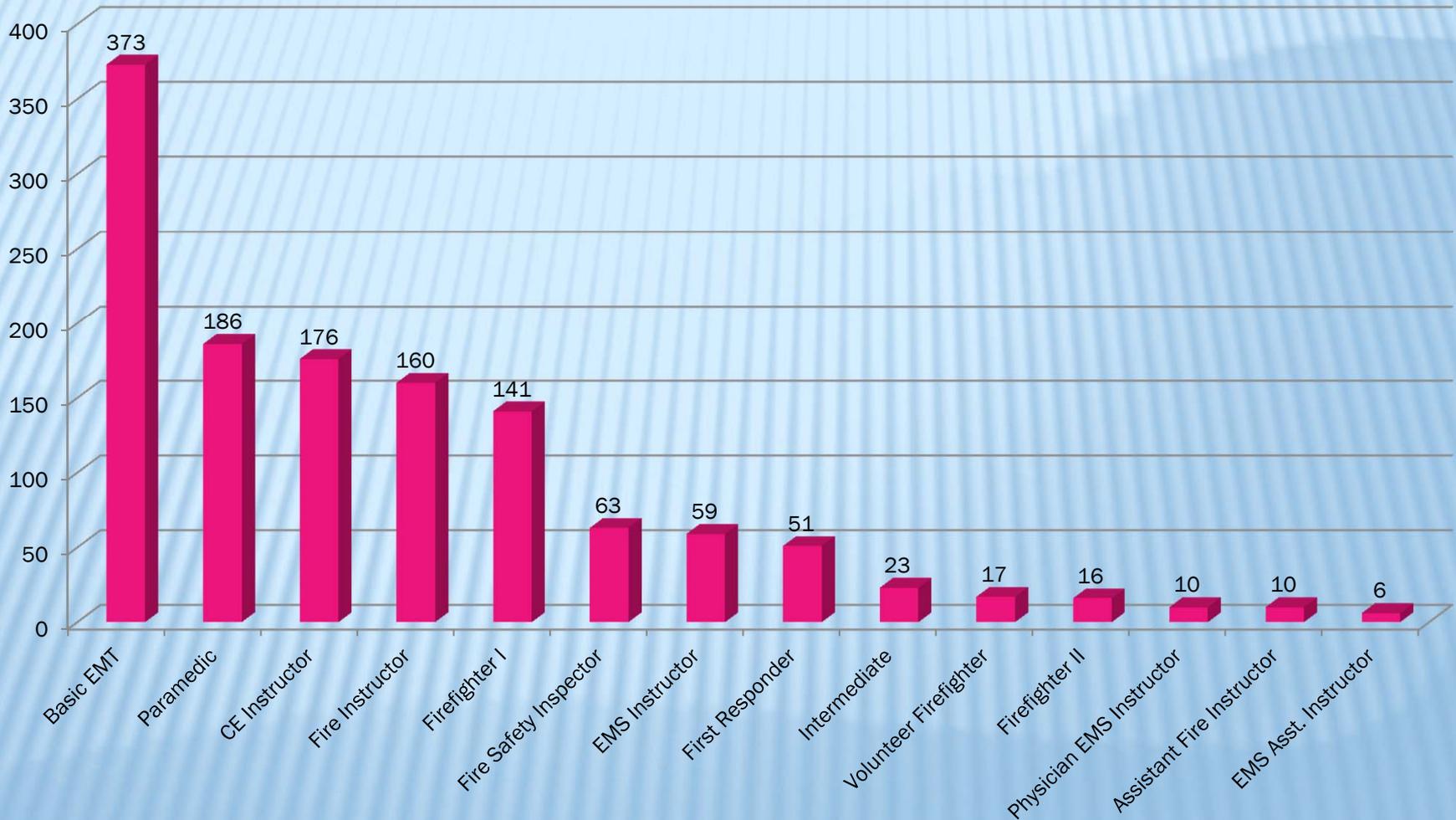
PAPER APPLICATIONS - CT FLOW-DOWN



Paper Applications submitted
Aug 2012 - Feb 2013

INITIAL PAPER APPLICATIONS

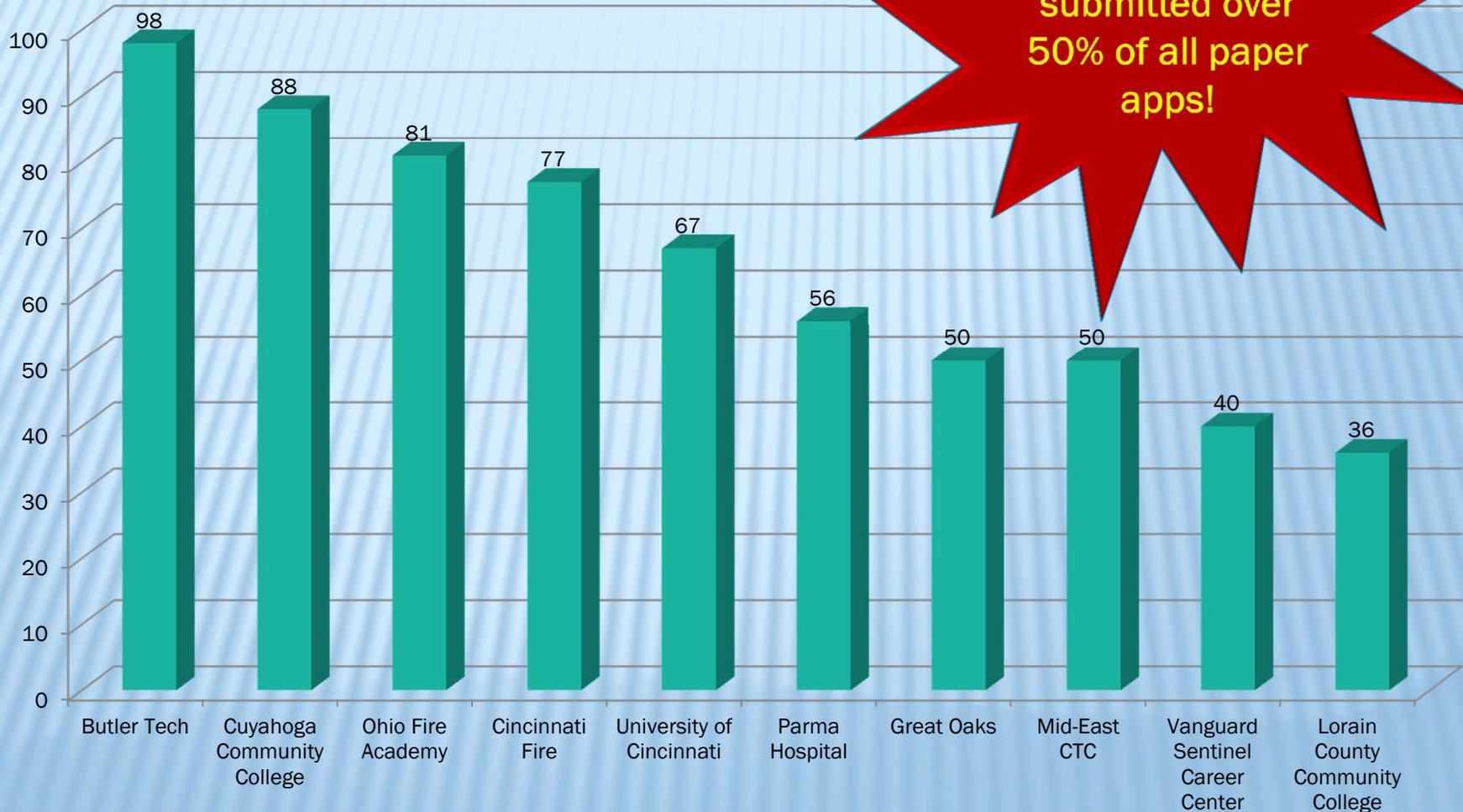
EMS & Fire - Aug 2012 - Feb 2013



TOP 10 SCHOOLS

Initial Paper Applications, Aug 2012 -

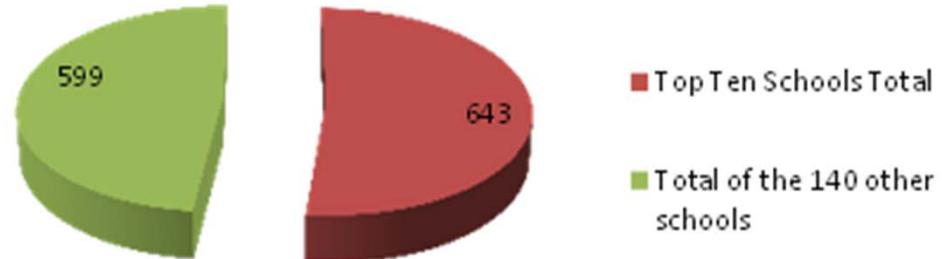
7% of all schools submitted over 50% of all paper apps!



TOP 10 SCHOOLS

This is an opportunity to impact a far greater number of applicants to change our process by notifying a small number of schools

Aug 2012 - Feb 2013 Paper Applications by School

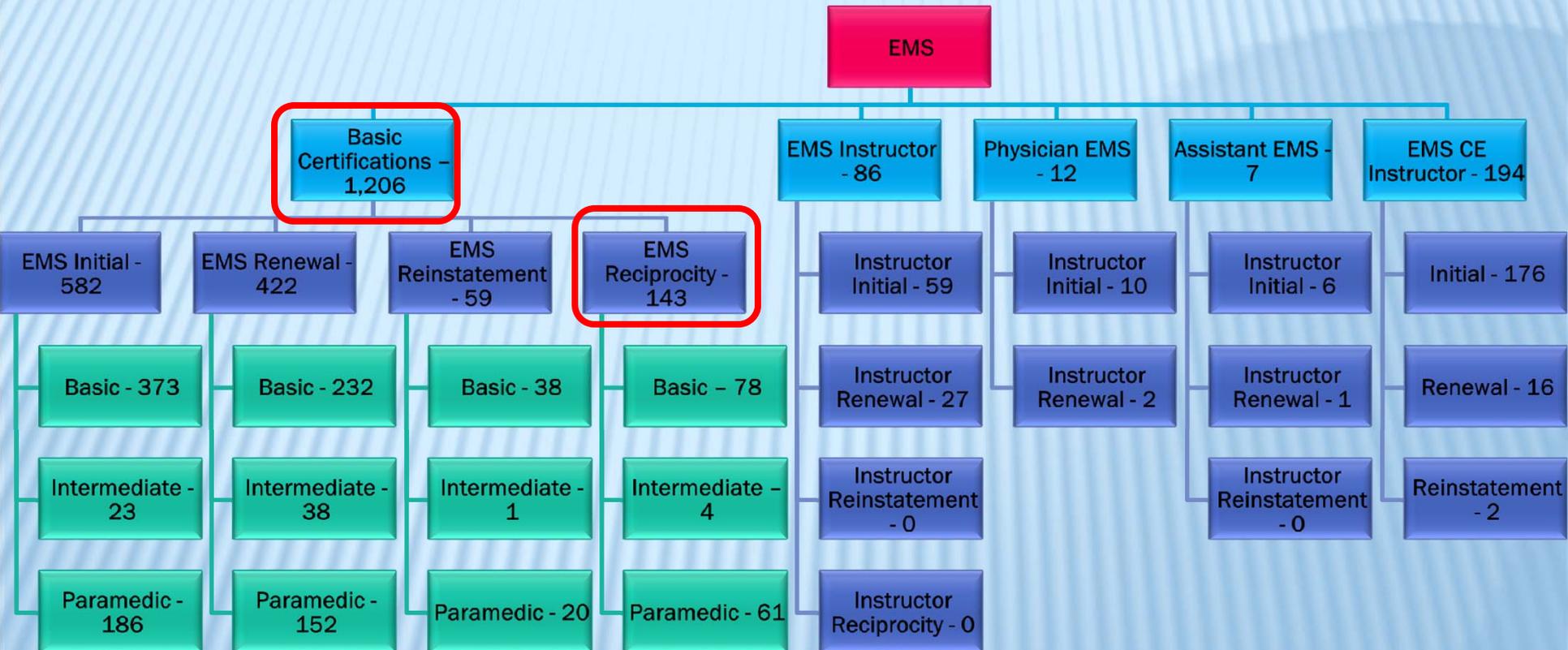


| Top Ten Schools | Paper Apps |
|---------------------------------|------------|
| Butler Tech | 98 |
| Cuyahoga Community College | 88 |
| Ohio Fire Academy | 81 |
| Cincinnati Fire | 77 |
| University of Cincinnati | 67 |
| Parma Hospital | 56 |
| Great Oaks | 50 |
| Mid-East CTC | 50 |
| Vanguard Sentinel Career Center | 40 |
| Lorain County Community College | 36 |

PROJECT METRICS - SCHOOLS INITIAL APPS

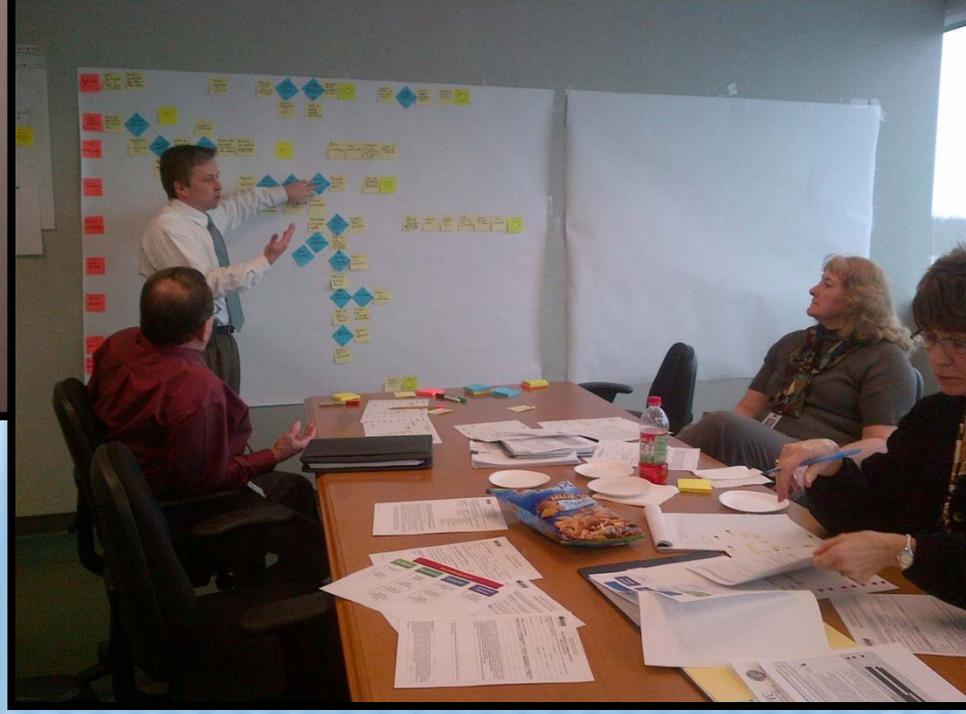
| Measure | Result | | |
|-------------------------------|-------------------------|-----------|------------|
| Time Processing | Reduce by more than 50% | | |
| Redirected Hours | 4 hours per week | | |
| Measure | Before | After | Difference |
| <i>[# Paper Applications]</i> | 44 / week | 23 / week | -21 / week |

PAPER APPLICATIONS - CT FLOW-DOWN

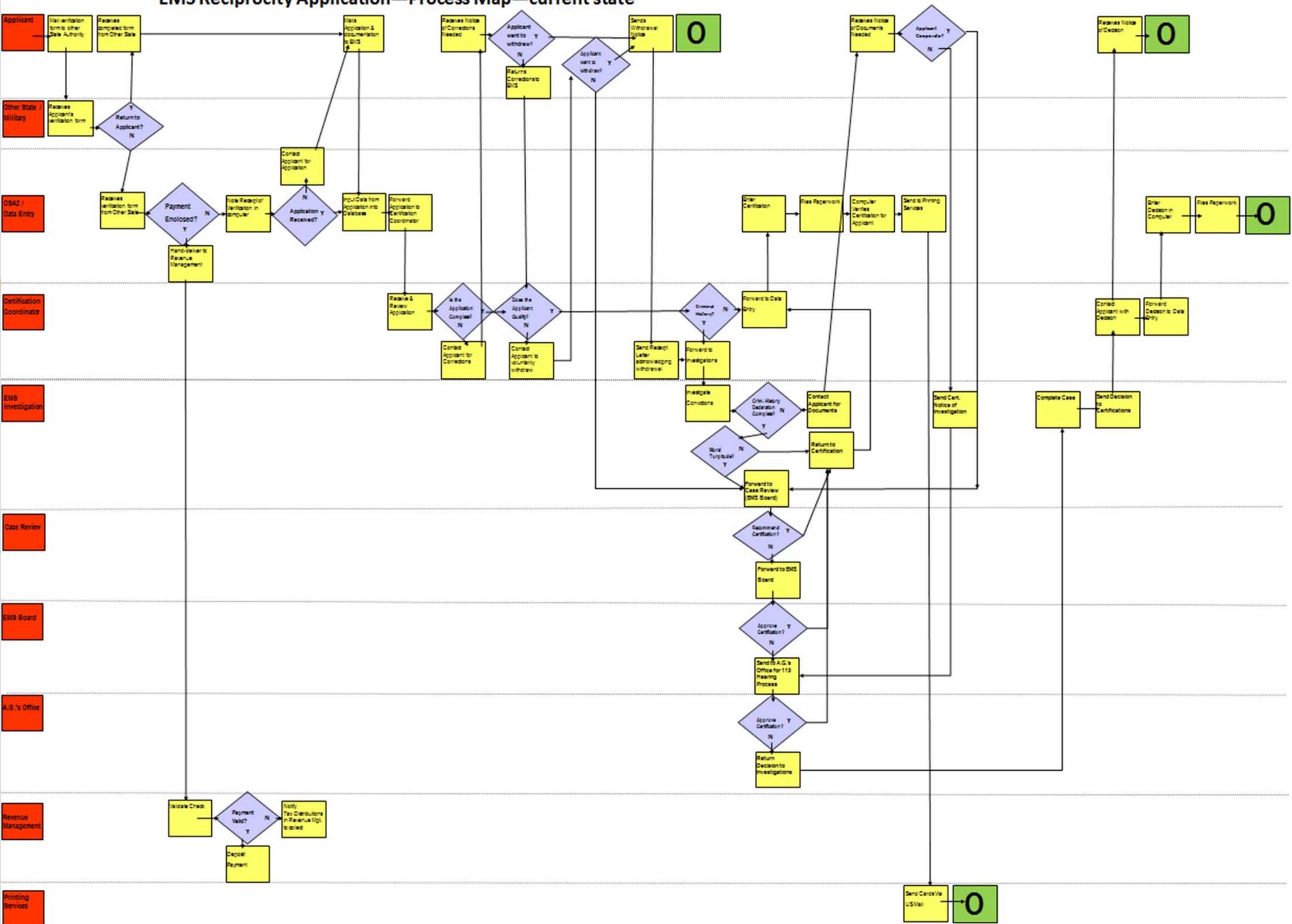


Paper Applications submitted
Aug 2012 - Feb 2013

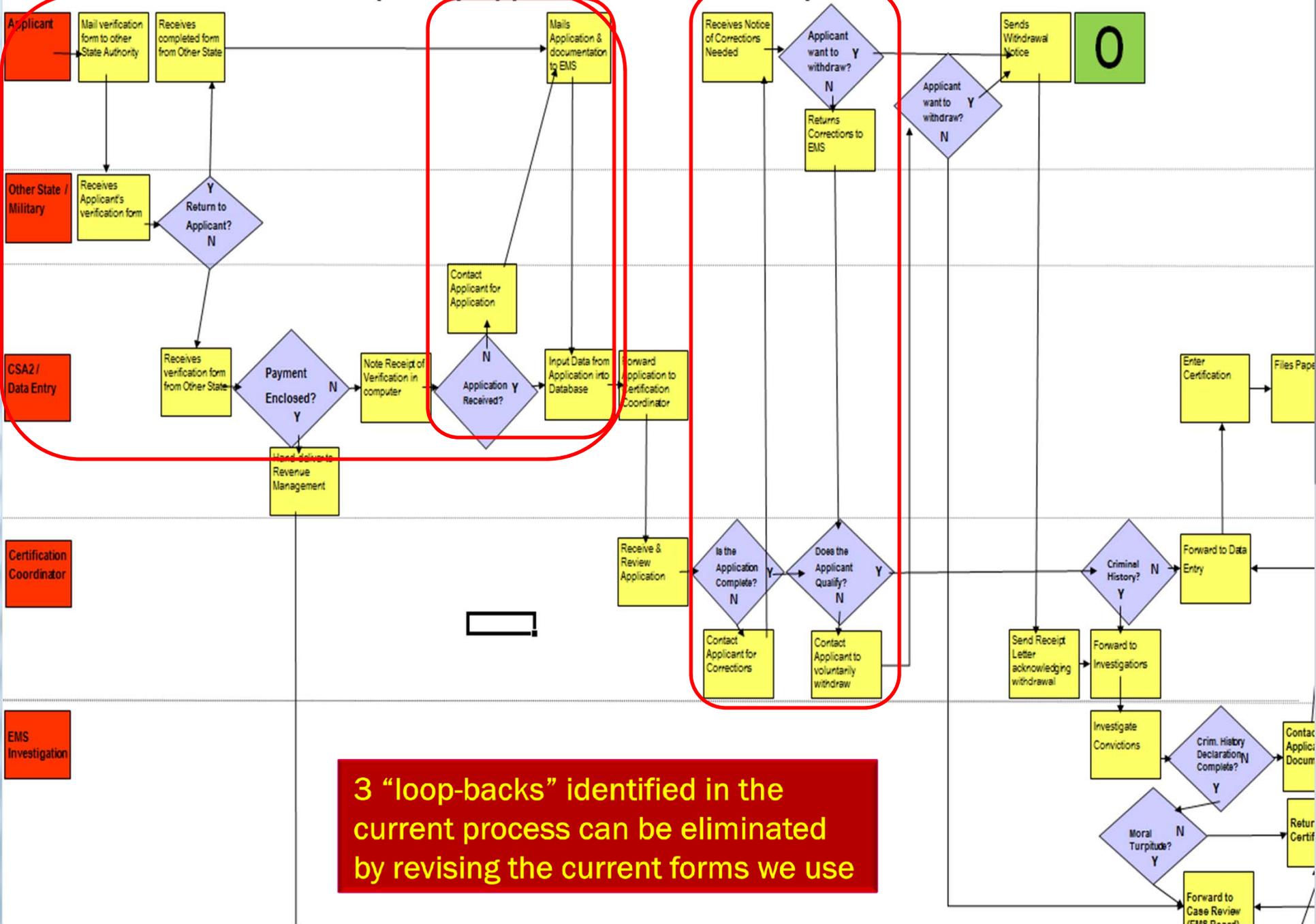
PROCESS MAPPING



EMS Reciprocity Application—Process Map—current state



EMS Reciprocity Application—Process Map—current state



3 "loop-backs" identified in the current process can be eliminated by revising the current forms we use

FORMS



OHIO DEPARTMENT OF PUBLIC SAFETY
EMERGENCY MEDICAL SERVICES

EMS APPLICATION - INITIAL

All information **MUST** be included. Incomplete applications **WILL NOT** be processed.

(Please print legibly and use black or blue ink.)

| | | | |
|---|------------------|---|----------|
| Do you have a Current Certification Number? <input type="checkbox"/> YES <input type="checkbox"/> NO | | CURRENT CERTIFICATION NUMBER <input type="checkbox"/> UNKNOWN | |
| LEGAL LAST NAME | LEGAL FIRST NAME | LEGAL MIDDLE INITIAL | SUFFIX |
| SOCIAL SECURITY # | | DATE OF BIRTH | |
| <small>Disclose if state security number is mandatory pursuant to RC 2102.20 in compliance of state provisions and any other state or federal requirements.</small> | | | |
| HOME ADDRESS | PO BOX | CITY | STATE |
| HOME PHONE | CELL PHONE | COUNTY OF RESIDENCE | ZIP CODE |
| E-MAIL ADDRESS | | CONFIRM E-MAIL | |
| SECONDARY E-MAIL ADDRESS | | CONFIRM SECONDARY E-MAIL | |

PLEASE LIST AFFILIATION(S) (if any)

| | | | |
|-----------------|------|-------------------------------|------------------------------------|
| DEPARTMENT NAME | | <input type="checkbox"/> PAID | <input type="checkbox"/> VOLUNTEER |
| ADDRESS | CITY | STATE | COUNTY |
| DEPARTMENT NAME | | <input type="checkbox"/> PAID | <input type="checkbox"/> VOLUNTEER |
| ADDRESS | CITY | STATE | COUNTY |

If more space is needed, please attach separate sheet.

- I have completed all NIMS training as set forth in EMS rule 4765-8-01.
 YES NO
- Have you ever held a certification or license as an EMS provider in this state or any other state that has been suspended or revoked by the EMS Board or the certifying or licensing entity in another state?
 YES NO
- Do you, as the person accepting responsibility by signing this form, have charges pending or have a conviction for a felony or a misdemeanor other than a minor traffic violation or a judicial finding of eligibility for treatment in lieu of conviction?
 YES NO
- Have you committed any act in another state that, if committed in Ohio, would be applicable to question three (3) listed above?
 YES NO

If you answered "YES" to either question 3 or 4, then please complete the "Criminal History Information" portion of this application and submit supporting documentation.

EMT APPLICANTS - All applicants are solely responsible for their certificate to practice and all associated requirements to maintain a current certification.

I attest that all information provided is true and accurate to the best of my knowledge. I understand that a false statement on this application constitutes falsification under Section 2921.13 of the Revised Code and is a misdemeanor of the first degree and may also be grounds for denial, suspension or revocation of my certificate. I further attest that I satisfy all the requirements for a certificate at the level sought in this application as set forth in Section 4765.20 of the Revised Code and Chapter 4765-3 of the Ohio Administrative Code. I am solely responsible for my certificate. I understand that I must maintain records relating to the requirements for continuing education and that such records are subject to audit by the Division of EMS. I hereby give permission to the Ohio Department of Public Safety, Division of EMS to verify any of the above information.

| | |
|--------------------------|------|
| APPLICANT SIGNATURE X | DATE |
|--------------------------|------|

A review of the process led to a review of the forms

Recommended Changes to Forms

Purpose
Statement

Clarification of
Requirements

Personal
Information

Web - links

Criminal
History
Declaration

Reinstatement
Fees

Benefits of Recommended Forms Changes

Reduced
Processing
Time

- Possible
64%
reduction

Less
phone
calls

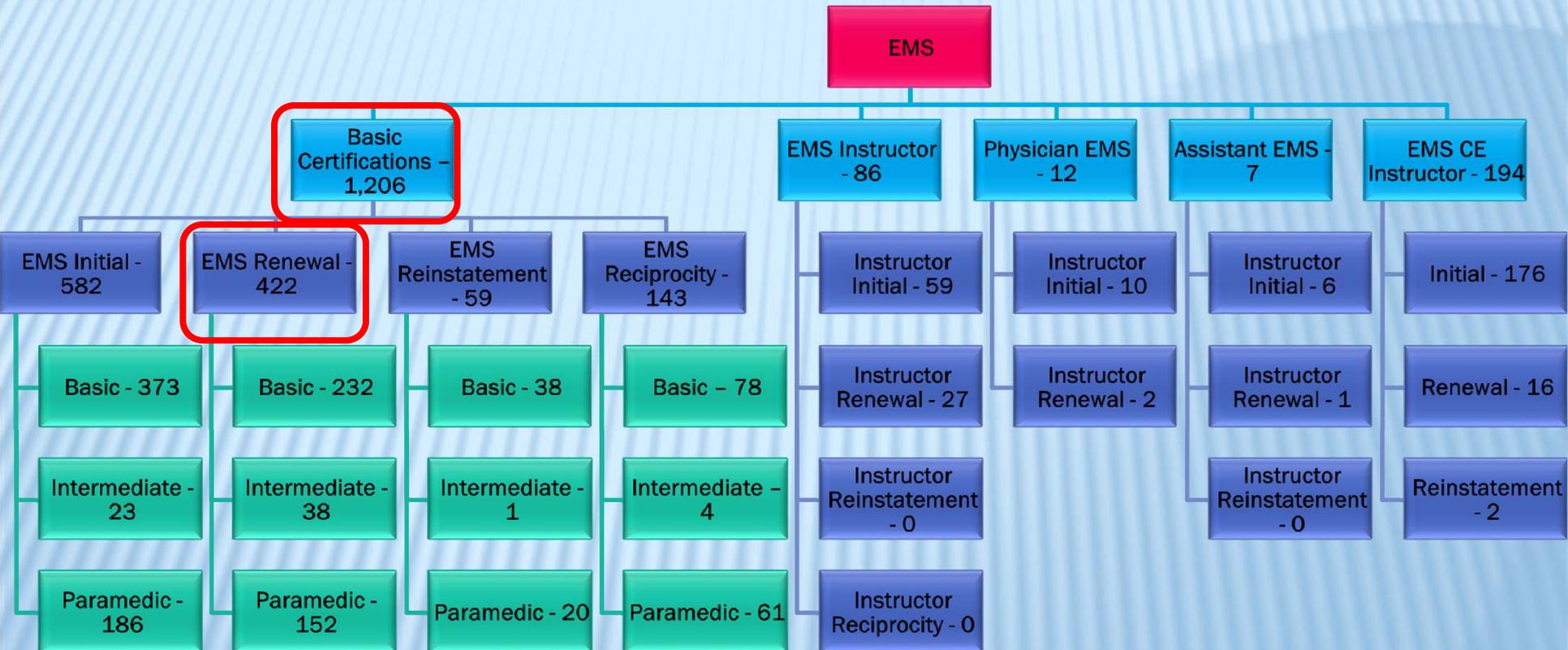
Smooth
transition
to online
process

PROJECT METRICS

RECIPROCITY / FORMS REVISIONS

| Measure | Result | | |
|----------------------------------|-----------------------------|----------|-------------|
| Waste – 3 loop-backs | Eliminated 3 areas of waste | | |
| Measure | Before | After | Difference |
| <i>[Process Steps]</i> | 45 | 35 | -10 steps |
| <i>[Handoffs]</i> | 15 | 10 | -5 handoffs |
| <i>[Decisions]</i> | 15 | 9 | -6 decision |
| <i>[Waste Points]</i> | 3 | 0 | -3 |
| <i>[Minimum Turnaround time]</i> | 11 days | 5 days | -6 days |
| <i>[Maximum Turnaround Time]</i> | 152 days | 115 days | -37 days |

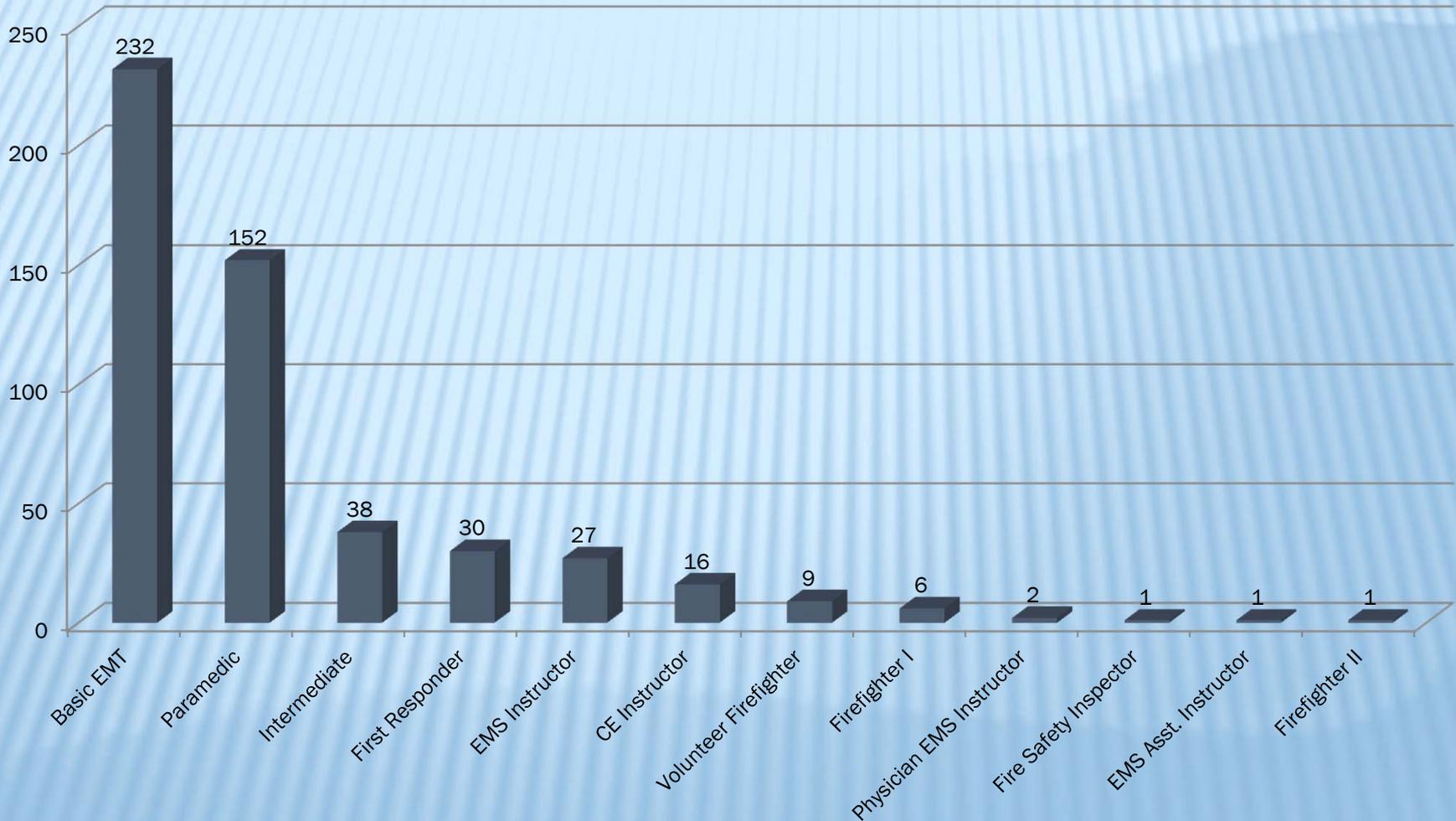
PAPER APPLICATIONS - CT FLOW-DOWN



Paper Applications submitted
Aug 2012 - Feb 2013

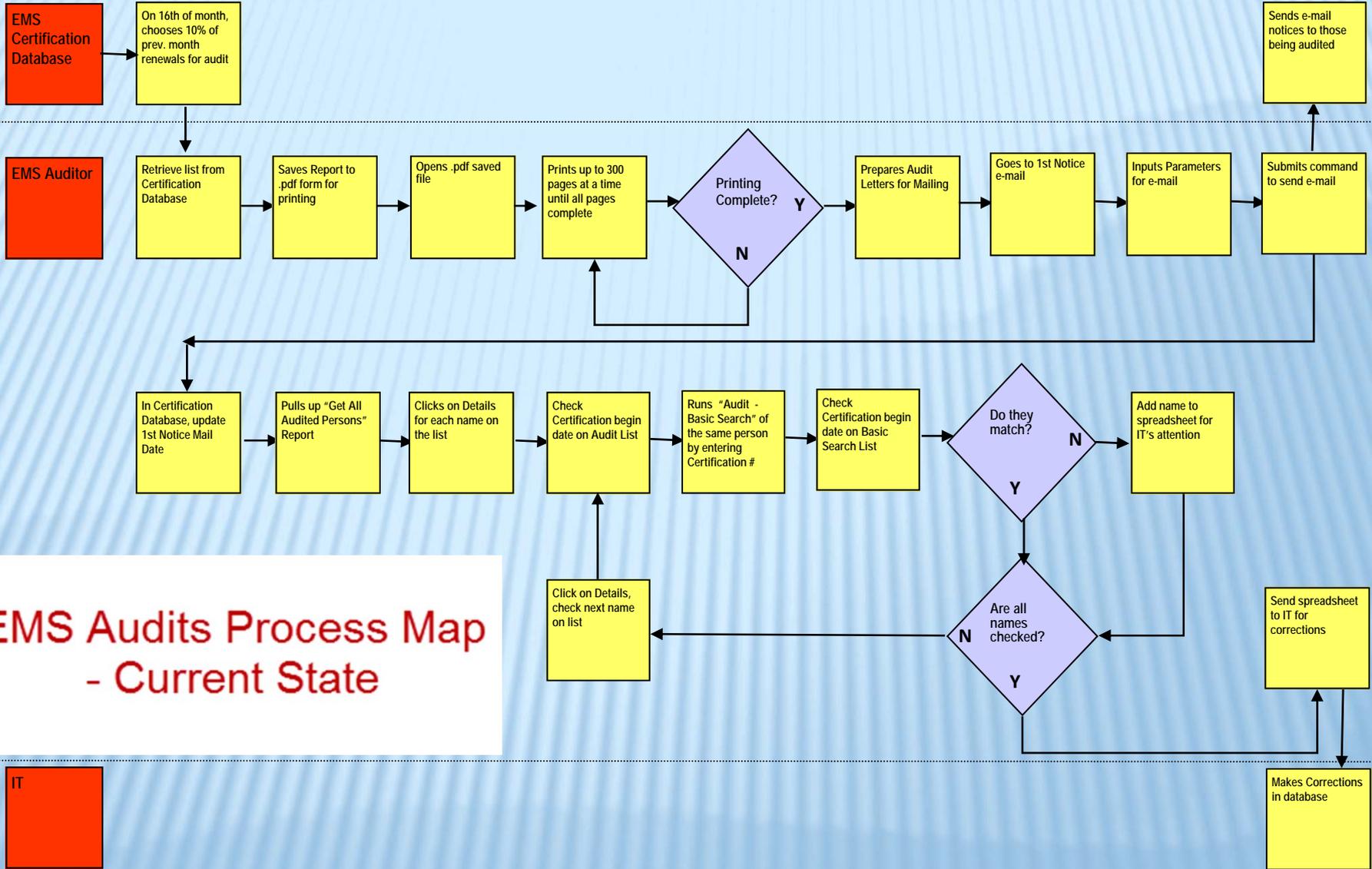
RENEWAL PAPER APPLICATIONS

EMS & Fire - Aug 2012 - Feb 2013

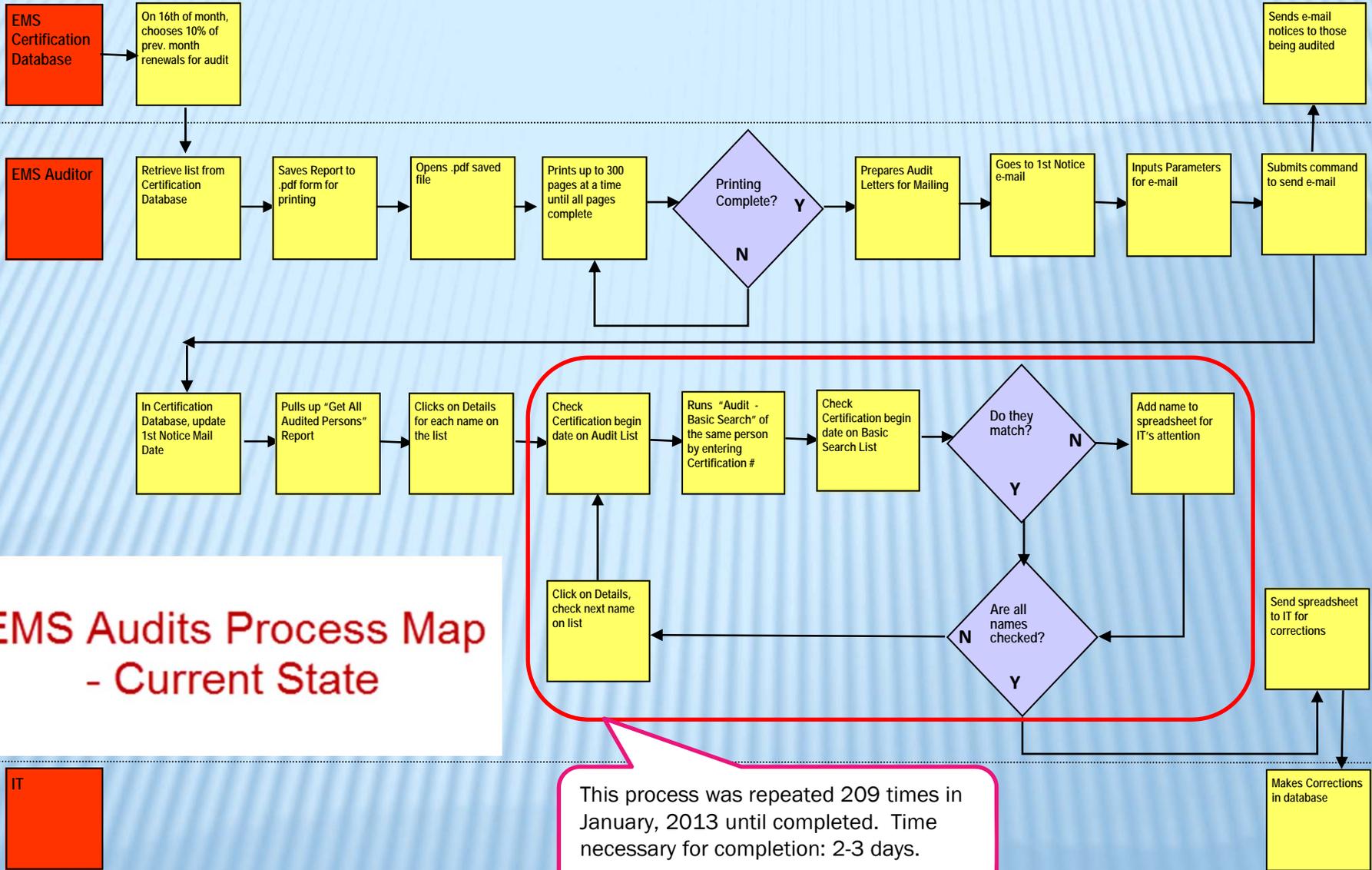


EMS AUDITS

- The audit section knew anecdotally that they were sending out some audits to the wrong people or with incorrect information
- How many were going out?
- Why were they going out with errors?



EMS Audits Process Map - Current State



EMS Audits Process Map - Current State

This process was repeated 209 times in January, 2013 until completed. Time necessary for completion: 2-3 days.

EMS Audit Checklist - January, 2013

EMS AUDITS

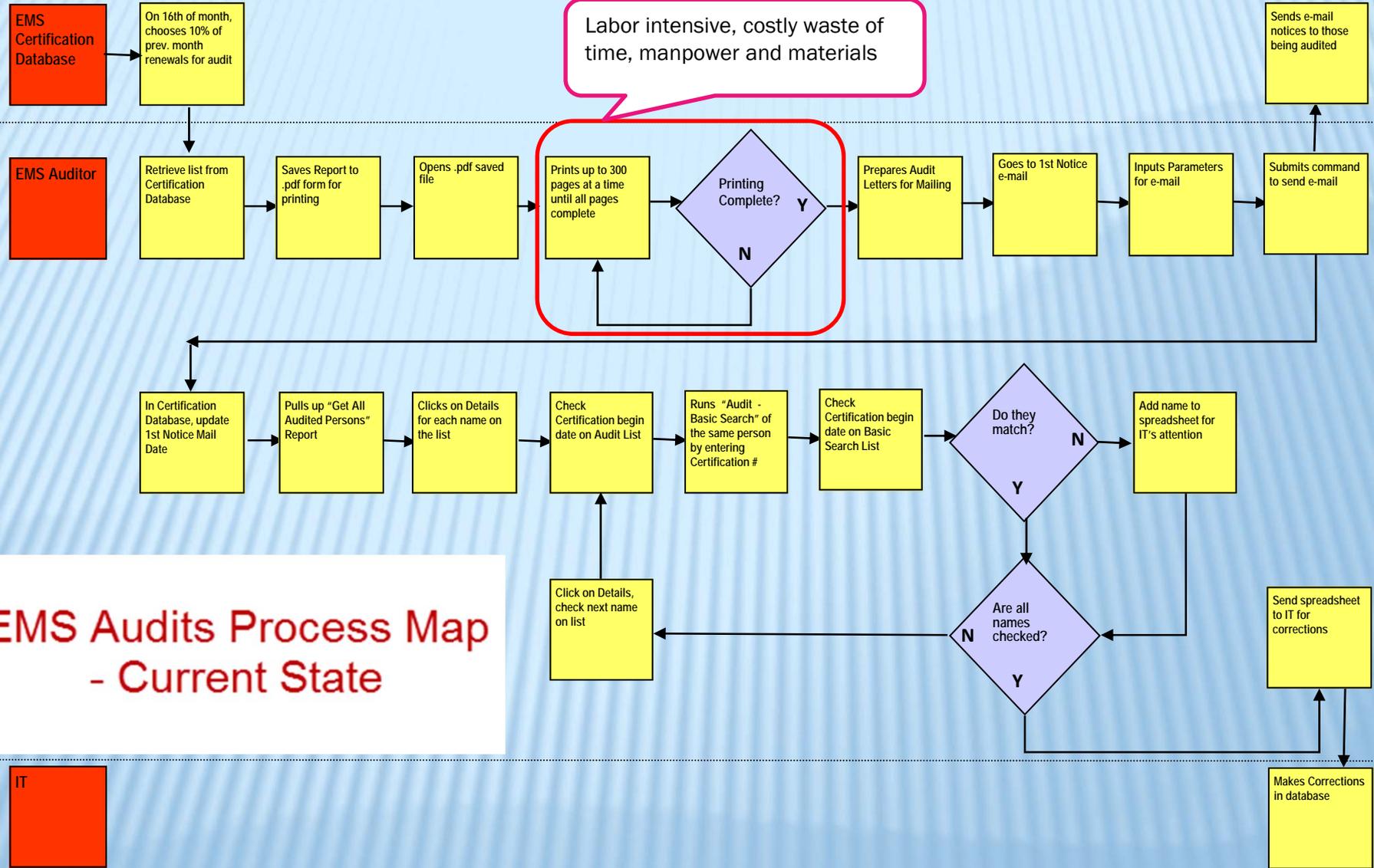
EMS Audits in January resulted with 16% in error – Audits put on hold for two months to resolve the issue

Random errors weren't so random after all.

People who had Fire Instructor certifications seemed to be having a computer error thrown into the report.

Summary of findings:

| Certification Levels: | Total Records Audited: | Total Errors Found: | Percent of Level Errors | Percent of Total Errors |
|---------------------------|------------------------|---------------------|-------------------------|-------------------------|
| Fire: | | | | |
| Assistant Fire Instructor | 1 | 1 | 100% | 3% |
| Fire Instructor | 8 | 8 | 100% | 24% |
| Fire Safety Inspector | 24 | 3 | 13% | 9% |
| Firefighter I | 7 | 1 | 14% | 3% |
| Firefighter II | 56 | 9 | 16% | 27% |
| Volunteer Firefighter | 12 | 1 | 8% | 3% |
| Fire Totals | 108 | 23 | 21% | 70% |
| EMS: | | | | |
| Basic EMT | 35 | 0 | 0% | 0% |
| CE Instructor | 4 | 0 | 0% | 0% |
| EMS Assistant Instructor | 1 | 0 | 0% | 0% |
| EMS Instructor | 5 | 0 | 0% | 0% |
| First Responders | 5 | 0 | 0% | 0% |
| Intermediate (EMT) | 15 | 5 | 33% | 15% |
| Paramedic (EMT) | 36 | 5 | 14% | 15% |
| EMS Totals | 101 | 10 | 10% | 30% |
| Grand Total | 209 | 33 | 16% | |



EMS Audits Process Map - Current State

PROJECT METRICS: COST BENEFITS

By providing the audit notifications by both e-mail and mail, the process is quite costly.

Can it be done just by e-mail?

| Manpower Process | By Whom | Hours of Time Spent on Process | Hourly Wages | Costs | Printing and Mailing Costs to ODPS |
|------------------------------|------------|--------------------------------|--------------|--|------------------------------------|
| Printing the Audits | Supervisor | 3 | \$ 36.59 | \$ 109.77 | |
| Stuffing Envelopes | CSA 2 | 3 | \$ 18.36 | \$ 55.08 | |
| Stuffing Envelopes | CSA 2 | 3 | \$ 18.36 | \$ 55.08 | |
| | | | | Total Manpower Costs: | \$ 219.93 |
| Material Costs | | | | | |
| Average Audits per month | | 250 | | | |
| Average Pages per audit: | | 10 | | | |
| Paper Cost per Copy | \$ | 0.01 | | | |
| Postage Costs | \$ | 0.47 | | | |
| Envelope costs | \$ | 0.01 | | | |
| Total Pages printed: | | 2500 | | | |
| Total cost of printed pages: | \$ | 25.00 | | | |
| Total Postage costs: | \$ | 1,175.00 | | | |
| Total Envelope Costs: | \$ | 2.50 | | | |
| | | | | Estimated Total Material Costs: | \$ 1,202.50 |
| | | | | Monthly Total: | \$ 1,422.43 |
| | | | | Annual Total: | \$ 17,069.16 |

| | | |
|------------------------------|--|---------------------|
| By using DAS Print Services: | DAS Printing Costs: | \$ 49.45 |
| | Potential Cost Savings per month: | \$ 1,372.98 |
| | Potential Cost Savings per year: | \$ 16,475.76 |

| | | |
|--|--|---------------------|
| If the printing of the Audits were eliminated: | Potential Cost Savings per month: | \$ 1,422.43 |
| | Potential Cost Savings per year: | \$ 17,069.16 |

TIME SAVED BY ELIMINATING ERRORS

- 24 hours per month for one employee to manually check the audits for accuracy
- 9 hours per month by three employees to print, stuff and mail audits
- A total of 33 hours of work per month realized as savings

IMPROVEMENT SUMMARY

Current Key Issues

Too many paper apps from a handful of schools

Too many applications incomplete or in error

Errors in audits and an inefficient process

How We Improved

Identified and contacted schools to submit apps online

Simplified forms and streamlined processes

Pin-pointed computer errors, offered cost-saving solution to the process

WHAT'S NEXT?

- 16 EMS Application Forms
 - 3 Process Maps done
 - 13 Process Maps pending
- 10 Fire Application Forms
 - All pending review
- Focus on Notification Process for renewals
- Review online errors
- Develop Implementation Plan
- Develop Control Plan

SPECIAL THANKS TO SENIOR LEADERSHIP



ODPS Director Thomas P. Charles



Sponsor: Mel House, EMS Director

QUESTIONS/COMMENTS

