



# Lean 6-Sigma Program



## *California Department of Food and Agriculture*

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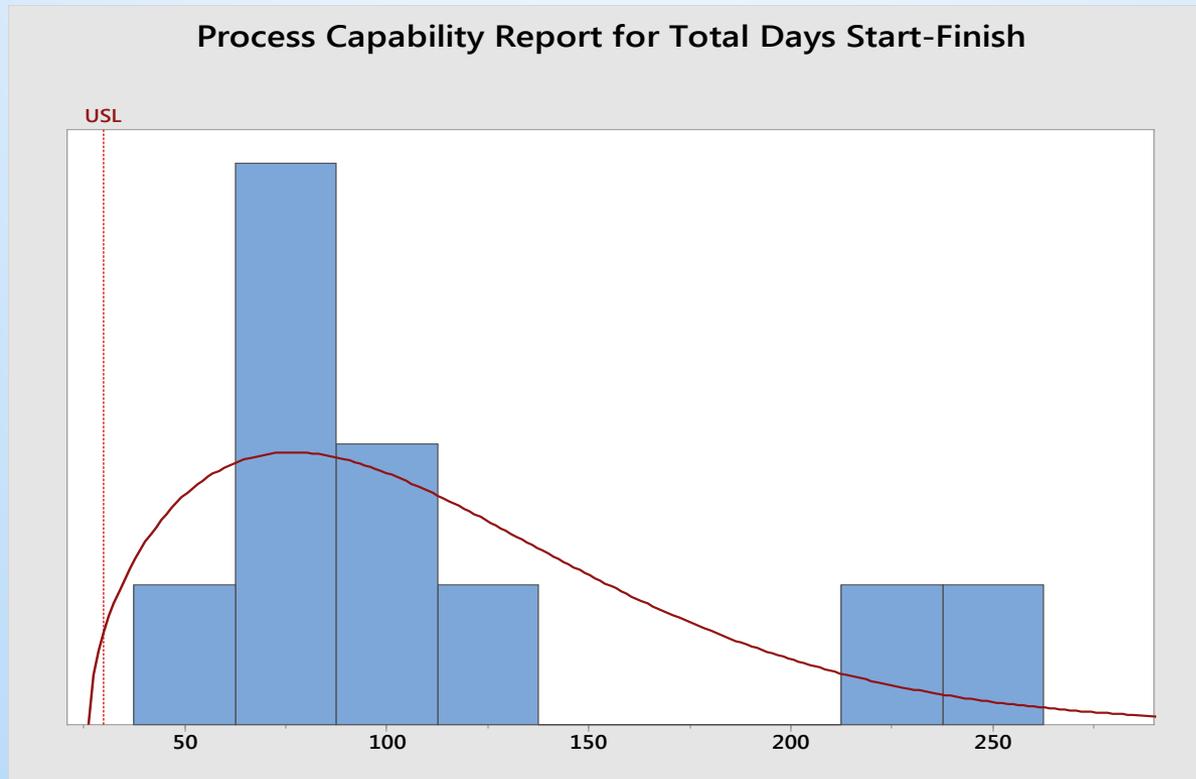


# *Reducing Job Analysis Completion Time*

- ❖ **Problem Statement:** Currently the average time required to complete a job analysis is several months. A job analysis must be completed before an exam can be administered and vacant positions can be filled.
- ❖ **Objective:** CDFA's objective is to reduce the job analysis process time so that 95% are completed within 30 days.
- ❖ **Project Team:**
  - ❖ *Jody Lusby – Green Belt*
  - ❖ *Aileen Grizard – Team Member – Exam Manager*
  - ❖ *Darlene Hayashi – Team Member – Exam Analyst*
  - ❖ *Natalie Greenberg – Team Member – Assistant Division Director*
  - ❖ *Anne Quilter-Goldstein – Team Member - Research Scientist*

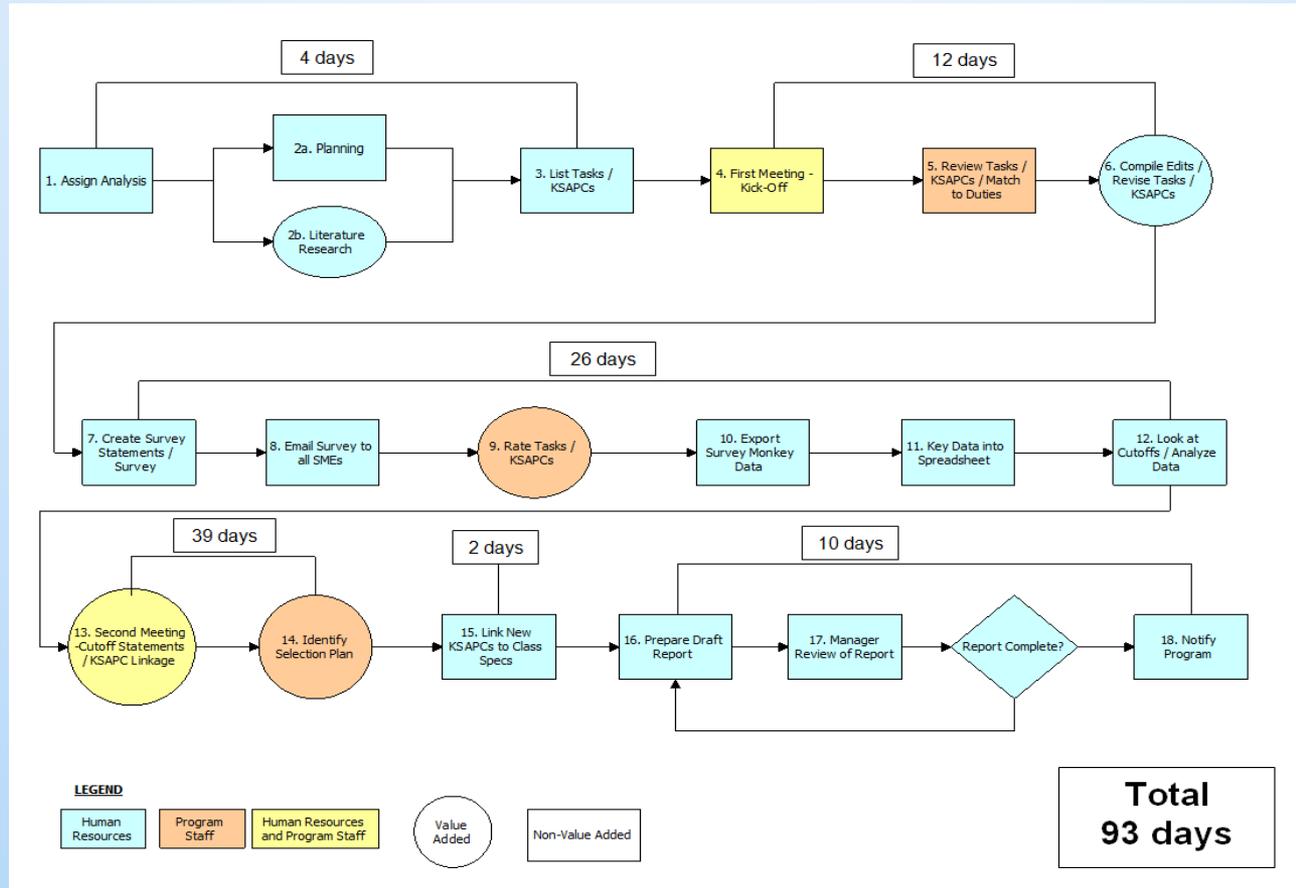


# Baseline Capability



- ❖ Sample size = 10 analyses; minimum 46 days, maximum 242 days
- ❖ Currently 0% within 30 days

# Initial Process Map



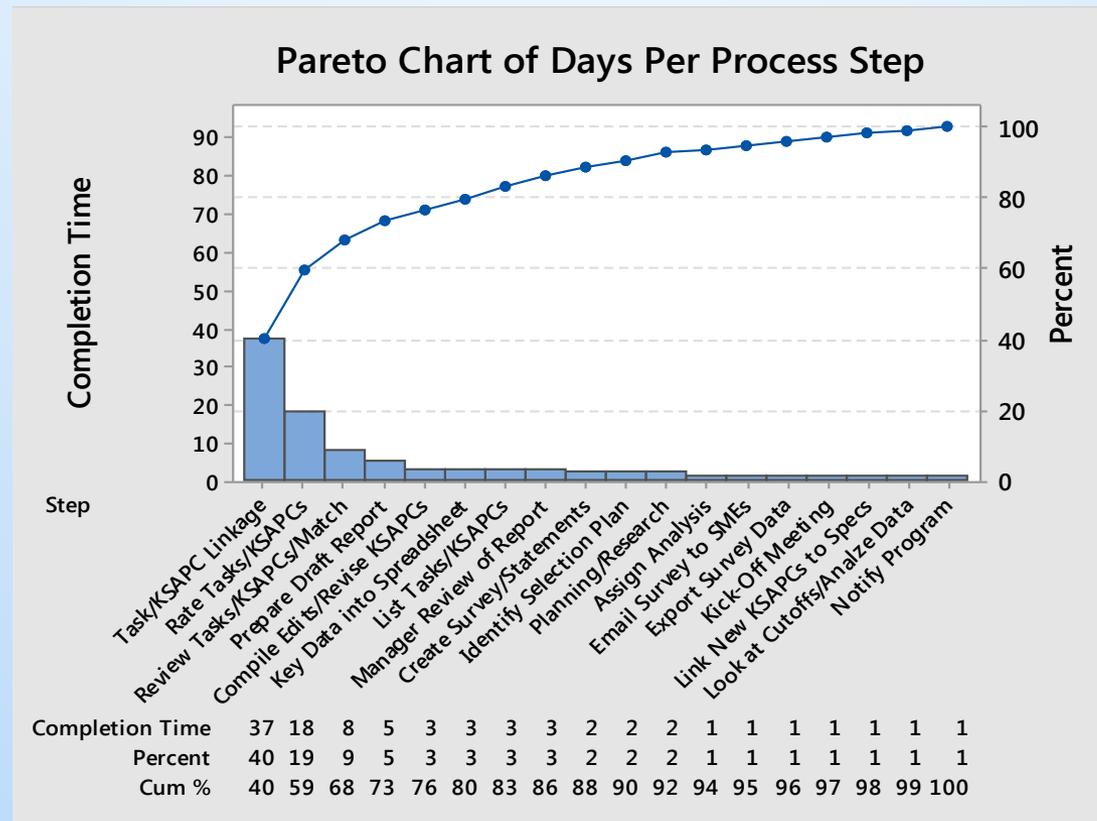
- ❖ 5 value-added steps (circles), 14 non-value-added steps (squares)
- ❖ Total average process time = 93 days

# *Analysis Tools Used to Determine Critical X's*

- ❖ Capability Analysis
- ❖ Measurement System Analysis
- ❖ Fishbone Diagram
- ❖ Box Plot
- ❖ Interval Plot
- ❖ Pareto chart
- ❖ Failure Modes and Effects Analysis
- ❖ Correlation / Regression
- ❖ Mood's Median Test
- ❖ 1-Way Anova



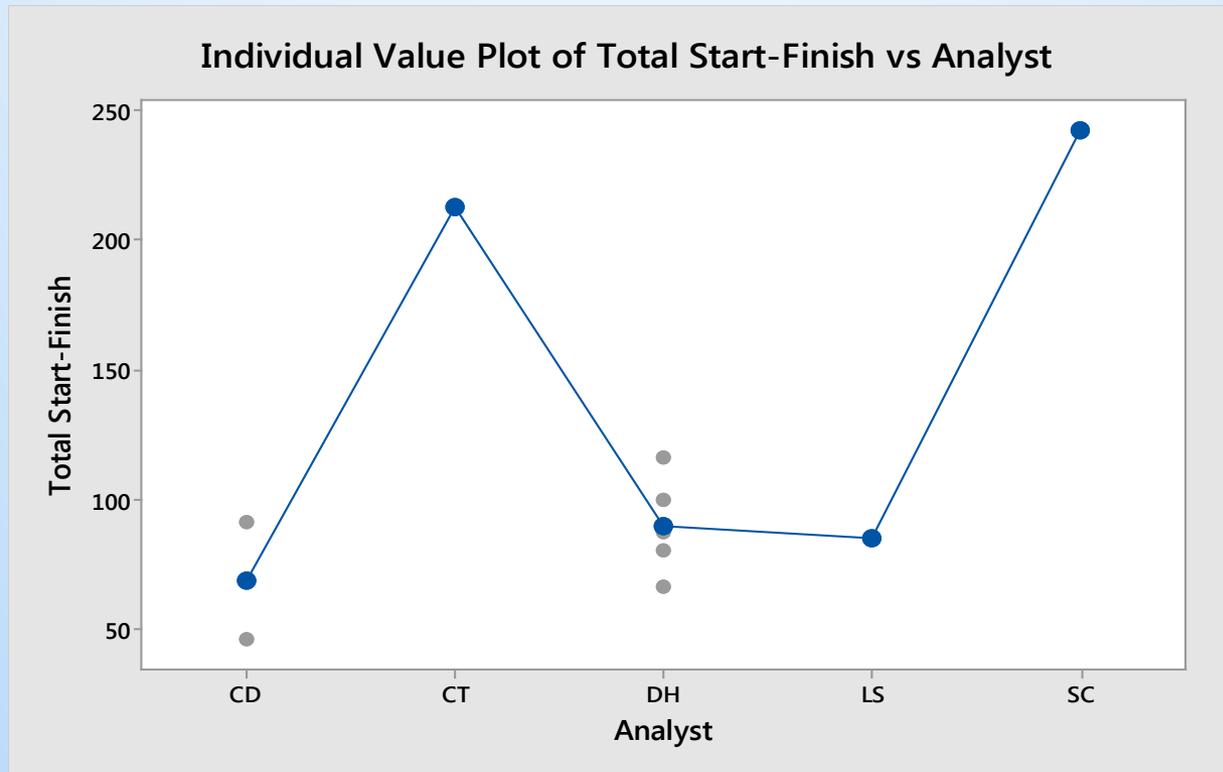
# Number of Days for Each Process Step



- ❖ 3 of 18 process steps were identified as taking 68% of the total process time
- ❖ Delays in these 3 processes were a result of Subject Matter Experts' workload and availability (linking, rating, and reviewing tasks)



# Job Analysis Completion Time by Analyst



- ❖ 3 analysts performed 80% of the job analyses in less than 100 days
- ❖ 2 analysts performed 20% of the job analyses in more than 200 days
- ❖ Demonstrates a need for standard operating procedures

# *Critical X's (root causes of problems)*

- ❖ Key Critical X identified was subject matter experts' workload and availability
- ❖ Secondary Critical X identified was process time for individual analysts

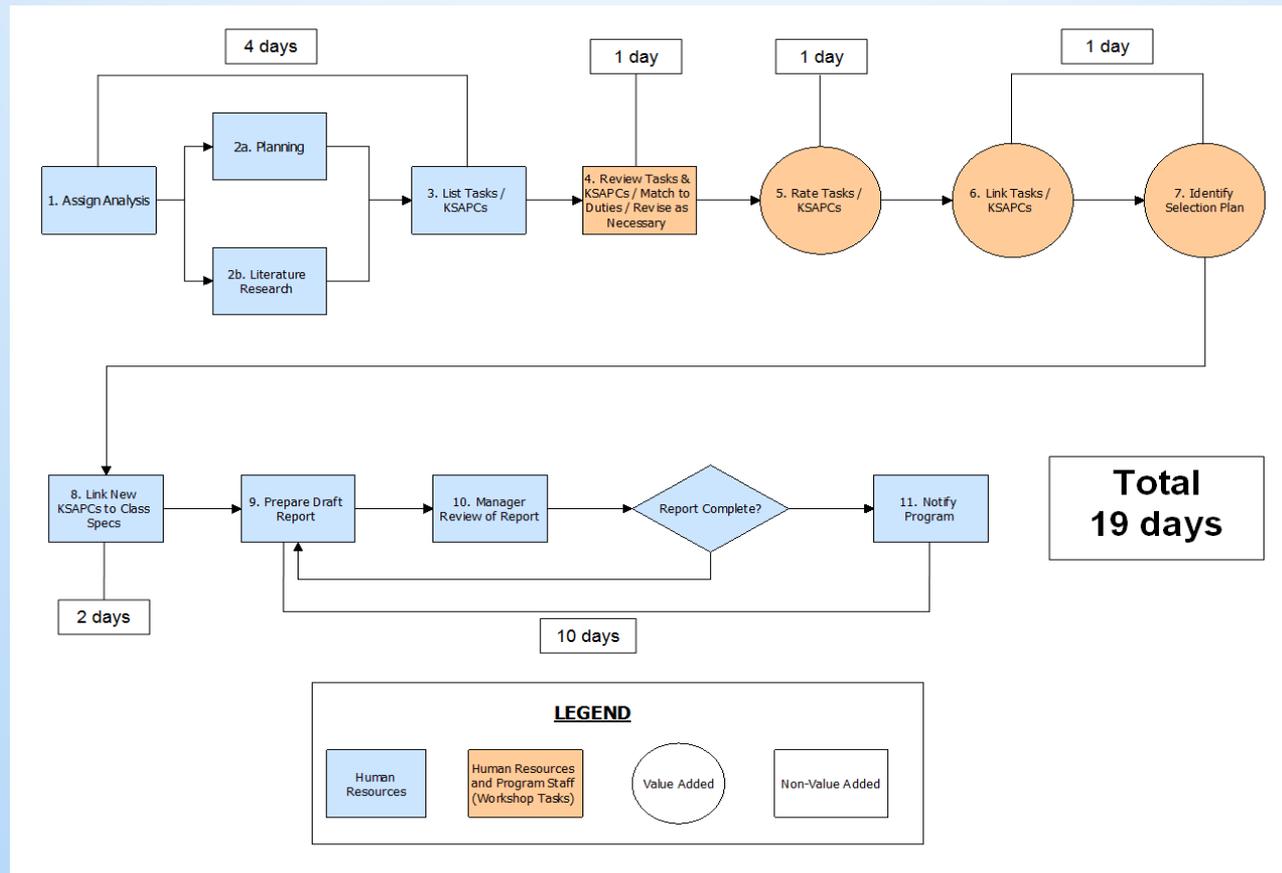


# *Improvement Techniques*

- ❖ Implemented a 3-day workshop to meet with subject matter experts and complete process steps that had been taking 77 days
- ❖ Eliminated back-and-forth communications and waiting for linking, rating and reviewing tasks
- ❖ Standardized the job analysis process for all exam analysts
- ❖ Will implement a new job analysis schedule for 2016 - exam analysts will complete all job analyses January through March, and exams will be conducted April through December



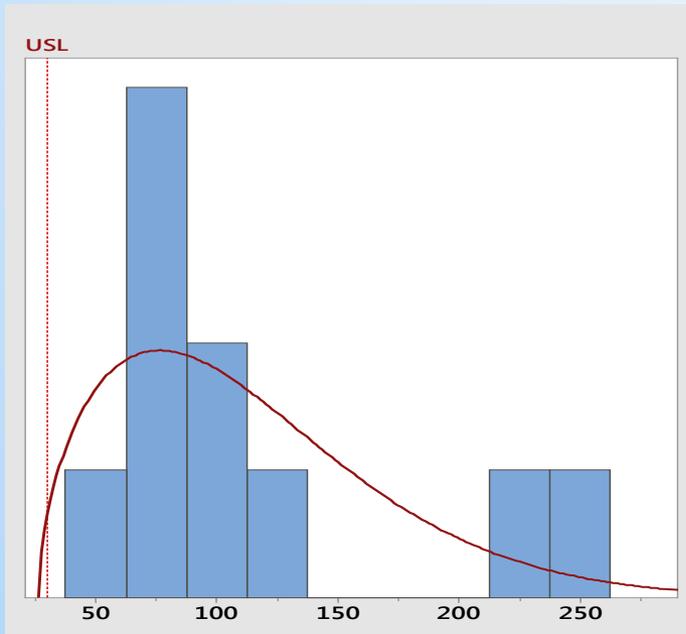
# New Process Map



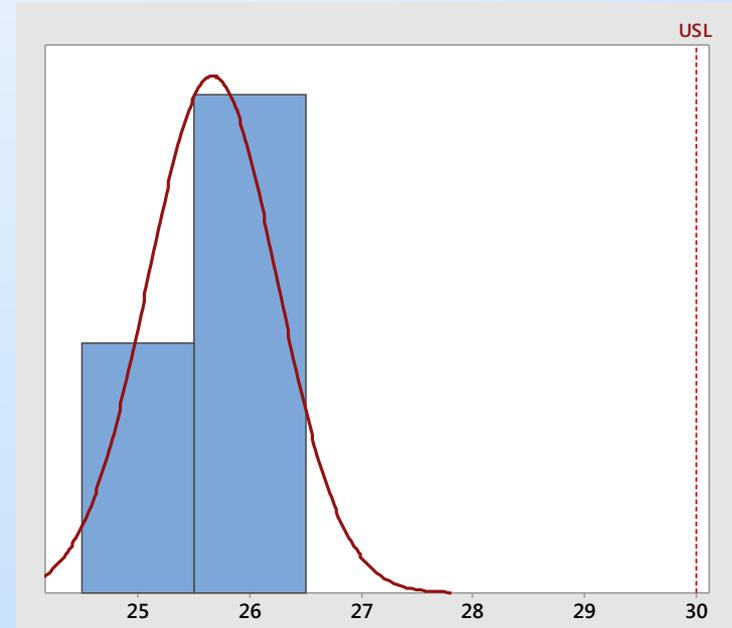
- ❖ Replaced 77 days of linking, rating, and reviewing with subject matter experts with a 3-day workshop
- ❖ Reduced average completion time from 93 to 19 days

# New Capability Analysis

Total Days Before



Total Days After



- ❖ 3 job analyses performed in June 2015
- ❖ 1 job analysis took 25 days, 2 took 26 days
- ❖ 100% within 30 days

# Control Plan

- ❖ Standard Operating Procedures – Revise procedures to ensure all exam analysts follow the same steps throughout the process
- ❖ Process Elimination – Exam analysts will schedule a workshop with subject matter experts to complete reviewing, rating, and linking tasks in 3 days (1 day for all subject matter experts and 3 days for a smaller portion of subject matter experts)
- ❖ Exam Unit and team will meet quarterly for the remainder of 2015, and monthly January through March beginning in 2016, to review report completion times and address issues if necessary
- ❖ Job analysis completion times will be monitored using I-Chart



# *Additional Benefits*

- ❖ Significantly increased customer satisfaction - job analyses will be completed by April 1, allowing divisions and fairs to plan for 3-day workshops January through March
- ❖ Divisions and fairs will have a better idea when exams will be scheduled throughout the year
- ❖ Standardized process - subject matter experts will know what to expect for every job analysis



# ***Green Belt Contact Information***

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