

Law Enforcement Performance Auditing

September 1, 2015



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Learning Objectives



- Growing interest in law enforcement transparency and accountability
- Role and oversight responsibility of auditors in the area of law enforcement and criminal justice
- Integrating traditional auditing and data analysis



Growing Interest in Law Enforcement Auditing



- International Law Enforcement Auditors Association (ILEAA) and National Association of Civilian Oversight of Law Enforcement (NACOLE) co-sponsored training:
 - Accountability & Transparency in Law Enforcement



The Role and Oversight Function of the Denver Auditor



Police Response Time Performance Audit

Released: June 2014

Denver Sheriff Department Jail Operations Performance Audit

Released: March 2015



Integrating Traditional Performance Auditing and Data Analysis



Police Response Time Performance Audit Released: June 2014

Police Response Time Performance Audit

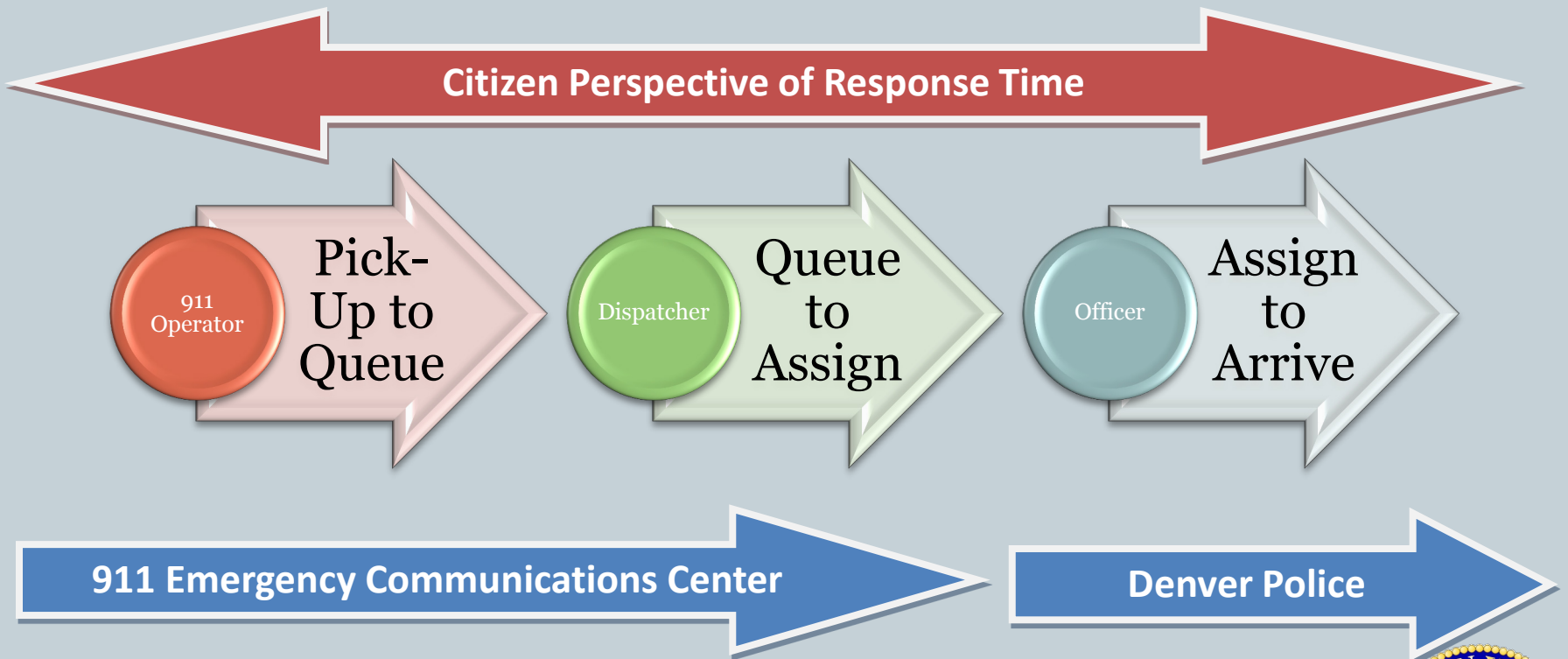
June 2014

Office of the Auditor
Audit Services Division
City and County of Denver



Police Response Time

Three Positions: Total Police Response Time



Source: Generated by the Auditor's Office.



Police Response Time



DPD Authorized and Effective Strength, 2008 - 2014

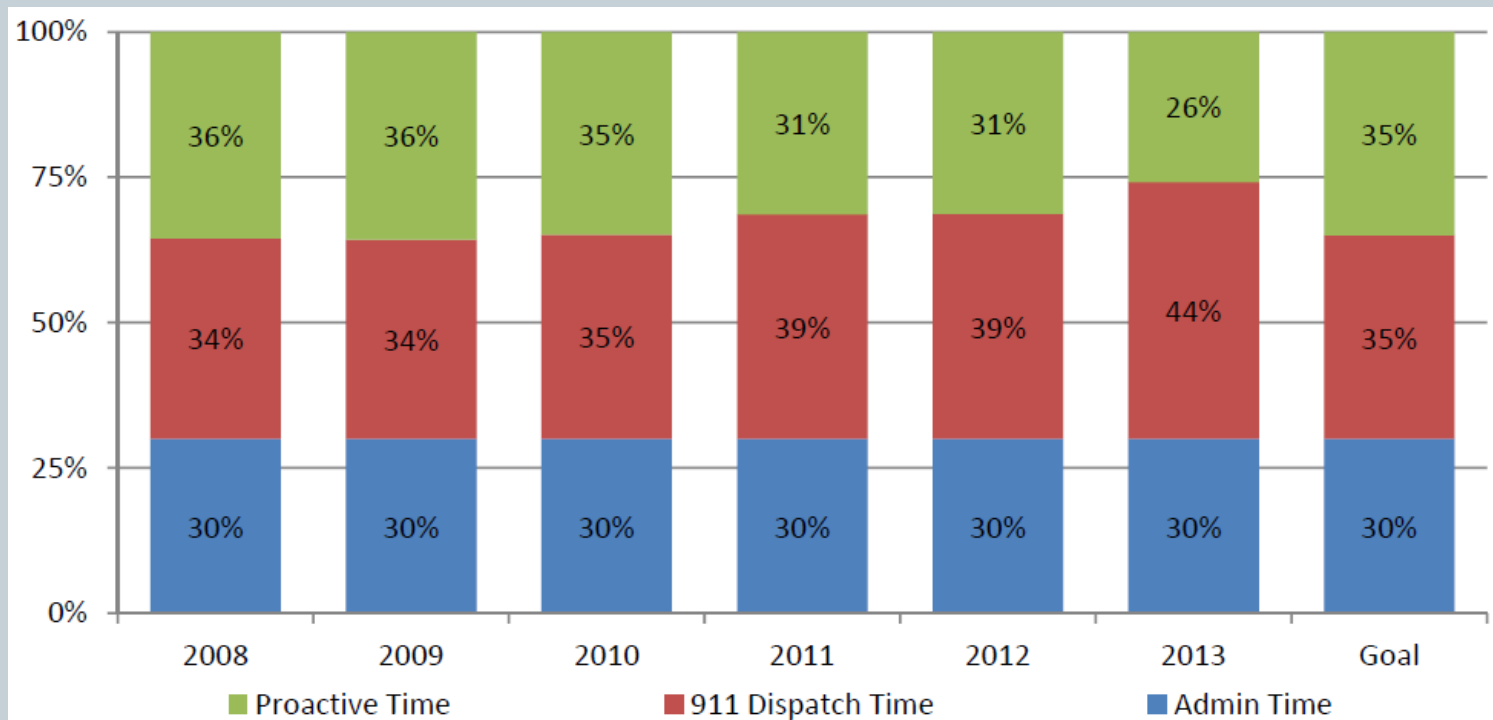
Year	Authorized Strength	Effective Strength
2008	1,446	1,540
2009	1,446	1,526
2010	1,446	1,485
2011	1,445	1,439
2012	1,445	1,404
2013	1,426	1,354
2014	1,431	1,326



Police Response Time



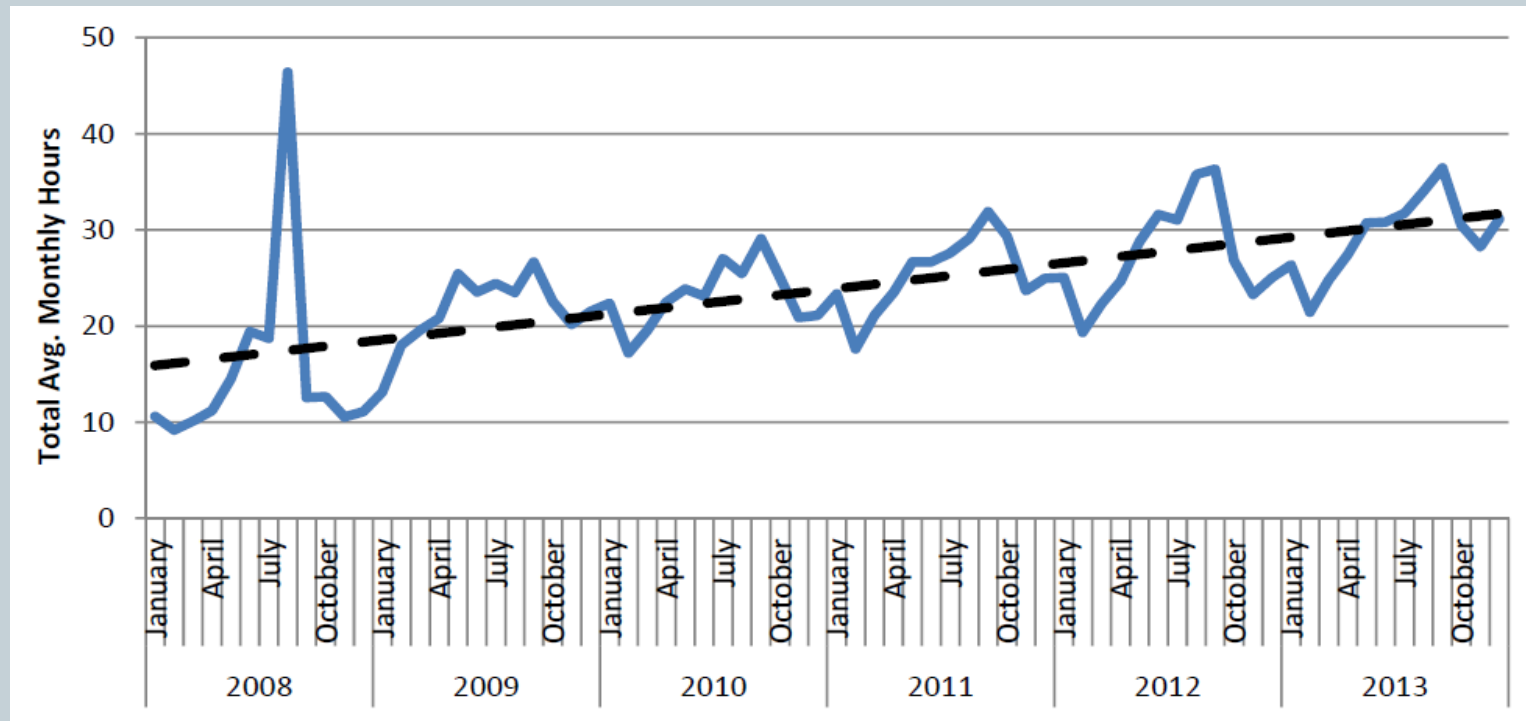
Percent of Officer Time Spent on Proactive Work and 911 Calls, 2008 - 2013



Police Response Time



Average Hours Worked Outside of Normal Shifts, 2008 - 2013



Denver Sheriff Department (DSD)



Jail Operations



Identified Issues

Department of Safety Tenure, 2004 to Present



Safety

- Stephanie O'Malley, Jan '14 - Present
- Ashley Kilroy, Sept '13-Jan '14
- Alex Martinez, Nov '11-Sept '13
- Ashley Kilroy, Jul '11-Nov '11
- Charles Garcia, Mar '11-Jul '11
- Mary Malatesta, Aug '10-Mar '11
- Ron Perea, May '10-Aug '10
- Al LaCabe, May '04-May '10



Jail Operations



DSD Assessments, 2011 - 2014

Entity	Year	Number of Recommendations
Executive Steering Committee	2014	To Be Determined
Hillard Heintze and the OIR Group	2014	To Be Determined
Peak Performance: Organizational Assessment Baseline Report	2014	14*
DSD Task Forces: 1. Policy and Procedure Task Force 2. Staffing Well-being Task Force 3. Training Task Force 4. Discipline Task Force	2014	72
Office of Human Resources	2014	35*
Office of the Independent Monitor	2013	11
Peak Performance: Strategic Resource Alignment	2011	N/A**
Total		132



Jail Operations



Issues Identified

High Profile Cases and Settlements

- ✦ Emily Rice (2008): \$3 million
- ✦ Jamal Hunter (2014): \$3.25 million
- ✦ Marvin Booker (2014): \$6 million



Jail Operations



Estimated Full Time Equivalent Employees Required, 2014

Source	Downtown Detention Center	County Jail	Total Full Time Equivalent
Peak Performance	485.85	276.49	762.34
Denver Sheriff Department	389.30	261.57	650.87
Total Full Time Equivalent Gap	96.55	14.92	111.47



Jail Operations



Analysis of Mayor's Budget Book, 2015

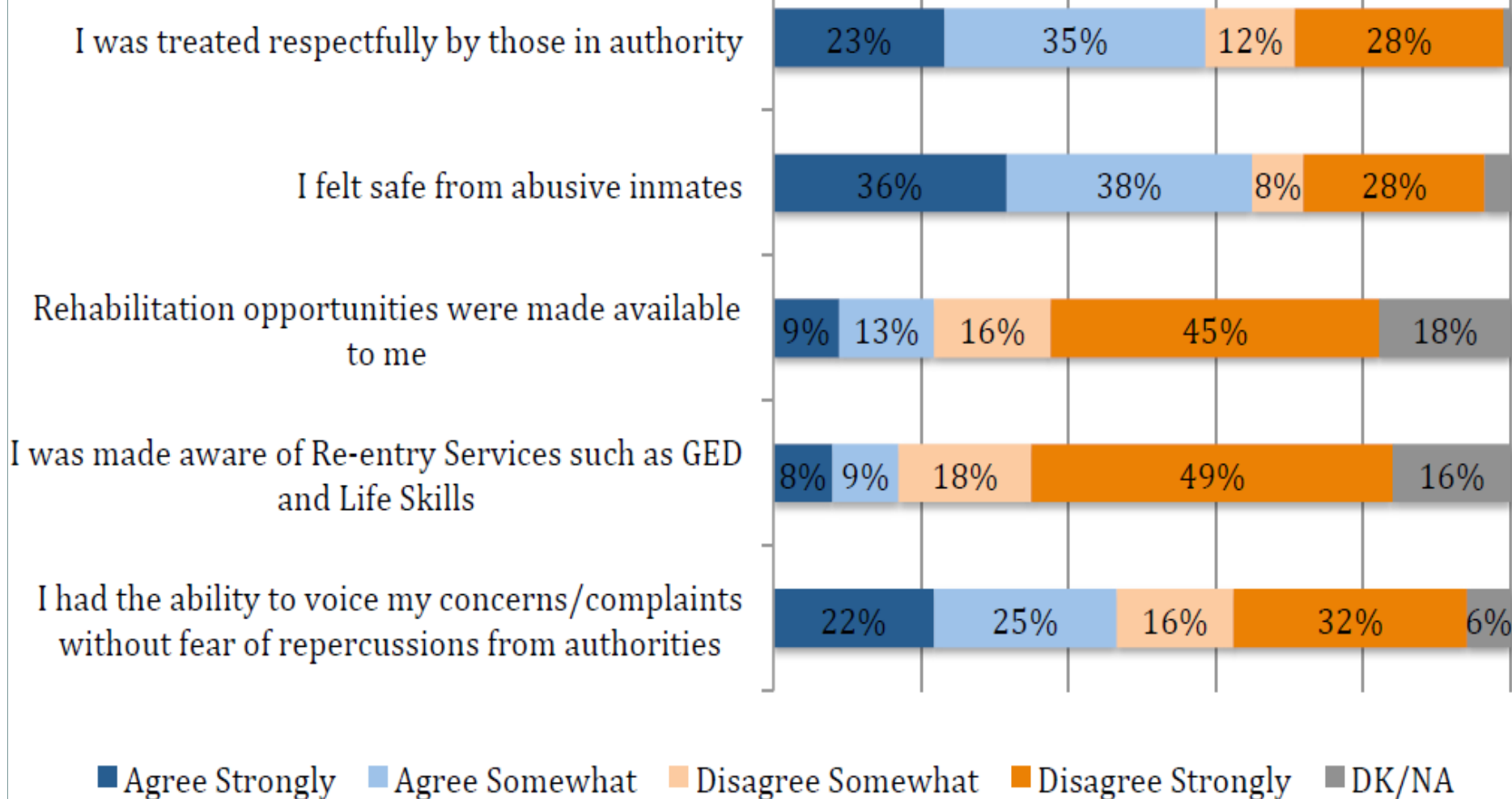
Source	Inmate Fights	Inmate Assaults	Staff Assaults
2015 Mayor's Budget Book Count	222	61	33
Actual Total Count	324	86	39
Actual County Jail	118	28	6
Actual Downtown Detention Center	206	58	33
Difference	-102	-25	-6
Percentage Underreported	-46%	-41%	-18%



Jail Operations



RBI Strategies and Research



Jail Operations



Miscellaneous Identified Issues

- DSD Internal Affairs Bureau (IAB) Conducted Limited Data Analytics on Investigations
- Limited Crisis Intervention Training Provided to Sheriff Deputies
- Limited Video Retention Policy
- Lack of an Early Intervention System
- Taser Usage Inconsistently Documented



Using Data Analytics to Demonstrate Impact



Importance of Data

(Evidence Based v. Data Based Decision Making)

Measuring Cause and Effect

(Auditing v. Economics/Effect Size/Prospective Analysis)

Estimating Costs

(Staffing Models – Qualitative v. Quantitative)



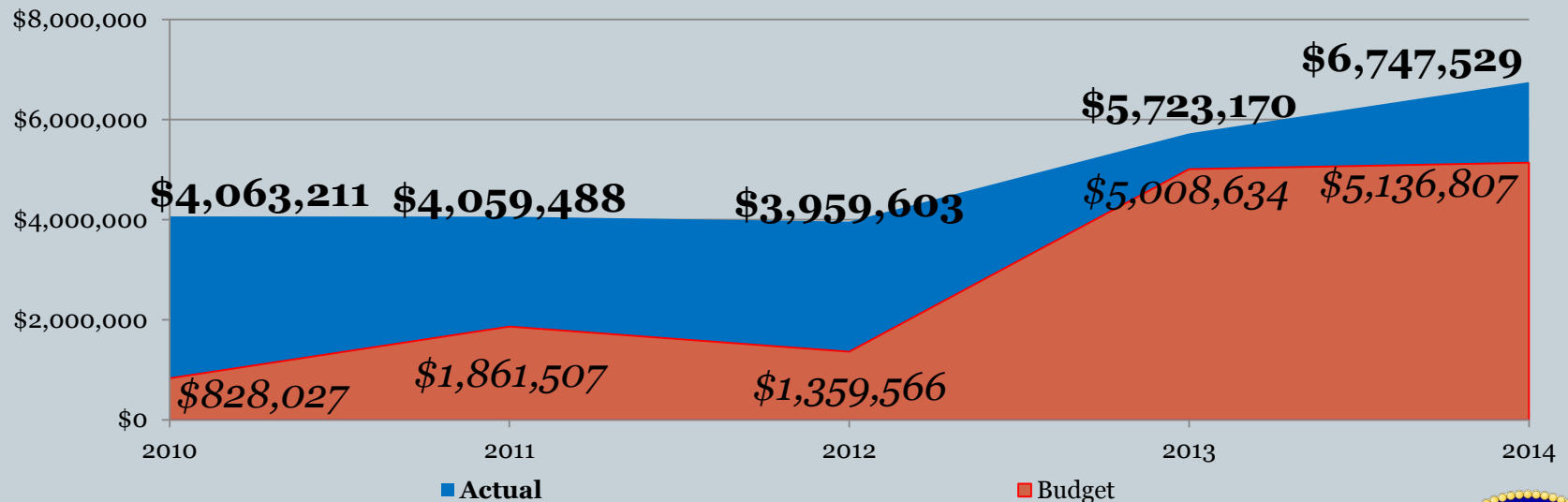
Jail Operations



Major Findings

- 1) No or Bad Data 2) Lack of Analysis 3) Poor Staffing Model

Sheriff Overtime Budget versus Actual, January 2010 through November 2014



Jail Operations



Lack of Analysis

1) Right Questions 2) Measurement and Analysis

**Bookings and Complaints Closed by Month,
January 2010 through October 2014**



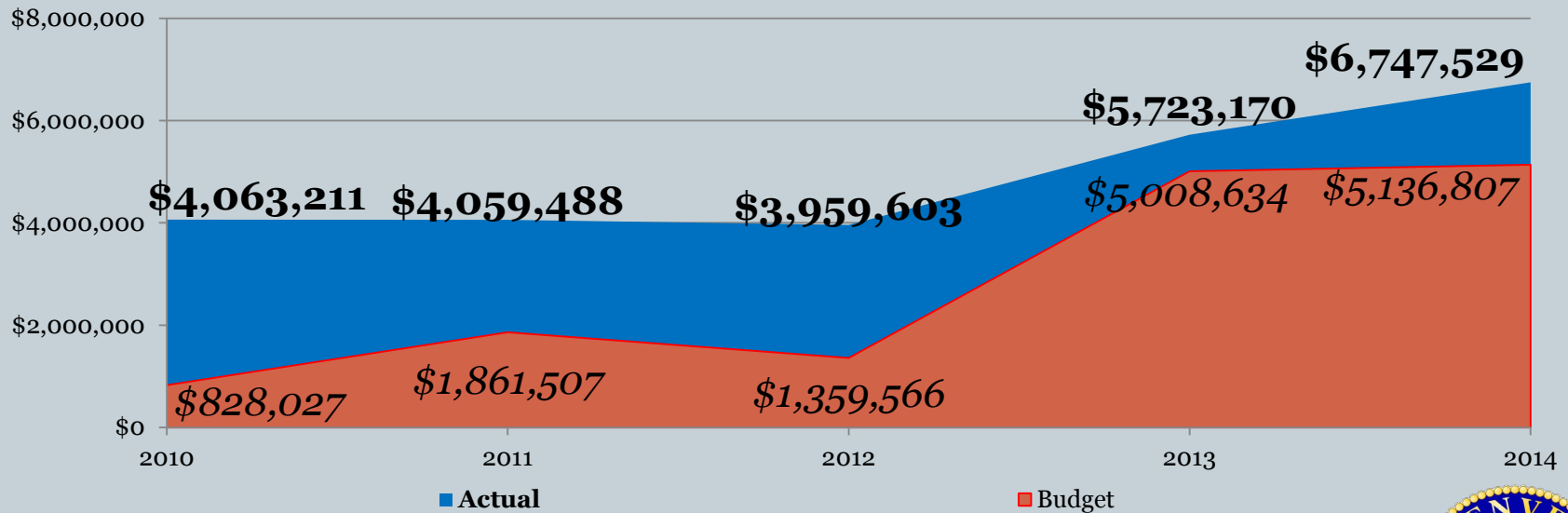
Jail Operations



Poor Staffing Model

- 1) Inaccurate Estimates 2) Unsophisticated Model

Sheriff Overtime Budget versus Actual, January 2010 through November 2014



Police Response Time



Major Findings

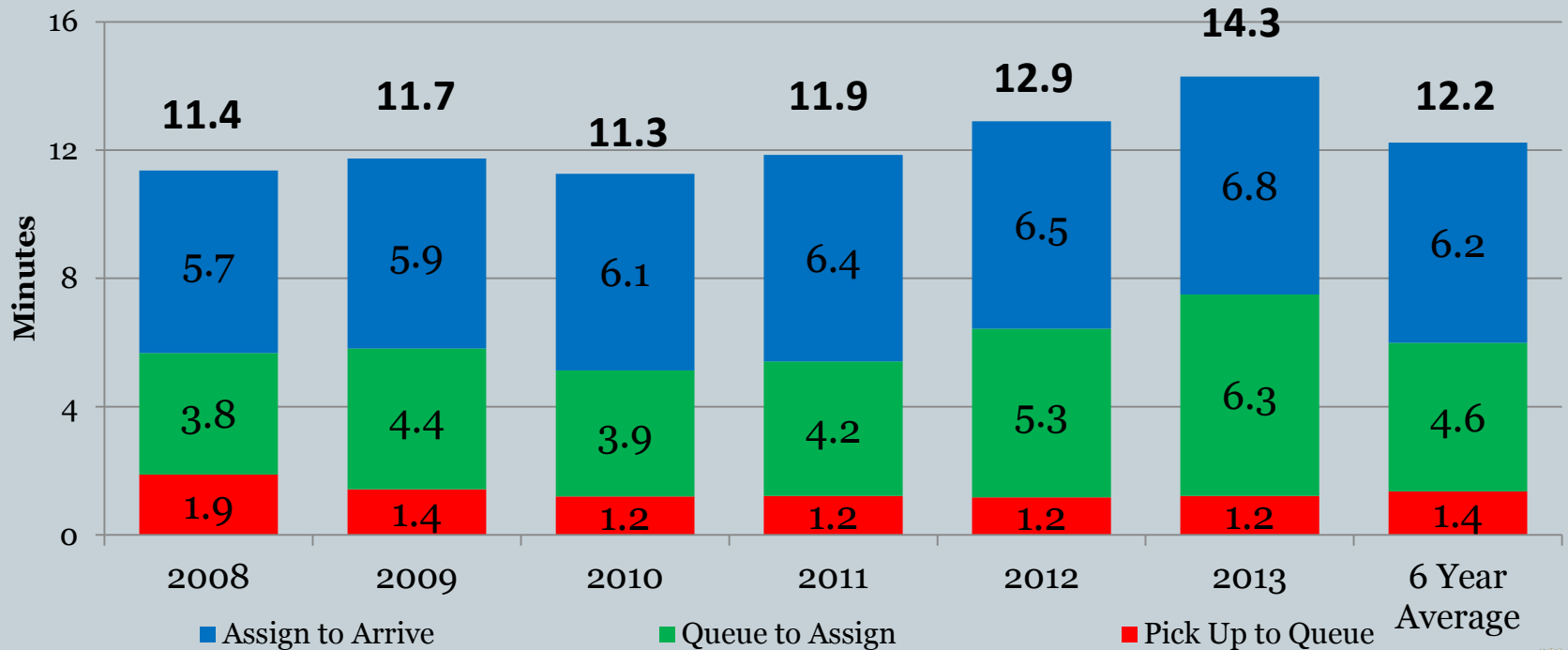
- 1) Decline in Number of Officers Was the Primary Cause for Increase in Response Time
- 2) Independent Confirmation of Police Analysis
- 3) Sophisticated Staffing Analysis



Police Response Time



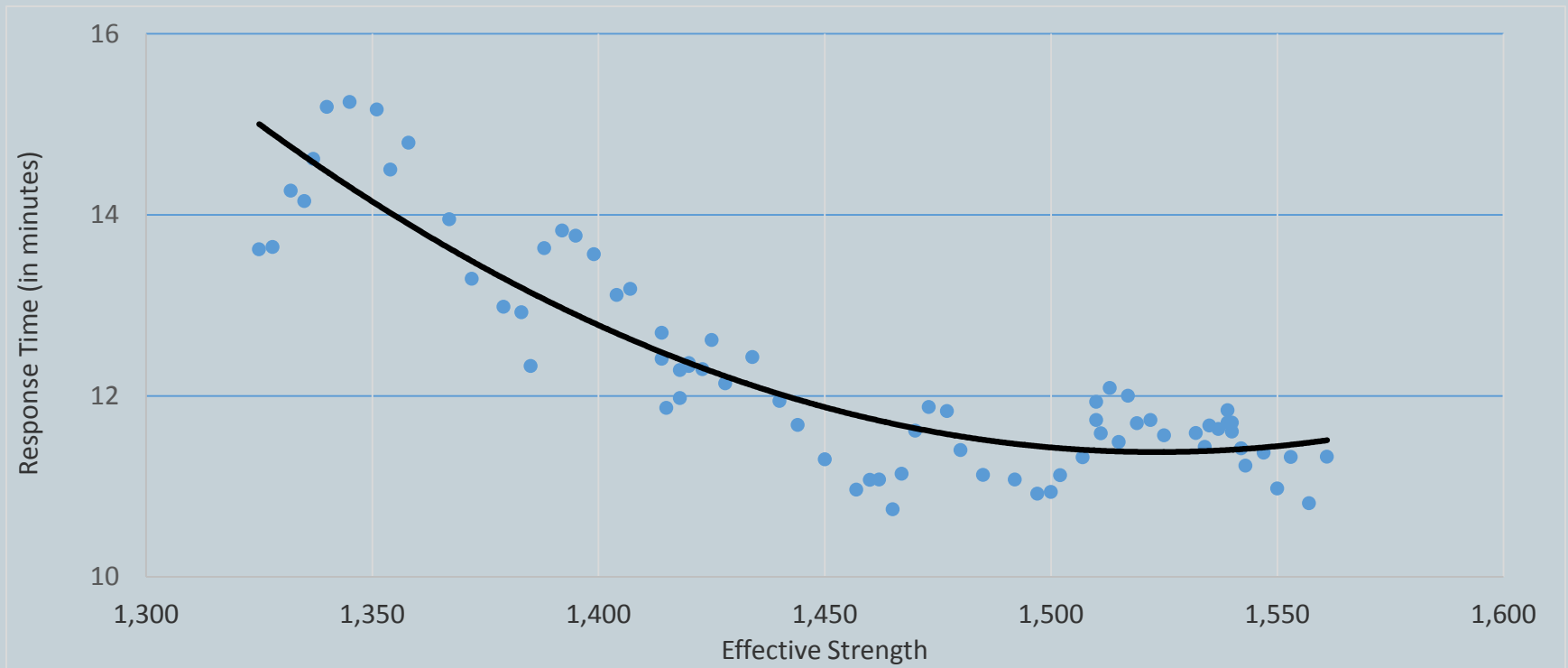
Annual Average Response Times by Segment for Priority 0 to 2 Calls, 2008 through 2013



Police Response Time



Response Time & Effective Strength Levels, 2008 through 2013



Police Response Time



Estimated Impacts of Variables on Response Times in Minutes

Avg. Response to Priority 0 – 2 Calls	Model 1	Model 2
Effective Strength Per 10,000 People	-0.58*	-0.19*
Snow Fall (in inches)	-0.01	0.02
Avg. Backfill, Over Time, and Off-Duty Worked	-	0.01
Crime Per 10,000 Residents (Property/Persons)	-	0.04*
Avg. Calls Responded To Per Officer	-	0.14
Civilianization	-	1.11*
Team Concept & 12 Hour Shift	-	1.37*
Re-districting	-	2.00*
Constant	25.84*	13.36*
Observations	73	73
Adjusted R ²	0.69	0.86

Key

- Asterisk denotes statistical significance: p-value <= 0.05
- Adjusted R² explains how much variability the model explains.
- Regressions can be used to explain the relationships between various inputs on outputs.



Police Response Time



Officers Needed and Annual Costs Associated with Reducing Response Times

Avg. Response Time for Priority 0-2 Calls	No. of Additional Officers Needed	Estimated Annual Base Salary Costs	Estimated Annual Average Salary Costs
14 minutes	0	\$0	\$0
12 minutes	225	\$13.7 million	\$23.3 million
10 minutes	451	\$27.5 million	\$46.8 million
8 minutes	675	\$41.2 million	\$70.0 million



Importance of Data Analysis



- 1) Understanding Need for Data
- 2) Quantifying and Qualifying Inputs/Outputs for Decisions
- 3) Providing Analyses and Demonstrating Importance
- 4) Measuring Cause and Effect
- 5) Estimating Costs
- 6) Verifying Analyses
- 7) Understanding the Big Picture



Additional Resources



- U.S. Department of Justice
- International Association of Chiefs of Police
- National Institute of Corrections
- Community Oriented Policing Services (COPS)
- Police Executive Research Forum
- Police Assessment Resource Center
- American Correctional Association
- Commission on Accreditation for Law Enforcement
- National Association of Civilian Oversight of Law Enforcement



Denver Audit Services: Audit Horizon



1. Police Administration – TeleStaff System (Police)
2. Police Operations - District Patrol (Police)
3. Air Operations – (Police)
4. Community Corrections – (Department of Safety)
5. Crime Statistics Reporting (Police)
6. Property and Evidence Management – (Department of Safety)
7. Sheriff Commissary – (Department of Safety)
8. Vehicle Impound Facility – (Sheriff)



Questions?



Thank You!

