

# Shiawassee County Jail Feasibility Study

## *Report*

*October 17<sup>th</sup>, 2018*

# Agenda

- **Goals and Objectives**
- **Study Approach and Methodology**
- **Data and Analytics**
- **Existing Jail Evaluation**
- **Architectural Space Program**
- **Conceptual Design**
- **Advantages and Disadvantages**
- **Probable Cost**
- **Anticipated Project Schedule**
- **Operational Budget**
- **Next Steps**



# Feasibility Study Goals and Objectives

- **Determine the Jail and Sheriff's Office 10 (2028) and 20 (2038) year needs.**
- **Determine how these needs may be satisfied through the renovation / expansion of the existing facility, repurposing of an existing facility, construction of new facility on the current site, or construction of a new jail on a different site.**
- **Develop design, construction and staffing budgets that will maximize operational efficiency.**
- **Explore building and site options to address the current and future needs to determine the most cost effective and beneficial solution.**
- **Define the conclusions of the Study for consideration by the Shiawasse County Board of County Commissioners.**

# Feasibility Study Approach and Methodology

## PHASE 1: PRE-PROJECT

- Project “Kick-Off-Meeting”
  - Confirm Approach and Methodology
  - Confirm Study Participants and Contact Information
  - Define Study Committee, Roles and Communication
  - Confirm Goals and Objectives of Study
  - Determine Review and Approval Process
  - Confirm Schedule and Deliverables
- Develop Plan Base Sheets for Existing Space Analysis and Communication of Study Information
- Develop, Issue and receive User/Department Questionnaires
- Develop and Issue Request for Historic Data and Information Necessary for the Study



## PHASE 2: STRATEGIC PLANNING

- Complete Analytics
- Define Space Standards and Complete Existing Space Analysis
- Confirm and Document Existing Staffing
- Complete Space and Staff Projection Models (2025 & 2035)
- Complete Projection Modeling and Define Planning Models
- Complete Existing Facility Analysis - Jail
- Conduct User/Department Interviews
- Complete Interim Strategic Planning Phase Report and Review Conclusions with Study Committee, Users/Departments



## PHASE 4: CONCEPTUAL DESIGN & ESTIMATING

- Develop Occupancy Scenarios, Blocking Diagrams and Site Utilization Plans For Identified Options
- Develop Site Utilization Diagrams Including Identified Options and Parking Scenarios
- Prepare Graphics and Related Information to Communicate the Design Options.
- Selection of the Preferred Concept
- Develop a Statement Of Probable Project Cost/Estimate and Anticipated Schedule for the Preferred Concept
- Prepare and Present a Draft and Final Study Reports to the Planning Committee and Commissioners



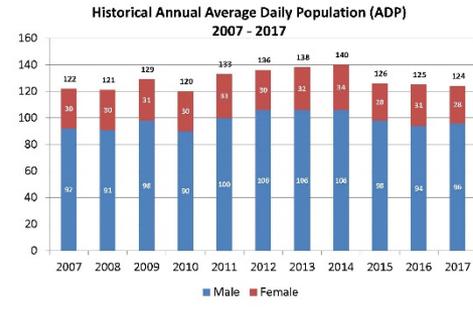
## PHASE 3: STAFF & SPACE PROGRAMMING

- Define Departmental Operational Philosophies
- Develop Departmental Staffing Plan in Five Year Increments to 2035
- Identify Special Programming Needs Including IT, Records Storage, Space Amenities, Etc.
- Develop Detailed Architectural Program @ 2025 And 2035
- Define Potential Shared Space Efficiency Opportunities
- Define Critical Adjacencies
- User/Department Staffing and Space Program Review Meetings
- Complete Interim Staff and Space Programming Phase Report and Review Conclusions with the Study Committee, Users/Departments

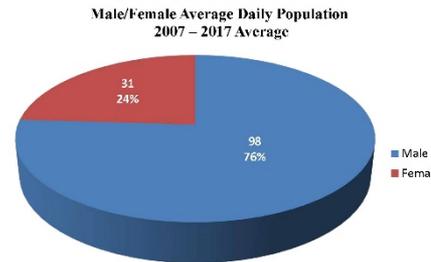
# Analytics and Projection Modeling - Jail

- *County Population*
- *Jail Population Breakdown*
- *Historic Annual and Average Monthly Bookings*
- *Average Daily Population*
- *Male/Female Population*
- *Age Group Mix*
- *Racial Mix*
- *Felony/Misdemeanors*
- *Length of Stay*
- *Projections for:*
- *Annual Bookings*
- *Average Daily Population*
- *Classification*

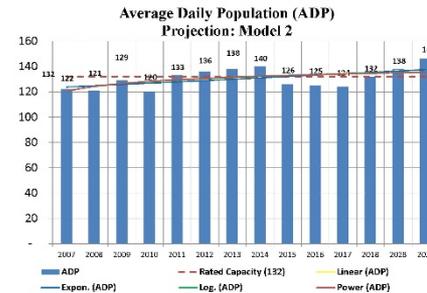
## Analytics - Jail



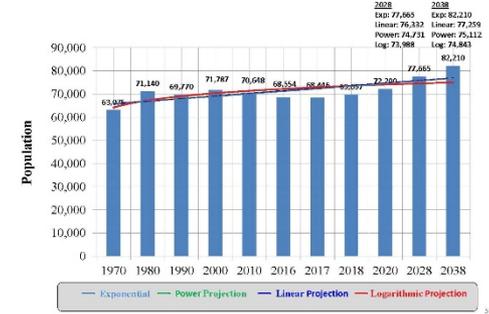
## Analytics - Jail



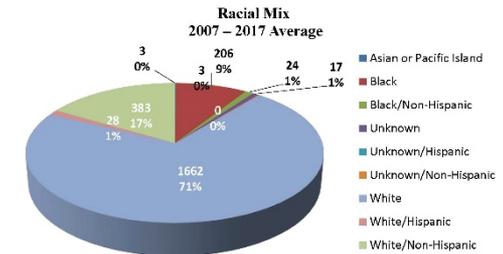
## Analytics - Jail



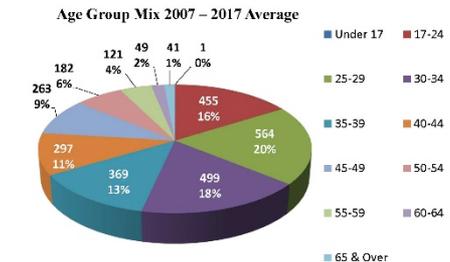
## Analytics - Population



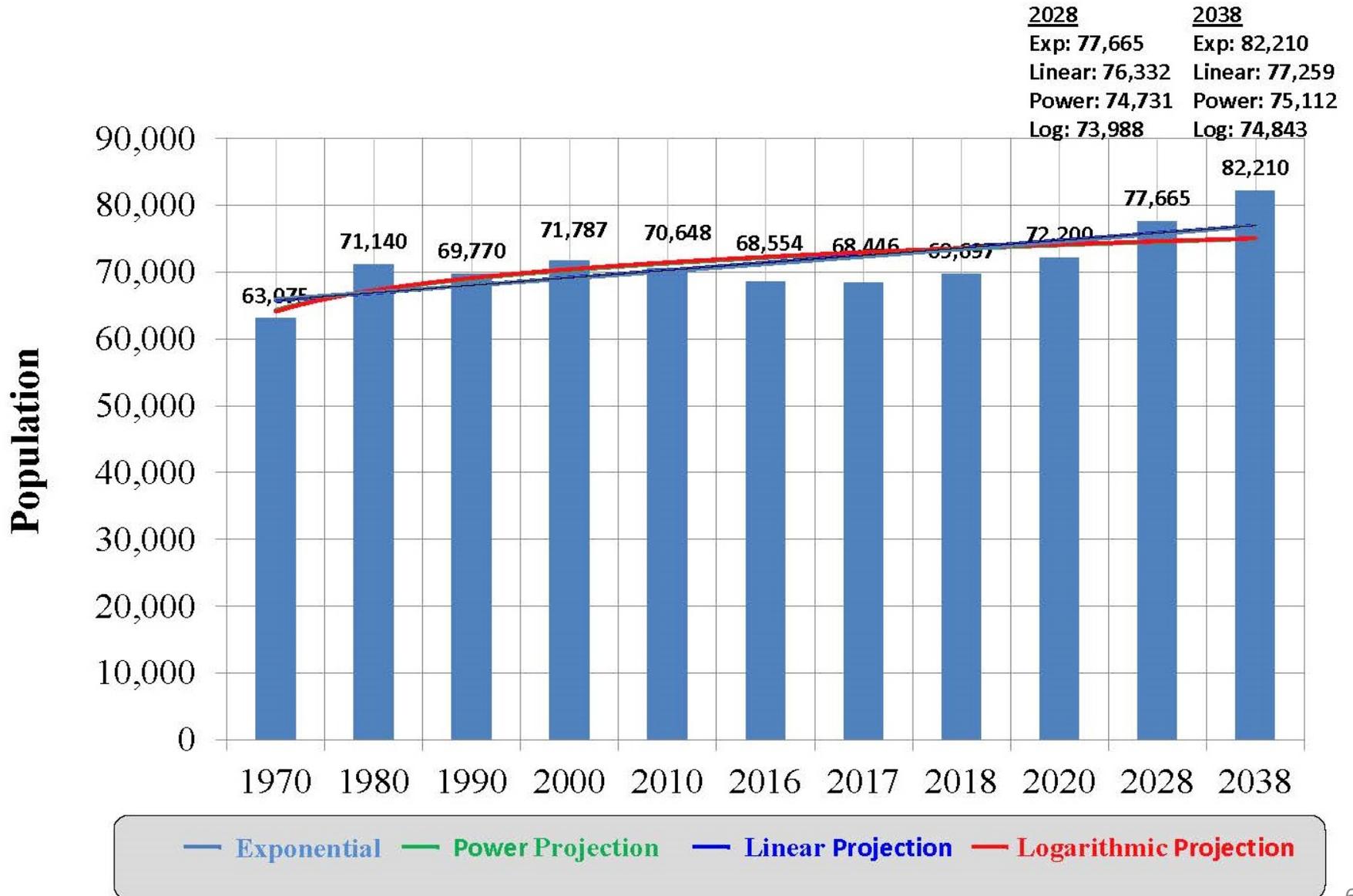
## Analytics - Jail



## Analytics - Jail



# Analytics - Population



# Analytics – Jail Historical Data Summary

Component	2007		2008		2009		2010		2011		2012		2013		2014		2015		2016		2017		Period Average	Notes			
<b>A.</b>	<b>Jail Population/Bookings</b>																										
0.1	Males		2,876	2,718	2,944	2,709	2,823	2,530	2,413	2,274	2,209	1,941	2,058	<b>2,500</b>													
0.2	Females		921	898	913	891	932	718	739	721	630	636	613	<b>783</b>													
0.3	Juveniles																								1.		
0.4	<b>Total Jail Population/Bookings</b>		<b>3,797</b>	<b>3,616</b>	<b>3,857</b>	<b>3,600</b>	<b>3,755</b>	<b>3,248</b>	<b>3,152</b>	<b>2,995</b>	<b>2,839</b>	<b>2,577</b>	<b>2,671</b>	<b>3,282</b>													
0.5	Adult/Female		Adult	Female	Adult	Female	Adult	Female	Adult	Female	Adult	Female	Adult	Female													
0.6	Ratio		75.7%	24.3%	75.2%	24.8%	76.3%	23.7%	75.3%	24.8%	75.2%	24.8%	77.9%	22.1%	76.6%	23.4%	75.9%	24.1%	77.8%	22.2%	75.3%	24.7%	77.0%	23.0%	<b>76.2%</b>	<b>23.8%</b>	
0.7	Average Bookings per Month		316	301	321	300	313	271	263	250	237	215	223	<b>274</b>												2.	
0.7	Average Bookings per Day		10	10	11	10	10	9	9	8	8	7	7	<b>9</b>												3.	
<b>B.</b>	<b>Average Daily Population (ADP)</b>																										
0.1	Total Average Daily Population		122	121	129	120	133	136	138	140	126	125	124	<b>129</b>													
0.2	Average Daily Population of Male		92	91	98	90	100	106	106	98	94	96	96	<b>98</b>													
0.3	Average Daily Population of Female		30	30	31	30	33	30	32	34	28	31	28	<b>31</b>													
<b>C.</b>	<b>Releases</b>																										
0.1	Total Number of Annual Releases		3,858	3,633	3,826	3,615	3,732	3,273	3,140	3,009	2,848	2,610	2,657	<b>3,291</b>													
0.2	Total Average Releases per Month		322	303	319	301	311	273	262	251	237	218	221	<b>274</b>													2.
0.3	Total Average Releases per Day		11	10	10	10	10	9	9	8	8	7	7	<b>9</b>													3.
<b>D.</b>	<b>Transportation</b>																										
0.1	Annual Number of Inmates Transported to MI DOC																										
<b>E.</b>	<b>Average length of Stay</b>																										
0.1	Sentenced Male and Female																										
0.2	Un-sentenced Male and Female																										
0.3	Total Average Length of Stay		10	10	11	10	10	9	9	8	8	7	7	<b>9</b>													3.
<b>F.</b>	<b>Criminal Arrests</b>																										
0.1	Total Annual Criminal Arrests		2,039	2,007	2,117	2,180	2,197	2,006	1,992	2,132	2,094	1,740	1,714	<b>2,020</b>													4.
<b>G.</b>	<b>Meals</b>																										
0.1	Total Annual Meals Served																										
<b>H.</b>	<b>Felony/Misdemeanors</b>																										
0.1	Felony				958	981	1,037	983	1,080	1,029	1,020	886	935	<b>990</b>													4.
0.2	Misdemeanors				3,106	2,852	2,880	2,661	2,543	2,427	2,260	2,202	2,021	<b>2,550</b>													4.
0.3	Total				4,064	3,833	3,917	3,644	3,623	3,456	3,280	3,088	2,956	<b>3,540</b>													4.
<b>I.</b>	<b>Out of County Bed Rentals</b>																										
0.1	MDOC																										
	<b>Beds</b>		806	383	945	2,026	262	2,577	1,694	675	715	1,237	1,616	<b>1,176</b>													
0.2	Statewide																										
	<b>Beds</b>		0	0	199	0	78	0	197	2,851	2,849	555	1,049	<b>707</b>													
0.3	Genesee County																										
	<b>Beds</b>		0	0	0	0	1,631	1,739	1,663	2,849	5,652	3,446	4,741	<b>1,975</b>													
0.4	Tuscola County																										
	<b>Beds</b>		0	0	216	1,421	0	0	0	0	0	0	0	<b>149</b>													



# Analytics – Jail Historical Data Summary

Year/Race	Under 17	Ratio	17-24	Ratio	25-29	Ratio	30-34	Ratio	35-39	Ratio	40-44	Ratio	45-49	Ratio	50-54	Ratio	55-59	Ratio	60-64	Ratio	65 & over	Ratio	Total	Inmates	Ratio	
<b>Total Booked</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>		<b>3,797</b>				
<b>2007</b>																									<b>3,797</b>	
Asian or Pacific Island	0	0.00%	1	0.03%	1	0.03%	3	0.08%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	0.13%
Black	0	0.00%	18	0.47%	29	0.76%	43	1.13%	23	0.61%	13	0.34%	11	0.29%	9	0.24%	5	0.13%	0	0.00%	0	0.00%	0	0.00%	151	3.98%
Black/Non-Hispanic	0	0.00%	0	0.00%	4	0.11%	0	0.00%	5	0.13%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	0.24%
Unknown	0	0.00%	3	0.08%	2	0.05%	6	0.16%	1	0.03%	1	0.03%	2	0.05%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	16	0.42%
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%
White	0	0.00%	175	4.61%	373	9.82%	418	11.01%	353	9.30%	314	8.27%	272	7.16%	211	5.56%	161	4.24%	57	1.50%	57	1.50%	2,391	62.97%		
White/Non-Hispanic	0	0.00%	2	0.05%	70	1.84%	77	2.03%	43	1.13%	17	0.45%	36	0.95%	19	0.50%	3	0.08%	1	0.03%	1	0.03%	269	7.08%		
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>199</b>	<b>5.24%</b>	<b>479</b>	<b>12.62%</b>	<b>547</b>	<b>14.41%</b>	<b>427</b>	<b>11.25%</b>	<b>345</b>	<b>9.09%</b>	<b>321</b>	<b>8.45%</b>	<b>239</b>	<b>6.29%</b>	<b>169</b>	<b>4.45%</b>	<b>58</b>	<b>1.53%</b>	<b>59</b>	<b>1.55%</b>	<b>2,843</b>	<b>74.87%</b>		
<b>2008</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>		<b>3,616</b>			<b>3,616</b>	
Asian or Pacific Island	0	0.00%	0	0.00%	3	0.08%	1	0.03%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	0.14%
Black	0	0.00%	30	0.83%	33	0.91%	29	0.80%	29	0.80%	20	0.55%	14	0.39%	15	0.41%	12	0.33%	1	0.03%	0	0.00%	0	0.00%	183	5.06%
Black/Non-Hispanic	0	0.00%	0	0.00%	8	0.22%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	0.25%
Unknown	0	0.00%	1	0.03%	2	0.06%	3	0.08%	4	0.11%	2	0.06%	1	0.03%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	14	0.39%		
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
White	0	0.00%	184	5.09%	390	10.79%	381	10.54%	314	8.68%	284	7.85%	288	7.96%	165	4.56%	125	3.46%	53	1.47%	43	1.19%	2,227	61.59%		
White/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%		
White/Non-Hispanic	0	0.00%	6	0.17%	68	1.88%	73	2.02%	35	0.97%	21	0.58%	28	0.77%	16	0.44%	4	0.11%	2	0.06%	3	0.08%	256	7.08%		
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>221</b>	<b>6.11%</b>	<b>504</b>	<b>13.94%</b>	<b>487</b>	<b>13.47%</b>	<b>383</b>	<b>10.59%</b>	<b>329</b>	<b>9.10%</b>	<b>331</b>	<b>9.15%</b>	<b>196</b>	<b>5.42%</b>	<b>141</b>	<b>3.90%</b>	<b>57</b>	<b>1.58%</b>	<b>46</b>	<b>1.27%</b>	<b>2,695</b>	<b>74.53%</b>		
<b>2009</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>		<b>3,857</b>			<b>3,857</b>	
Asian or Pacific Island	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%
Black	0	0.00%	47	1.22%	41	1.06%	32	0.83%	41	1.06%	36	0.93%	26	0.67%	19	0.49%	9	0.23%	2	0.05%	1	0.03%	254	6.59%		
Black/Non-Hispanic	0	0.00%	0	0.00%	8	0.21%	0	0.00%	2	0.05%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	11	0.29%
Unknown	0	0.00%	4	0.10%	4	0.10%	5	0.13%	4	0.10%	4	0.10%	0	0.00%	2	0.05%	0	0.00%	0	0.00%	0	0.00%	23	0.60%		
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%
White	0	0.00%	226	5.86%	474	12.29%	404	10.47%	298	7.73%	282	7.31%	273	7.08%	155	4.02%	124	3.21%	55	1.43%	52	1.35%	2,343	60.75%		
White/Hispanic	0	0.00%	8	0.21%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	8	0.21%		
White/Non-Hispanic	0	0.00%	14	0.36%	120	3.11%	45	1.17%	27	0.70%	26	0.67%	15	0.39%	20	0.52%	3	0.08%	5	0.13%	4	0.10%	279	7.23%		
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>299</b>	<b>7.75%</b>	<b>648</b>	<b>16.80%</b>	<b>486</b>	<b>12.60%</b>	<b>374</b>	<b>9.70%</b>	<b>349</b>	<b>9.05%</b>	<b>315</b>	<b>8.17%</b>	<b>196</b>	<b>5.08%</b>	<b>136</b>	<b>3.53%</b>	<b>62</b>	<b>1.61%</b>	<b>57</b>	<b>1.48%</b>	<b>2,922</b>	<b>75.76%</b>		
<b>2010</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>		<b>3,600</b>			<b>3,600</b>	
Asian or Pacific Island	0	0.00%	0	0.00%	0	0.00%	1	0.03%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.06%

# Analytics – Jail Historical Data Summary

Black	0	0.00%	0	0.00%	4	0.11%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	0.11%				
Black/Non-Hispanic	0	0.00%	0	0.00%	8	0.22%	1	0.03%	4	0.11%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	15	0.42%				
Unknown	0	0.00%	5	0.14%	2	0.06%	2	0.06%	1	0.03%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	11	0.31%				
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%				
Unknown/Non-Hispanic	0	0.00%	0	0.00%	4	0.11%	4	0.11%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	8	0.22%				
White	1	0.03%	216	6.00%	398	11.06%	398	11.06%	255	7.08%	220	6.11%	180	5.00%	156	4.33%	100	2.78%	38	1.06%	29	0.81%	1991	55.31%
White/Hispanic	0	0.00%	0	0.00%	1	0.03%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.06%
White/Non-Hispanic	0	0.00%	53	1.47%	151	4.19%	66	1.83%	29	0.81%	30	0.83%	28	0.78%	29	0.81%	9	0.25%	3	0.08%	5	0.14%	403	11.19%
<b>Total</b>	<b>1</b>	<b>0.03%</b>	<b>274</b>	<b>7.61%</b>	<b>568</b>	<b>15.78%</b>	<b>473</b>	<b>13.14%</b>	<b>290</b>	<b>8.06%</b>	<b>251</b>	<b>6.97%</b>	<b>208</b>	<b>5.78%</b>	<b>186</b>	<b>5.17%</b>	<b>110</b>	<b>3.06%</b>	<b>41</b>	<b>1.14%</b>	<b>34</b>	<b>0.94%</b>	<b>2,436</b>	<b>67.67%</b>
<b>2011</b>	<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>		<b>3,755</b>	
Asian or Pacific Island	0	0.00%	0	0.00%	1	0.03%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%
Black	4	0.11%	48	1.28%	38	1.01%	52	1.38%	45	1.20%	44	1.17%	31	0.83%	18	0.48%	13	0.35%	0	0.00%	6	0.16%	299	7.96%
Black/Non-Hispanic	0	0.00%	4	0.11%	13	0.35%	5	0.13%	6	0.16%	6	0.16%	1	0.03%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	36	0.96%
Unknown	0	0.00%	3	0.08%	1	0.03%	0	0.00%	0	0.00%	2	0.05%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	7	0.19%
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	1	0.03%	1	0.03%	3	0.08%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	5	0.13%
White	0	0.00%	290	7.72%	351	9.35%	349	9.29%	274	7.30%	267	7.11%	166	4.42%	126	3.36%	94	2.50%	32	0.85%	16	0.43%	1965	52.33%
White/Hispanic	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.05%	3	0.08%
White/Non-Hispanic	0	0.00%	70	1.86%	166	4.42%	65	1.73%	49	1.30%	39	1.04%	36	0.96%	25	0.67%	7	0.19%	2	0.05%	8	0.21%	467	12.44%
<b>Total</b>	<b>4</b>	<b>0.11%</b>	<b>415</b>	<b>11.05%</b>	<b>572</b>	<b>15.23%</b>	<b>472</b>	<b>12.57%</b>	<b>378</b>	<b>10.07%</b>	<b>358</b>	<b>9.53%</b>	<b>235</b>	<b>6.26%</b>	<b>169</b>	<b>4.50%</b>	<b>115</b>	<b>3.06%</b>	<b>34</b>	<b>0.91%</b>	<b>32</b>	<b>0.85%</b>	<b>2,784</b>	<b>74.14%</b>
<b>2012</b>	<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>		<b>3,248</b>	
Asian or Pacific Island	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.06%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.06%
Black	5	0.15%	55	1.69%	35	1.08%	61	1.88%	31	0.95%	29	0.89%	21	0.65%	21	0.65%	7	0.22%	2	0.06%	3	0.09%	270	8.31%
Black/Non-Hispanic	0	0.00%	2	0.06%	23	0.71%	1	0.03%	13	0.40%	1	0.03%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	41	1.26%
Unknown	0	0.00%	3	0.09%	3	0.09%	3	0.09%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	10	0.31%
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%
White	0	0.00%	291	8.96%	334	10.28%	315	9.70%	234	7.20%	183	5.63%	135	4.16%	106	3.26%	68	2.09%	32	0.99%	20	0.62%	1718	52.89%
White/Hispanic	0	0.00%	2	0.06%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.09%
White/Non-Hispanic	0	0.00%	95	2.92%	151	4.65%	79	2.43%	37	1.14%	25	0.77%	30	0.92%	15	0.46%	10	0.31%	7	0.22%	3	0.09%	452	13.92%
<b>Total</b>	<b>5</b>	<b>0.15%</b>	<b>448</b>	<b>13.79%</b>	<b>546</b>	<b>16.81%</b>	<b>459</b>	<b>14.13%</b>	<b>316</b>	<b>9.73%</b>	<b>242</b>	<b>7.45%</b>	<b>186</b>	<b>5.73%</b>	<b>142</b>	<b>4.37%</b>	<b>86</b>	<b>2.65%</b>	<b>41</b>	<b>1.26%</b>	<b>26</b>	<b>0.80%</b>	<b>2,497</b>	<b>76.88%</b>
<b>2013</b>	<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>		<b>3,152</b>	
Asian or Pacific Island	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%
Black	1	0.03%	46	1.46%	38	1.21%	39	1.24%	41	1.30%	28	0.89%	23	0.73%	11	0.35%	8	0.25%	6	0.19%	2	0.06%	243	7.71%
Black/Non-Hispanic	0	0.00%	14	0.44%	6	0.19%	3	0.10%	9	0.29%	4	0.13%	7	0.22%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	44	1.40%
Unknown	0	0.00%	3	0.10%	3	0.10%	1	0.03%	2	0.06%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	0.29%

# Analytics – Jail Historical Data Summary

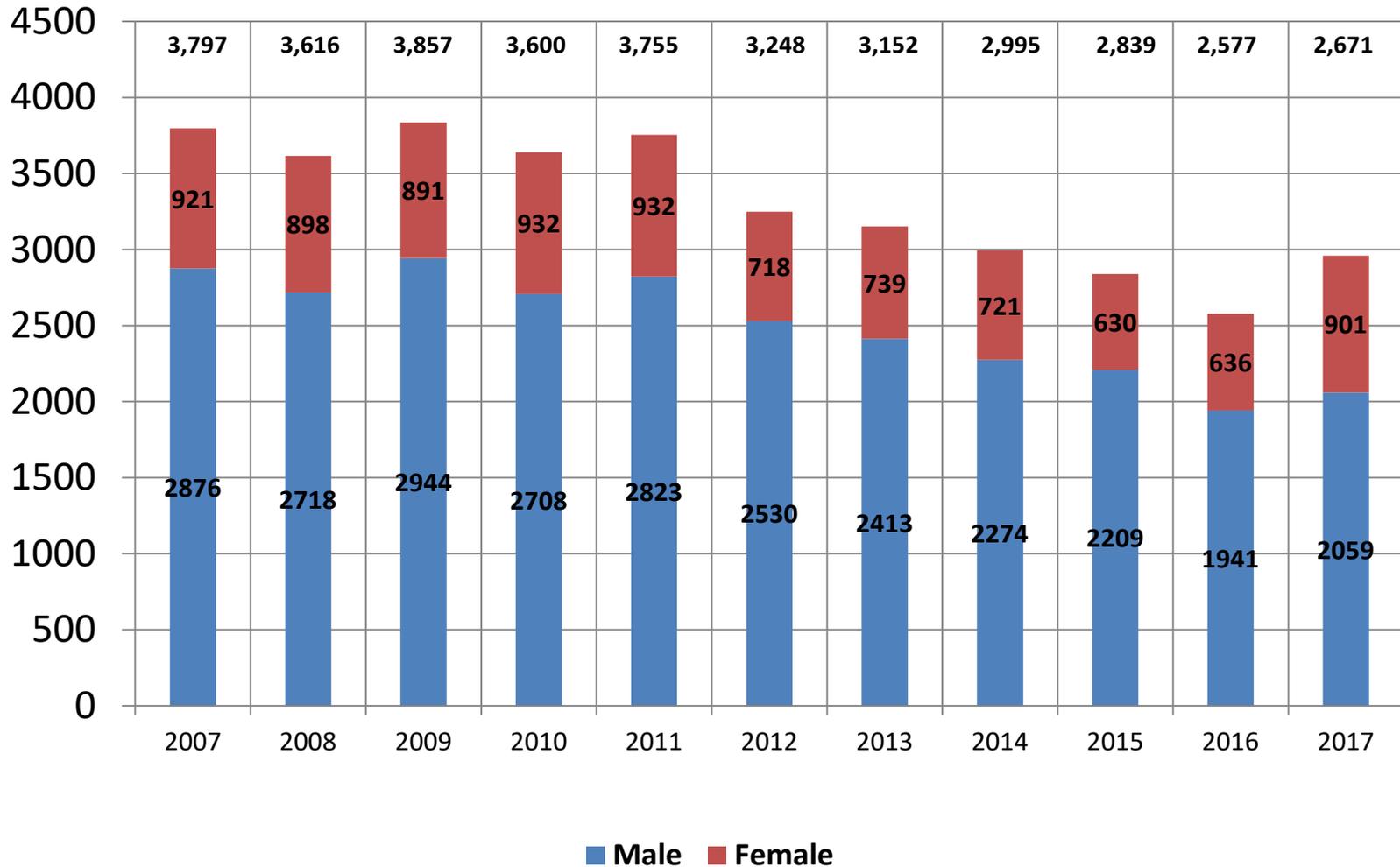
Unknown/Hispanic	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%		
Unknown/Non-Hispanic	0	0.00%	0	0.00%	2	0.06%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.06%		
White	1	0.03%	321	10.18%	259	8.22%	290	9.20%	189	6.00%	182	5.77%	144	4.57%	100	3.17%	77	2.44%	36	1.14%	26	0.82%	1625	51.55%
White/Hispanic	0	0.00%	3	0.10%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.10%
White/Non-Hispanic	0	0.00%	106	3.36%	107	3.39%	84	2.66%	52	1.65%	20	0.63%	29	0.92%	28	0.89%	7	0.22%	6	0.19%	7	0.22%	446	14.15%
<b>Total</b>	<b>2</b>	<b>0.06%</b>	<b>493</b>	<b>15.64%</b>	<b>416</b>	<b>13.20%</b>	<b>417</b>	<b>13.23%</b>	<b>293</b>	<b>9.30%</b>	<b>235</b>	<b>7.46%</b>	<b>203</b>	<b>6.44%</b>	<b>139</b>	<b>4.41%</b>	<b>93</b>	<b>2.95%</b>	<b>48</b>	<b>1.52%</b>	<b>35</b>	<b>1.11%</b>	<b>2,374</b>	<b>75.32%</b>
<b>2014</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>	<b>2,995</b>
Asian or Pacific Island	0	0.00%	0	0.00%	1	0.03%	1	0.03%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.10%
Black	1	0.03%	75	2.50%	47	1.57%	31	1.04%	31	1.04%	21	0.70%	16	0.53%	12	0.40%	5	0.17%	0	0.00%	3	0.10%	242	8.08%
Black/Non-Hispanic	0	0.00%	6	0.20%	13	0.43%	2	0.07%	6	0.20%	1	0.03%	3	0.10%	0	0.00%	1	0.03%	1	0.03%	1	0.03%	34	1.14%
Unknown	0	0.00%	9	0.30%	2	0.07%	6	0.20%	3	0.10%	2	0.07%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	23	0.77%
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	2	0.07%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2	0.07%
White	0	0.00%	307	10.25%	255	8.51%	261	8.71%	186	6.21%	126	4.21%	127	4.24%	98	3.27%	77	2.57%	22	0.73%	21	0.70%	1480	49.42%
White/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.03%
White/Non-Hispanic	0	0.00%	125	4.17%	104	3.47%	73	2.44%	55	1.84%	15	0.50%	38	1.27%	17	0.57%	13	0.43%	6	0.20%	4	0.13%	450	15.03%
<b>Total</b>	<b>1</b>	<b>0.03%</b>	<b>522</b>	<b>17.43%</b>	<b>424</b>	<b>14.16%</b>	<b>374</b>	<b>12.49%</b>	<b>283</b>	<b>9.45%</b>	<b>165</b>	<b>5.51%</b>	<b>184</b>	<b>6.14%</b>	<b>128</b>	<b>4.27%</b>	<b>96</b>	<b>3.21%</b>	<b>29</b>	<b>0.97%</b>	<b>29</b>	<b>0.97%</b>	<b>2,235</b>	<b>74.62%</b>
<b>2015</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>	<b>2,839</b>
Asian or Pacific Island	0	0.00%	3	0.11%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	0.14%
Black	0	0.00%	63	2.22%	34	1.20%	37	1.30%	30	1.06%	24	0.85%	16	0.56%	11	0.39%	7	0.25%	6	0.21%	1	0.04%	229	8.07%
Black/Non-Hispanic	0	0.00%	4	0.14%	14	0.49%	2	0.07%	1	0.04%	2	0.07%	0	0.00%	0	0.00%	1	0.04%	0	0.00%	0	0.00%	24	0.85%
Unknown	0	0.00%	13	0.00%	0	0.00%	3	0.00%	2	0.00%	1	0.00%	1	0.00%	2	0.00%	0	0.00%	0	0.00%	0	0.00%	22	0.00%
Unknown/Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Unknown/Non-Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
White	0	0.00%	3	0.11%	5	0.18%	0	0.00%	1	0.04%	2	0.07%	2	0.07%	1	0.04%	2	0.07%	0	0.00%	0	0.00%	16	0.56%
White/Hispanic	0	0.00%	8	0.28%	0	0.00%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	9	0.32%
White/Non-Hispanic	0	0.00%	120	4.23%	78	2.75%	0	0.00%	36	1.27%	33	1.16%	15	0.53%	31	1.09%	5	0.18%	10	0.35%	3	0.11%	331	11.66%
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>214</b>	<b>7.08%</b>	<b>132</b>	<b>4.65%</b>	<b>43</b>	<b>1.41%</b>	<b>70</b>	<b>2.40%</b>	<b>62</b>	<b>2.15%</b>	<b>34</b>	<b>1.16%</b>	<b>45</b>	<b>1.51%</b>	<b>15</b>	<b>0.53%</b>	<b>16</b>	<b>0.56%</b>	<b>4</b>	<b>0.14%</b>	<b>635</b>	<b>21.59%</b>
<b>2016</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>	<b>2,557</b>
Asian or Pacific Island	0	0.00%	2	0.08%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.12%
Black	0	0.00%	39	1.53%	28	1.10%	33	1.29%	9	0.35%	17	0.66%	16	0.63%	3	0.12%	4	0.16%	3	0.12%	3	0.12%	155	6.06%
Black/Non-Hispanic	0	0.00%	7	0.27%	7	0.27%	0	0.00%	2	0.08%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	17	0.66%
Unknown	0	0.00%	5	0.20%	6	0.23%	3	0.12%	2	0.08%	2	0.08%	0	0.00%	1	0.04%	2	0.08%	0	0.00%	0	0.00%	21	0.82%
Unknown/Hispanic																								
Unknown/Non-Hispanic	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
White	0	0.00%	347	13.57%	212	8.29%	216	8.45%	187	7.31%	108	4.22%	100	3.91%	67	2.62%	46	1.80%	18	0.70%	11	0.43%	1,312	51.31%

# Analytics – Jail Historical Data Summary

White/Hispanic	0	0.00%	0	0.00%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	1	0.04%		
White/Non-Hispanic	0	0.00%	140	5.48%	67	2.62%	67	2.62%	40	1.56%	21	0.82%	16	0.63%	18	0.70%	1	0.04%	4	0.16%	1	0.04%	375	14.67%
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>540</b>	<b>21.12%</b>	<b>322</b>	<b>12.59%</b>	<b>319</b>	<b>12.48%</b>	<b>240</b>	<b>9.39%</b>	<b>149</b>	<b>5.83%</b>	<b>132</b>	<b>5.16%</b>	<b>89</b>	<b>3.48%</b>	<b>53</b>	<b>2.07%</b>	<b>25</b>	<b>0.98%</b>	<b>15</b>	<b>0.59%</b>	<b>1,884</b>	<b>73.68%</b>
<b>2017</b>	<b>0</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>	<b>2,671</b>
Asian or Pacific Island	0	0.00%	0	0.00%	2	0.07%	0	0.00%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	3	0.11%
Black	0	0.00%	58	2.17%	56	2.10%	39	1.46%	15	0.56%	10	0.37%	21	0.79%	12	0.45%	11	0.41%	5	0.19%	5	0.19%	232	8.69%
Black/Non-Hispanic	0	0.00%	10	0.37%	8	0.30%	1	0.04%	0	0.00%	2	0.07%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	22	0.82%
Unknown	0	0.00%	6	0.22%	13	0.49%	5	0.19%	3	0.11%	1	0.04%	1	0.04%	1	0.04%	0	0.00%	1	0.04%	1	0.04%	32	1.20%
Unknown/Hispanic																								
Unknown/Non-Hispanic	0	0.00%	2	0.07%	4	0.15%	0	0.00%	2	0.07%	0	0.00%	1	0.04%	0	0.00%	1	0.04%	0	0.00%	0	0.00%	10	0.37%
White	0	0.00%	253	9.47%	189	7.08%	208	7.79%	156	5.84%	128	4.79%	115	4.31%	61	2.28%	54	2.02%	24	0.90%	25	0.94%	1,213	45.41%
White/Hispanic	0	0.00%	3	0.11%	1	0.04%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	4	0.15%
White/Non-Hispanic	0	0.00%	134	5.02%	122	4.57%	83	3.11%	47	1.76%	33	1.24%	41	1.54%	20	0.75%	6	0.22%	1	0.04%	1	0.04%	488	18.27%
<b>Total</b>	<b>0</b>	<b>0.00%</b>	<b>466</b>	<b>17.45%</b>	<b>393</b>	<b>14.79%</b>	<b>336</b>	<b>12.58%</b>	<b>223</b>	<b>8.39%</b>	<b>174</b>	<b>6.51%</b>	<b>180</b>	<b>6.74%</b>	<b>94</b>	<b>3.52%</b>	<b>72</b>	<b>2.70%</b>	<b>31</b>	<b>1.16%</b>	<b>32</b>	<b>1.20%</b>	<b>2,004</b>	<b>75.03%</b>
<b>Period Average 2007- 2017</b>																								
<b>Year/Race</b>	<b>Under 17</b>	<b>Ratio</b>	<b>17-24</b>	<b>Ratio</b>	<b>25-29</b>	<b>Ratio</b>	<b>30-34</b>	<b>Ratio</b>	<b>35-39</b>	<b>Ratio</b>	<b>40-44</b>	<b>Ratio</b>	<b>45-49</b>	<b>Ratio</b>	<b>50-54</b>	<b>Ratio</b>	<b>55-59</b>	<b>Ratio</b>	<b>60-64</b>	<b>Ratio</b>	<b>65 &amp; over</b>	<b>Ratio</b>	<b>Total Average</b>	
<b>Total Booked</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>		<b>3,281</b>	<b>Inmates</b>	<b>Ratio</b>
Asian or Pacific Island	0	0.00%	6	0.21%	11	0.34%	6	0.17%	5	0.15%	3	0.09%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	2.91	0.09%
Black	11	0.33%	479	15.37%	383	12.10%	396	12.35%	295	8.93%	242	7.37%	195	6.06%	131	3.97%	81	2.49%	25	0.85%	24	0.78%	205.64	6.27%
Black/Non-Hispanic	0	0.00%	47	1.60%	112	3.50%	15	0.46%	48	1.45%	20	0.62%	12	0.39%	1	0.03%	5	0.16%	1	0.03%	1	0.03%	23.82	0.73%
Unknown	0	0.00%	55	1.34%	38	1.27%	37	1.06%	22	0.62%	16	0.45%	6	0.14%	7	0.16%	3	0.11%	2	0.07%	2	0.06%	17.09	0.52%
Unknown/Hispanic	0	0.00%	0	0.00%	1	0.03%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0.09	0.00%
Unknown/Non-Hispanic	0	0.00%	2	0.07%	13	0.42%	5	0.14%	10	0.29%	0	0.00%	1	0.04%	0	0.00%	1	0.04%	0	0.00%	0	0.00%	2.91	0.09%
White	2	0.06%	2613	81.82%	3240	95.86%	3240	96.22%	2447	72.69%	2096	61.36%	1802	52.88%	1246	36.48%	928	27.19%	367	10.77%	300	8.78%	1,661.91	50.66%
White/Hispanic	0	0.00%	26	0.81%	74	1.97%	79	2.09%	44	1.17%	19	0.51%	36	0.95%	19	0.50%	3	0.08%	1	0.03%	3	0.08%	27.64	0.84%
White/Non-Hispanic	0	0.00%	865	29.10%	1204	36.90%	712	22.04%	450	14.13%	280	8.70%	312	9.65%	238	7.40%	68	2.11%	47	1.50%	40	1.20%	383.27	11.68%
<b>Total</b>	<b>1.44</b>	<b>0.04%</b>	<b>454.78</b>	<b>14%</b>	<b>564.00</b>	<b>16.93%</b>	<b>498.89</b>	<b>14.95%</b>	<b>369.00</b>	<b>11.05%</b>	<b>297.33</b>	<b>8.79%</b>	<b>262.78</b>	<b>7.79%</b>	<b>182.44</b>	<b>5.39%</b>	<b>121.00</b>	<b>3.57%</b>	<b>49.22</b>	<b>1.47%</b>	<b>41.11</b>	<b>1.21%</b>	<b>258.36</b>	<b>70.88%</b>

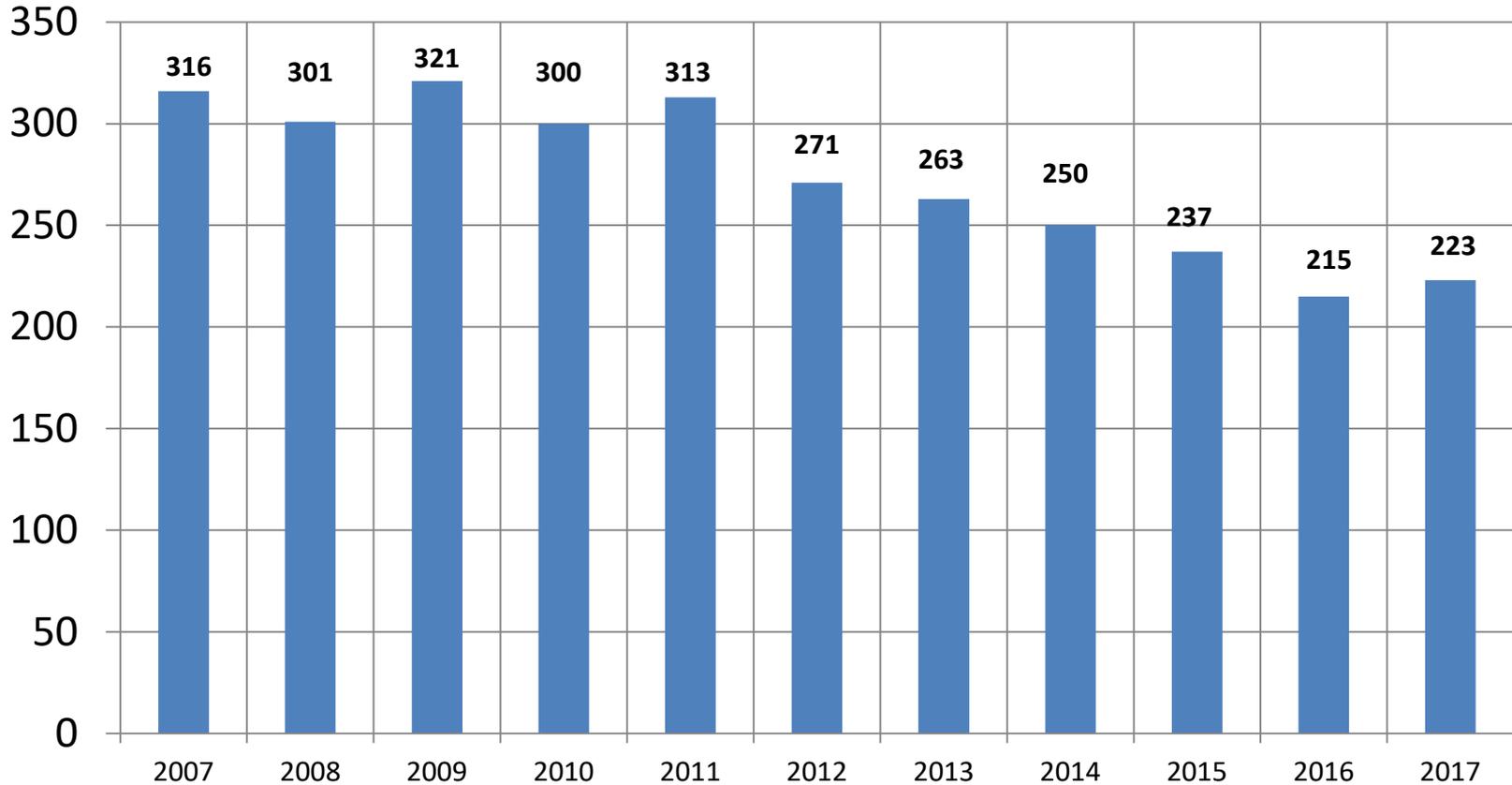
# Analytics – Jail

## Historical Annual Jail Bookings



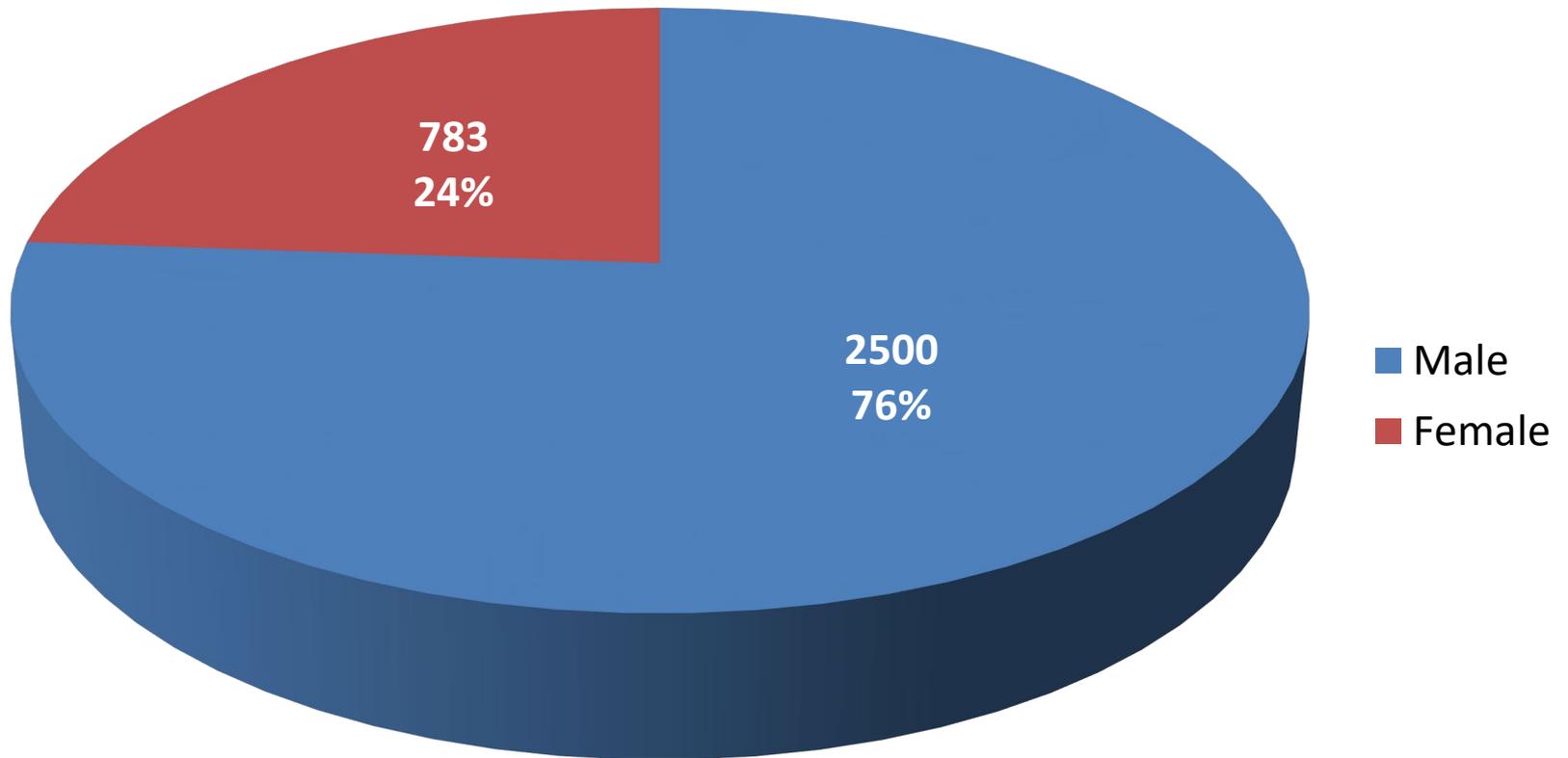
# Analytics – Jail

## Historical Average Monthly Total Jail Bookings 2007 - 2017



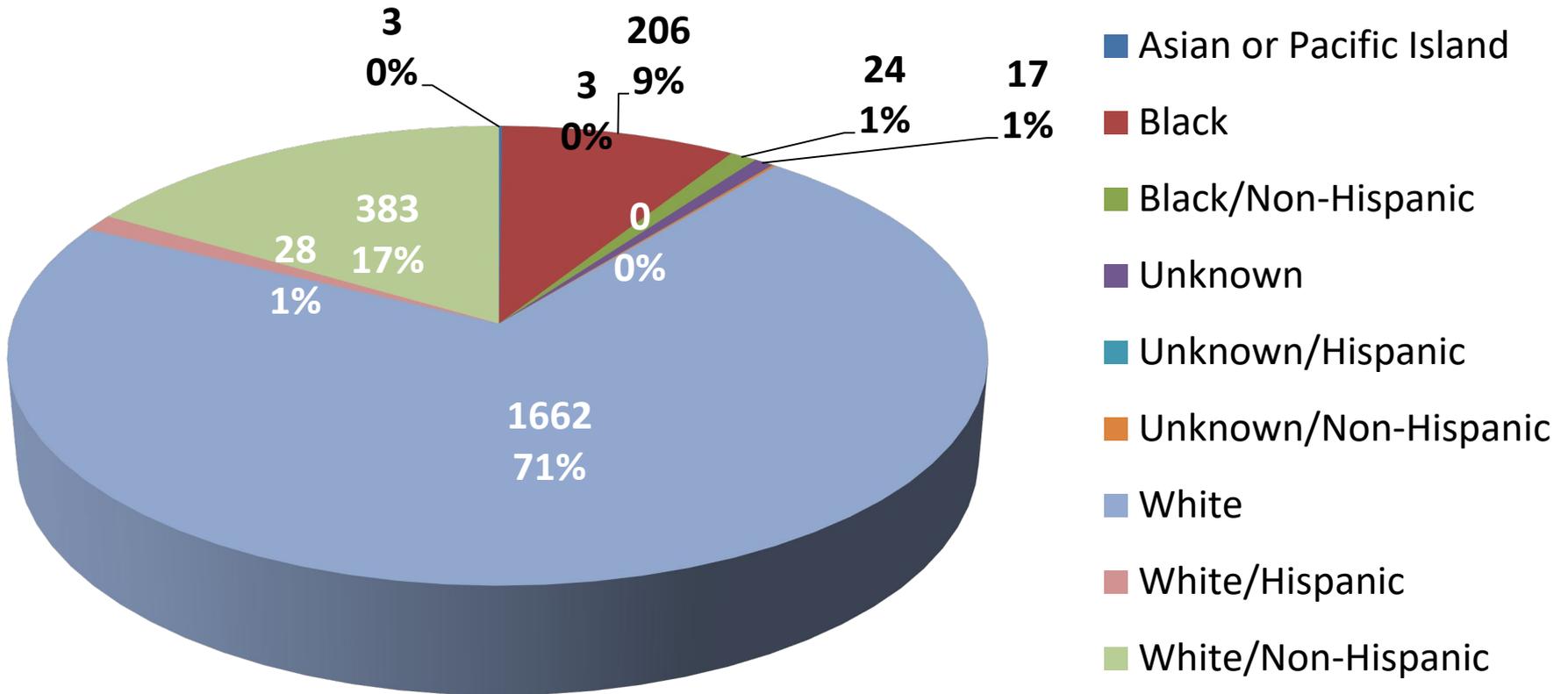
# Analytics - Jail

## Jail Admission Breakdown: Average 2007 - 2017



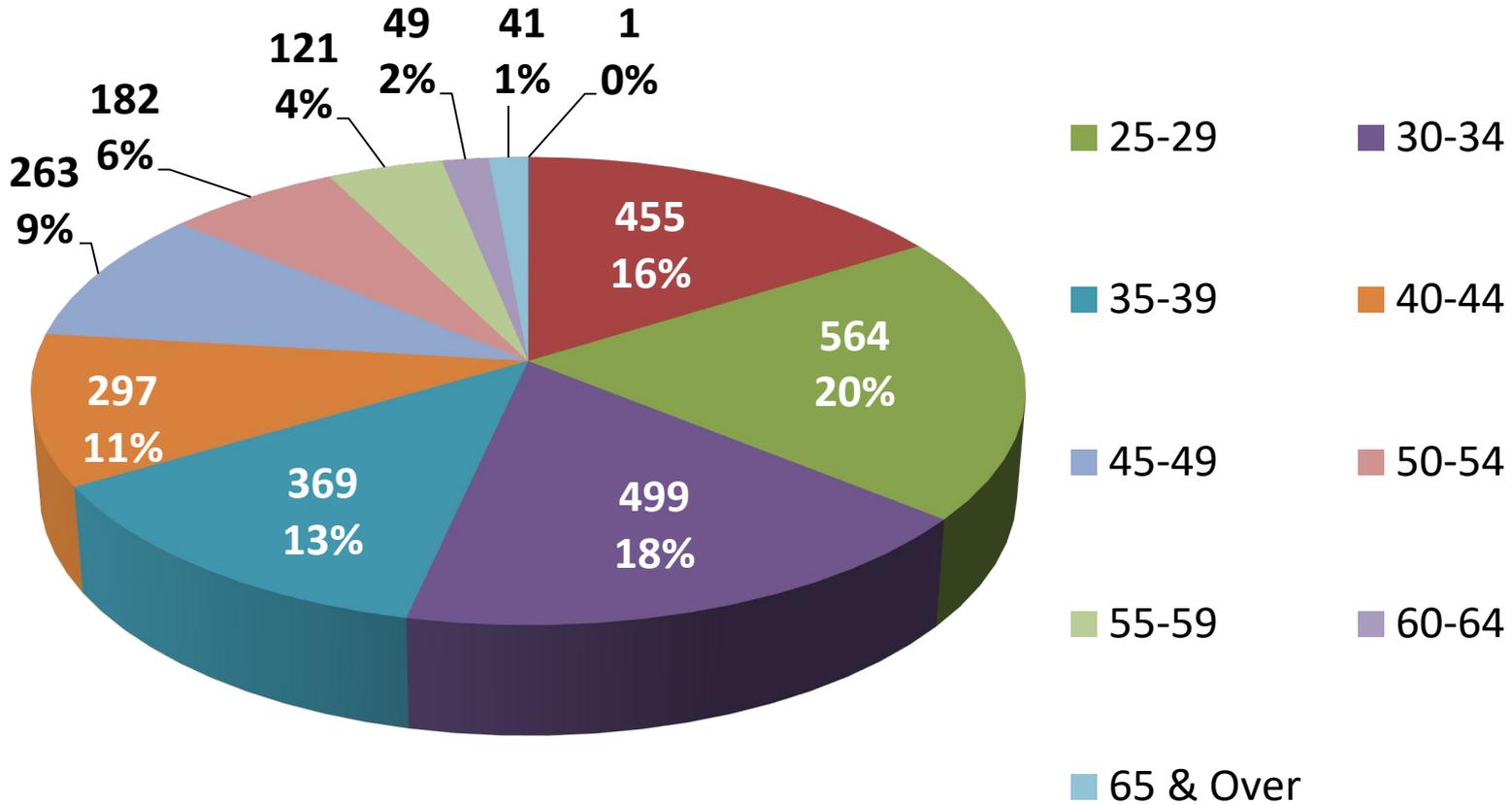
# Analytics - Jail

## Racial Mix 2007 – 2017 Average



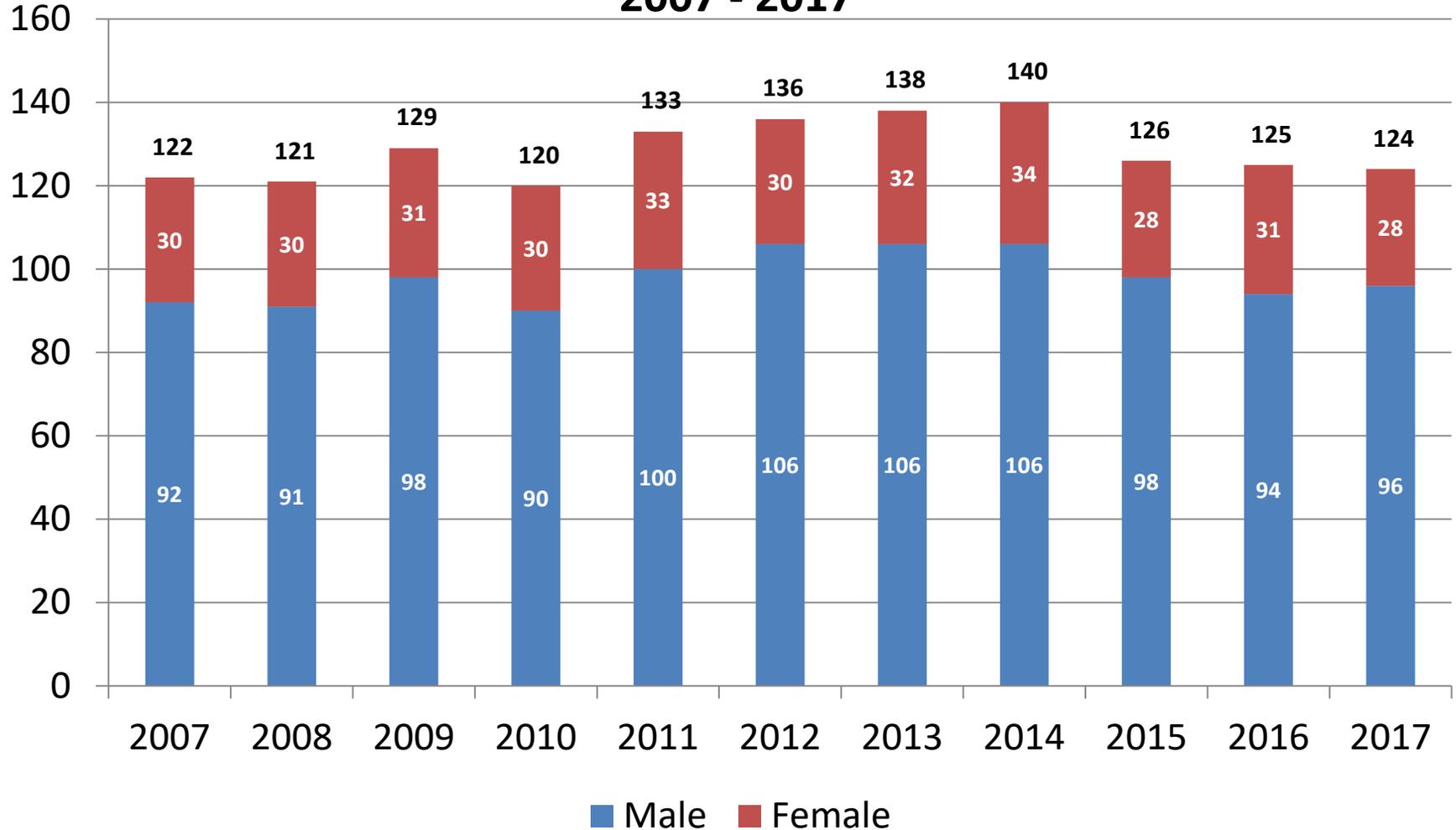
# Analytics - Jail

## Age Group Mix 2007 – 2017 Average



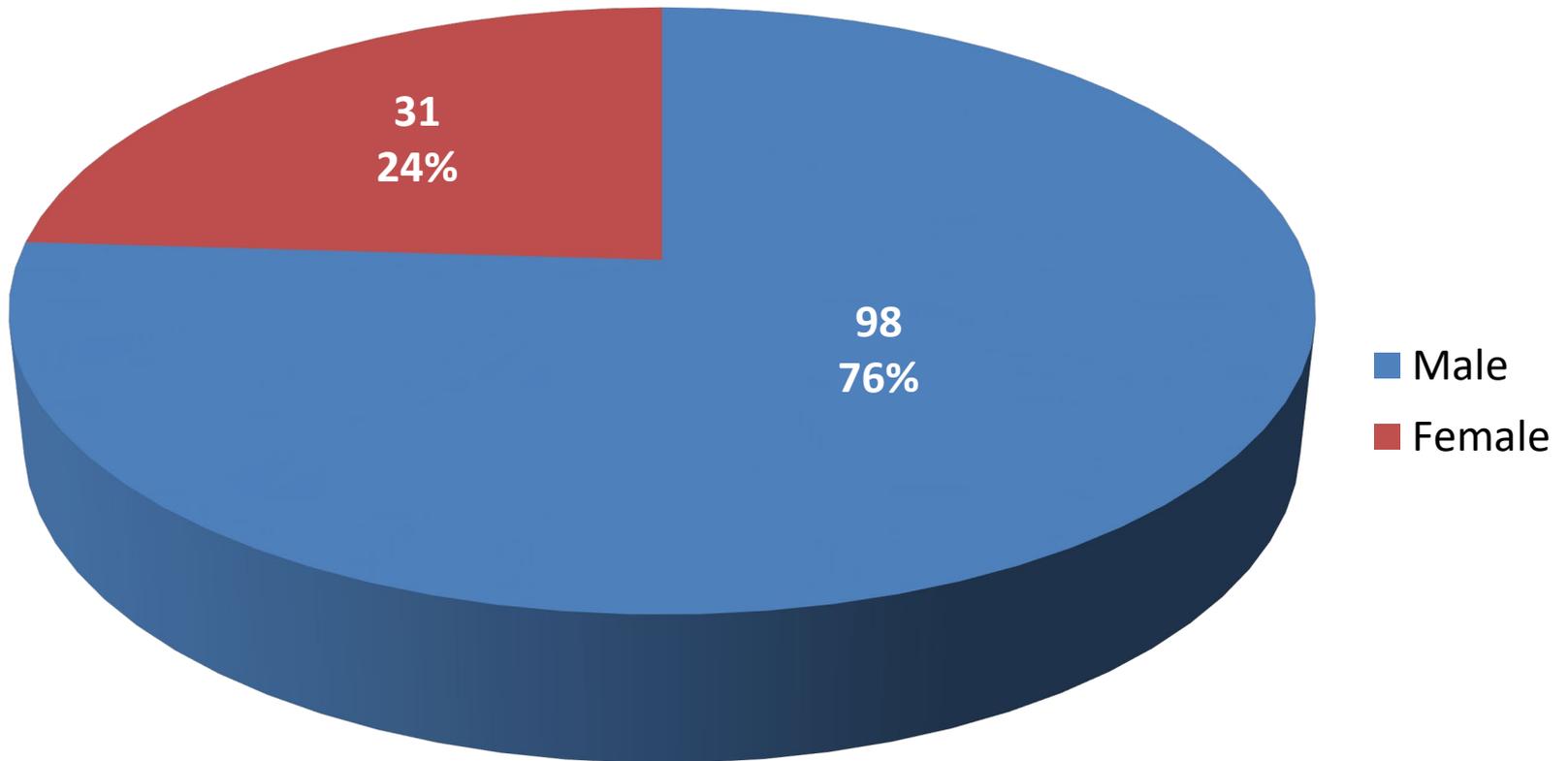
# Analytics - Jail

## Historical Annual Average Daily Population (ADP) 2007 - 2017



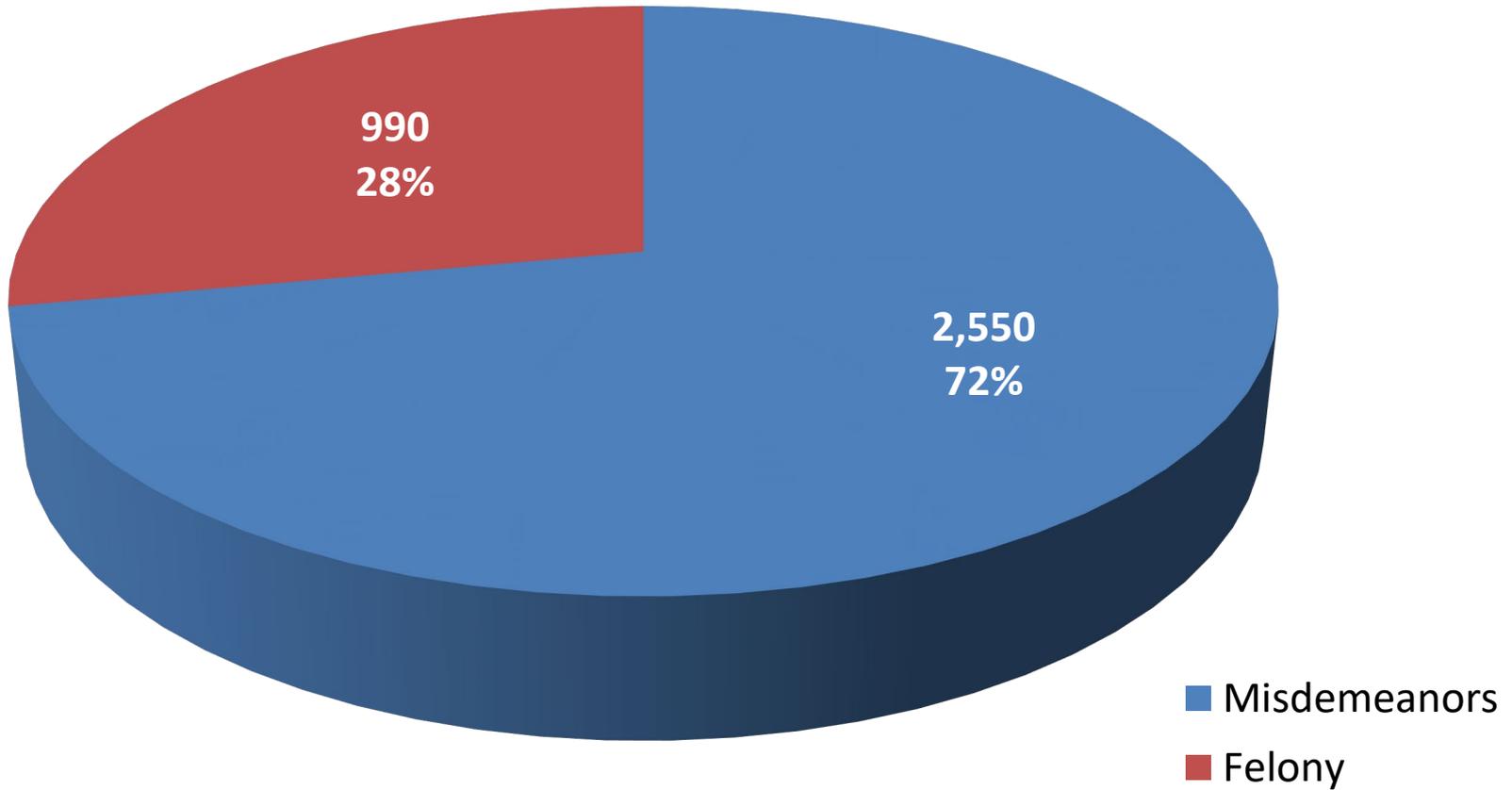
# Analytics - Jail

## Male/Female Average Daily Population 2007 – 2017 Average



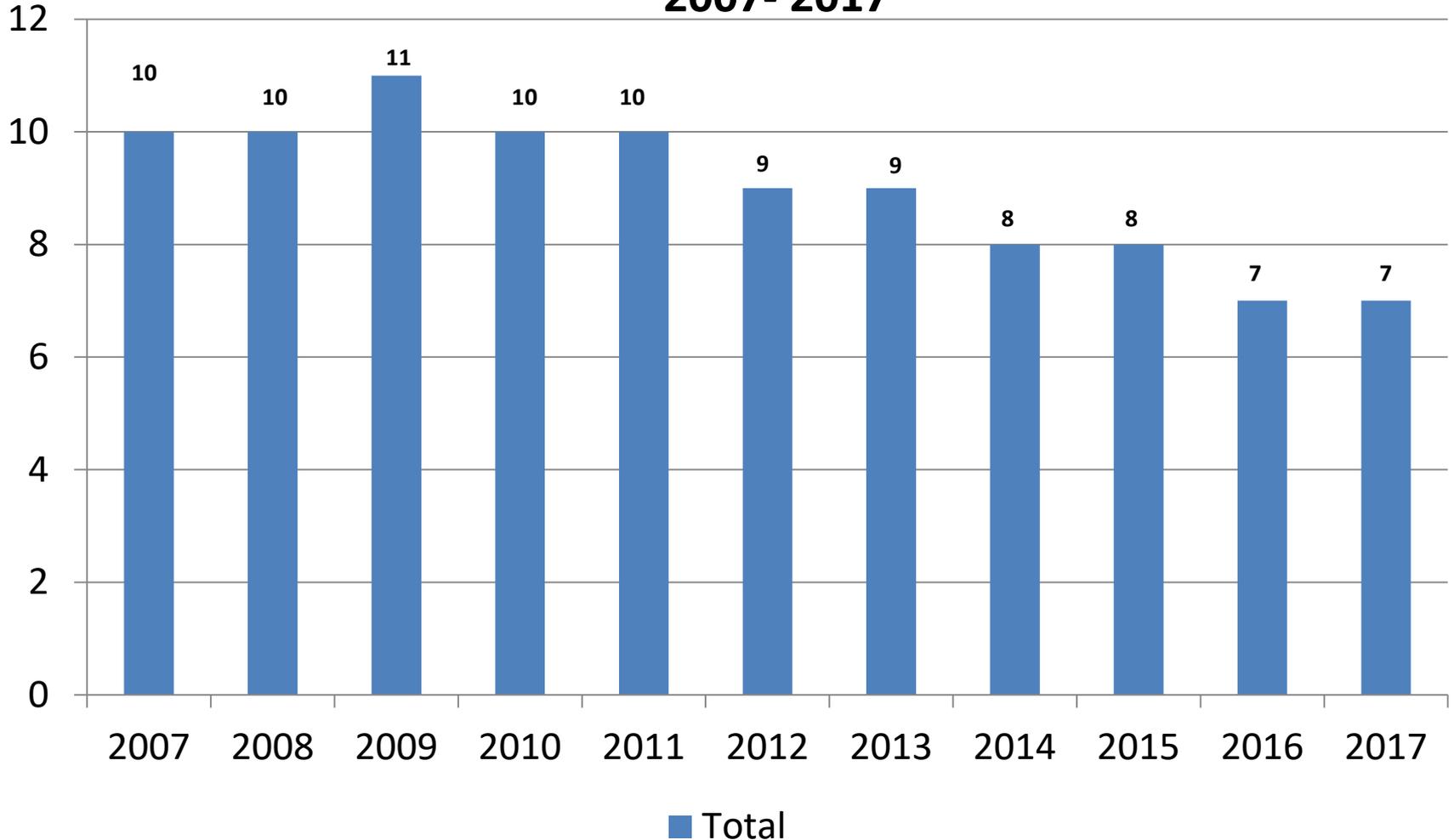
# Analytics - Jail

## Felony/Misdemeanors 2007 – 2017 Average



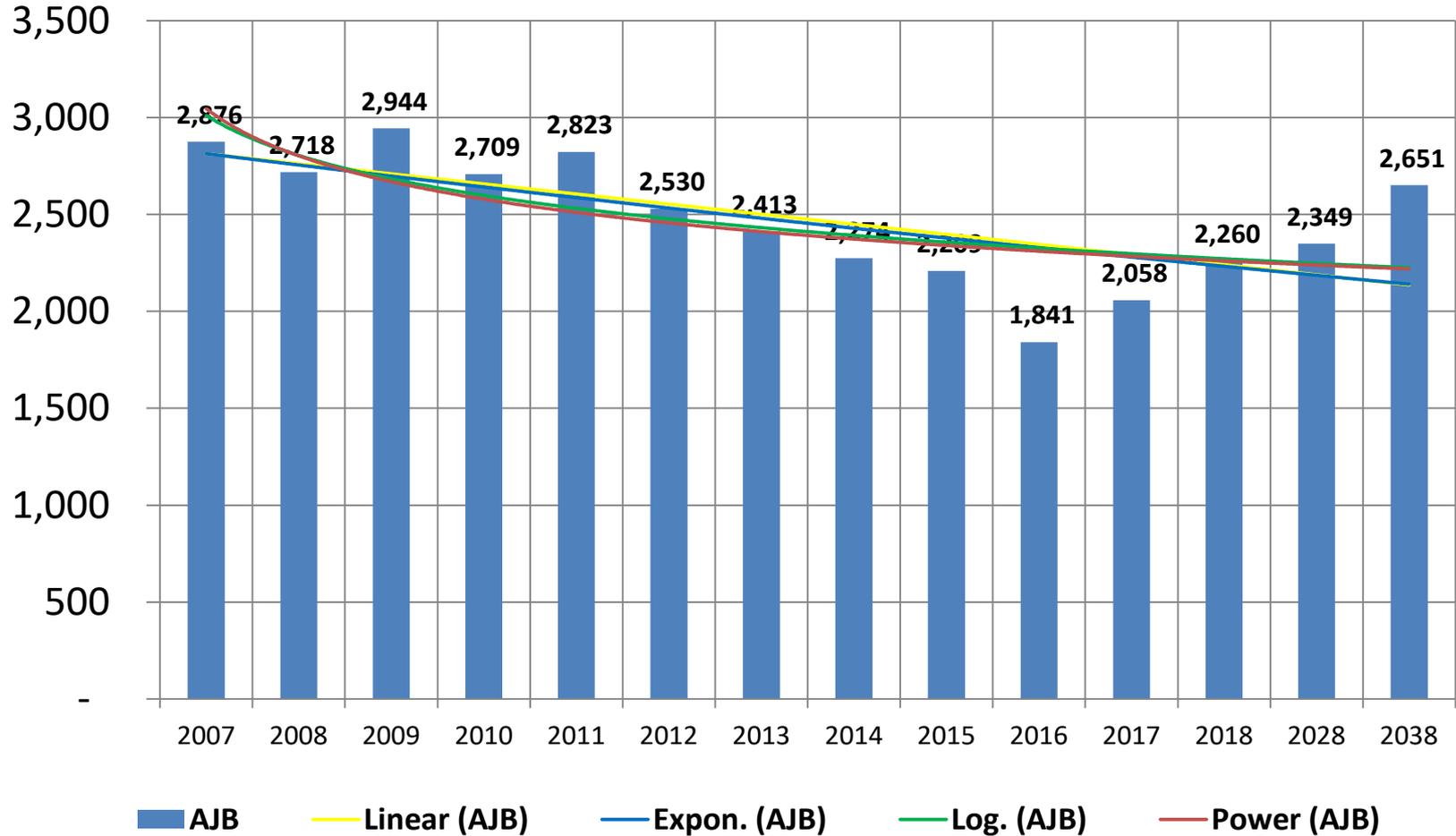
# Analytics - Jail

## Historical Annual Average Length of Stay - Days (AOLS) 2007- 2017



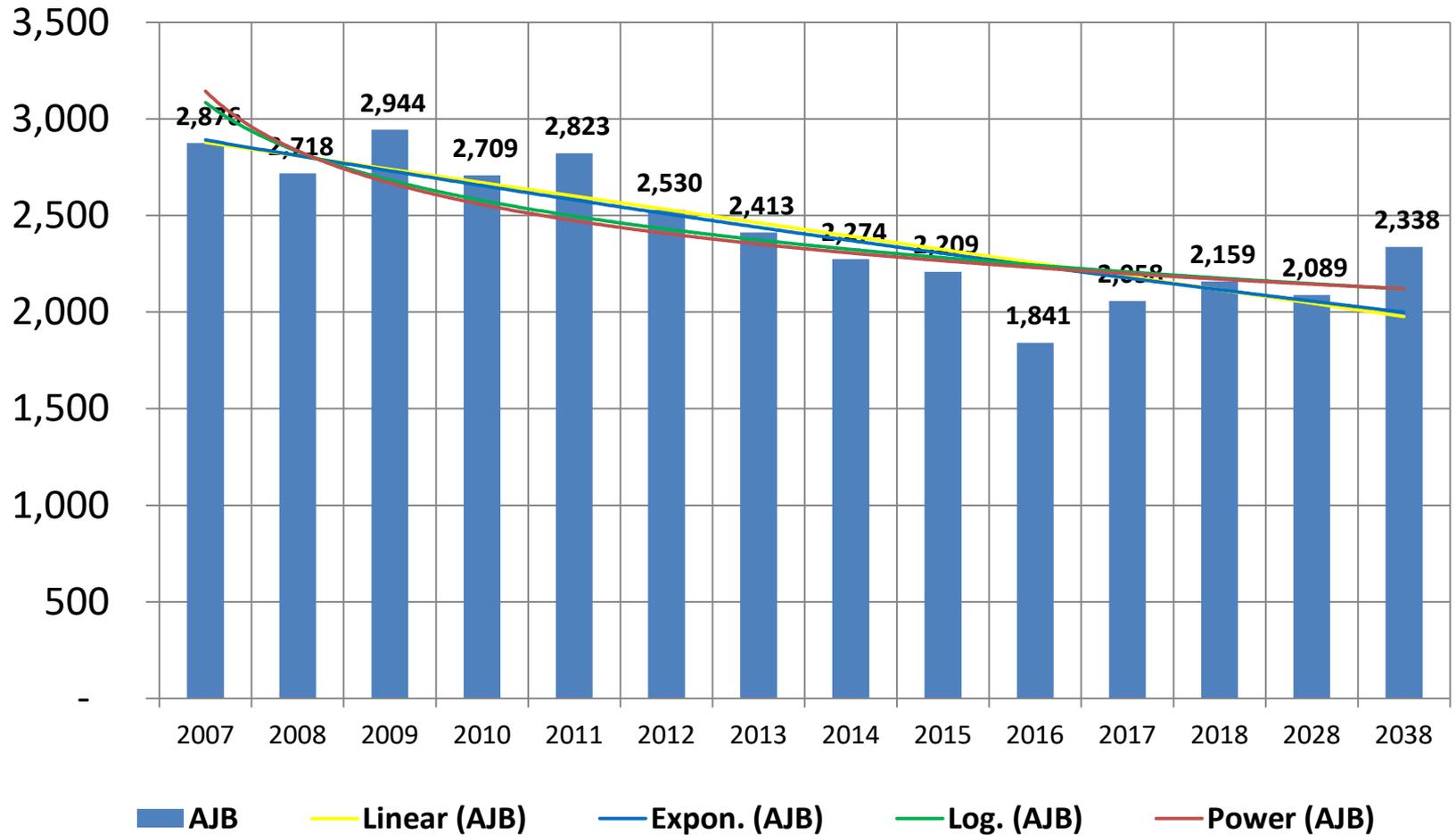
# Analytics - Jail

## Annual Jail Bookings Projection (AJB): Model 1



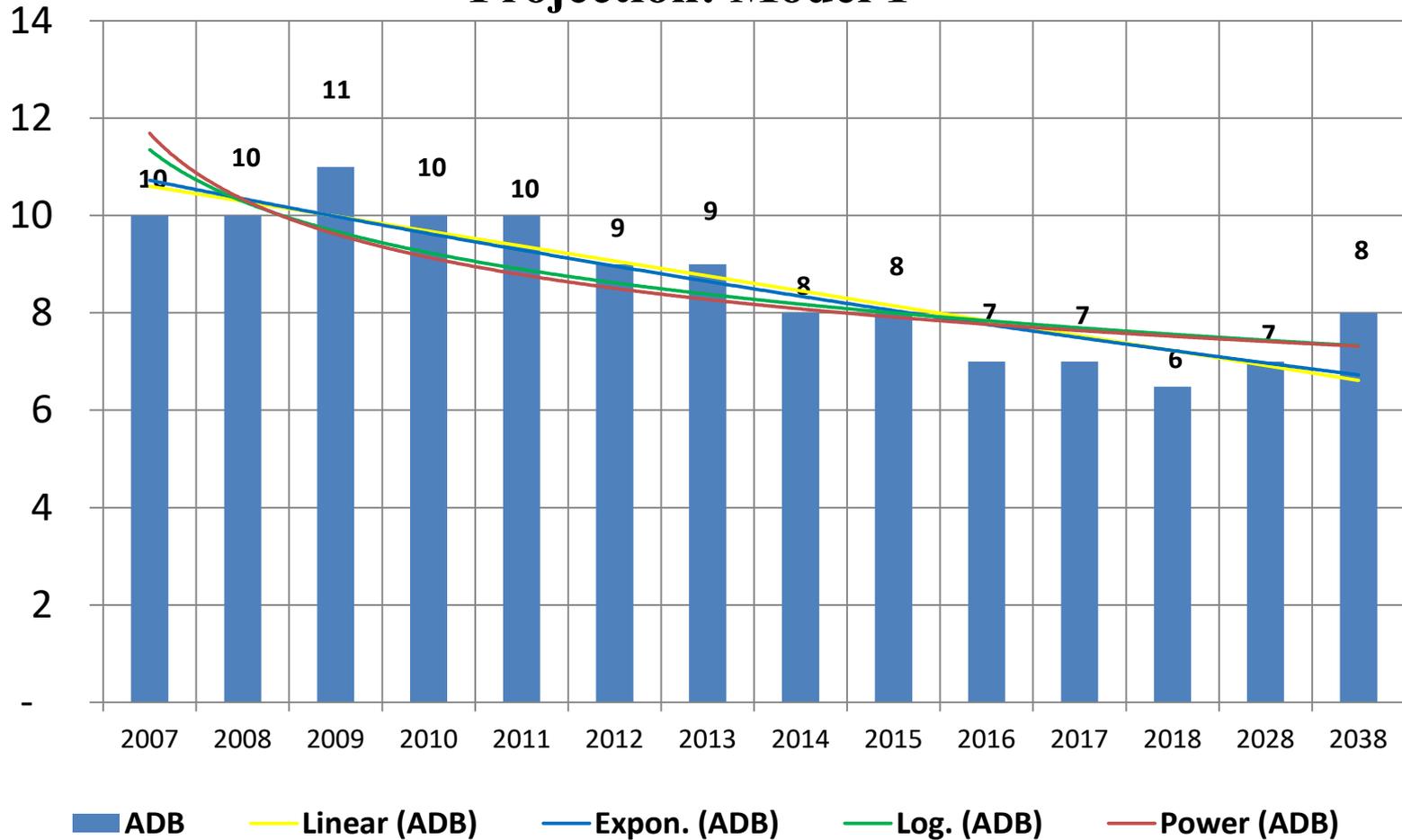
# Analytics - Jail

## Annual Jail Bookings Projection (AJB): Model 2



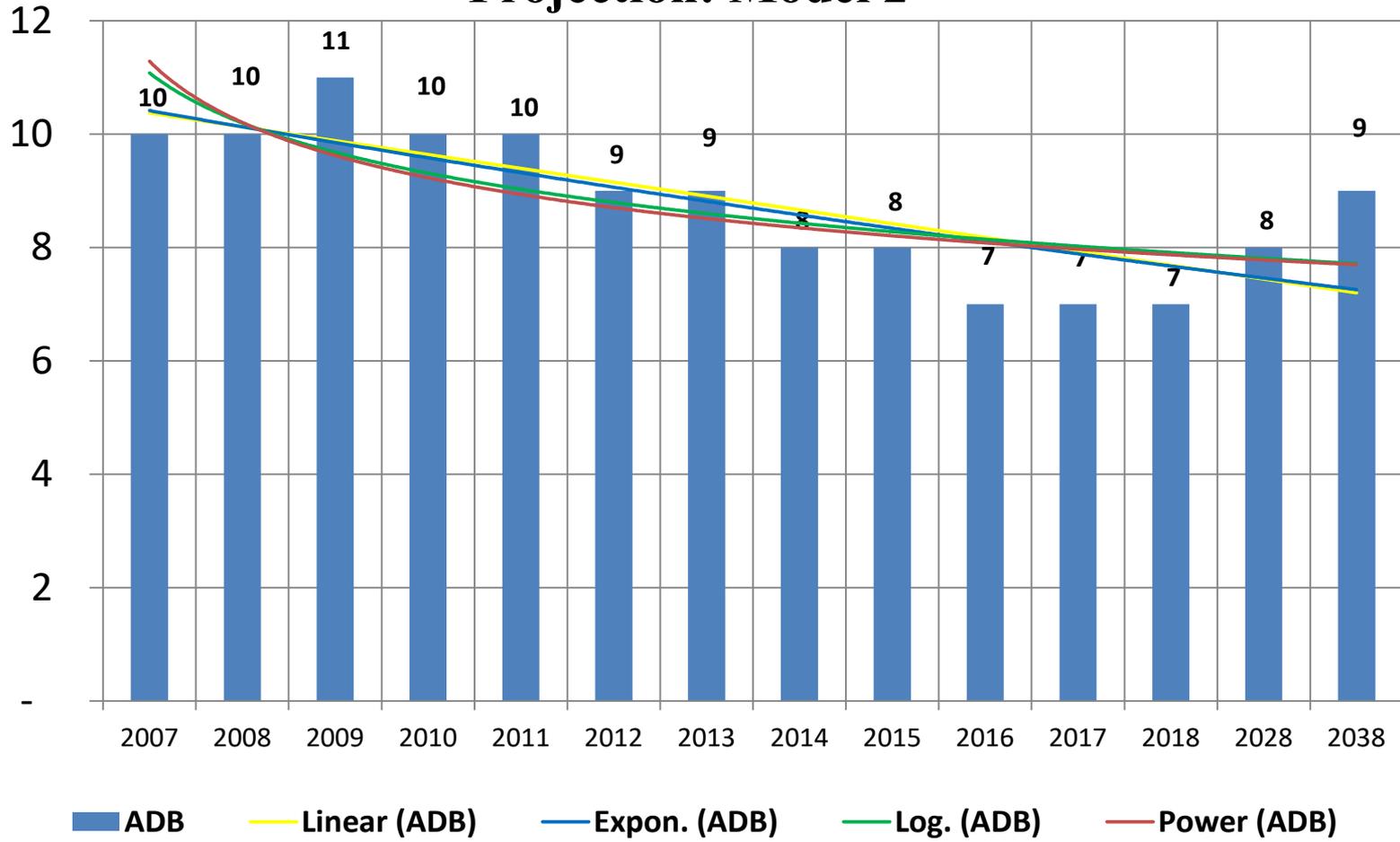
# Analytics - Jail

## Average Daily Bookings (ADB) Projection: Model 1



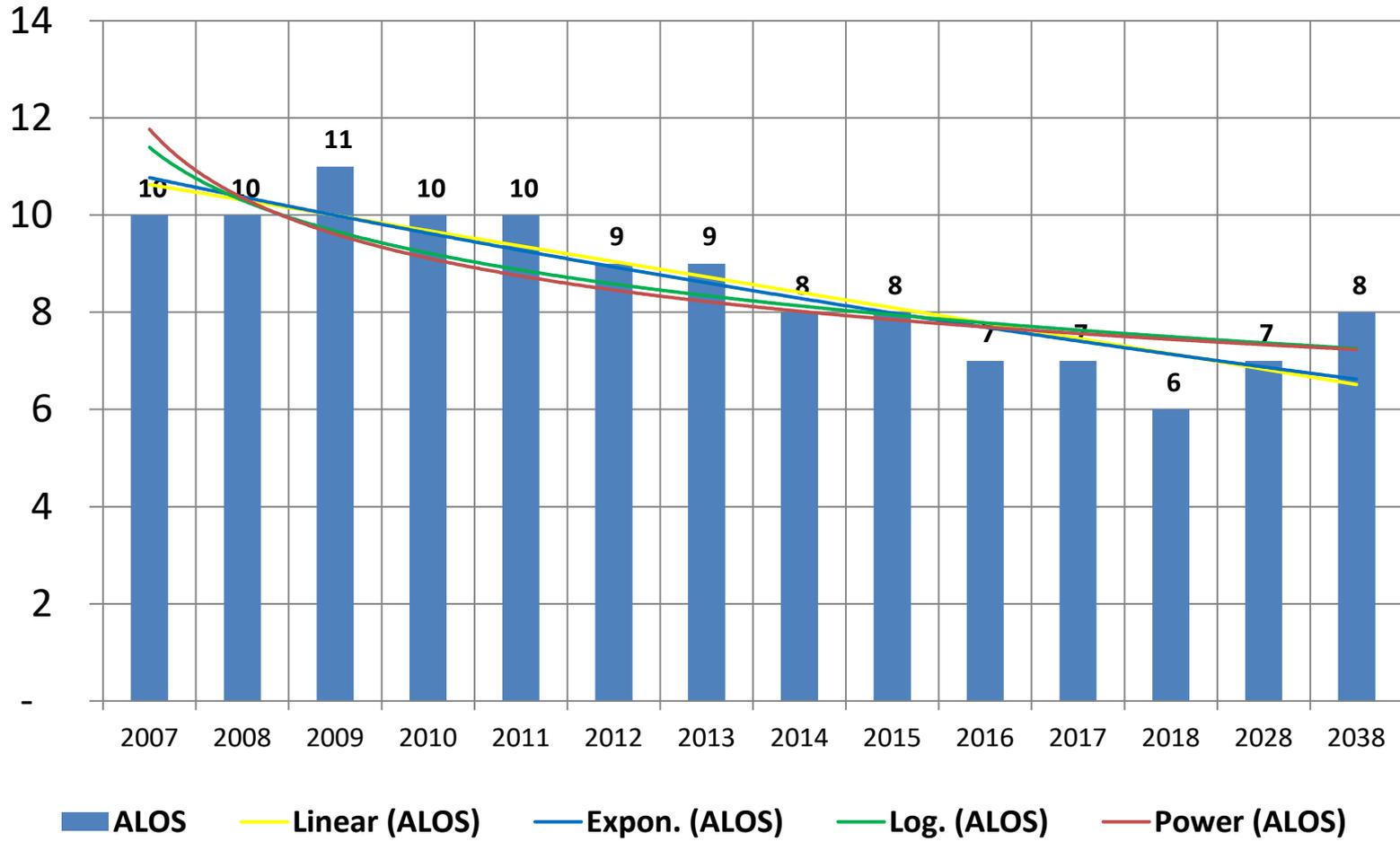
# Analytics - Jail

## Average Daily Bookings (ADB) Projection: Model 2



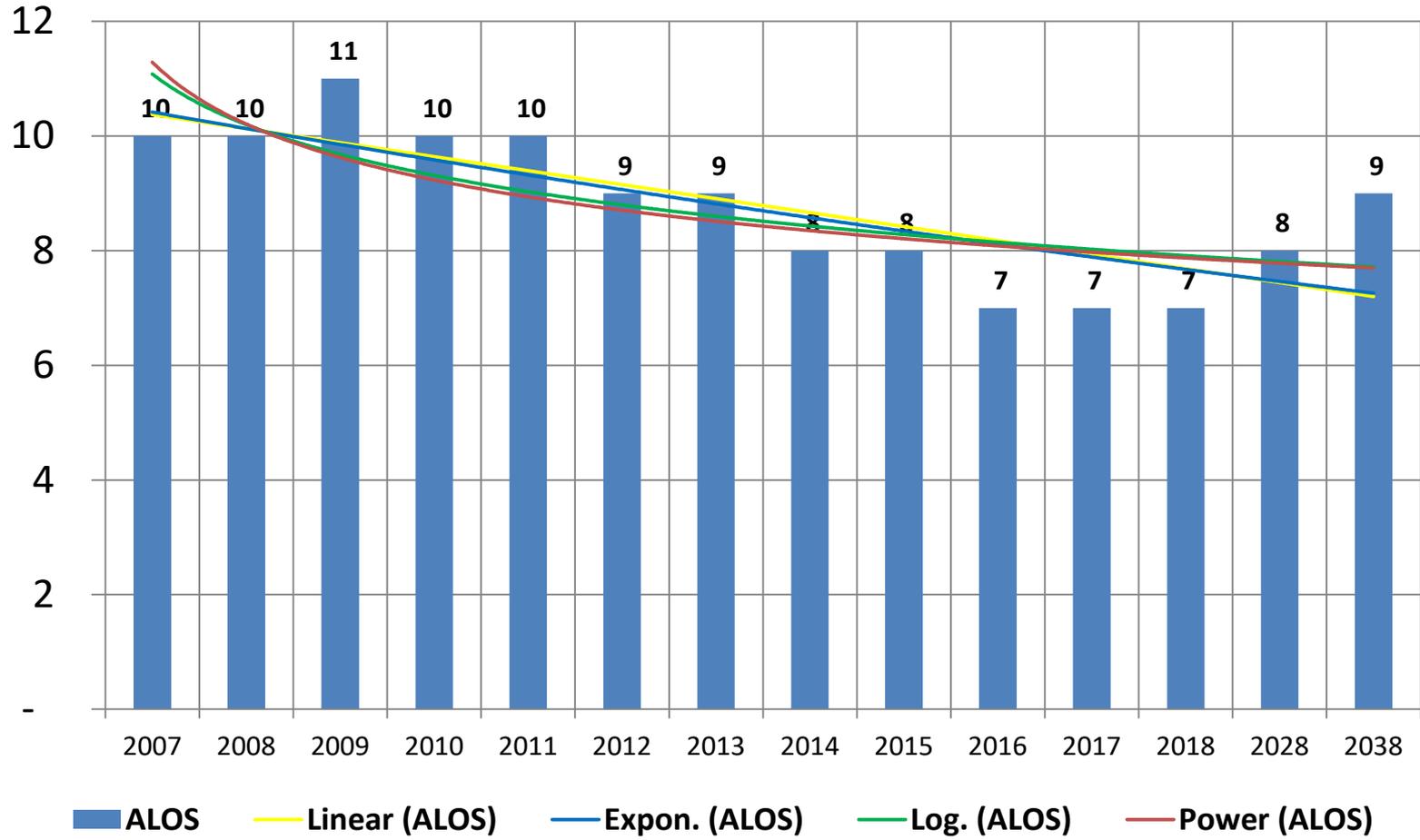
# Analytics - Jail

## Average Length of Stay (ALOS) Projection: Model 1



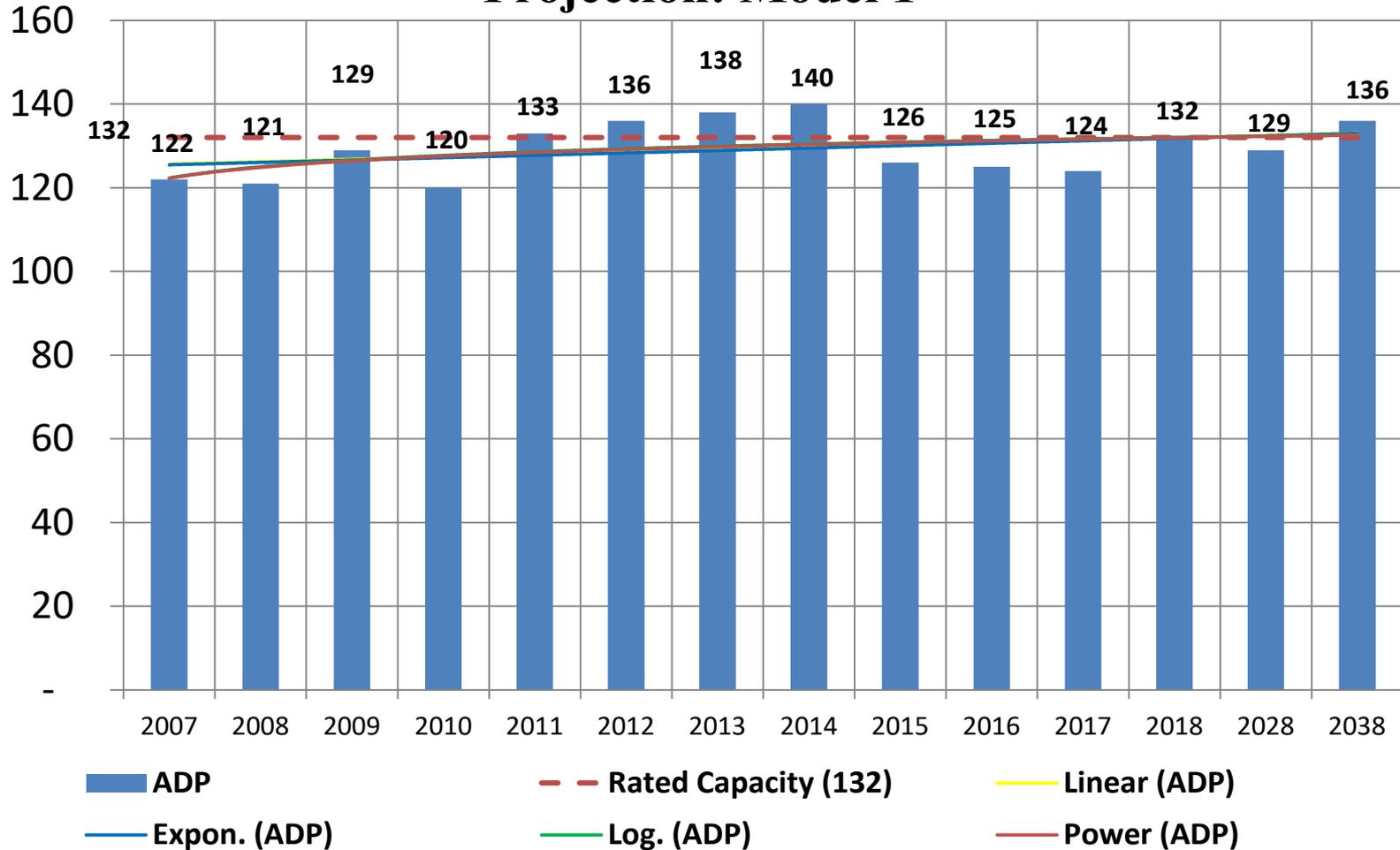
# Analytics - Jail

## Average Length of Stay (ALOS) Projection: Model 2



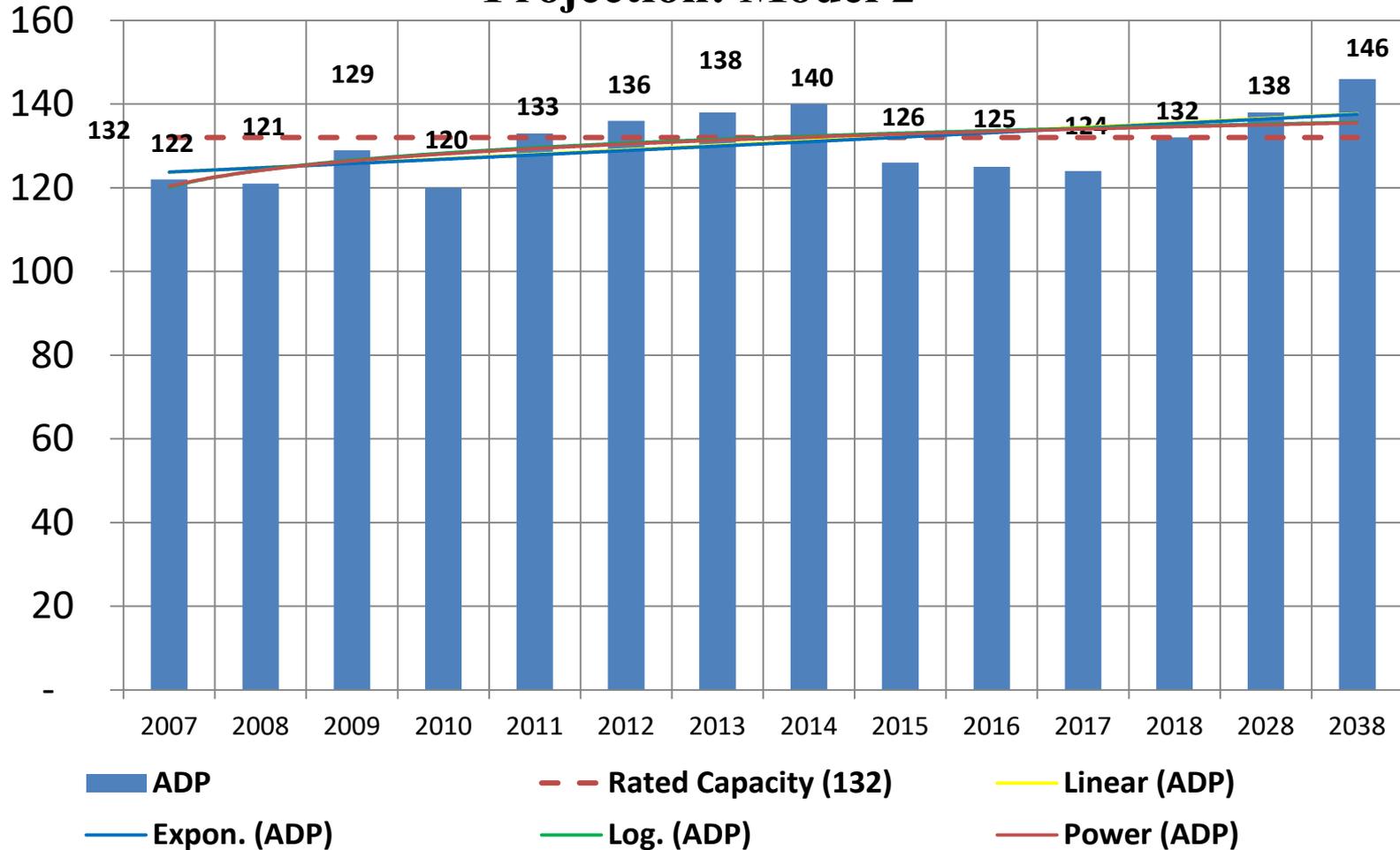
# Analytics - Jail

## Average Daily Population (ADP) Projection: Model 1



# Analytics - Jail

## Average Daily Population (ADP) Projection: Model 2



# **Analytics and Projection Modeling - Summary**

- It was believed that the 10 year collection period of data is unreliable for the following reasons:
  - *Downturn in the National and Local Economy*
  - *Loss of Road Patrol*
  - *Local changes in sentencing guidelines – Impact may be temporary*
- **Result:**
  - *Capacity of the Jail determined by Maximizing the capacity of a single Housing Pod due to staffing efficiency*
  - *The Goal is to staff a larger jail designed for future expansion with the same number of existing staff*
  - *The jail will be designed for expansion that may require additional staff in the future.*