

# OYA Close Custody Demand Forecast Tracking Report

April 2007 Forecast  
October 2007

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This is a report on the performance of the April 2007 Oregon Youth Authority (OYA) Close Custody Demand Forecast (<http://www.oregon.gov/DAS/OEA/docs/oya/oya0407.pdf>). The forecast covers the demand for close custody and out of home community placement beds. Definitions of these populations appear in the Glossary at the end of this document.

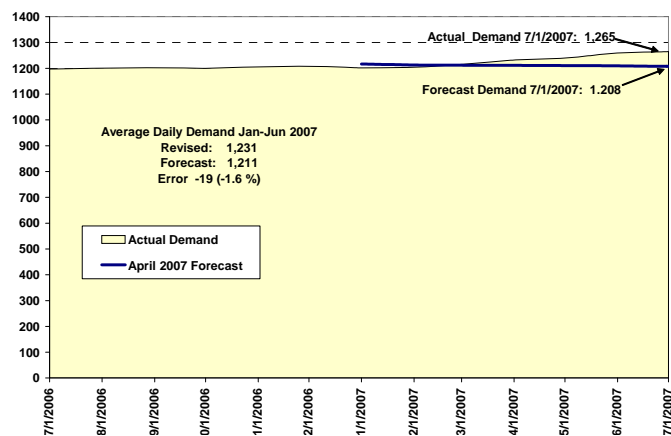
## Total Demand

The forecast is based on a data extract of all criminal referrals from the Juvenile Justice Information System (JJIS). With each revision there are slight changes to historical data and demand. Figures 1 and 2 compare the forecast with revised demand in terms of average daily demand (ADD).

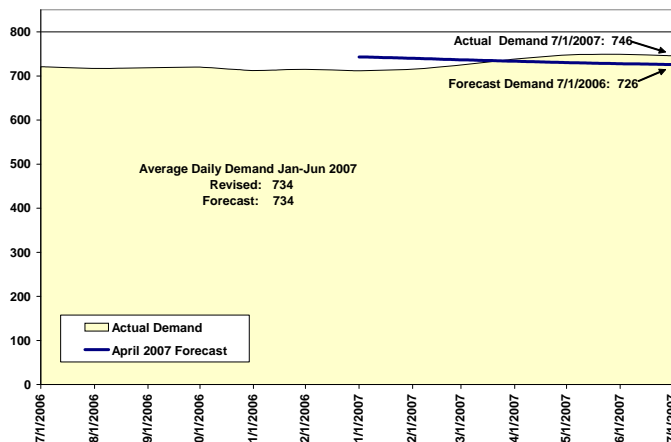
The forecast of ADD for January 1, 2007 to July 1, 2007 was 1,211 for close custody and 734 for community placement (CP). The close custody forecast was 1.6 percent below actual ADD for the period (-19 beds), and the CP forecast was the same as actual ADD. As of July 1, the close custody forecast was 57 beds lower than the preliminary population estimate for that date. The CP forecast was 20 beds lower than the preliminary estimate for July 1, 2007.

Table 1 shows forecast error for each offender group. Close custody demand began to increase in March 2007, while the forecast called for a stable population. The preliminary estimate of the CP population for January 1, 2007 was 32 beds higher than revised demand for that date. The forecast called for a gradual decrease in demand, while actual

**Figure 1: Revised vs. Forecast Close Custody Bed Demand**



**Figure 2: Revised vs. Forecast Community Placement Demand**



**Table 1: Forecast vs. Revised Demand by Offender Group**

Close Custody Offender Group		1/1/2007	2/1/2007	3/1/2007	4/1/2007	5/1/2007	6/1/2007	7/1/2007
DBA Demand	Forecast	157	155	154	152	151	150	149
Assa/Robb/Misc Pers.	Error	-1	-4	-7	-11	-14	-27	-35
DBA Demand	Forecast	204	204	204	204	204	204	204
Sex Crimes	Error	11	11	11	6	6	6	2
DBA Demand	Forecast	227	227	227	227	226	225	224
Non-Violent Crimes	Error	15	18	12	9	9	6	7
DBA Demand	Forecast	178	179	179	180	180	180	181
Parole Violations	Error	-11	-11	-11	-12	-12	-13	-14
Adult Court	Forecast	298	298	298	298	299	299	300
Population	Error	0	-8	-10	-17	-31	-36	-30
PSR	Forecast	152	151	150	150	151	151	150
Population	Error	0	4	3	4	15	13	14
Total	Forecast	1216	1213	1212	1211	1211	1209	1208
Bed Demand	Revised	1202	1203	1215	1232	1239	1260	1265
Total Error		15	9	-3	-21	-28	-51	-57
Percent Error Forecast/Revised		1.2%	0.8%	-0.3%	-1.7%	-2.3%	-4.0%	-4.5%

Community Placement		1/1/2007	2/1/2007	3/1/2007	4/1/2007	5/1/2007	6/1/2007	7/1/2007
Probation	Forecast	493	491	490	488	486	485	484
Population	Error	27	26	15	2	-3	-8	-7
Parole	Forecast	250	249	247	245	244	243	242
Population	Error	5	-1	-3	-7	-15	-13	-13
Total	Forecast	743	740	737	733	730	728	726
Bed Demand	Revised	712	715	725	738	748	749	746
Total Error		32	25	12	-5	-18	-22	-20
Percent Error Forecast/Revised		4.4%	3.5%	1.6%	-0.7%	-2.4%	-2.9%	-2.7%

Note: Positive error means forecast was high; negative error means forecast was low.

\*\*Bed demand for July 1, 2007 is preliminary.

demand increased.

It is possible that the error patterns seen in both the close custody and CP demand populations are partially the result of data *migration* or *settling*. That is, data pertaining to the months immediately preceding the forecast continue to be updated for several months. OEA will determine if there is a predictable pattern to the migration. If so, adjustments for it can be made in future forecasts.

### ***Population Recap – Fiscal Year 2007***

Table 2 shows historical OYA demand for Fiscal Year (FY) 2007.<sup>1</sup> The actual close custody population increased, driven by Adult Court offenders. The *scorer* population increased by 49. As a result, total close custody demand increased by 68 beds (5.7 percent). On average, 52.8 percent of Discretionary Bed Allocation (DBA) demand was met during FY 2007. CP demand increased by 25 beds (3.5 percent), driven by the actual caseload. On average, 76.3 percent of CP demand was met during FY 2007.

<sup>1</sup> Oregon's Fiscal Year extends from July 1 through June 30.

**Table 2: FY 2007 Monthly Demand**

Date	Actual Close Custody Populations		Discretionary Bed Allocation		Total DBA Demand	DBA Demand % Met	Total Actual Population	Total Bed Demand
	Adult Court	PSR	Actual Pop.	Scorers				
7/1/2006	301	156	394	346	740	53.3%	851	1197
8/1/2006	298	158	399	345	744	53.6%	856	1201
9/1/2006	296	158	407	341	749	54.4%	861	1203
10/1/2006	297	160	400	344	743	53.8%	856	1200
11/1/2006	300	157	398	352	749	53.1%	854	1206
12/1/2006	305	154	398	352	749	53.1%	857	1209
1/1/2007	298	152	400	352	752	53.2%	850	1202
2/1/2007	306	147	400	351	750	53.3%	853	1203
3/1/2007	308	147	397	363	760	52.3%	852	1215
4/1/2007	316	146	405	366	771	52.5%	866	1232
5/1/2007	330	136	404	369	773	52.3%	870	1239
6/1/2007	336	138	402	384	786	51.1%	876	1260
7/1/2007	329	137	404	395	799	50.6%	870	1265

Date	Actual CP Population		CP Demand		CP Demand		Community Supervision Actual	Community Supervision Demand
	Probation	Parole	Probation	Parole	Scorers	% Met		
7/1/2006	340	199	480	241	182	74.8%	539	721
8/1/2006	336	183	478	239	198	72.4%	519	717
9/1/2006	334	184	476	243	201	72.1%	518	719
10/1/2006	341	189	479	241	190	73.6%	530	720
11/1/2006	345	203	472	239	164	77.0%	548	712
12/1/2006	337	211	473	242	167	76.6%	548	715
1/1/2007	334	225	466	245	153	78.6%	559	712
2/1/2007	333	227	465	250	155	78.3%	560	715
3/1/2007	354	223	475	250	148	79.6%	577	725
4/1/2007	360	210	486	252	168	77.2%	570	738
5/1/2007	375	211	490	258	162	78.3%	586	748
6/1/2007	375	212	493	256	162	78.3%	587	749
7/1/2007	360	214	491	255	172	77.0%	574	746

***Criminal Referrals***

One of the underpinnings of the OYA demand forecast is a forecast of delinquency referrals. Table 3 shows the performance of the referral forecast for the first six months of 2007. The forecast called for 11,977 referrals of 12 to 17 year olds during the period. This was 0.8 percent higher than actual referrals (11,882). There were 22,620 referrals for 12 to 17 year-olds in FY 2007, a 0.5 percent increase over FY 2006.

**Table 3: Criminal Referrals: Forecast vs. Actual**

Criminal Referrals for January - June 2007

Age Group	Actual	Forecast	Error	Pct. Error
12-14 yoa	3,835	4,024	189	4.9%
15-17 yoa	8,047	7,953	(94)	-1.2%
Total	11,882	11,977	95	0.8%

## Scoring Validation

OEA's forecast model evaluates observable, quantifiable delinquency characteristics of youths referred from 1996 through 2002.<sup>2</sup> The model calculates a predictive score based on factors that best explain the decision to commit youths to OYA probation or the DBA. Predictive scores are then calculated for youths referred in all years. Youths are considered part of the DBA or probation demand if their score meets the minimum criteria approved by the Juvenile Corrections Population Advisory Committee.<sup>3</sup>

Table 4 shows the outcome so far for 15,281 youth who met the minimum score in the April 2006, October 2006, or April 2007 forecasts. They are arranged according to the year they met the minimum score. The columns in the inside boxes show how many offenders from a particular

<b>Table 4: Subsequent Intakes of Scorers</b>							
<b>PLACEMENT OF CLOSE CUSTODY MINIMUM SCORERS</b>							
<b>APRIL 2006 THROUGH APRIL 2007 FORECASTS</b>							
<b>SUBSEQUENT INTAKES FOUND</b>							
<b>YEAR OF MIN. SCORE</b>	<b>TOTAL OFFENDERS</b>	<b>ADULT</b>				<b>TOTAL INTAKE FOUND</b>	<b>PERCENT FOUND</b>
		<b>OYA PROBATION</b>	<b>CLOSE CUSTODY</b>	<b>FELONY INTAKE</b>	<b>NO INTAKE FOUND</b>		
1996	625	286	253	297	145	480	76.8%
1997	642	266	238	285	164	478	74.5%
1998	679	265	250	300	193	486	71.6%
1999	673	257	238	294	178	495	73.6%
2000	584	233	195	226	180	404	69.2%
2001	458	204	168	152	135	323	70.5%
2002	447	155	138	139	158	289	64.7%
2003	390	115	112	91	176	214	54.9%
2004	418	135	141	64	169	249	59.6%
2005	411	120	147	36	165	246	59.9%
2006	284	33	50	15	199	85	29.9%
<b>Total</b>	<b>5611</b>	<b>2069</b>	<b>1930</b>	<b>1899</b>	<b>1862</b>	<b>3749</b>	<b>66.8%</b>
<b>PLACEMENT OF PROBATION MINIMUM SCORERS</b>							
<b>APRIL 2006 THROUGH APRIL 2007 FORECASTS</b>							
<b>SUBSEQUENT INTAKES FOUND</b>							
<b>YEAR OF MIN. SCORE</b>	<b>TOTAL OFFENDERS</b>	<b>ADULT</b>				<b>TOTAL INTAKE FOUND</b>	<b>PERCENT FOUND</b>
		<b>OYA PROBATION</b>	<b>CLOSE CUSTODY</b>	<b>FELONY INTAKE</b>	<b>NO INTAKE FOUND</b>		
1996	1024	269	121	325	532	492	48.0%
1997	957	257	109	298	493	464	48.5%
1998	1008	255	124	298	535	473	46.9%
1999	949	249	118	226	536	413	43.5%
2000	941	229	127	238	521	420	44.6%
2001	847	205	105	175	492	355	41.9%
2002	846	256	99	100	509	337	39.8%
2003	763	143	88	81	525	238	31.2%
2004	799	165	108	53	552	247	30.9%
2005	886	206	120	24	604	282	31.8%
2006	650	115	50	13	498	152	23.4%
<b>Total</b>	<b>9670</b>	<b>2349</b>	<b>1169</b>	<b>1831</b>	<b>5797</b>	<b>3873</b>	<b>40.1%</b>

Columns do not add up to "total offenders" because placement categories are not mutually exclusive. Adult felony intake information is only known for offenders sentenced in Oregon.

<sup>2</sup> These years were chosen to reflect 'average behavior.' For more information on OEA's model, please refer to the methodology review: <http://www.oregon.gov/DAS/OEA/docs/oya/oyamethod.pdf>.

<sup>3</sup> Youths who are actually committed to OYA probation or the DBA are also considered part of demand regardless of their score.

year were committed to OYA probation, close custody, or received an Oregon adult felony sentence (prison or probation).

Among offenders who met the minimum score for DBA commitment, 66.8 percent have at least one placement (3,749/5,611). Just over one-third have been placed on OYA probation, and approximately one-third have been placed in OYA close custody or have an Oregon adult felony conviction. Many of the youths who receive an adult felony prison sentence serve at least part of that sentence in an OYA facility as an Adult Court offender.

Among offenders who met the minimum score for probation commitment, 40.1 percent have a subsequent placement (3,873/9,670). Nearly one-quarter have been placed on OYA probation, 12.1 percent have been placed in close custody, and 18.9 percent have an adult felony conviction.

Another way to validate the predictive equation is through checking how many DBA and probation intakes met the minimum score for placement. Table 5 shows the percentage of first time intakes to the DBA and probation that had attained the critical score. According to the table, the predictive ability of the model has not declined significantly since 1996-2002, the years upon which it is based. The average for DBA was 69.9 percent during 1996-2002 and 67.1 percent since then. For probation, the average was 60.3 percent during 1996-2002 and 66.7 percent since then.

**Table 5: First Time Intakes Meeting Minimum Score**

**First Time DBA Intakes with Minimum Score**

Year of Intake	With Min. Score	Total First Time Intakes	Percent w/ Min. Score
1996	297	433	68.6%
1997	362	504	71.8%
1998	335	465	72.0%
1999	325	462	70.3%
2000	313	439	71.3%
2001	242	363	66.7%
2002	252	366	68.9%
2003	167	232	72.0%
2004	180	283	63.6%
2005	193	272	71.0%
2006	198	321	61.7%
<b>Total</b>	<b>2864</b>	<b>4140</b>	<b>69.2%</b>

**First Time Probation Intakes with Minimum Score**

Year of Intake	With Min. Score	Total First Time Intakes	Percent w/ Min. Score
1996	558	1027	54.3%
1997	525	931	56.4%
1998	521	842	61.9%
1999	504	815	61.8%
2000	462	744	62.1%
2001	408	665	61.4%
2002	410	642	63.9%
2003	253	374	67.6%
2004	263	391	67.3%
2005	242	352	68.8%
2006	237	375	63.2%
<b>Total</b>	<b>4383</b>	<b>7158</b>	<b>61.2%</b>

## ***Glossary***

### ***Close Custody***

Close custody is OYA's most secure setting. It includes youth correctional facilities, accountability camps, and work study camps. It does not include residential treatment, group homes, or foster care.

### ***Out of Home Community Placement (CP)***

Community Placement is composed of youths who are committed to OYA and placed in residential treatment or foster care. Youths in CP are either on OYA probation or have been released on parole from close custody.

### ***JJIS – Juvenile Justice Information System***

The Juvenile Justice Information System (JJIS) is a statewide integrated electronic information system used by the Oregon Youth Authority (OYA) and Oregon's county juvenile departments.

### ***Adult Court (AC) – Measure 11 and Waived Offenders***

Youths aged 15 to 17 can be convicted as adults for certain crimes Measure 11 carries mandatory minimum sentences from 70 to 300 months for specified violent crimes. Waived juveniles are charged with other serious crimes that allow *waiver* or *remand* to the adult system (Oregon Revised Statutes 137.707 and 419C.340).

### ***Public Safety Reserve (PSR)***

These are beds reserved for juveniles committed for certain serious felonies<sup>4</sup>. Measure 11 includes most of these crimes and applies to youth aged 15 or older. The PSR applies mainly to youth aged 14 or younger at the time of their crime.

### ***Discretionary Bed Allocation (DBA) Demand***

Each county or group of counties may maintain a certain close custody population of offenders other than AC or PSR. DBA demand is composed of the actual DBA population in close custody, and youth with similar criminal characteristics who remain in the community (*scorers*) due to capacity constraints.

The Office of Economic Analysis (OEA) resides in the Director's Office of the Department of Administrative Services. OEA produces and publishes the Oregon Youth Authority Close Custody Demand Forecast on a semi-annual basis. The latest forecast was released in October 2007.

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<sup>4</sup> Robbery I, Arson I, Murder, Attempted Murder, Unlawful Sexual Penetration I, Sodomy I, Rape I, Kidnap I, and Assault I.