

## **Offender Population Projections and System Capacity**

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Throughout history, the ability to predict human behavior, and certainly inmate populations, has presented significant challenges for correctional agencies across the country. To a significant extent, inmate population levels are influenced by unpredictable factors, including: legislative policies, such as Truth in Sentencing; crime rates; arrests and criminal prosecutions; public fears of increased victimization; and failure of offenders to successfully complete community based programs and supervision, to name a few. Conversely, once offenders enter the correctional system, whether as inmates or on probation supervision, it is realistic, in part, that prison diversion or population reduction programs, for appropriate offenders, will impact population management and the future demand for secure confinement capacity.

The human and fiscal impacts of incarceration have become staggering. In Wisconsin, incarceration is costly: the average annual incarceration cost in a maximum security facility in 2007 was \$35,039 per prisoner; in a medium security facility was \$26,508 per prisoner; and in a minimum security center was \$30,794. The juvenile correctional institution daily rate in 2007 was \$209, or \$76,285 on an annual basis. These costs associated with operating institutional programs contribute to a Wisconsin Department of Corrections budget of more than \$1 billion per year.

In the 1990s the Wisconsin prison population increased dramatically and had tripled by the year 2000. Drug and alcohol offenders accounted for a significant growth in the incarcerated population. In fact, drug offenders accounted for more than twenty percent of the growth from 1996 to 2006, and drug and operating while intoxicated offenders were responsible for more than sixty percent of the growth from 2001 to 2006. During that time, the state was building or opening a new prison on average, every two years. Just eight years ago, the state led the country in the number of inmates that were housed in out-of state facilities, peaking at almost 5000. By 2005, all of the inmates had been returned to occupy newly created prison capacity and county jails in Wisconsin.

In 1990, the Wisconsin year end prison population numbered 7,554; at the conclusion of 2007, the number had increased to 22,690 incarcerated adults. The inclusion of offenders on probation and parole supervision and juveniles being served in the institutions and community represented in excess of 95,000 individuals under the custody or supervision of the Department of Corrections; a trend that appears to be continuing as recently as May 2008. The sheer volume of offenders underscores the challenges facing the Department of Corrections in the next decade.

### **Adult Population Projection Summary**

The adult population projections used for the purposes of this Ten Year Correctional Facility System Development Plan (see Appendix B for methodology and assumptions) were prepared for the Department of Corrections by the Applied Population Laboratory (APL), University of Wisconsin-Madison. The Consultants did not duplicate the population projection model developed for the Department and have liberally represented portions of this work, below. The final projections and the anticipated inmate populations form the basis for the facility recommendations that are contained in the Plan.

According to the APL report, "**Wisconsin Offender Projections, Department of Corrections, State of Wisconsin, April 2008**", hereafter, the *Report*, the adult population projections predict the number of future

offenders for July of each year based on the share of the total general population of Wisconsin that offenders comprise. This methodology is known by demographers as a ratio (or share) method of forecasting. In this method, a subset of the population (in this case, offenders) is expressed as a proportion of the total population (here, the State of Wisconsin).

According to the method used by the APL, forecast changes in the population structure of the entire state serve as the foundation for the offender projections. The *Report* indicates that because total population changes in a highly predictable manner (through aging, births, deaths and migration), the forecasts of the total population of Wisconsin should be considered to be highly accurate over the next several years. Much of the projected growth in offenders is due to a projected overall increase in the number of young adults of racial and ethnic minority status in Wisconsin, according to the *Report*.

### **Offender Population Projection Model**

The Applied Population Laboratory examined recent trends in offender commitment rates and certain assumptions about future birth, death and migration rates of the total Wisconsin population. Most importantly, assumptions about the future commitment rates were made. The Baseline Model was selected by the APL as being the most likely to represent future numbers of offenders. The assumptions on which the Model is based are included here.

- Assumes that commitment rates will continue in a similar fashion to what they averaged between 2000 and 2007.
- Assumes that recent population reduction programs can be sustained, but pressure to institutionalize inmates remains (e.g. policies similar to Truth in Sentencing continue through the future).
- For males, the projected population for 2008 holds the actual 2007 population constant. For females, the projected population for 2008-2011 holds the actual 2007 population constant. Since the projected trend is increasing, doing this avoids presenting an unlikely dip in the near future numbers.

### **Projected Male Institutionalized Offenders**

The data for the institutionalized male population were disaggregated to account for differences in sex, race and age. The rates reflect the offender population divided by the total Wisconsin population, by age, sex and race. For example, based on the APL analyses, between 2000 and 2007, the rates of institutionalization increased for offenders under age 30 and over, while they declined for offenders under age 25. The resulting projections for the male institutionalized population are shown in the table below.

**Table 1. Male Institutionalized Population**

**Projection: 2008 - 2020**

July 2008	21,795
July 2009	21,878
July 2010	22,211
July 2011	22,553
July 2012	22,893
July 2013	23,224
July 2014	23,540
July 2015	23,841
July 2016	24,128
July 2017	24,403
July 2018	24,657
July 2019	24,891
July 2020	25,105

Source: Applied Population Laboratory-UW-Madison

The total male institutionalized population under the control of the Department of Corrections on May 9, 2008 was reported to be 21,479. Based on the assumptions made and the above projections, the Department can anticipate an increase of 3,310 male offenders from July 2008 to July 2020.

#### **Projected Female Institutionalized Offenders**

The APL analysis of the female institutionalized offender population suggests a history that is much more erratic than their male counterparts. While the male population increased in every year but 2005, the female population numbers were subject to upward and downward trends during the recent period from 2000 to 2007. Additionally, the APL suggests that the small female offender population makes this population more difficult to forecast. The female numbers are small enough that even a small change in the number of female offenders can have a substantial impact on rates of institutionalization. To address this situation, the APL grouped the female population in five year age groups, rather than the single year of age analysis done for the males. The rates of incarceration for females are generally decreasing at the youngest age groups, 17-19, 25-29, and are increasing at the 40 to 59 year age groups. Given the small numbers of incarcerated women, the APL concluded that the female population projections, therefore, may not be as accurate. The resulting population projections for the adult female population are shown in the table below.

**Table 2. Female Institutionalized Population  
Projection: 2008 - 2020**

July 2008	1,434
July 2009	1,434
July 2010	1,434
July 2011	1,434
July 2012	1,436
July 2013	1,454
July 2014	1,471
July 2015	1,487
July 2016	1,504
July 2017	1,521
July 2018	1,539
July 2019	1,555
July 2020	1,570

Source: Applied Population Laboratory-UW-Madison

The total female institutionalized population under the control of the Department of Corrections on May 9, 2008 was reported to be 1,432. Based on the assumptions made and the above projections, the Department can anticipate an increase of 136 female offenders by the end of the current Ten Year planning period.

**Total Inmate Population Projections: 2009-2020**

Based on the above methodology and assumptions for the model, the Department is expected to experience an overall 16% increase in the incarcerated population over the next decade from the current population of 22,911 to the projected population of 26,675 in the year 2020 as seen in Table 3.

**Table 3. Projected Inmate Populations: 2008 - 2020**

<b>Year As of July 1</b>	<b>Male Population</b>	<b>Female Population</b>	<b>Total Population</b>	<b>% Change From Prior Year</b>
5/9/08(Actual)	21,479	1,432	22,911	
2008	21,795	1,434	23,229	1.4%
2009	21,878	1,434	23,312	.4%
2010	22,211	1,434	23,645	1.4%
2011	22,553	1,434	23,987	1.4%
2012	22,893	1,436	24,329	1.4%
2013	23,224	1,454	24,678	1.4%
2014	23,540	1,471	25,011	1.3%
2015	23,841	1,487	25,328	1.3%
2016	24,128	1,504	25,632	1.2%
2017	24,403	1,521	25,924	1.1%
2018	24,657	1,539	26,196	1.0%
2019	24,891	1,555	26,446	1.0%
2020	25,105	1,570	26,675	.9%

These projections identify the predicted number of inmates who are expected to be committed to the state correctional facilities during these timeframes. For capital budgeting and facility planning purposes, a determination of the capacity increases required for the various population classification levels and for other special populations need to be addressed. In addition, the existing facilities throughout the system are critically overcrowded and efforts to responsibly address current capacity shortfalls will also be incorporated in this Plan. The current distribution of the male and female populations according to the institution security type is shown in Table 4, below.

**Table 4. Current Inmate Population Distribution by Facility Type**

<b>Facility Type</b>	<b>Male Population</b>	<b>Percent of Total Population</b>	<b>Female Population</b>	<b>Percent of Total Population</b>
Reception	1,228	5.7%	84	5.9%
Maximum	3,978	18.5%	0	0
Medium	11,745	54.7%	0	0
Max/Med			666	46.5%
Minimum	3,310	15.4%	682	47.6%
County Jails	898	4.2%	0	0
Resource Center	320	1.5%	0	0
<b>TOTAL</b>	<b>21,479</b>	<b>100.0%</b>	<b>1,432</b>	<b>100.0%</b>

Source: DOC-302: Offenders Under Control on May 9, 2008

### **Projected Male Inmate Populations by Security Level**

The projected distribution of male inmates using the current distribution by security level is summarized in Table 5. For planning purposes the inmates currently housed in Wisconsin county jails are assumed to be medium security. The current reliance on the county jail contracts is subject to the availability of funds and the continued availability of jail bed capacity at the local level. To the extent such funds are not provided or the county needs the space for their own inmates, the DOC inmates will need to be absorbed in to the adult male institutions. The county jails that are currently housing state inmates can be seen in Appendix D. The DOC inmates currently housed at the Wisconsin Resource Center (WRC) operated by the Department of Health Services, present serious mental health and behavior management problems and are considered maximum security inmates.

**Table 5: Projected Male Inmate Populations by Current Security Level; 2008 - 2020**

<b>Year</b>	<b>Reception 5.7%</b>	<b>Maximum 18.5%</b>	<b>Medium 58.9%</b>	<b>Minimum 15.4%</b>	<b>WRC 1.5%</b>	<b>TOTAL</b>
July 2008	1,243	4,033	12,837	3,356	326	21,795
July 2009	1,248	4,047	12,886	3,369	328	21,878
July 2010	1,266	4,109	13,082	3,420	333	22,211
July 2011	1,286	4,172	13,284	3,473	338	22,553
July 2012	1,305	4,235	13,484	3,526	343	22,893
July 2013	1,324	4,296	13,679	3,576	348	23,224
July 2014	1,342	4,355	13,865	3,625	353	23,540
July 2015	1,359	4,411	14,042	3,672	357	23,841
July 2016	1,375	4,464	14,211	3,716	362	24,128
July 2017	1,391	4,515	14,373	3,758	366	24,403
July 2018	1,405	4,562	14,523	3,797	370	24,657
July 2019	1,419	4,605	14,661	3,833	373	24,891
July 2020	1,431	4,644	14,787	3,866	377	25,105
<b>Bed Increase</b>	188	611	1,950	510	51	3,310

The capacity increases identified above are only to accommodate the projected increases in the male institutionalized populations. The above bed increases will not address a number of existing conditions that are critical to the operation of safe and secure correctional institutions, namely:

- Existing occupancy throughout the adult institution system currently exceeds the design capacity in virtually every location.
- Continued operation of permanent dormitories and barracks within maximum and medium security institutions.
- Housing of inmates at higher security levels than their classification would warrant.
- Creation of “temporary” housing spaces in areas that were never designed for that purpose.
- Multiple occupancy of cells/room that were designed for single occupancy; existing square footage does not meet accepted correctional standards.

The recommendations in the Ten Year Correctional Facility System Development Plan will address these issues as appropriate.

For purposes of comparison, the projected population of male inmates that assumes 25% maximum security, 55% medium security and 20% minimum security beds is shown in Table 6.

**Table 6: Projected Male Inmate Population by Security Level; 2008 – 2020**

<b>Year</b>	<b>Maximum 25.0%</b>	<b>Medium 55%</b>	<b>Minimum 20%</b>	<b>TOTAL</b>
July 2008	5,449	11,987	4,359	21,795
July 2009	5,470	12,032	4,376	21,878
July 2010	5,553	12,216	4,442	22,211
July 2011	5,638	12,404	4,511	22,553
July 2012	5,723	12,591	4,579	22,893
July 2013	5,806	12,773	4,645	23,224
July 2014	5,885	12,947	4,708	23,540
July 2015	5,960	13,113	4,768	23,841
July 2016	6,032	13,270	4,826	24,128
July 2017	6,101	13,421	4,881	24,403
July 2018	6,165	13,561	4,931	24,657
July 2019	6,223	13,690	4,978	24,891
July 2020	6,276	13,808	5,021	25,105
<b>Bed Increase</b>	<b>827</b>	<b>1,821</b>	<b>662</b>	<b>3,310</b>

**Projected Female Inmate Populations by Security Level**

The projected distribution of female inmates using the current distribution by security level is summarized in Table 7. For planning purposes, the only planned capacity increase anticipated for the female population is the 45 bed unit at the Wisconsin Resource Center that will become operational some time during 2010.

**Table 7: Projected Female Inmate Populations by Security Level: 2008 - 2020**

<b>Year</b>	<b>Reception 5.9%</b>	<b>Maximum/ Medium 46.5%</b>	<b>Minimum 47.6%</b>	<b>TOTAL</b>
July 2008	85	667	682	1,434
July 2009	85	667	682	1,434
July 2010	85	667	682	1,434
July 2011	85	667	682	1,434
July 2012	85	668	683	1,436
July 2013	86	676	692	1,454
July 2014	87	684	700	1,471
July 2015	88	691	708	1,487
July 2016	89	699	716	1,504
July 2017	90	707	724	1,521
July 2018	91	715	733	1,539
July 2019	92	723	740	1,555
July 2020	93	730	747	1,570
<b>Bed Increase</b>	<b>8</b>	<b>63</b>	<b>65</b>	<b>136</b>

The capacity increases identified above are only to accommodate the projected increases in the female institutionalized populations. The above bed increases will not address a number of existing conditions that are critical to the operation of safe and secure correctional institutions, namely:

- Existing occupancy throughout the adult female institutions is approximately 128% of the design capacity with an expected need for 136 additional beds as seen above.
- Minimum security facilities for women are currently occupied at 145% of the design capacity with an expected need for 65 additional beds as seen above; additional medium security beds are also required to reduce current overcrowding at Taycheedah Correctional Institution.
- Need to address any remaining facility issues resulting from the 2005 Department of Justice assessment of conditions at the Taycheedah Correctional Institution.
- The Department's ability to provide an institutional environment that is responsive to the requirements of the Prison Rape Elimination Act of 2003 (PREA) remains an ongoing operational concern at all of the DOC female correctional facilities. Any proposed facility expansions or improvements must address these conditions in a responsible manner.

The adult population projections should be viewed as conservative in nature, in part because of all the unknown factors that can influence prison admissions that go beyond changes in the size of the general population of the State. This Ten Year Correctional Facility System Development Plan will accommodate the projected increases and will also present alternatives that address the existing severe overcrowding in the system and offer options for the management of future population increases, should the projections be exceeded.

The Consultant also recognized that any concerted efforts to expand and enhance population reduction programs, alternatives to incarceration, prison diversion programs and possible legislative changes related to current sentencing practices should serve to improve the management of the present severe crowding in the correctional system. A further investment in the use of alternatives to incarceration and changes in incarceration policies and practices must also be aggressively pursued.

### **System Capacity**

Despite all of the prison expansion projects during the past two decades, the overcrowding in the adult correctional system continues. The operating principles and conditions that were the basis for the designated "operating capacity" that was originally developed in conjunction with the 1990 Correctional System Development Plan have never been fully realized largely due to the unanticipated increases in the population and increases in the average length of stay for inmates in the institutions. There are individual institutions at all security levels, maximum, medium and minimum that are operating well above their operating/design capacity. As part of this plan, the Consultants prepared an analysis of the current capacity and projected population increase and capacity shortfall through 2020. This information is shown in Table 8 and Table 9, below.

The two alternative capacity shortfalls shown in these tables represent the following conditions:

- **Alternative A** establishes the current DOC adult male institution capacity at 19,961. It represents the actual male population in the institutions on May 9, 2008 reduced by 300 beds that represent substandard sleeping quarters. The total system capacity, 21,281 beds, is then established by adding the DOC capacity, the Wisconsin Resource Center capacity and the ongoing capacity provided through contract beds (see

Appendix D). This total capacity is then compared to the Applied Population Laboratory (APL) adult male projections to determine the resulting capacity shortfall, assuming no increase in the bed capacity during the planning period.

- **Alternative B** also establishes the current male institution capacity at 19,961 and the total system capacity at 21,281. It then assumes that actions will be taken to eliminate multiple occupancy in 300 segregation cells and to reduce the multiple occupancy in the cell halls at the Waupun and Green Bay Correctional Institutions over a six year period. These actions result in a reduction of the overall male institution capacity. This modified capacity is then compared to the projections and the resulting capacity shortfall is shown.

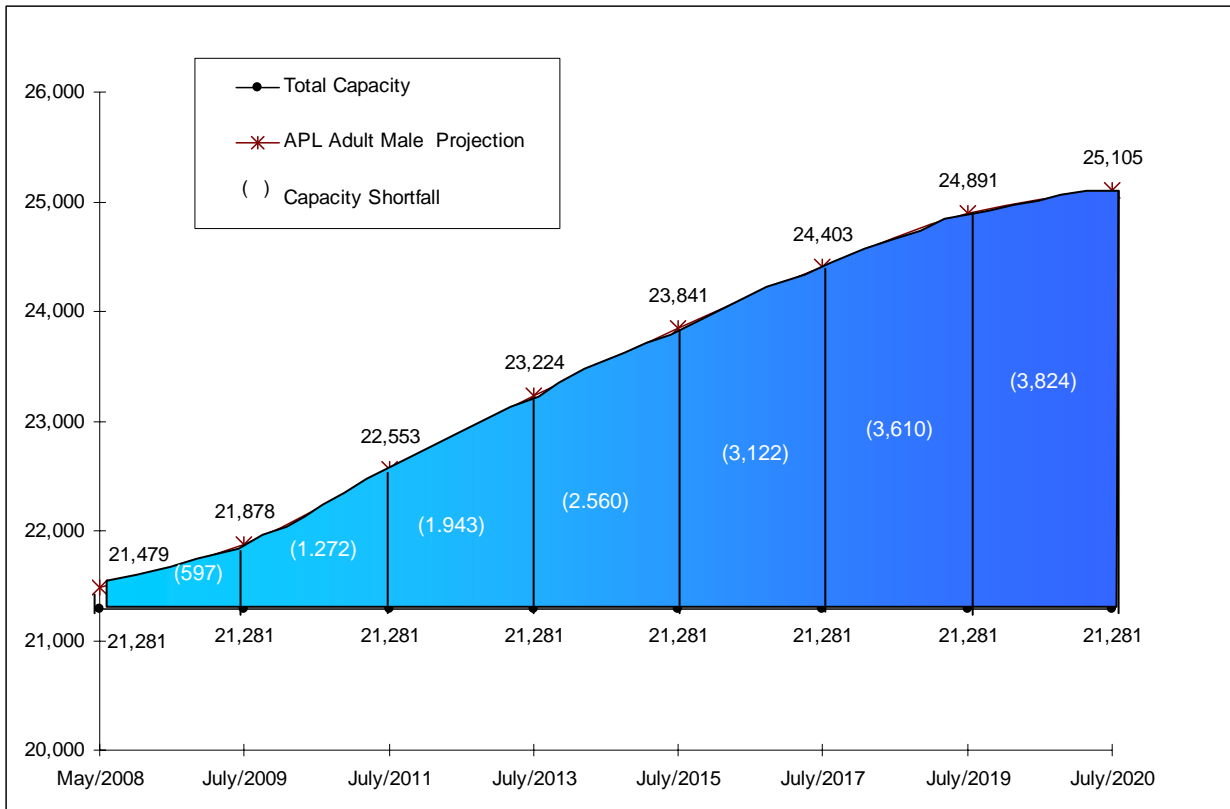
Any unanticipated increase in the total male population will result in an even greater demand for bed capacity than illustrated below. The prospect of losing the county jail contract bed capacity due to a lack of funding or an increased need at the county level could have a significant impact on the male system, as well, if those beds are not replaced.

The constant in all of these capacity shortfalls for both males and females is the assumption that the Applied Population Laboratory population forecasts will not be exceeded. In the event this should happen, there would be a significant need for additional bed capacity in the system.

**Table 8: ALTERNATIVE A - Adult Correctional Institution Male Capacity Shortfalls: 2009 – 2020**

	July 2009	July 2011	July 2013	July 2015	July 2017	July 2019	July 2020
<b>APL ADULT MALE PROJECTION</b>	<b>21,878</b>	<b>22,553</b>	<b>23,224</b>	<b>23,841</b>	<b>24,403</b>	<b>24,891</b>	<b>25,105</b>
DAI Capacity 5/9/2008	19,961	19,961	19,961	19,961	19,961	19,961	19,961
WRC Capacity	320	320	320	320	320	320	320
Jail Contracts	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>TOTAL CAPACITY</b>	<b>21,281</b>	<b>21,281</b>	<b>21,281</b>	<b>21,281</b>	<b>21,281</b>	<b>21,281</b>	<b>21,281</b>
<b>(1)Capacity Shortfall</b>	<b>(597)</b>	<b>(1,272)</b>	<b>(1,943)</b>	<b>(2,560)</b>	<b>(3,122)</b>	<b>(3,610)</b>	<b>(3,824)</b>

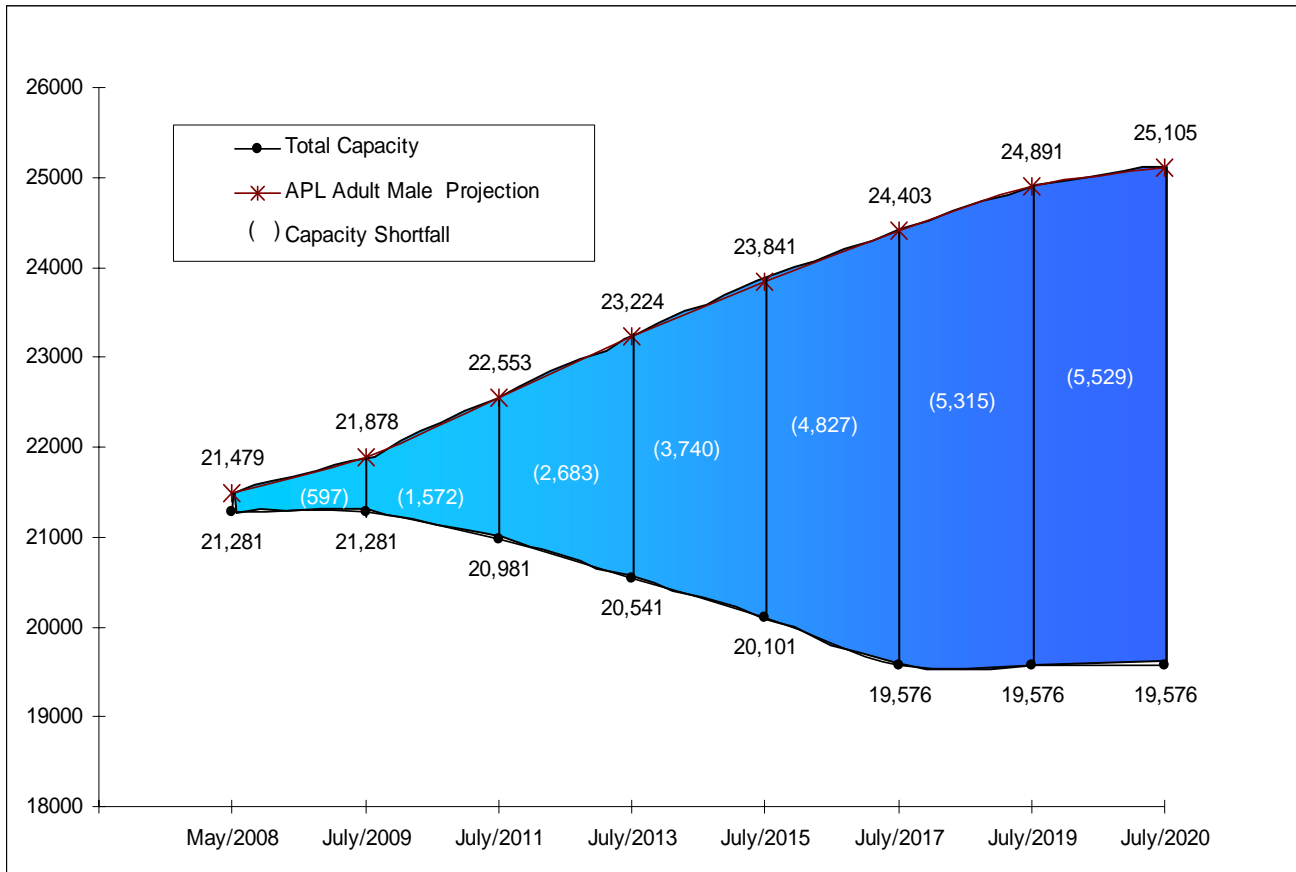
(1) APL population projection minus total adult male capacity, including the WRC beds & continued use of contract beds



**Table 9: ALTERNATIVE B – Adult Correctional Institution Male Capacity Shortfalls; 2009 - 2020**

	July 2009	July 2011	July 2013	July 2015	July 2017	July 2019	July 2020
<b>APL ADULT MALE PROJECTION</b>	<b>21,878</b>	<b>22,553</b>	<b>23,224</b>	<b>23,841</b>	<b>24,403</b>	<b>24,891</b>	<b>25,105</b>
DAI Capacity	19,961	19,661 (1)	19,221 (2)	18,781 (3)	18,256 (4)		
WRC Capacity	320	320	320	320	320	320	320
Jail Contracts	1,000	1,000	1,000	1,000	1,000	1,000	1,000
<b>TOTAL CAPACITY</b>	<b>21,281</b>	<b>20,981</b>	<b>20,541</b>	<b>20,101</b>	<b>19,576</b>	<b>19,576</b>	<b>19,576</b>
<b>(1)Capacity Shortfall</b>	<b>(597)</b>	<b>(1,572)</b>	<b>(2,683)</b>	<b>(3,740)</b>	<b>(4,827)</b>	<b>(5,315)</b>	<b>(5,529)</b>

- (1) Capacity reduction that eliminates double occupancy in 300 segregation cells
- (2) Capacity reduction that eliminates double occupancy in 440 cells at the WCI
- (3) Capacity reduction that eliminates double occupancy in 440 cells at the WCI
- (4) Capacity reduction that eliminates double occupancy in 525 cells at the GBCI



The two capacity shortfalls shown in Table 10 represent alternative capacity levels for the adult female inmate population that address:

- The capacity needed to eliminate the current overcrowding in the female institutions and address the projected APL population increase.
- The capacity needed to address only the projected APL population increase.

**Table 10: Adult Correctional Institution Female Capacity Shortfalls: 2009 – 2020**

	July 2009	July 2011	July 2013	July 2015	July 2017	July 2019	July 2020
<b>APL ADULT FEMALE PROJECTION</b>	<b>1,434</b>	<b>1,434</b>	<b>1,454</b>	<b>1,487</b>	<b>1,521</b>	<b>1,555</b>	<b>1,570</b>
DAI Design Capacity 5/9/2008	1,123	1,123	1,123	1,123	1,123	1,123	1,123
DAI Occupancy 5/9/2008	1,432	1,432	1,432	1,432	1,432	1,432	1,432
<b>(1) Capacity Shortfall</b>	<b>(311)</b>	<b>(311)</b>	<b>(331)</b>	<b>(364)</b>	<b>(398)</b>	<b>(432)</b>	<b>(447)</b>
<b>(2) Capacity Shortfall</b>	<b>(2)</b>	<b>(2)</b>	<b>(22)</b>	<b>(55)</b>	<b>(89)</b>	<b>(123)</b>	<b>(138)</b>

(1) APL Population projection minus female institution design capacity per DOC-302- May 9, 2008

(2) Assumes continued overcrowding at 128% capacity level; addresses population increase, only

### Summary

The Ten Year Correctional Facility System Development Plan will address capacity shortfalls that are driven by the projected population increase, in addition to current operating and occupancy conditions impacted by the existing overcrowding. The recommendations are intended to offer alternatives to increasing various institution capacities, which may or may not be initiated, depending on the actual population growth, the outcomes and actual experience of programs and policies that will improve population management, potential loss of contract bed capacity and the future demand for secure confinement.