

Attachment 3

SSV 2009 Sampling Design

**Privately-operated State and Federal Prison Sample Design
for the 2009 Survey on Sexual Violence**

417 units on the frame

Revision Date: March 15, 2010

The Bureau of Justice Statistics (BJS) instructed the Census Bureau to use the 2005 Prison Census file as the frame for this sample. The 2005 Prison Census file contained 417 records for privately-operated state and federal prisons. BJS requested a sample of 125 units. This is an increase of 40 units from the 2008 private prison sample. The increase in 2009 is an attempt to produce better standard errors than were achieved in the 2008 Survey on Sexual Violence (SSV).

Some facilities are large compared to the rest, so we had to use a certainty cutoff to select some of the facilities as certainties due to size. A facility was declared a certainty due to size if it had average daily population (ADP) of 488 or more. There are 71 size certainties in the 2009 sample.

The rest of the file was serpentine-sorted by region, two-digit state code, and ADP. Region is the region of the country where the facility is located: Northeast, Midwest, South, or West.

We used PROC SURVEYSELECT in SAS to select a systematic probability proportional to size sample.

Each noncertainty privately-operated state or federal prison in sample has a weight based on its measure of size. The weights are shown in Table 1.

We verify the sample weights by using Horvitz-Thompson estimation. We use the sample to estimate the national ADP. The estimated national ADP is $\hat{Y}_{HT} = \sum_{i=1}^{125} [(y_i)(weight_i)]$ where y_i is the ADP of the i^{th} sample unit. The national sum of the measure of size is 106,014.

Table 2 shows the estimated coefficients of variation (CVs) for this sample design.

Table 1. Sample design table for privately-operated state and federal prisons

Obs	ID	Measure of size	Weight	Measure of size * weight
1	038000000074700000000	625	1.0000	625.0000
2	038000000076000000000	984	1.0000	984.0000
3	038011666072200000000	1,321	1.0000	1,321.0000
4	058000000079992200000	555	1.0000	555.0000
5	058000000079992300000	532	1.0000	532.0000
6	058000000079992400000	529	1.0000	529.0000
7	058015666070200000000	2,293	1.0000	2,293.0000
8	058015666072000000000	2,631	1.0000	2,631.0000
9	068000000072200000000	697	1.0000	697.0000
10	068000000072900000000	733	1.0000	733.0000
11	068000000073100000000	1,100	1.0000	1,100.0000
12	068000000073200000000	752	1.0000	752.0000
13	108000000079881000000	689	1.0000	689.0000
14	108000000079992000000	1,037	1.0000	1,037.0000
15	108000000079996000000	745	1.0000	745.0000
16	108000000079997000000	747	1.0000	747.0000
17	108000000079999100000	1,643	1.0000	1,643.0000
18	118000000075700000000	1,495	1.0000	1,495.0000
19	118000000075800000000	1,500	1.0000	1,500.0000
20	118000000076000000000	1,649	1.0000	1,649.0000
21	118134666079981000000	1,568	1.0000	1,568.0000
22	138000000071700000000	1,250	1.0000	1,250.0000
23	188000000071400000000	805	1.0000	805.0000
24	188000000071900000000	770	1.0000	770.0000
25	198000000071400000000	1,570	1.0000	1,570.0000
26	198000000072300000000	1,557	1.0000	1,557.0000
27	248000000070999100000	919	1.0000	919.0000

Obs	ID	Measure of size	Weight	Measure of size * weight
28	258000000073100000000	993	1.0000	993.0000
29	258000000073500000000	962	1.0000	962.0000
30	258000000073600000000	976	1.0000	976.0000
31	258000000073700000000	867	1.0000	867.0000
32	258000000074000000000	1,002	1.0000	1,002.0000
33	258000000074100000000	883	1.0000	883.0000
34	278000000070991000000	541	1.0000	541.0000
35	318000000075100000000	539	1.0000	539.0000
36	318000000075700000000	500	1.0000	500.0000
37	328000000071300000000	630	1.0000	630.0000
38	328000000071400000000	1,140	1.0000	1,140.0000
39	328000000071500000000	596	1.0000	596.0000
40	328000000071600000000	1,200	1.0000	1,200.0000
41	348046666079111100000	1,300	1.0000	1,300.0000
42	368000000073900000000	720	1.0000	720.0000
43	368000000074100000000	567	1.0000	567.0000
44	368000000074200000000	1,417	1.0000	1,417.0000
45	378000000074700000000	807	1.0000	807.0000
46	378000000074800000000	974	1.0000	974.0000
47	378000000074900000000	952	1.0000	952.0000
48	378000000075000000000	1,892	1.0000	1,892.0000
49	378000000076100000000	1,893	1.0000	1,893.0000
50	438000000072300000000	1,630	1.0000	1,630.0000
51	438000000073500000000	1,970	1.0000	1,970.0000
52	438000000073700000000	1,487	1.0000	1,487.0000
53	448000000073700000000	519	1.0000	519.0000
54	448000000073800000000	518	1.0000	518.0000
55	448000000073900000000	997	1.0000	997.0000

Obs	ID	Measure of size	Weight	Measure of size * weight
56	448000000074100000000	2,040	1.0000	2,040.0000
57	448000000078020000000	832	1.0000	832.0000
58	448000000079200000000	488	1.0000	488.0000
59	448000000079800500000	1,973	1.0000	1,973.0000
60	448000000079930000000	498	1.0000	498.0000
61	448000000079940000000	517	1.0000	517.0000
62	448000000079996000000	1,023	1.0000	1,023.0000
63	448000000079996700000	520	1.0000	520.0000
64	448000000079997000000	999	1.0000	999.0000
65	448000000079999000000	1,047	1.0000	1,047.0000
66	448000000079999200000	2,196	1.0000	2,196.0000
67	448048666070100000000	1,403	1.0000	1,403.0000
68	448085666075110000000	1,105	1.0000	1,105.0000
69	448114666070200000000	2,587	1.0000	2,587.0000
70	448195666070100000000	2,162	1.0000	2,162.0000
71	478000000078500000000	1,820	1.0000	1,820.0000
72	028000000072300000000	102	4.6543	474.7386
73	038000000072800000000	395	1.2019	474.7505
74	038000000073400000000	387	1.2267	474.7329
75	048060666073200000000	70	6.7820	474.7400
76	058000000079800000000	38	12.4931	474.7378
77	058000000079993800000	102	4.6543	474.7386
78	058037666079995000000	226	2.1006	474.7356
79	068000000076100000000	95	4.9973	474.7435
80	068000000077200000000	60	7.9123	474.7380
81	068000000079000000000	184	2.5801	474.7384
82	068000000079200000000	118	4.0232	474.7376
83	068000000079800000000	201	2.3619	474.7419

Obs	ID	Measure of size	Weight	Measure of size * weight
84	068000000079900000000	297	1.5984	474.7248
85	068000000079910000000	40	11.8685	474.7400
86	078000000074700000000	18	26.3744	474.7392
87	078000000076000000000	109	4.3554	474.7386
88	078000000076300000000	57	8.3288	474.7416
89	108000000075850000000	104	4.5648	474.7392
90	108000000079922200000	80	5.9342	474.7360
91	108036666076260000000	40	11.8685	474.7400
92	148000000075500000000	293	1.6203	474.7479
93	148000000076200000000	120	3.9562	474.7440
94	178052666072200000000	145	3.2741	474.7445
95	188000000072450000000	56	8.4775	474.7400
96	188000000072460000000	194	2.4471	474.7374
97	188000000072600000000	445	1.0668	474.7260
98	198000000072010000000	49	9.6885	474.7365
99	238082666079980000000	50	9.4948	474.7400
100	268096666075900000000	117	4.0576	474.7392
101	278000000070600000000	166	2.8599	474.7434
102	298002666073400000000	75	6.3299	474.7425
103	318000000074200000000	395	1.2019	474.7505
104	318000000075000000000	153	3.1029	474.7437
105	318000000076200000000	35	13.5640	474.7400
106	338031666070200000000	90	5.2749	474.7410
107	348000000079700000000	20	23.7369	474.7380
108	368000000075400000000	53	8.9573	474.7369
109	368000000076100000000	72	6.5936	474.7392
110	368000000077500000000	134	3.5428	474.7352
111	368000000077700000000	116	4.0926	474.7416

Obs	ID	Measure of size	Weight	Measure of size * weight
112	378000000075400000000	292	1.6258	474.7336
113	378000000075500000000	280	1.6955	474.7400
114	378000000078900000000	115	4.1282	474.7430
115	398000000075700000000	216	2.1979	474.7464
116	398022666077500000000	96	4.9452	474.7392
117	428018666071000000000	35	13.5640	474.7400
118	438019666074100000000	51	9.3086	474.7386
119	448000000079997400000	460	1.0320	474.7200
120	448071666079159900000	141	3.3669	474.7329
121	448101666071600000000	219	2.1678	474.7482
122	448227666079988200000	75	6.3299	474.7425
123	448254666079992000000	375	1.2660	474.7500
124	488000000072600000000	60	7.9123	474.7380
125	518000000070500000000	171	2.7763	474.7473
TOTAL				106,013.9400

Table 2. Estimated CVs for this sample design

Estimate	Estimated variance	2005 total	CV
Adult females	740,046.42	6,946	12.4%
Adult males	1,101,074.74	92,578	1.1%
Black	539,793.00	32,961	2.2%
Female ADP	743,898.51	7,656	11.3%
Hispanic	463,736.49	25,754	2.6%
Juvenile males	854.59	107	27.3%
Male ADP	807,551.42	98,238	0.9%
One day count	444,826.89	108,884	0.6%
Rated capacity	1,333,010.47	115,152	1.0%
White	517,917.45	32,115	2.2%

**Public Jails Sample Design for the 2009 Survey on Sexual Violence
2,867 public units on the 2008 Deaths in Custody file**

Revision Date: March 10, 2010

The Bureau of Justice Statistics (BJS) requested a sample size of 700, with the largest public jail in each state¹ selected with certainty to meet the requirements of the Prison Rape Elimination Act of 2003. The measure of size is the average daily population (ADP).

We used the 2008 Deaths in Custody file as the frame.

We chose 128 units as certainty due to size (ADP of 1,000 or more). BJS requested that the remaining 526 units be selected in a stratified systematic random sample. There are three noncertainty strata for those units with less than 1,000 ADP.

We used the cumulative $\sqrt{f(y)}$ method (Cochran, *Sampling Techniques*, 1977 edition, p. 129) to determine the noncertainty stratum boundaries. The strata are shown in Table 1.

We used ADP to stratify the sample, with the allocation to the strata based on the number of confined persons on December 31, 2008. An optimal allocation to the strata was calculated for the number of confined persons.

The noncertainty strata were serpentine-sorted by region, two-digit state code, and ADP. Region is the region of the country where the jurisdiction is located: Northeast, Midwest, South, or West.

Table 1 shows the weights for this sample design.

Table 1. Public jails sample design table

Stratum number	Stratum description	Units in 2008 Deaths in Custody file	Units in sample	Sample weight
1	Largest jail in each state	46	46	1.0000
2	Certainties due to size ($\geq 1,000$ ADP)	128	128	1.0000
3	Jails with 0 to 85 ADP	1,489	99	15.0404
4	Jails with 86 to 268 ADP	770	317	2.4290
5	Jails with 269 to 999 ADP	434	110	3.9455
TOTALS		2,867	700	

¹ There are public jails in 45 states and the District of Columbia. There are five states with no public jails: Connecticut, Delaware, Hawaii, Rhode Island, and Vermont.

This sample design produces the estimated coefficients of variation shown in Table 2 below.

Table 2. Estimated coefficients of variation for the public jails sample design

Estimate	Coefficient of variation
Confined males	1.9%
Confined females	2.8%
Newly admitted males	3.0%
Newly admitted females	3.4%
New admissions	2.9%
Male ADP	1.0%
Female ADP	1.9%

**Private Jails Sample Design for the 2009 Survey on Sexual Violence
41 private unites on the 2008 Deaths in Custody file**

Revision Date: March 10, 2010

There are 41 private jails on the 2008 Deaths in Custody file. The Bureau of Justice Statistics (BJS) requested a sample of 15 of the private units, with the units being selected with probability proportional to size. The measure of size is the average daily population (ADP).

Two private jails were selected with certainty because they are so much larger than all the other private jails. The remaining 13 units in sample were selected with probability proportional to size after the file was serpentine-sorted by region, two-digit state code and ADP. Region is the region of the country where the jurisdiction is located: Northeast, Midwest, South, or West.

The weights are shown in Table 1.

The 41 private jails on the frame have a total ADP of 20,322. We verify the sample weights by using Horvitz-Thompson estimation. We use the sample to estimate the total ADP. The estimated total is

$$\hat{Y}_{HT} = \sum_{i=1}^{15} [(y_i)(SamplingWeight_i)]$$

where y_i is the ADP of the i^{th} unit in the sample.

Table 2 shows the estimated coefficients of variation for this sample design.

Table 1. Private jails sample design table

ID	Region	Measure of size	Sampling Weight	Measure of size * Sampling Weight
158049008061000000000	Midwest	1,130	1.1604	1,311.2520
268041041062000000000	Midwest	200	6.5565	1,311.3000
108006006065000000000	South	573	2.2885	1,311.3105
108027027061000000000	South	703	1.8653	1,311.3059
198013013062000000000	South	785	1.6705	1,311.3425
438019003068000000000	South	1,083	1.2108	1,311.2964
438084084062000000000	South	599	2.1892	1,311.3308
448082082061000000000	South	373	3.5156	1,311.3188
448104104062000000000	South	530	2.4742	1,311.3260
448147147062000000000	South	1,096	1.1964	1,311.2544
448233233061000000000	South	1,259	1.0415	1,311.2485
328030030061100000000	West	733	1.7890	1,311.3370
058019001061000000000	West	6	218.5513	1,311.3078
378072072064000000000	South	1,394	1.0000	1,394.0000
398023023063000000000	Northeast	1,881	1.0000	1,881.0000
				20,321.9306

Table 2. Estimated coefficients of variation for this sample design

Estimate	Estimated variance	2008 total	CV
Confined females	149,456.51	1,317	29.4%
Confined males	348,020.82	18,018	3.3%
Confined persons	402,677.32	19,335	3.3%
Female ADP	149,386.20	1,531	25.2%
Male ADP	269,293.17	18,791	2.8%
Newly admitted females	258,077,093.93	24,948	64.4%
Newly admitted males	2,740,829,912.76	152,809	34.3%
New admissions	4,525,904,139.32	196,242	34.3%

**Tribal Sample Design for the 2009 Survey on Sexual Violence
63 units on the extract of the 2008 Jails in Indian Country file**

Date: March 11, 2010

The Bureau of Justice Statistics (BJS) requested a sample of 15 units from the 63 units listed in the extract of the 2008 Jails in Indian Country file. To be eligible for this sample, units hold adults only or adults and juveniles. Units that hold only juveniles have been added to the juvenile sample for the 2009 Survey on Sexual Violence (SSV).

The sample was selected through probability proportional to size, with the adjusted average daily population (ADP) as the measure of size. The adjusted ADP was the maximum of (1, ADP).

Two units were relatively large compared to the rest of the units in the frame, so they were selected as certainty units based on size. The size cutoff for certainty units was ADP of 100 or more.

The rest of the file was serpentine-sorted by two-digit state code and ADP.

The 15 tribal facilities selected for the sample have weights based on their measure of size. The weights are shown in Table 1.

The 63 tribal facilities on the frame have a total ADP of 1,714. We verify the sample weights by using Horvitz-Thompson estimation. We use the sample to estimate the total ADP. The estimated total is $\hat{Y}_{HT} = \sum_{i=1}^{15} [(y_i)(SamplingWeight_i)]$ where y_i is the ADP of the i^{th} unit in the sample.

Table 2 shows the estimated coefficients of variation (CVs) for this sample design. We merged the extract with Appendix Table 3 of the publication *Jails in Indian Country, 2008* so that we could calculate estimated CVs.

Table 1. Tribal sample for the 2009 SSV

ID	Facility	Adjusted measure of size	Sampling Weight	Adjusted measure of size * Sampling Weight
37004001070099990000	San Carlos DOC and Rehabilitation- Adult and Juvenile Detention	92	1.1672	107.38
37007001070099990000	Salt River Pima-Maricopa Department of Corrections	52	2.0651	107.39
37015001070099990000	Colorado River Indian Tribes Adult Detention Center	38	2.8259	107.38
37001001071000000000	Navajo Department of Corrections- Chinle	19	5.6518	107.38
67034001070100000000	Southern Ute Police Department and Adult Detention Center	40	2.6846	107.38
277043001070100000000	Fort Peck Police Department and Adult Detention Center	25	4.2954	107.39
297004002070100000000	Eastern Nevada Law Enforcement Adult Detention Facility	20	5.3692	107.38
327033001070100000000	Acoma Tribal Police and Holding Facility	34	3.1584	107.39
357003001070100000000	Fort Totten Law Enforcement and Adult Detention Center	28	3.8352	107.39
427043001070100000000	Lower Brule Justice Center-Adult Detention	22	4.8811	107.38
427061001070299900000	Rosebud Sioux Tribal PD and Adult Detention	42	2.5568	107.39
487024001070100000000	Colville Adult Detention Center	34	3.1584	107.39
507040001070100000000	Menominee Tribal Detention Facility	52	2.0651	107.39
37011002071599990000	Gila River Department of Rehabilitation and Supervision-Adult	176	1.0000	176.00
37010001071500000000	Tohono O'odham Adult Detention Center	142	1.0000	142.00
TOTAL				1,714.00

Table 2. Estimated coefficients of variation for this sample design

Estimate	Estimated variance	2008 total	CV
Female adults	3,333.99	384	15.0%
Female juveniles	41.29	14	45.9%
Male adults	21,797.79	1,498	9.9%
Male juveniles	330.47	25	72.7%
Rated capacity	125,043.67	2,362	15.0%
Total adults	35,672.35	1,882	10.0%
Total juveniles	420.31	39	52.6%

**Juvenile Facility Sample Design for the 2009 Survey on Sexual Violence
2,810 non-tribal units on the 2008 Juvenile Residential Facility Census file¹
plus 19 tribal juvenile facilities from the 2008 Jails in Indian Country file**

Revision Date: March 22, 2010

For the 2009 Survey on Sexual Violence (SSV) juvenile facility sample, the Bureau of Justice Statistics (BJS) requested a sample design similar to that used for the 2008 SSV juvenile facility sample. Note that the tribal juvenile facilities are selected from the 2008 Jails in Indian Country file, not the 2008 Juvenile Residential Facility Census (JRFC) file.

The 2008 SSV juvenile facility sample was a modification of that used in the 2005 SSV. To understand this year's sample design, we need to look at how the facilities are categorized. The 2008 JRFC serves as the frame for the 2009 SSV.

Table 1. 2009 SSV juvenile facility sampling frame

2,819	facilities in the 2008 JRFC
-9	tribal facilities in the 2008 JRFC
2,810	non-tribal facilities in the 2008 JRFC

BJS requested that all 473 state central reporters and facilities that report separately be included in the sample with certainty. The rest of the sample comes from the remainder of the sampling frame, to produce a sample of 330 non-state units.

This year, two facilities in the District of Columbia will be treated as a state central reporter or facilities that report separately.

Of the 330 non-state units in sample, 36 units² are in with certainty as the largest locally-operated facility in the state (as instructed by BJS), and 51 are in with certainty as the largest privately-operated facility in the state (as instructed by BJS). That leaves 243 noncertainty sample units to be selected.

¹ There is a significant amount of turnover among juvenile facilities from one year to the next, which means that a new juvenile facility sample should be drawn for this project every year. There were 2,911 facilities on the 2007 Census of Juveniles in Residential Placement file. There are 2,696 facilities on both the 2007 and 2008 files, 215 facilities that are on the 2007 file only, and 123 that are on the 2008 file only.

² There were 37 states with locally-operated facilities in the 2008 SSV. Florida does not have locally-operated facilities in the 2008 JRFC. Florida had one locally-operated facility in the 2007 CJRP, which was the frame for the 2008 SSV.

Table 2. Certainty and noncertainty counts on the 2009 frame

473	state central reporters and facilities that report separately
36	local facility certainties (largest in the state)
643	local noncertainty facilities
51	private facility certainties (largest in the state)
1,607	private facilities
2,810	non-tribal facilities in the 2008 JRFC

BJS requested an oversample of non-state detention centers. By law, we need a 10-percent sample of the non-state facilities. There are 2,337 such facilities in the 2008 JRFC, so a 10-percent sample is 234 units.

The oversample of non-state detention centers is the extra 96 units available for the sample (330 non-state sample units – 234 non-state units based on a 10-percent sample = 96 “extra” sample units for the oversample.)

Table 3. Counts of the non-state facilities on the 2009 frame

523	non-state detention centers
214	local noncertainty facilities (shelters, reception/diagnostic centers, training schools, halfway houses/group homes, ranches, camps, or farms)
1,513	private noncertainty facilities (shelters, reception/diagnostic centers, training schools, halfway houses/group homes, ranches, camps, or farms)
36	local facility certainties (largest in state)
51	private facility certainties (largest in state)
2,337	non-state non-tribal facilities in 2008 JRFC

Table 4. Distribution of non-state, noncertainty, nontribal facilities

523	non-state detention centers
37	local non-commitment facilities
177	local commitment facilities
202	private non-commitment facilities
1,311	private commitment facilities
2,250	noncertainty facilities

Table 5. Distribution of non-state units in 2009 sample

36	local facility certainties (largest in state)
51	private facility certainties (largest in state)
148	non-state detention centers (10-percent sample plus 96 oversampled units)
95	local or private noncertainty facilities (shelters, reception/diagnostic centers, training schools, halfway houses/group homes, ranches, camps, or farms)
330	non-state units in 2009 sample

The non-state detention facilities are stratified by region. BJS requested that the sample be proportionally allocated by number of persons assigned to beds. Normally we would take a 10-percent sample of the non-state detention facilities, or 52 units. The 96 extra units available for the oversample mean we will select 148 non-state detention facilities for the 2009 SSV sample.

Table 6. Proportionally allocating sample to non-state detention facilities

Stratum number	Description		Persons assigned to beds	n
40A	Detention facilities	Midwest	4,562	37
40B	Detention facilities	Northeast	2,053	16
40C	Detention facilities	South	4,416	36
40D	Detention facilities	West	7,236	59
Totals			18,267	148

There are 35 non-state detention facilities that are too large compared to the rest of the facilities in their strata, so they are declared certainties due to size and reassigned to stratum 40E in the sample design table.

Table 7. Proportionally allocating sample to local and private noncertainty facilities

Stratum number	Description		Persons assigned to beds	n
51	Local	Non-commitment	358	2
52	Local	Commitment	7,464	18
61	Private	Non-commitment	2,738	7
62	Private	Commitment	28,219	68
Totals			38,779	95

There are one local facility and one private facility that are too large compared to the rest of the facilities in their strata, so they are declared certainties due to size and reassigned to strata 53 and strata 63 in the sample design table.

Once the state central reporters and facilities that report separately (stratum 10), largest locally-operated facility in each stratum (stratum 20), detention facilities that are certainties based on size (stratum 40E), local facilities that are certainties based on size (stratum 53), largest privately-operated facility in each state (stratum 30), and private facilities that are certainties based on size (stratum 63) were determined, those records were removed from the 2008 JRFC file. The remaining 2,213 facilities were serpentine-sorted by region, two-digit state code, collapsed facility type, and persons assigned to beds within each stratum. We used PROC SURVEYSELECT in SAS to select a systematic probability proportional to size sample.

Table 8. Juvenile facilities sample design table

Stratum Number	Description		N	n
10	State central reporters and facilities that report separately		473	473
15	Tribal juvenile facilities from 2008 Jails in Indian Country file		19	19
20	Largest locally-operated facility in each state		36	36
30	Largest privately-operated facility in each state		51	51
40A	Detention facilities	Midwest	156	33
40B	Detention facilities	Northeast	87	14
40C	Detention facilities	South	144	33
40D	Detention facilities	West	101	33
40E	Detention facility certainties due to size		35	35
51	Local	Non-commitment	37	2
52	Local	Commitment	176	17
53	Local certainty due to size		1	1
61	Private	Non-commitment	202	7
62	Private	Commitment	1310	67
63	Private certainty due to size		1	1
Totals			2829	822

Calculating coefficients of variation for the sample³

We use the Hartley – Rao formula to estimate the variance of this sample design. The variance is given by

$$V(\hat{Y}) \approx \sum_1^N \pi_i \left[1 - \frac{(n-1)}{n} \pi_i \right] \left(\frac{y_i}{\pi_i} - \frac{Y}{n} \right)^2$$

where π_i is the probability that the i^{th} unit is selected for the sample. For more details, see equation 5.17 in Hartley and Rao (1962).

Table 9. Estimated coefficients of variation for this sample design

Level of estimate	Estimate	Estimated variance	2008 total	CV
National	Juvenile offenders	1,599,524.96	78,973	1.6%
National	Juvenile non-offenders	1,583,501.41	15,575	8.1%
Non-state detention facilities	Juvenile offenders	23,679.29	22,107	0.7%
Non-state detention facilities	Juvenile non-offenders	11,585.81	385	28.0%

³ The calculations for the coefficients of variation do not include the 19 tribal facilities from the 2008 Jails in Indian Country (JIC) file because comparable data on juvenile offenders and juvenile non-offenders were not available on the JIC file.

Verification of the sample file produced by the Statistical Methods Branch

The Statistical Methods Branch of Governments Division selected the locally-operated and privately-operated facility records for the sample. The Criminal Justice Branch of Governments Division prepared the mailout records for the state-operated units in stratum 10, and the 20 tribal juvenile facilities from the 2008 Jails in Indian Country (JIC) file in stratum 15.

The file produced by the Statistical Methods Branch has 330 records. We can verify the sample selection by estimating the total number of persons assigned to beds for locally-operated and privately-operated facilities. There are 67,423 persons assigned to beds in locally-operated and privately-operated facilities in the 2008 JRFC file that are in-scope for the 2009 SSV.

We use the Horvitz-Thompson estimator to estimate the total persons assigned to beds.

$$\hat{Y}_{HT} = \sum_{i=1}^{330} y_i (\text{weight}_i)$$

where y_i is the total number of persons assigned to beds for the i^{th} facility, and weight_i is the weight assigned to the i^{th} facility in the file produced by the Statistical Methods Branch. The results are shown in Table 10.

Table 10. Estimated total number of persons assigned to beds in the locally-operated and privately-operated facilities in the juvenile facility sample

Stratum number	Facilities in sample	Estimated total
20	36	4,031.00
30	51	6,346.00
40A	33	4,025.00
40B	14	1,728.00
40C	33	3,907.99
40D	33	2,476.00
40E	35	6,130.00
51	2	358.00
52	17	7,032.00
53	1	432.00
61	7	2,738.00
62	67	27,755.98
63	1	463.00
	330	67,422.97

References

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