SUPPORTING STATEMENT

National Drug Intelligence Center Drug Threat Assessment Survey

OMB No. 1105-0071

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

1. The potential respondent universe is the 8,420 municipal police departments and county sheriff departments (in states where sheriffs have drug enforcement responsibilities) with 10 or more full-time equivalent sworn officers identified in the *2008 Census of State and Local Law Enforcement Agencies* conducted by the United States Department of Justice Bureau of Justice Statistics. The existing sample of 2,807 agencies was drawn to ensure that the sample is representative at the state level. Please see the attached table for a breakdown of the sample by stratum. The response rate for 2011 was 85 percent and a response rate of 85 percent or higher was achieved from 2003 through 2010 using a similar collection form. Documentation of the sample plan is attached.

2. The sample was a systematic sample by stratum (state) with a random start within each stratum. Law enforcement agencies with 75 or more full-time equivalent sworn officers and state drug enforcement agencies were sampled with certainty. Local law enforcement agencies with 10 or more and less than 75 full-time equivalent sworn officers were selected randomly within each state stratum. The degree of accuracy is indicated by coefficient of variation of less than 3% for regions and less than 5% for states on the number of full-time equivalent sworn officers (size of agency).

3. NDIC Collection Management Unit personnel will be assigned to identify and verify appropriate survey recipients at sample agencies and conduct follow-up activities for non-responding agencies. A weighting adjustment will be made to correct for agency nonresponse. The sample size will comprise 33 percent of the respondent universe.

4. No tests of procedures will be conducted.

5. Carma Hogue (301-763-4882) and Bac Tran (301-763-1937) of the U.S. Census Bureau were consulted on statistical aspects of the design. The U.S. Census Bureau will not actually collect and/or analyze the information for NDIC.

Documentation for the 2012 National Drug Threat Survey Sample Design

The National Drug Threat Survey (NDTS) is sponsored and conducted by the National Drug Intelligence Center (NDIC). The U.S. Census Bureau selects the sample and consults on statistical issues. The frame for the 2012 NDTS sample is based on the 2007 Law Enforcement Management and Administrative Statistics (LEMAS) Survey which is conducted every 3 to 4 years by the Bureau of Justice Statistics. This frame, comprised of 8,420 units, does not include the 69 state agencies that are external certainties and will be added to the sample. Table 1 contains a list of those state agencies. Besides stratification by state, the design also has nine domains called regions: Florida/Caribbean, Great Lakes, Mid-Atlantic, New York/New Jersey, New England, Pacific, Southeast, Southwest, and West Central. Table 2 contains a list of the states included in each region.

Sample Design

Eligible Units

Only municipal police departments and county sheriffs are eligible for inclusion in the sample. Sheriffs in Alaska, Connecticut, District of Columbia, Delaware, Hawaii, Massachusetts, Pennsylvania, Rhode Island, and Virginia are ineligible. Units need to have at least 10 full-time equivalents (FTE) to be in-scope.

Preliminary Sample Selection

The NDIC identified three requirements for the 2012 NDTS sample:

1. The coefficient of variation (CV) on each state's FTE estimate should be between 3% and 5%,
2. Units with an FTE of 75 or greater are certainties, and
3. The total sample size should not exceed 3,200 units.

In addition to those three conditions, the frame was divided into 51 strata, one per state and one for the District of Columbia. Then, a simple random sample (SRS) was selected from the target frame, i.e. units satisfying $10 \leq FTE < 75$.

Final Sample Selection

The results of the preliminary sample selection yielded some states with CVs greater than 5%. To correct that problem, a sub-stratification technique was applied by modifying the certainty condition. The certainty criteria were not modified for all states. A list of the states that were modified can be found in Table 3. States where the certainty criteria were not modified used an FTE of 75 as the cutoff value. Further details about the number of units selected per sub-stratum can be found in Table 4. The sample size is 2,738 units, a decrease from previous sample sizes. Table 5 contains more detailed information about the number of units included in the sample as well as CV estimates at the state level (CV estimates at the region level are in Table 6). After including the 69 state agency units, the final sample size is 2,807 units, a decrease from previous samples.

The sampled units along with their sampling weights are in an Excel workbook entitled NDTS2012_sample.xslx on the sheet labeled *Sample*. The file layout for the sample is in the same workbook, on the sheet entitled *Layout*.

Estimation

All variance estimates were performed using the SAS procedure SURVEYMEANS.

Let $\hat{t}_g$ be the estimate of the total FTE for state g. The variance of the total FTE for state *g*, $\hat{V}_g(\hat{t}_g)$, is estimated using the following formula:

$$\hat{V}_g(\hat{t}_g) = \left(1 - \frac{n_g}{N_g}\right)\frac{s_g^2}{n_g} \qquad (1)$$

where

s_g^2 is the sample variance of state g

n_g is the number of samples units for state g

N_g is the total number of units on the frame for state g

The coefficient of variation for state *g*, $\widehat{CV}_g$, is estimated as follows:

$$\widehat{CV}_g = \frac{\sqrt{\hat{V}_g(\hat{t}_g)}}{\hat{t}_g} \qquad (2)$$

The states in Table 3 were sub-stratified by a different cutoff value for FTE. Therefore, the variance of each state in Table 3 is a stratified variance estimate. The variance is given by:

$$\hat{V}_g(\hat{t}_g) = \sum_k \left(1 - \frac{n_{gk}}{N_{gk}}\right)\frac{s_{gk}^2}{n_{gk}} \qquad (3)$$

where *k* is the sub-strata in state *g*.

Table 1. List of State Agencies (External Certainties)

State Agency	State	City
Alaska State Troopers	AK	Anchorage
Alabama Bureau of Investigation	AL	Montgomery
Arkansas State Police	AR	Little Rock
Arizona Department of Public Safety	AZ	Phoenix
California Highway Patrol	CA	Sacramento
California Department of Justice	CA	Sacramento
Colorado State Patrol	CO	Denver
Connecticut State Police	CT	Middletown
Delaware State Police	DE	Bridgeville
Florida Department of Law Enforcement	FL	Tallahassee
Florida Highway Patrol	FL	Tallahassee
Georgia State Patrol	GA	Dalton
Guam Customs and Quarantine Agency	GU	Barrigada
State of Hawaii, Department of Public Safety	HI	Honolulu
Iowa Division of Narcotics Enforcement	IA	Des Moines
Idaho State Police	ID	Meridian
Illinois State Police	IL	Springfield
Indiana State Police	IN	Indianapolis
Kansas Bureau of Investigation	KS	Great Bend
Kansas Highway Patrol	KS	Topeka
Kentucky State Police - East Region	KY	Frankfort
Louisiana State Police	LA	Baton Rouge
Massachusetts State Police Department	MA	Watertown
Maryland State Police	MD	Columbia
Maine Drug Enforcement Agency	ME	Portland
Maine State Police	ME	Houlton
Michigan State Police	MI	Lansing
Minnesota Department of Public Safety	MN	St. Paul
Minnesota State Patrol	MN	Golden Valley
Missouri State Highway Patrol	MO	Jefferson City
Drug Enforcement Administration	MP	Saipan
Mississippi Bureau of Narcotics	MS	Jackson
Montana Division of Criminal Investigation	MT	Helena
Montana Highway Patrol	MT	Great Falls
North Carolina Alcohol Law Enforcement Division	NC	Raleigh
North Carolina State Bureau of Investigation	NC	Raleigh
North Carolina State Highway Patrol	NC	Winston-Salem
North Dakota Bureau of Criminal Investigation	ND	Bismarck
Nebraska State Patrol	NE	Lincoln

State Agency	State	City
New Hampshire State Police	NH	Concord
New Hampshire Attorney General's Drug Task Force	NH	Bedford
New Jersey State Police	NJ	West Trenton
New Mexico State Police	NM	Santa Fe
Nevada Department of Public Safety, Investigation Division	NV	Carson City
New York State Police	NY	Latham
Ohio State Highway Patrol	OH	Columbus
Ohio Bureau of Criminal Identification & Investigation	OH	London
Oklahoma Highway Patrol	OK	Oklahoma City
Oklahoma State Bureau of Narcotics & Dangerous Drugs Control	OK	Oklahoma City
Oregon State Police	OR	Salem
Pennsylvania Office of Attorney General	PA	Lemoyne
Pennsylvania State Police	PA	Harrisburg
Puerto Rico Police Department	PR	San Juan
Rhode Island Department of Attorney General	RI	Providence
Rhode Island State Police	RI	North Scituate
South Carolina Highway Patrol	SC	Columbia
South Carolina State Law Enforcement Division	SC	Columbia
South Dakota Division of Criminal Investigation	SD	Sioux Falls
Tennessee Bureau of Investigation	TN	Nashville
Texas Department of Public Safety	TX	Austin
Utah Department of Public Safety	UT	Salt Lake City
Virginia State Police	VA	Richmond
Vermont State Police	VT	Waterbury
Washington State Patrol	WA	Olympia
Wisconsin State Patrol	WI	Milwaukee
Wisconsin Department of Justice	WI	Milwaukee
West Virginia State Police	WV	South Charleston
Wyoming Division of Criminal Investigation	WY	Cheyenne
Wyoming Highway Patrol	WY	Cheyenne

Table 2. Definition of Organized Crime Drug Enforcement Task Force (OCDETF) Regions

OCDETF Region	State	
Florida/Caribbean	FL	
	PR	
Great Lakes	IN	
	IL	(All counties not in West Central Region)
	KY	
	MI	
	MN	
	OH	
	WI	
Mid-Atlantic	DE	
	DC	
	MD	
	PA	
	VA	
	WV	
New York/New Jersey	NJ	
	NY	
New England	CT	
	MA	
	ME	
	NH	
	RI	
	VT	
Pacific	AK	
	CA	(All counties not in Southwest Region)
	GU	
	HI	
	ID	
	MP	
	NV	
	OR	
	WA	
Southeast	AR	

OCDETF Region	State	
	AL	
	GA	
	LA	
	MS	
	NC	
	SC	
	TN	
Southwest	AZ	
	CA	(counties of: Imperial, Los Angeles Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, Ventura)
	NM	
	OK	
	TX	
West Central	CO	
	IA	
	IL	(counties of Alexander, Bond, Calhoun, Clark, Clay, Clinton, Crawford, Cumberland, Edwards, Effingham, Fayette, Franklin, Gallatin, Hamilton, Hardin, Jackson, Jasper, Jefferson, Jersey, Johnson, Lawrence, Madison, Marion, Massac, Monroe, Perry, Pope, Pulaski, Randolph, Richland, Saline, St. Clair, Union, Wabash, Washington, Wayne, White, Williamson)
	KS	
	MO	
	MT	
	ND	
	NE	
	SD	
	UT	
	WY	

Table 3. List of States Requiring Stratum Modification

Strata	State
02	AK
04	AR
05	CA
08	DE
10	FL
13	ID
16	IA
18	KY
20	ME
25	MS
27	MT
28	NE
30	NH
32	NM
35	ND
40	RI
42	SD
45	UT
46	VT
49	WV
51	WY

Table 4. Final Sample Selection by Strata

State	Strata	Substratum	Sampling Weight	Number of Units
AL	01	10 ≤ FTE < 75	3.10	51
		FTE ≥ 75	1.00	24
AK	02	10 ≤ FTE < 20	1.57	7
		FTE ≥ 20	1.00	4
AZ	03	10 ≤ FTE < 75	7.11	9
		FTE ≥ 75	1.00	27
AR	04	10 ≤ FTE < 20	6.60	10
		20 ≤ FTE < 40	3.45	11
		40 ≤ FTE < 50	7.00	1
		50 ≤ FTE < 100	1.33	9
		FTE ≥ 100	1.00	12
CA	05	10 ≤ FTE < 20	17.00	4
		20 ≤ FTE < 40	7.55	11
		40 ≤ FTE < 60	8.60	5
		60 ≤ FTE < 80	8.00	5
		80 ≤ FTE < 100	6.60	5
		100 ≤ FTE < 150	3.50	10
		150 ≤ FTE < 200	3.29	7
		200 ≤ FTE < 250	2.50	4
		250 ≤ FTE < 300	1.22	9
		FTE ≥ 300	1.00	26
CO	06	10 ≤ FTE < 75	4.89	18
		FTE ≥ 75	1.00	27
CT	07	10 ≤ FTE < 75	3.08	24
		FTE ≥ 75	1.00	25
DE	08	10 ≤ FTE < 20	1.29	7
		20 ≤ FTE < 50	1.33	3
		FTE ≥ 50	1.00	5
DC	09	10 ≤ FTE < 75		0
		FTE ≥ 75	1.00	1
FL	10	10 ≤ FTE < 20	13.20	5
		20 ≤ FTE < 40	6.27	11
		40 ≤ FTE < 60	8.00	4
		60 ≤ FTE < 80	5.67	3
		80 ≤ FTE < 100	7.50	2
		100 ≤ FTE < 200	1.30	30
		200 ≤ FTE < 300	1.36	14
		FTE ≥ 300	1.00	31

State	Strata	Substratum	Sampling Weight	Number of Units
GA	11	10 ≤ FTE < 75	7.79	33
		FTE ≥ 75	1.00	64
HI	12	10 ≤ FTE < 75		0
		FTE ≥ 75	1.00	4
ID	13	10 ≤ FTE < 20	5.00	5
		20 ≤ FTE < 40	3.33	6
		FTE ≥ 40	1.00	18
IL	14	10 ≤ FTE < 75	12.56	32
		FTE ≥ 75	1.00	50
IN	15	10 ≤ FTE < 75	3.02	62
		FTE ≥ 75	1.00	24
IA	16	10 ≤ FTE < 20	4.50	18
		20 ≤ FTE < 40	1.82	11
		40 ≤ FTE < 60	2.00	6
		FTE ≥ 60	1.00	14
KS	17	10 ≤ FTE < 75	2.51	39
		FTE ≥ 75	1.00	15
KY	18	10 ≤ FTE < 20	13.60	5
		20 ≤ FTE < 40	5.88	8
		40 ≤ FTE < 100	2.86	7
		FTE ≥ 100	1.00	7
LA	19	10 ≤ FTE < 75	9.33	12
		FTE ≥ 75	1.00	49
ME	20	10 ≤ FTE < 20	4.90	10
		FTE ≥ 20	1.00	36
MD	21	10 ≤ FTE < 75	9.60	5
		FTE ≥ 75	1.00	22
MA	22	10 ≤ FTE < 75	4.73	48
		FTE ≥ 75	1.00	40
MI	23	10 ≤ FTE < 75	4.70	53
		FTE ≥ 75	1.00	41
MN	24	10 ≤ FTE < 75	2.49	74
		FTE ≥ 75	1.00	16
MS	25	10 ≤ FTE < 20	7.44	9
		20 ≤ FTE < 40	4.20	10
		40 ≤ FTE < 60	5.50	4
		60 ≤ FTE < 100	2.00	7
		FTE ≥ 100	1.00	9
MO	26	10 ≤ FTE < 75	3.76	59
		FTE ≥ 75	1.00	28

State	Strata	Substratum	Sampling Weight	Number of Units
MT	27	10 ≤ FTE < 20	5.60	5
		20 ≤ FTE < 40	1.75	4
		40 ≤ FTE < 85	1.50	6
		FTE ≥ 85	1.00	2
NE	28	10 ≤ FTE < 20	7.00	4
		20 ≤ FTE < 40	3.00	5
		FTE ≥ 40	1.00	11
NV	29	10 ≤ FTE < 75	10.00	2
		FTE ≥ 75	1.00	10
NH	30	10 ≤ FTE < 20	5.44	9
		20 ≤ FTE < 40	2.86	7
		40 ≤ FTE < 80	1.22	9
		FTE ≥ 80	1.00	2
NJ	31	10 ≤ FTE < 75	7.14	51
		FTE ≥ 75	1.00	80
NM	32	10 ≤ FTE < 20	8.33	3
		20 ≤ FTE < 40	3.71	7
		40 ≤ FTE < 100	1.20	10
		FTE ≥ 100	1.00	7
NY	33	10 ≤ FTE < 75	43.83	6
		FTE ≥ 75	1.00	62
NC	34	10 ≤ FTE < 75	6.00	41
		FTE ≥ 75	1.00	67
ND	35	10 ≤ FTE < 20	4.50	2
		20 ≤ FTE < 40	1.67	6
		FTE ≥ 40	1.00	5
OH	36	10 ≤ FTE < 75	6.00	71
		FTE ≥ 75	1.00	46
OK	37	10 ≤ FTE < 75	2.55	53
		FTE ≥ 75	1.00	12
OR	38	10 ≤ FTE < 75	2.49	35
		FTE ≥ 75	1.00	17
PA	39	10 ≤ FTE < 75	6.05	65
		FTE ≥ 75	1.00	19
RI	40	FTE ≥ 10	1.00	36
SC	41	10 ≤ FTE < 75	3.66	29
		FTE ≥ 75	1.00	32
SD	42	10 ≤ FTE < 20	3.25	4
		20 ≤ FTE < 40	1.43	7
		FTE ≥ 40	1.00	5

State	Strata	Substratum	Sampling Weight	Number of Units
TN	43	10 ≤ FTE < 75	4.71	38
		FTE ≥ 75	1.00	36
TX	44	10 ≤ FTE < 75	17.07	27
		FTE ≥ 75	1.00	99
UT	45	10 ≤ FTE < 20	11.00	3
		20 ≤ FTE < 40	6.00	4
		40 ≤ FTE < 100	2.00	6
		100 ≤ FTE < 200	1.43	7
		FTE ≥ 200	1.00	2
VT	46	10 ≤ FTE < 20	4.20	5
		20 ≤ FTE < 40	1.71	7
		40 ≤ FTE < 50	1.00	1
		FTE ≥ 50	1.00	1
VA	47	10 ≤ FTE < 75	6.40	10
		FTE ≥ 75	1.00	25
WA	48	10 ≤ FTE < 75	3.26	39
		FTE ≥ 75	1.00	26
WV	49	10 ≤ FTE < 20	5.17	6
		20 ≤ FTE < 40	2.33	9
		40 ≤ FTE < 80	1.80	5
		FTE ≥ 80	1.00	4
WI	50	10 ≤ FTE < 75	3.72	54
		FTE ≥ 75	1.00	32
WY	51	10 ≤ FTE < 20	4.67	3
		20 ≤ FTE < 40	2.75	4
		40 ≤ FTE < 85	1.13	8
		FTE ≥ 85	1.00	2

Table 5. Detailed Sample Design Information by State

NOTE: (a) = (b) + (c), (e) = (c) + (d)

Strata	State	Total Number of Units on the Frame (a)	Number of Non-certainty Units on the Frame (b)	Number of Certainty Units (c)	Number of Non-certainty Units Sampled (d)	Total Sample Size (e)	CV
01	AL	182	158	24	51	75	3.85%
02	AK	17	16	1	10	11	4.06%
03	AZ	91	64	27	9	36	3.71%
04	AR	135	123	12	31	43	3.77%
05	CA	372	346	26	60	86	1.33%
06	CO	115	88	27	18	45	2.08%
07	CT	99	74	25	24	49	3.75%
08	DE	18	13	5	10	15	4.60%
09	DC	1	0	1	0	1	0.00%
10	FL	288	257	31	69	100	1.88%
11	GA	321	257	64	33	97	2.75%
12	HI	4	0	4	0	4	0.00%
13	ID	63	58	5	24	29	4.78%
14	IL	452	402	50	32	82	3.68%
15	IN	211	187	24	62	86	3.64%
16	IA	127	118	9	40	49	3.06%
17	KS	113	98	15	39	54	3.74%
18	KY	142	140	2	25	27	4.49%
19	LA	161	112	49	12	61	3.08%
20	ME	85	84	1	45	46	4.73%
21	MD	70	48	22	5	27	3.12%
22	MA	267	227	40	48	88	3.23%
23	MI	290	249	41	53	94	3.61%
24	MN	200	184	16	74	90	4.11%
25	MS	154	145	9	30	39	3.11%
26	MO	250	222	28	59	87	3.28%
27	MT	46	44	2	15	17	3.92%
28	NE	54	50	4	16	20	4.93%
29	NV	30	20	10	2	12	0.27%
30	NH	82	80	2	25	27	3.79%
31	NJ	444	364	80	51	131	2.96%
32	NM	70	63	7	20	27	4.22%
33	NY	325	263	62	6	68	2.35%

Strata	State	Total Number of Units on the Frame *(a)*	Number of Non-certainty Units on the Frame *(b)*	Number of Certainty Units *(c)*	Number of Non-certainty Units Sampled *(d)*	Total Sample Size *(e)*	CV
34	NC	313	246	67	41	108	3.35%
35	ND	24	19	5	8	13	3.59%
36	OH	472	426	46	71	117	3.31%
37	OK	147	135	12	53	65	3.50%
38	OR	104	87	17	35	52	3.30%
39	PA	412	393	19	65	84	3.24%
40	RI	36	20	16	20	36	3.48%
41	SC	138	106	32	29	61	4.05%
42	SD	28	23	5	11	16	4.60%
43	TN	215	179	36	38	74	3.77%
44	TX	560	461	99	27	126	3.20%
45	UT	81	79	2	20	22	3.81%
46	VT	35	33	2	12	14	4.47%
47	VA	89	64	25	10	35	2.49%
48	WA	153	127	26	39	65	2.21%
49	WV	65	61	4	20	24	3.17%
50	WI	233	201	32	54	86	3.73%
51	WY	36	34	2	15	17	3.69%
Total		**8,420**	**7,248**	**1,172**	**1,566**	**2,738**	

Table 6. Estimated CVs by Region

Region	CV
Florida	1.88%
Great Lakes	1.72%
Mid-Atlantic	1.57%
New England	1.88%
New York/New Jersey	1.86%
Pacific	2.01%
Southeast	1.35%
Southwest	2.58%
West Central	2.09%