

5.0 STATISTICS

5.1 COSTS PER CALL RECEIVED

The following three tables show the average cost to receive a 9-1-1 call and the average cost to receive all calls (7-/10-digit emergency number calls added). There are three tables as there are significant differences among the PSAP sizes.

PSAP	ST	Pop	TOTAL COST	Total 9-1-1 Calls	Cost per 9-1-1 Call	All Incoming	Cost per Incoming Call
Agency A2	KS	6,528	\$157,028	4,211	\$37.29	4,211	\$37.29
Agency A5	KY	10,500	\$303,000	36,486	\$8.30	36,486	\$8.30
Agency A6	CA	10,686	\$143,370	2,186	\$65.59	2,186	\$65.59
Agency A7	TN	11,162	\$168,800	5,500	\$30.69	80,500	\$2.10
Agency A8	IL	13,500	\$196,000	3,000	\$65.33	3,000	\$65.33
Agency A10	AL	14,000	\$264,000	10,300	\$25.63	10,300	\$25.63
Agency A11	LA	14,139	\$37,500	4,745	\$7.90	4,865	\$7.71
Agency A13	WV	15,200	\$240,000	6,815	\$35.22	6,815	\$35.22
Agency A14	MO	15,500	\$376,565	5,638	\$66.79	5,935	\$63.45
Agency A15	FL	16,000	\$55,000	7,200	\$7.64	7,200	\$7.64
Agency A16	IL	16,000	\$65,000	3,377	\$19.25	3,377	\$19.25
Agency A17	IL	16,000	\$293,000	3,650	\$80.27	23,650	\$12.39
Agency A18	MI	17,000	\$415,966	5,658	\$73.52	6,223	\$66.84
Agency A19	KY	17,000	\$240,200	3,226	\$74.46	4,923	\$48.79
Agency A21	IA	18,187	\$180,000	4,600	\$39.13	4,600	\$39.13
			Average Costs . . .		\$42.47		\$33.64

Table 35-Cost per Call for Small PSAPs

PSAP	ST	Pop	TOTAL COST	Total 9-1-1 Calls	Cost per 9-1-1 Call	All Incoming	Cost per Incoming Call
Agency B1	NC	20,000	\$448,900	8,638	\$51.97	69,589	\$6.45
Agency B2	TN	23,150	\$441,500	73,000	\$6.05	82,850	\$5.33
Agency B3	MI	26,000	\$720,000	14,661	\$49.11	70,661	\$10.19
Agency B4	SC	26,314	\$318,548	13,900	\$22.92	13,920	\$22.88
Agency B5	KY	27,000	\$164,000	11,400	\$14.39	11,400	\$14.39
Agency B6	MI	27,500	\$348,516	13,124	\$26.56	13,124	\$26.56
Agency B7	IN	27,800	\$310,091	7,501	\$41.34	11,988	\$25.87
Agency B8	AL	28,756	\$347,326	13,807	\$25.16	15,167	\$22.90
Agency B9	TN	29,862	\$250,694	13,000	\$19.28	13,000	\$19.28
Agency B10	OH	31,000	\$546,000	18,950	\$28.81	72,950	\$7.48
Agency B12	IL	35,000	\$49,050	9,720	\$5.05	9,720	\$5.05
Agency B13	SD	35,074	\$530,824	12,075	\$43.96	82,542	\$6.43
Agency B14	LA	35,644	\$204,240	4,727	\$43.21	4,727	\$43.21
Agency B15	MI	36,000	\$429,000	13,824	\$31.03	34,886	\$12.30

PSAP	ST	Pop	TOTAL COST	Total 9-1-1 Calls	Cost per 9-1-1 Call	All Incoming	Cost per Incoming Call
Agency B16	MT	37,304	\$358,000	8,133	\$44.02	33,000	\$10.85
Agency B17	MI	38,543	\$608,000	12,012	\$50.62	12,012	\$50.62
Agency B18	AR	40,000	\$289,262	8,305	\$34.83	8,305	\$34.83
Agency B19	PA	46,000	\$608,000	9,854	\$61.70	18,356	\$33.12
Agency B20	IL	46,000	\$532,300	9,428	\$56.46	63,501	\$8.38
Agency B21	FL	46,755	\$165,518	18,552	\$8.92	18,552	\$8.92
Agency B22	KY	49,752	\$886,190	111,932	\$7.92	160,580	\$5.52
Agency B23	MO	52,000	\$629,450	19,106	\$32.95	19,106	\$32.95
Agency B25	CA	60,000	\$1,007,626	62,400	\$16.15	62,400	\$16.15
Agency B26	NY	61,676	\$743,883	0		38,129	\$19.51
Agency B27	PA	62,000	\$472,000	28,775	\$16.40	36,275	\$13.01
Agency B28	MI	65,000	\$1,049,574	44,147	\$23.77	96,981	\$10.82
Agency B29	IL	68,277	\$829,996	50,929	\$16.30	50,929	\$16.30
Agency A3	GA	70,000	\$414,550	50,000	\$8.29	50,800	\$8.16
Agency B31	IN	75,000	\$1,189,086	27,000	\$44.04	27,000	\$44.04
Agency B32	PA	75,259	\$768,507	31,268	\$24.58	59,734	\$12.87
Agency B33	KY	78,000	\$808,300	55,802	\$14.49	194,802	\$4.15
Agency B34	MI	80,000	\$563,015	58,000	\$9.71	158,000	\$3.56
Agency B35	LA	89,974	\$275,000	31,912	\$8.62	31,912	\$8.62
Agency B36	NC	94,536	\$2,300,646	68,415	\$33.63	169,544	\$13.57
Agency A4	IL	97,000	\$657,160	8,653	\$75.95	38,898	\$16.89
Average Costs . . .					\$29.36		\$17.18

Table 36-Cost per Call for Medium PSAPs

PSAP	ST	Pop	TOTAL COST	Total 9-1-1 Calls	Cost per 9-1-1 Call	Incoming	Cost per Incoming Call
Agency C1	LA	104,503	\$670,000	48,000	\$13.96	48,000	\$13.96
Agency C3	MI	110,000	\$1,280,000	140,000	\$9.14	140,000	\$9.14
Agency A1	IL	110,000	\$715,200	14,718	\$48.59	68,061	\$10.51
Agency C4	TX	110,000	\$1,584,012	74,000	\$21.41	259,000	\$6.12
Agency C5	TX	117,300	\$898,859	62,043	\$14.49	62,288	\$14.43
Agency C6	KY	123,000	\$625,293	20,950	\$29.85	20,950	\$29.85
Agency C7	SD	126,377	\$1,673,897	60,000	\$27.90	66,000	\$25.36
Agency C8	PA	127,500	\$1,338,226	67,211	\$19.91	56,891	\$23.52
Agency C9	SC	132,000	\$2,099,295	152,180	\$13.79	261,180	\$8.04
Agency C10	KY	140,000	\$2,687,900	240,000	\$11.20	242,400	\$11.09
Average Costs . .					\$21.02		\$15.20

Table 37-Cost per Call for Large PSAPs

5.2 COSTS PER DISPATCH

The following tables show the cost to dispatch a call. Note that the same PSAP total costs are used here as in the “cost to receive a call” tables above, so the amounts cannot be added together. The survey does not provide sufficient information to differentiate between the costs to receive and to dispatch, so the tables below are merely the total PSAP operating costs divided by the number of calls dispatched.

Cost per Dispatch by Small PSAP

PSAP	ST	Pop	Total Cost	Calls Dispatched	Cost per Dispatch
Agency A2	KS	6,528	\$157,028	22,618	\$6.94
Agency A6	CA	10,686	\$143,370	2,186	\$65.59
Agency A8	IL	13,500	\$196,000	3,000	\$65.33
Agency A11	LA	14,139	\$37,500	4,865	\$7.71
Agency A13	WV	15,200	\$240,000	12,394	\$19.36
Agency A14	MO	15,500	\$376,565	13,648	\$27.59
Agency A15	FL	16,000	\$55,000	7,200	\$7.64
Agency A16	IL	16,000	\$65,000	2,769	\$23.47
Agency A17	IL	16,000	\$293,000	3,650	\$80.27
Agency A18	MI	17,000	\$415,966	7,562	\$55.01
Agency A19	KY	17,000	\$240,200	3,294	\$72.92
Agency A21	IA	18,187	\$180,000	2,200	\$81.82
Agency A22	IL	18,200	\$343,067	13,871	\$24.73
Average Small PSAP . .					\$41.41

Table 38-Cost per Dispatch by Small PSAP

Cost per Dispatch by Medium PSAP

PSAP	ST	Pop	Total Cost	Calls Dispatched	Cost per Dispatch
Agency B1	NC	20,000	\$448,900	20,876	\$21.50
Agency A5	KY	20,897	\$303,000	36,486	\$8.30
Agency B2	TN	23,150	\$441,500	82,850	\$5.33
Agency B3	MI	26,000	\$720,000	34,800	\$20.69
Agency B4	SC	26,314	\$318,548	12,768	\$24.95
Agency B5	KY	27,000	\$164,000	4,800	\$34.17
Agency B6	MI	27,500	\$348,516	13,460	\$25.89
Agency B7	IN	27,800	\$310,091	11,988	\$25.87
Agency B8	AL	28,756	\$347,326	13,300	\$26.11
Agency B9	TN	29,862	\$250,694	13,000	\$19.28
Agency B10	OH	31,000	\$546,000	58,334	\$9.36
Agency B12	IL	35,000	\$49,050	20,876	\$2.35
Agency B13	SD	35,074	\$530,824	20,639	\$25.72
Agency B15	MI	36,000	\$429,000	14,452	\$29.68
Agency B17	MI	38,543	\$608,000	12,012	\$50.62

PSAP	ST	Pop	Total Cost	Calls Dispatched	Cost per Dispatch
Agency B18	AR	40,000	\$289,262	8,305	\$34.83
Agency B19	PA	46,000	\$608,000	20,916	\$29.07
Agency B20	IL	46,000	\$532,300	37,235	\$14.30
Agency B21	FL	46,755	\$165,518	18,552	\$8.92
Agency B22	KY	49,752	\$886,190	57,171	\$15.50
Agency B23	MO	52,000	\$629,450	60,000	\$10.49
Agency B25	CA	60,000	\$1,007,626	13,691	\$73.60
Agency B27	PA	62,000	\$472,000	32,600	\$14.48
Agency B28	MI	65,000	\$1,049,574	36,319	\$28.90
Agency B29	IL	68,277	\$829,996	59,555	\$13.94
Agency A3	GA	70,000	\$414,550	50,000	\$8.29
Agency B31	IN	75,000	\$1,189,086	74,787	\$15.90
Agency B32	PA	75,259	\$768,507	35,412	\$21.70
Agency B33	KY	78,000	\$808,300	91,380	\$8.85
Agency B34	MI	80,000	\$563,015	54,728	\$10.29
Agency A4	IL	97,000	\$657,160	12,094	\$54.34
			Average Medium PSAP . .		\$22.36

Table 39-Cost per Dispatch by Medium PSAPs

Cost per Dispatch by Large PSAP

PSAP	ST	Pop	Total Cost	Calls Dispatched	Cost per Dispatch
Agency C1	LA	104,503	\$670,000	90,869	\$7.37
Agency C2	MI	109,000	\$1,102,400	54,939	\$20.07
Agency C3	MI	110,000	\$1,280,000	140,000	\$9.14
Agency C4	TX	110,000	\$1,584,012	158,500	\$9.99
Agency C5	TX	117,300	\$898,859	85,208	\$10.55
Agency C6	KY	123,000	\$625,293	20,950	\$29.85
Agency C8	PA	127,500	\$1,338,226	44,285	\$30.22
Agency C7	SD	130,000	\$1,673,897	229,131	\$7.31
Agency C9	SC	132,000	\$2,099,295	147,377	\$14.24
Agency C10	KY	140,000	\$2,687,900	53,300	\$50.43
			Average Large PSAP . .		\$18.92

Table 40-Cost per Dispatch by Large PSAPs

Number of Full Time Equivalent Staff Allocated for Call Center Operations

Provided in **Tables 28, 29 and 30** above.

Number of Full Time Equivalent Staff Allocated for Call Center Management, Administration and/or Technical Support

Provided in **Tables 28, 29 and 30** above.

Percentage of Total Operating Budget Allocated to Personnel Budget

The following three tables provide the percentages for each PSAP that provided budget data plus show the average percentage for each of the three PSAP size categories.

Average for Small PSAPs

PSAP	Pop	Personnel Costs							Other Operating Costs					TOTAL
		Ops	DB/GIS	IT	MIS	Admin	Total Personnel	Percent of Total Op Budget	Training	Public Ed.	All Other	Total Other Ops Costs	Percent of Total Op Budget	
Agency A3	6,200	412,000	0	0	850	1,500	414,350	100%	200	0	0	200	0%	414,550
Agency A2	6,528	108,844	0	0	0	42,184	151,028	96%	3,000	3,000	0	6,000	4%	157,028
Agency A6	10,686	143,370	0	0	0	0	143,370	100%	0	0	0	0	0%	143,370
Agency A7	11,162	125,000	25,000	9,000	0	6,800	165,800	98%	2,500	0	500	3,000	2%	168,800
Agency A8	13,500	144,000	0	45,000	0	0	189,000	96%	5,000	2,000	0	7,000	4%	196,000
Agency A10	14,000	175,000	28,000	55,000	0	0	258,000	98%	1,000	0	5,000	6,000	2%	264,000
Agency A13	15,200	65,000	15,000	0	0	30,000	110,000	46%	5,000	0	125,000	130,000	54%	240,000
Agency A14	15,500	292,003	25,392	0	1,000	35,175	353,570	94%	7,920	15,075	0	22,995	6%	376,565
Agency A17	16,000	227,000	0	0	0	45,000	272,000	93%	21,000	0	0	21,000	7%	293,000
Agency A18	17,000	357,564	5,000	18,000	5,000	0	385,564	93%	1,000	0	29,402	30,402	7%	415,966
Agency A19	17,000	164,400	0	20,000	50,800	0	235,200	98%	3,000	1,000	1,000	5,000	2%	240,200
Agency A21	18,187	175,000	0	0	0	0	175,000	97%	5,000	0	0	5,000	3%	180,000
Agency A22	18,200	290,000	14,000	0	14,000	14,000	332,000	97%	4,000	0	7,067	11,067	3%	343,067
Average for Small PSAPs . .		\$206,091	\$8,646	\$11,308	\$5,512	\$13,435	\$244,991	93%	\$4,509	\$1,621	\$12,921	\$19,051	7%	\$264,042

Table 41-Average for Small PSAP

Average for Medium PSAPs

PSAP	Pop	Personnel Costs							Other Operating Costs					TOTAL
		Ops	DB/GIS	IT	MIS	Admin	Total Personnel	Percent of Total Op Budget	Training	Public Ed.	All Other	Total Other Ops Costs	Percent of Total Op Budget	
Agency B1	20,000	294,400	0	52,000	2,000	25,000	373,400	83%	5,000	1,000	69,500	75,500	17%	448,900
Agency A5	20897	303,000	0	0	0	0	303,000	100%	0	0	0	0	0%	303,000
Agency B2	23,150	311,000	28,000	20,000	0	39,000	398,000	90%	13,000	2,500	28,000	43,500	10%	441,500
Agency B3	26,000	700,000	0	0	0	0	700,000	97%	15,000	5,000	0	20,000	3%	720,000
Agency B4	26,314	273,071	12,477	0	0	27,000	312,548	98%	6,000	0	0	6,000	2%	318,548
Agency B5	27,000	164,000	0	0	0	0	164,000	100%	0	0	0	0	0%	164,000
Agency B6	27,500	290,975	0	0	0	39,541	330,516	95%	9,500	0	8,500	18,000	5%	348,516
Agency B7	27,800	194,091	0	0	0	41,000	235,091	76%	0	0	75,000	75,000	24%	310,091
Agency B8	28,756	201,326	27,000	32,000	10,000	0	270,326	78%	10,000	1,000	66,000	77,000	22%	347,326
Agency B9	29,862	231,329	19,365	0	0	0	250,694	100%	0	0	0	0	0%	250,694
Agency B10	31,000	380,000	5,000	20,000	50,000	36,000	491,000	90%	6,000	9,000	40,000	55,000	10%	546,000
Agency B12	35,000	49,050	0	0	0	0	49,050	100%	0	0	0	0	0%	49,050
Agency B13	35,074	506,951	5,000	4,500	0	0	516,451	97%	14,373	0	0	14,373	3%	530,824
Agency B14	35,644	153,600	31,025	3,102	0	12,410	200,137	98%	3,103	1,000	0	4,103	2%	204,240
Agency B15	36,000	369,000	0	0	0	60,000	429,000	100%	0	0	0	0	0%	429,000
Agency B16	37,304	300,000	52,500	0	500	0	353,000	99%	5,000	0	0	5,000	1%	358,000
Agency B17	38,543	580,000	0	15,000	0	0	595,000	98%	5,000	5,000	3,000	13,000	2%	608,000
Agency B18	40,000	289,262	0	0	0	0	289,262	100%	0	0	0	0	0%	289,262
Agency B19	46,000	431,000	12,500	70,000	30,000	37,000	580,500	95%	25,000	2,500	0	27,500	5%	608,000
Agency B20	46,000	317,300	44,000	80,000	80,000	0	521,300	98%	6,000	5,000	0	11,000	2%	532,300
Agency B21	46,755	25,124	27,888	90,354	0	0	143,366	87%	1,000	1,200	19,952	22,152	13%	165,518
Agency B22	49,752	506,285	48,547	63,000	71,075	104,193	793,100	89%	4,500	0	88,590	93,090	11%	886,190
Agency B23	52,000	503,450	30,000	0	0	40,000	573,450	91%	20,000	0	36,000	56,000	9%	629,450
Agency B37	57,841	225,371		0	0	0	225,371	95%	4,000	2,000	6,050	12,050	5%	237,421

PSAP	Pop	Personnel Costs							Other Operating Costs					TOTAL
		Ops	DB/GIS	IT	MIS	Admin	Total Personnel	Percent of Total Op Budget	Training	Public Ed.	All Other	Total Other Ops Costs	Percent of Total Op Budget	
Agency B25	60,000	847,276	139,100	5,200	5,050	0	996,626	99%	10,000	1,000	0	11,000	1%	1,007,626
Agency B26	61,676	329,963	33,020	362,104	0	18,796	743,883	100%	0	0	0	0	0%	743,883
Agency B27	62,000	300,000	98,000	0	0	57,000	455,000	96%	17,000	0	0	17,000	4%	472,000
Agency B28	65,000	503,705	40,179	0	0	70,613	614,497	59%	9,500	16,072	409,505	435,077	41%	1,049,574
Agency B29	68,277	716,964	9,581	0	38,323	28,054	792,922	96%	23,047	14,027	0	37,074	4%	829,996
Agency B31	75,000	924,686	0	184,800	0	69,600	1,179,086	99%	10,000	0	0	10,000	1%	1,189,086
Agency B32	75,259	472,186	0	233,690	0	60,631	766,507	100%	2,000	0	0	2,000	0%	768,507
Agency B33	78,000	564,000	37,000	79,500	0	39,000	719,500	89%	11,000	0	77,800	88,800	11%	808,300
Agency B34	80,000	429,868	27,872	12,000	31,075	45,000	545,815	97%	8,000	200	9,000	17,200	3%	563,015
Agency B35	89,974	200,000	0	0	0	75,000	275,000	100%	0	0	0	0	0%	275,000
Agency B36	94,536	1,580,646		720,000		0	2,300,646	83%		0		0	17%	2,300,646
Agency A4	99,000	600,120	0	0	0	0	600,120	91%	8,500	0	48,540	57,040	9%	657,160
Average for Medium PSAP . .		\$418,583	\$21,413	\$56,868	\$9,086	\$25,690	\$531,641	83%	\$7,186	\$1,847	\$28,155	37,189	17%	\$566,406

Table 42-Average for Medium PSAPs

Average for Large PSAPs

PSAP	Pop	Personnel Costs							Other Operating Costs					TOTAL
		Ops	DB/GIS	IT	MIS	Admin	Total Personnel	Percent of Total Op Budget	Training	Public Ed.	All Other	Total Other Ops Costs	Percent of Total Op Budget	
Agency C1	104,503	660,000	0	0	0	0	660,000	99%	10,000	0	0	10,000	1%	670,000
Agency C2	109,000	900,500	45,000	0	0	100,900	1,046,400	95%	10,000	1,000	45,000	56,000	5%	1,102,400
Agency C3	110,000	1,060,000	0	50,000	30,000	100,000	1,240,000	97%	20,000	10,000	10,000	40,000	3%	1,280,000
Agency C4	110,000	1,551,672	0	0	0	0	1,551,672	98%	21,100	2,000	9,240	32,340	2%	1,584,012
Agency C5	117,300	785,334	0	0	0	75,306	860,640	96%	38,219	0	0	38,219	4%	898,859
Agency C6	123,000	412,233	0	156,560	18,000	0	586,793	94%	12,000	1,500	25,000	38,500	6%	625,293
Agency C8	127,500	871,680	204,536	0	0	51,485	1,127,701	84%	17,275	3,000	190,250	210,525	16%	1,338,226
Agency C7	130,000	1,210,172	0	159,725	100,000	139,000	1,608,897	96%	50,000	0	15,000	65,000	4%	1,673,897
Agency C9	132,000	1,559,969	317,326	205,000	0	0	2,082,295	99%	10,000	7,000	0	17,000	1%	2,099,295
Agency C10	140,000	2,200,000	100,000	26,000	189,000	80,000	2,595,000	97%	40,000	0	52,900	92,900	3%	2,687,900
Average for Large PSAPs . .		\$1,121,156	\$66,686	\$59,729	\$33,700	\$54,669	1,335,940	96%	\$22,859	\$2,450	\$34,739	60,048	4%	\$1,395,988

Table 43-Average for Large PSAPs

5.3 PERCENTAGE OF TOTAL OPERATING BUDGET ALLOCATED TO OPERATIONS PERSONNEL

The following three tables provide the percentages for each PSAP that provided budget data plus show the average percentage for each of the three PSAP size categories. The last table line shows the average for all PSAPs.

Operations Personnel Budget for Small PSAPs

PSAP	ST	Population	Operations Personnel	Percent of Total Op Budget	TOTAL
Agency A3	GA	6,200	412,000	99%	414,550
Agency A2	KS	6,528	108,844	69%	157,028
Agency A6	CA	10,686	143,370	100%	143,370
Agency A7	TN	11,162	125,000	74%	168,800
Agency A8	IL	13,500	144,000	73%	196,000
Agency A10	AL	14,000	175,000	66%	264,000
Agency A13	WV	15,200	65,000	27%	240,000
Agency A14	MO	15,500	292,003	78%	376,565
Agency A17	IL	16,000	227,000	77%	293,000
Agency A18	MI	17,000	357,564	86%	415,966
Agency A19	KY	17,000	164,400	68%	240,200
Agency A21	IA	18,187	175,000	97%	180,000
Agency A22	IL	18,200	290,000	85%	343,067
Average for Small PSAPs . .			\$206,091	78%	\$264,042

Table 44-Operations Personnel Budget for Small PSAPs

Operations Personnel Budget for Medium PSAPs

PSAP	ST	Population	Operations Personnel	Percent of Total Op Budget	TOTAL
Agency B1	NC	20,000	294,400	66%	448,900
Agency A5	KY	20,897	303,000	100%	303,000
Agency B2	TN	23,150	311,000	70%	441,500
Agency B3	MI	26,000	700,000	97%	720,000
Agency B4	SC	26,314	273,071	86%	318,548
Agency B5	KY	27,000	164,000	100%	164,000
Agency B6	MI	27,500	290,975	83%	348,516
Agency B7	IN	27,800	194,091	63%	310,091
Agency B8	AL	28,756	201,326	58%	347,326
Agency B9	TN	29,862	231,329	92%	250,694
Agency B10	OH	31,000	380,000	70%	546,000
Agency B12	IL	35,000	49,050	100%	49,050
Agency B13	SD	35,074	506,951	96%	530,824

PSAP	ST	Population	Operations Personnel	Percent of Total Op Budget	TOTAL
Agency B14	LA	35,644	153,600	75%	204,240
Agency B15	MI	36,000	369,000	86%	429,000
Agency B16	MT	37,304	300,000	84%	358,000
Agency B17	MI	38,543	580,000	95%	608,000
Agency B18	AR	40,000	289,262	100%	289,262
Agency B19	PA	46,000	431,000	71%	608,000
Agency B20	IL	46,000	317,300	60%	532,300
Agency B21	FL	46,755	25,124	15%	165,518
Agency B22	KY	49,752	506,285	57%	886,190
Agency B23	MO	52,000	503,450	80%	629,450
Agency B37	FL	57,841	225,371	95%	237,421
Agency B25	CA	60,000	847,276	84%	1,007,626
Agency B26	NY	61,676	329,963	44%	743,883
Agency B27	PA	62,000	300,000	64%	472,000
Agency B28	MI	65,000	503,705	48%	1,049,574
Agency B29	IL	68,277	716,964	86%	829,996
Agency B31	IN	75,000	924,686	78%	1,189,086
Agency B32	PA	75,259	472,186	61%	768,507
Agency B33	KY	78,000	564,000	70%	808,300
Agency B34	MI	80,000	429,868	76%	563,015
Agency B35	LA	89,974	200,000	73%	275,000
Agency B36	NC	94,536	1,580,646	77%	2,300,646
Agency A4	IL	99,000	600,120	91%	657,160
Average for Medium PSAP			\$418,583	91%	\$566,406

Table 45-Operations Personnel Budget for Medium PSAPs

Operations Personnel Budget for Large PSAPs

PSAP	ST	Population	Operations Personnel	Percent of Total Op Budget	TOTAL
Agency C1	LA	104,503	660,000	99%	670,000
Agency C2	MI	109,000	900,500	82%	1,102,400
Agency C3	MI	110,000	1,060,000	83%	1,280,000
Agency C4	TX	110,000	1,551,672	98%	1,584,012
Agency C5	TX	117,300	785,334	87%	898,859
Agency C6	KY	123,000	412,233	66%	625,293
Agency C8	PA	127,500	871,680	65%	1,338,226
Agency C7	SD	130,000	1,210,172	72%	1,673,897
Agency C9	SC	132,000	1,559,969	74%	2,099,295
Agency C10	KY	140,000	2,200,000	82%	2,687,900
Average for Large PSAP			\$1,121,156	80%	\$1,395,988

Table 46-Operations Personnel Budget for Large PSAPs

5.4 PERCENTAGE OF NET OPERATING BUDGET ALLOCATED TO ADMINISTRATIVE AND TECHNICAL STAFF

Admin and Technical Staff Percent of Budget for Small PSAPs

PSAP	ST	Pop	DB/GIS	IT	MIS	Admin	Total Support Personnel	Percent of Total Op Budget	TOTAL
Agency A3	GA	6,200	0	0	850	1,500	2,350	1%	414,550
Agency A2	KS	6,528	0	0	0	42,184	42,184	27%	157,028
Agency A7	TN	11,162	25,000	9,000	0	6,800	40,800	24%	168,800
Agency A8	IL	13,500	0	45,000	0	0	45,000	23%	196,000
Agency A10	AL	14,000	28,000	55,000	0	0	83,000	31%	264,000
Agency A13	WV	15,200	15,000	0	0	30,000	45,000	19%	240,000
Agency A14	MO	15,500	25,392	0	1,000	35,175	61,567	16%	376,565
Agency A17	IL	16,000	0	0	0	45,000	45,000	15%	293,000
Agency A18	MI	17,000	5000	18000	5000	0	28,000	7%	415,966
Agency A19	KY	17,000	0	20,000	50,800	0	70,800	29%	240,200
Agency A22	IL	18,200	14,000	0	14,000	14,000	42,000	12%	343,067
Average for Small PSAPs			\$10,217	\$13,364	\$6,514	\$15,878	\$45,973	16%	\$282,652

Table 47-Admin and Technical Staff Percent of Budget for Small PSAPs

Admin and Technical Staff Percent of Budget for Medium PSAPs

PSAP	ST	Pop	DB/GIS	IT	MIS	Admin	Total Support Personnel	Percent of Total Op Budget	TOTAL
Agency B1	NC	20,000	0	52,000	2,000	25,000	79,000	18%	448,900
Agency B2	TN	23,150	28,000	20,000	0	39,000	87,000	20%	441,500
Agency B4	SC	26,314	12,477	0	0	27,000	39,477	12%	318,548
Agency B6	MI	27,500	0	0	0	39,541	39,541	11%	348,516
Agency B7	IN	27,800	0	0	0	41,000	41,000	13%	310,091
Agency B8	AL	28,756	27,000	32,000	10,000	0	69,000	20%	347,326
Agency B9	TN	29,862	19,365	0	0	0	19,365	8%	250,694
Agency B10	OH	31,000	5,000	20,000	50,000	36,000	111,000	20%	546,000
Agency B13	SD	35,074	5,000	4,500	0	0	9,500	2%	530,824
Agency B14	LA	35,644	31,025	3,102	0	12,410	46,537	23%	204,240
Agency B15	MI	36,000	0	0	0	60,000	60,000	14%	429,000
Agency B16	MT	37,304	52,500	0	500	0	53,000	15%	358,000
Agency B17	MI	38,543	0	15,000	0	0	15,000	2%	608,000
Agency B19	PA	46,000	12,500	70,000	30,000	37,000	149,500	25%	608,000
Agency B20	IL	46,000	44,000	80,000	80,000	0	204,000	38%	532,300
Agency B21	FL	46,755	27,888	90,354	0	0	118,242	71%	165,518
Agency B22	KY	49,752	48,547	63,000	71,075	104,193	286,815	32%	886,190
Agency B23	MO	52,000	30,000	0	0	40,000	70,000	11%	629,450

PSAP	ST	Pop	DB/GIS	IT	MIS	Admin	Total Support Personnel	Percent of Total Op Budget	TOTAL
Agency B25	CA	60,000	139,100	5,200	5,050	0	149,350	15%	1,007,626
Agency B26	NY	61,676	33,020	362,104	0	18,796	413,920	56%	743,883
Agency B27	PA	62,000	98,000	0	0	57,000	155,000	33%	472,000
Agency B28	MI	65,000	40,179	0	0	70,613	110,792	11%	1,049,574
Agency B29	IL	68,277	9,581	0	38,323	28,054	75,958	9%	829,996
Agency B31	IN	75,000	0	184,800	0	69,600	254,400	21%	1,189,086
Agency B32	PA	75,259	0	233,690	0	60,631	294,321	38%	768,507
Agency B33	KY	78,000	37,000	79,500	0	39,000	155,500	19%	808,300
Agency B34	MI	80,000	27,872	12,000	31,075	45,000	115,947	21%	563,015
Agency B35	LA	89,974	0	0	0	75,000	75,000	27%	275,000
Average for Medium PSAP			\$26,002	\$47,402	\$11,358	\$33,030	\$117,792	21%	\$559,646

Table 48-Admin and Technical Staff Percent of Budget for Medium PSAPs

Admin and Technical Staff Percent of Budget for Large PSAPs

PSAP	ST	Pop	DB/GIS	IT	MIS	Admin	Total Support Personnel	Percent of Total Op Budget	TOTAL
Agency C2	MI	109,000	45,000	0	0	100,900	145,900	13%	1,102,400
Agency C3	MI	110,000	0	50,000	30,000	100,000	180,000	14%	1,280,000
Agency C5	TX	117,300	0	0	0	75,306	75,306	8%	898,859
Agency C6	KY	123,000	0	156,560	18,000	0	174,560	28%	625,293
Agency C8	PA	127,500	204,536	0	0	51,485	256,021	19%	1,338,226
Agency C7	SD	130,000	0	159,725	100,000	139,000	398,725	24%	1,673,897
Agency C9	SC	132,000	317,326	205,000	0	0	522,326	25%	2,099,295
Agency C10	KY	140,000	100,000	26,000	189,000	80,000	395,000	15%	2,687,900
Average for Large PSAP			\$83,358	\$74,661	\$42,125	\$68,336	\$268,480	18%	\$1,463,234

Table 49-Admin and Technical Staff Percent of Budget for Large PSAPs

5.5 NUMBER OF OPERATIONS STAFF PER INCOMING CALL AND DISPATCH

Calls per Staff Person for Small PSAP

PSAP	ST	Pop	Total Ops Pers	Incoming Calls	Dispatched Calls	Incoming Calls/Ops Person	Dispatched Calls/Ops Person	Total Staff	Incoming Calls/Staff Person	Dispatched Calls/Staff Person
Agency A1	IL	4,224	9	68,061		7,562		10.6	6,421	
Agency A3	GA	6,200	10	50,800	50,000	5,080	5,000	14	3,629	357
Agency A2	KS	6,528	6	4,211	22,618	702	3,770	7	602	539
Agency A6	CA	10,686	4	2,186	2,186	547	547	5	437	109
Agency A8	IL	13,500	10	3,000	3,000	300	300	10	300	30
Agency A10	AL	14,000	8	10,300	100	1,288	13	8	1,288	2
Agency A12	IL	15,000	5	6,800		1,360		5	1,360	
Agency A13	WV	15,200	8	6,815	12,394	852	1,549	11	620	141
Agency A14	MO	15,500	11.2	5,935	13,648	530	1,219	13	457	94
Agency A15	FL	16,000	10	7,200	7,200	720	720	10	720	72
Agency A16	IL	16,000	7	3,377	2,769	482	396	7	482	57
Agency A17	IL	16,000	8	23,650	3,650	2,956	456	9	2,628	51
Agency A18	MI	17,000	7	6,223	7,562	889	1,080	7	889	154
Agency A19	KY	17,000	7	4,923	3,294	703	471	7	703	67
Agency A20	VT	17,925	9	2,337	1,870	260	208	9	260	23
Agency A21	IA	18,187	7	4,600	2,200	657	314	7	657	45
AVERAGE SMALL PSAP						1,555	1,146		1,341	124

Table 50-Calls per Staff Person for Small PSAP

Where a cell has no entry, that cell is not counted in the averages.

Calls per Staff Person for Medium PSAP

PSAP	ST	Pop	Total Ops Pers	Incoming Calls	Dispatched Calls	Incoming Calls/Ops Person	Dispatched Calls/Ops Person	Total Staff	Incoming Calls/Staff Person	Dispatched Calls/Staff Person
Agency B1	NC	20,000	10	69,589	20,876	6,959	2,088	11.3	6,158	185
Agency A5	KY	20,897	7	36,486	36,486	5,212	5,212	7	5,212	745
Agency B2	TN	23,150	10.5	82,850	82,850	7,890	7,890	12.5	6,628	631
Agency B4	SC	26,314	16	13,920	12,768	870	798	17.75	784	45
Agency B5	KY	27,000	7	11,400	4,800	1,629	686	7	1,629	98
Agency B6	MI	27,500	11	13,124	13,460	1,193	1,224	13	1,010	94
Agency B7	IN	27,800	8	11,988	11,988	1,499	1,499	10.5	1,142	143
Agency B8	AL	28,756	12.5	15,167	13,300	1,213	1,064	34.5	440	31
Agency B9	TN	29,862	11	13,000	13,000	1,182	1,182	12	1,083	98
Agency B10	OH	31,000	18	72,950	58,334	4,053	3,241	22	3,316	147
Agency B12	IL	35,000	10	9,720	20,876	972	2,088	11	884	190
Agency B13	SD	35,074	12	82,542	20,639	6,879	1,720	13	6,349	132
Agency B14	LA	35,644	10	4,727	0	473		12	394	
Agency B15	MI	36,000	9.5	34,886	14,452	3,672	1,521	10.5	3,322	145
Agency B16	MT	37,304	11	33,000	0	3,000		14	2,357	
Agency B17	MI	38,543	12	12,012	12,012	1,001	1,001	12	1,001	83
Agency B18	AR	40,000	7.8	8,305	8,305	1,065	1,065	11	755	97
Agency B19	PA	46,000	14.5	18,356	20,916	1,266	1,442	15.5	1,184	93
Agency B20	IL	46,000	13	63,501	37,235	4,885	2,864	14	4,536	205
Agency B21	FL	46,755	13	18,552	18,552	1,427	1,427	15	1,237	95
Agency B22	KY	49,752	14	160,580	57,171	11,470	4,084	17	9,446	240
Agency B23	MO	52,000	17	19,106	60,000	1,124	3,529	19	1,006	186
Agency B24	FL	58,000	29	232,400	69,000	8,014	2,379	39	5,959	61
Agency B25	CA	60,000	14	62,400	13,691	4,457	978	15	4,160	65
Agency B26	NY	61,676	10	38,129	0	3,813		10	3,813	
Agency B27	PA	62,000	12	36,275	32,600	3,023	2,717	17.5	2,073	155
Agency B28	MI	65,000	12	96,981	36,319	8,082	3,027	13.5	7,184	224

PSAP	ST	Pop	Total Ops Pers	Incoming Calls	Dispatched Calls	Incoming Calls/Ops Person	Dispatched Calls/Ops Person	Total Staff	Incoming Calls/Staff Person	Dispatched Calls/Staff Person
Agency B29	IL	68,277	17	50,929	59,555	2,996	3,503	19	2,680	184
Agency B30	TX	73,334	31	66,203	100,008	2,136	3,226	34.8	1,902	93
Agency B31	IN	75,000	21	27,000	74,787	1,286	3,561	22.26	1,213	160
Agency B32	PA	75,259	19	59,734	35,412	3,144	1,864	21	2,844	89
Agency B33	KY	78,000	17	194,802	91,380	11,459	5,375	19	10,253	283
Agency B34	MI	80,000	14	158,000	54,728	11,286	3,909	17	9,294	230
Agency B35	LA	89,974	11	31,912	0	2,901		12	2,659	
Agency B36	NC	94,536	18	169,544	88,000	9,419	4,889	18.45	9,189	265
Agency A4	IL	99,000	10	38,898	12,094	3,890	1,209	11	3,536	110
AVERAGE MEDIUM PSAP						4,023	2,571		3,518	175

Table 51-Calls per Staff Person for Medium PSAP

Calls per Staff Person for Large PSAP

PSAP	ST	Pop	Total Ops Pers	Incoming Calls	Dispatched Calls	Incoming Calls/Ops Person	Dispatched Calls/Ops Person	Total Staff	Incoming Calls/Staff Person	Dispatched Calls/Staff Person
Agency C1	LA	104,503	19	48,000	90,869	2,526	4,783	23	2,087	208
Agency C2	MI	109,000	18	34,452	54,939	1,914	3,052	18	1,914	170
Agency C3	MI	110,000	23	140,000	140,000	6,087	6,087	23	6,087	265
Agency C4	TX	110,000	24	259,000	158,500	10,792	6,604	26.5	9,774	249
Agency C5	TX	117,300	25	62,288	85,208	2,492	3,408	28	2,225	122
Agency C6	KY	123,000	13	20,950	20,950	1,612	1,612	13	1,612	124
Agency C8	PA	127,500	22.5	56,891	44,285	2,528	1,968	22.75	2,501	87
Agency C7	SD	130,000	30	66,000	229,131	2,200	7,638	33	2,000	231
Agency C9	SC	132,000	38	261,180	147,377	6,873	3,878	43	6,074	90
Agency C10	KY	140,000	31	242,400	53,300	7,819	1,719	42	5,771	41
AVERAGE LARGE PSAP						4,484	4,075		4,004	159

Table 52-Calls per Staff Person for Large PSAP

6.0 BUDGET

6.1 PSAP BUDGET FOR OPERATIONS AND SUPPORT

The budget for the following categories of staff personnel were requested:

1. Operations (call-takers, dispatchers and operation supervisors)
2. Database Administration and GIS (data work, not CPE maintenance or programming)
3. Training (personnel, course tuition and training expenses)
4. Internal Telecom (support for telephony, LANs, computer maintenance)
5. MIS (data support)
6. Public Education (materials and expenses incurred to educate the public)
7. Administration only (PSAP Manager and clerical staff)

Replies that provided budgets were received from the following number of PSAPs by size category:

	<u>PSAP Size</u>	<u>Replies</u>
1.	0 – 19K	17
2.	19K – 100K	35
3.	100K – 140K	<u>10</u>
	Total.....	62

There is a table created for each PSAP size, starting on the next page.

PSAP Budget for Operations and Support – PSAP Size 0 – 19,000 Population

PSAP	ST	Pop	Ops	DB/GIS	Training	IT	MIS	Public Ed.	Admin	All Other	TOTAL
Agency A1	IL	4,224	0	0	0	0	0	0		715,200	715,200
Agency A3	GA	6,200	412,000	0	200	0	850	0	1,500	0	414,550
Agency A2	KS	6,528	108,844	0	3,000	0	0	3,000	42,184	0	157,028
Agency A6	CA	10,686	143,370	0	0	0	0	0	0	0	143,370
Agency A7	TN	11,162	125,000	25,000	2,500	9,000	0	0	6,800	500	168,800
Agency A8	IL	13,500	144,000	0	5,000	45,000	0	2,000	0	0	196,000
Agency A10	AL	14,000	175,000	28,000	1,000	55,000	0	0	0	5,000	264,000
Agency A11	LA	14,139	0	37,500	0	0	0	0	0	0	37,500
Agency A13	WV	15,200	65,000	15,000	5,000	0	0	0	30,000	125,000	240,000
Agency A14	MO	15,500	292,003	25,392	7,920	0	1,000	15,075	35,175	0	376,565
Agency A15	FL	16,000	0	40,000	0	15,000	0	0	0	0	55,000
Agency A16	IL	16,000	0	43,000	2,000	14,000	0	1,000	0	5,000	65,000
Agency A17	IL	16,000	227,000	0	21,000	0	0	0	45,000	0	293,000
Agency A18	MI	17,000	357,564	5000	1000	18000	5000	0	0	29402	415,966
Agency A19	KY	17,000	164,400	0	3,000	20,000	50,800	1,000	0	1,000	240,200
Agency A21	IA	18,187	175,000	0	5,000	0	0	0	0	0	180,000
Agency A22	IL	18,200	290,000	14,000	4,000	0	14,000	0	14,000	7,067	343,067
Average for Small PSAP . .		13,502	\$157,599	\$13,700	\$3,566	\$10,353	\$4,215	\$1,299	\$10,916	\$52,245	\$253,250

Table 53-PSAP Budget for Operations and Support – PSAP Size 0 – 19,000 Population

Determine if integrated systems impact staffing levels compared to non-integrated call processing environment

There was no PSAP with non-integrated call processing environment, so this test could not be accomplished.

Determine the difference in elapsed time from call ring to termination for agencies with different levels of CPE

The investigation method was to list those PSAPs for which we were able to determine the CPE level (See legend below), that provided holding time and the number of personnel serving as call-takers, dispatchers and operations supervisors. Then for each CPE level, the holding time and the operations staff numbers were copied into separate columns. Thus each column (e.g., With Level 1) represents the performance of the PSAP with that CPE level. By taking the average holding times and average personnel employed one may be able to compare performance based on CPE level. See **Table 54** below.

CPE Level Code

blank – No information

0 - Manual equipment (No PSAP reported this category.)

1 - Computer-Telephony

2 - Computer-Telephony plus mapping and/or CAD

3 - Computer-Telephony, mapping and CAD

PSAP	ST	Population	CPE Level	Holding Time in Seconds			
				PSAP Reports	With Level 1	With Level 2	With Level 3
Agency A2	KS	6,528	1	96	96		
Agency A7	TN	10,898	1	105.7	105.7		
Agency A9	CO	13,500	2	150		150	
Agency A12	IL	15,000	2	51		51	
Agency A13	WV	15,200	1	61	61		
Agency A14	MO	15,500	2	63		63	
Agency A15	FL	16,000	1	26	26		
Agency A17	IL	16,000	2	93		93	
Agency A18	MI	17,000	1	77.88	77.88		
Agency A19	KY	17,000	2	274		274	
Agency A21	IA	18,187	2	67		67	
Agency B1	NC	20,000	1	126	126		
Agency B3	MI	26,000	2	124		124	
Agency B5	KY	27,000	3	68			68
Agency B6	MI	27,500	2	156		156	
Agency B7	IN	27,800	2	81.4		81.4	
Agency B8	AL	28,756	1	118	118		
Agency B10	OH	31,000	2	34.8		34.8	
Agency B11	FL	34,500	2	128		128	
Agency B13	SD	35,074	1	82	82		
Agency B14	LA	35,644	2	62		62	
Agency B15	MI	36,000	1	182	182		
Agency B17	MI	38,543	3	61			61
Agency B20	IL	46,000	2	77		77	
Agency B21	FL	46,755	1	126	126		

PSAP	ST	Population	CPE Level	Holding Time in Seconds			
				PSAP Reports	With Level 1	With Level 2	With Level 3
Agency B22	KY	49,752	2	72		72	
Agency B23	MO	52,000	2	64		64	
Agency B27	PA	62,000	2	72.7		72.7	
Agency B28	MI	65,000	3	87			87
Agency B29	IL	68,277	1	40	40		
Agency B33	KY	78,000	2	95		95	
Agency B34	MI	80,000	1	240	240		
Agency B35	LA	89,974	2	66		66	
Agency A4	IL	100,000	3	183			183
Agency C2	MI	109,000	2	64.31		64.31	
Agency C3	MI	110,000	1	66	66		
Agency C4	TX	110,000	1	63	63		
Agency C5	TX	117,300	2	207		207	
Agency C6	KY	123,000	2	60		60	
Agency C10	KY	140,000	2	62		62	
Call Processing Time/Operations Personnel					100.7	98.0	99.75

Table 54-Call Processing based on CPE Level

The results show that there is no significant improvement in having more CPE. That could be that while the mapping and CAD may speed some tasks, they add others, eliminating the time benefit. Also, the data set is too small for the conclusions to be statistically significant.

6.2 DETERMINING EXPECTED BUDGET FOR PSAPS

PSAP	ST	Pop	Ops	DB/GIS	Training	IT	MIS	Public Ed.	Admin	All Other	TOTAL
Agency A2	KS	6,528	108,844	0	3,000	0	0	3,000	42,184	0	157,028
Agency A6	CA	10,686	143,370	0	0	0	0	0	0	0	143,370
Agency A7	TN	11,162	125,000	25,000	2,500	9,000	0	0	6,800	500	168,800
Agency A8	IL	13,500	144,000	0	5,000	45,000	0	2,000	0	0	196,000
Agency A10	AL	14,000	175,000	28,000	1,000	55,000	0	0	0	5,000	264,000
Agency A11	LA	14,139	0	37,500	0	0	0	0	0	0	37,500
Agency A13	WV	15,200	65,000	15,000	5,000	0	0	0	30,000	125,000	240,000
Agency A14	MO	15,500	292,003	25,392	7,920	0	1,000	15,075	35,175	0	376,565
Agency A15	FL	16,000	0	40,000	0	15,000	0	0	0	0	55,000
Agency A16	IL	16,000	0	43,000	2,000	14,000	0	1,000	0	5,000	65,000
Agency A17	IL	16,000	227,000	0	21,000	0	0	0	45,000	0	293,000
Agency A18	MI	17,000	357,564	5,000	1,000	18,000	5,000	0	0	29,402	415,966
Agency A19	KY	17,000	164,400	0	3,000	20,000	50,800	1,000	0	1,000	240,200
Agency A21	IA	18,187	175,000	0	5,000	0	0	0	0	0	180,000
Agency A22	IL	18,200	290,000	14,000	4,000	0	14,000	0	14,000	7,067	343,067
Average for Small PSAP . .		14,607	\$151,145	\$15,526	\$4,028	\$11,733	\$4,720	\$1,472	\$11,544	\$11,531	\$211,700

Table 55 – PSAP Budget for Operations and Support – PSAP Size 0 – 19,000 Population

The above Table 55 provides the PSAP budget for operations and support for Small PSAPs.

PSAP Budget for Operations and Support – PSAP Size 19,000 – 100,000 Population

PSAP	ST	Pop	Ops	DB/GIS	Training	IT	MIS	Public Ed.	Admin	All Other	TOTAL
Agency B1	NC	20,000	294,400	0	5,000	52,000	2,000	1,000	25,000	69,500	448,900
Agency A5	KY	20897	303,000	0	0	0	0	0	0	0	303,000
Agency B2	TN	23,150	311,000	28,000	13,000	20,000	0	2,500	39,000	28,000	441,500
Agency B3	MI	26,000	700,000	0	15,000	0	0	5,000	0	0	720,000
Agency B4	SC	26,314	273,071	12,477	6,000	0	0	0	27,000	0	318,548
Agency B5	KY	27,000	164,000	0	0	0	0	0	0	0	164,000
Agency B6	MI	27,500	290,975	0	9,500	0	0	0	39,541	8,500	348,516
Agency B7	IN	27,800	194,091	0	0	0	0	0	41,000	75,000	310,091
Agency B8	AL	28,756	201,326	27,000	10,000	32,000	10,000	1,000	0	66,000	347,326
Agency B9	TN	29,862	231,329	19,365	0	0	0	0	0	0	250,694
Agency B10	OH	31,000	380,000	5,000	6,000	20,000	50,000	9,000	36,000	40,000	546,000
Agency B12	IL	35,000	49,050	0	0	0	0	0	0	0	49,050
Agency B13	SD	35,074	506,951	5,000	14,373	4,500	0	0	0	0	530,824
Agency B14	LA	35,644	153,600	31,025	3,103	3,102	0	1,000	12,410	0	204,240
Agency B15	MI	36,000	369,000	0	0	0	0	0	60,000	0	429,000
Agency B16	MT	37,304	300,000	52,500	5,000	0	500	0	0	0	358,000
Agency B17	MI	38,543	580,000	0	5,000	15,000	0	5,000	0	3,000	608,000
Agency B18	AR	40,000	289,262	0	0	0	0	0	0	0	289,262
Agency B19	PA	46,000	431,000	12,500	25,000	70,000	30,000	2,500	37,000	0	608,000
Agency B20	IL	46,000	317,300	44,000	6,000	80,000	80,000	5,000	0	0	532,300
Agency B21	FL	46,755	25,124	27,888	1,000	90,354	0	1,200	0	19,952	165,518
Agency B22	KY	49,752	506,285	48,547	4,500	63,000	71,075	0	104,193	88,590	886,190
Agency B23	MO	52,000	503,450	30,000	20,000	0	0	0	40,000	36,000	629,450
Agency B37	FL	57,841	225,371		4,000	0	0	2,000	0	6,050	237,421
Agency B25	CA	60,000	847,276	139,100	10,000	5,200	5,050	1,000	0	0	1,007,626
Agency B26	NY	61,676	329,963	33,020	0	362,104	0	0	18,796	0	743,883

PSAP	ST	Pop	Ops	DB/GIS	Training	IT	MIS	Public Ed.	Admin	All Other	TOTAL
Agency B27	PA	62,000	300,000	98,000	17,000	0	0	0	57,000	0	472,000
Agency B28	MI	65,000	503,705	40,179	9,500	0	0	16,072	70,613	409,505	1,049,574
Agency B29	IL	68,277	716,964	9,581	23,047	0	38,323	14,027	28,054	0	829,996
Agency B31	IN	75,000	924,686	0	10,000	184,800	0	0	69,600	0	1,189,086
Agency B32	PA	75,259	472,186	0	2,000	233,690	0	0	60,631	0	768,507
Agency B33	KY	78,000	564,000	37,000	11,000	79,500	0	0	39,000	77,800	808,300
Agency B34	MI	80,000	429,868	27,872	8,000	12,000	31,075	200	45,000	9,000	563,015
Agency B35	LA	89,974	200,000	0	0	0	0	0	75,000	0	275,000
Agency B36	NC	94,536	1,580,646			720,000		0	0		2,300,646
Agency A4	IL	99,000	600,120	0	8,500	0	0	0	0	48,540	657,160
Average for Medium PSAP		48,692	\$418,583	\$21,413	\$7,186	\$56,868	\$9,086	\$1,847	\$25,690	\$28,155	\$566,406

Table 56 – PSAP Budget for Operations and Support – PSAP Size 19,000 – 100,000 Population

The above Table 56 provides the PSAP budget for operations and support for Medium PSAPs.

PSAP Budget for Operations and Support – PSAP Size 100,000 – 140,000 Population

PSAP	ST	Pop	Ops	DB/GIS	Training	IT	MIS	Public Ed.	Admin	All Other	TOTAL
Agency C1	LA	104,503	660,000	0	10,000	0	0	0	0	0	670,000
Agency C2	MI	109,000	900,500	45,000	10,000	0	0	1,000	100,900	45,000	1,102,400
Agency C3	MI	110,000	1,060,000	0	20,000	50,000	30,000	10,000	100,000	10,000	1,280,000
Agency C4	TX	110,000	1,551,672	0	21,100	0	0	2,000	0	9,240	1,584,012
Agency C5	TX	117,300	785,334	0	38,219	0	0	0	75,306	0	898,859
Agency C6	KY	123,000	412,233	0	12,000	156,560	18,000	1,500	0	25,000	625,293
Agency C8	PA	127,500	871,680	204,536	17,275	0	0	3,000	51,485	190,250	1,338,226
Agency C7	SD	130,000	1,210,172	0	50,000	159,725	100,000	0	139,000	15,000	1,673,897
Agency C9	SC	132,000	1,559,969	317,326	10,000	205,000	0	7,000	0	0	2,099,295
Agency C10	KY	140,000	2,200,000	100,000	40,000	26,000	189,000	0	80,000	52,900	2,687,900
Average for Large PSAP. .		120,330	\$1,121,156	\$66,686	\$22,859	\$59,729	\$33,700	\$2,450	\$54,669	\$34,739	\$1,395,988

Table 57—PSAP Budget for Operations and Support – PSAP Size 100,000 – 140,000 Population

The above Table 57 provides the PSAP budget for operations and support for Large PSAPs.

6.3 BUDGET RECOMMENDATIONS

The budget must be based on the number of personnel to be employed. The above tables for each PSAP size provide a range to provide a general estimate.

It is recommended that the budget be developed as follows:

1. Determine the number of personnel to be hired in each task category (using the PSAP Staffing Guideline, **Appendix D**).
2. Obtain example wage levels for your area of the country. PSAP managers of adjacent PSAPs may be willing to provide their pay schedules.
3. Discuss with the PSAP manager whether they feel their pay schedules are appropriate or not. If not, get their reasons.
4. Determine the benefits to be provided. Note the average time off for the PSAP size as provided in this document.
5. Determine the salary costs.
6. Consider the needs for training personnel, both initial and refresher.
 - a. Obtain information about initial telecommunicator training and the legal requirements for that training (if any). This can be done via discussion with other PSAP managers, the State 9-1-1 office (if your state has one), local NENA organization or national NENA headquarters.
 - b. Ensure that you budget for refresher training.
7. To maintain good worker morale and provide the extra training that leads to a more productive PSAP, budget to send a certain percentage of the staff to 9-1-1 conferences.
8. Budget for some promotional material to educate children and the general public on 9-1-1. This is particularly important if you are initiating 9-1-1 service in the area for the first time.
9. Add five to ten percent as a cushion for unexpected costs and errors in estimates.

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