

# Estimating Staffing and Workload Needs in NBCP Operational Programs

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## Introduction

A current limitation of States implementing NBCP grants is the ability to determine what is the proper workload for staffing their future operational programs. There are many considerations, including estimating the number of expected applicants and subsequent overall fitness determinations. To help Grantee States in the planning stages of a NBCP program estimate their future program staffing needs, CNA developed a staffing and workload questionnaire for operational programs. The results of the questionnaire form the basis for a model for estimating staffing and workload needs.

## Background

Six NBCP States with existing operational programs completed the staffing and workload questionnaire: Alaska (AK), the District of Columbia (DC), Florida (FL), Minnesota (MN), New Mexico (NM), and Utah (UT). Data were collected for the time period April 2013 – June 2013. The six programs varied significantly in size and extent of automation. On average, these programs had 5.98 full-time equivalent (FTE) determination unit staff and completed 23,353 fitness determinations during the reported timeframe. Programs used 0.62 FTE staff per thousand risk-adjusted fitness determination completed. The data demonstrate that high automation creates efficiencies that lower the number of fitness determination unit staff required.

## Methodology

The questionnaire asked States to report both the number of staff and the number of FTE staff for their entire background check program and for the subset of staff that work on fitness determinations (referred to as the determination unit.) The survey also collected workload data on the number of applications submitted to the State's background check system, including both initial applications and any applications that "connected to" another application, and the number of overall fitness determinations made. States reported these data for their respective NBCPs (that is, direct patient access employees in long term care settings) and for other background check programs, such as child care or state employees, for which the determination staff completed fitness determinations. For most States, these data were obtained directly from the CMS quarterly report data file.

As a way to qualify the workload data, the questionnaire also asked States to report the estimated percent of applicants with a criminal history record and to identify the tasks performed by determination unit staff and the determination unit's tasks that were automated (in whole or in part) during the April - June time period.

## Reported Data

Table 1 presents the staff size data reported by the Grantee States. The FTE staff for the entire background check program ranged from 5 to 34 staff members. Programs had an average staff size of 16 members. The determination units were a subset of entire staff and the size of these units ranged from 1.25 to 12 FTE staff members, with an average FTE staff of 5.98. On average, 37 percent of program staff worked on fitness determinations.

**Table 1: Staff Size, April 2013 – June 2013**

State	No. of Staff Background Check Program	No. of Staff Determination Unit	FTE Staff Background Check Program	FTE Staff Determination Unit	Percent Determination Staff
AK	10	6	10	6	60%
DC	5	2	5	1.25	25%
FL	28	12	27	12	44%
MN*	34	12	34	12	35%
NM	15	4	14.5	2.5	17%
UT	8	4	5.5	2.15	39%
<b>Average</b>			<b>16.00</b>	<b>5.98</b>	<b>37%</b>

\*Minnesota data based on legacy system.

Table 2 presents the workload volume data reported by the Grantee States. As can be seen from the data, some survey respondents were very large programs and others were quite small. There was substantial variation across the States in the number of applications submitted and the number of overall fitness determinations made. The State with the largest number of applications submitted had almost 52 times more applications than the State with the smallest number (89,525 vs. 1,732). There was much less variation across States in the estimated percent of applicants with a criminal history. This ranged from a low of 15 percent to a high of 22 percent. On average, States found that 18 percent of their applicants had a criminal history record.

**Table 2: Workload Volume, April 2013 - June 2013**

State	Total No. of Applications Submitted	Total No. of Overall Fitness Determinations Made	Est. Percent of Applicants with a Criminal History
AK	5,895	5,379	17%
DC	1,732	1,161	17%
FL	89,525	57,342	19%
MN	71,810	69,697	15%
NM	9,350	4,924	15%
UT	7,691	1,614	22%
<b>Average</b>	<b>31,001</b>	<b>23,353</b>	<b>18%</b>

To provide a greater understanding of the workload faced by determination units, the questionnaire asked respondents to identify the following:

- The tasks assigned to the determination unit; and
- What part of the determination unit’s workload is automated (in whole or in part)?

Tables 3 and 4 present the results of these two questions. Table 3 (on the following page) shows tasks completed by the determination unit by State. Respondents reported between 4 and 8 tasks. Two

States, MN and NM, noted that their determination unit staff also provided user set up and support services, a task that is likely to require a significant amount of staff time. All States reported that their determination unit staff tasks included applicant appeals, criminal history review and fitness determinations, and sending notifications.

Table 4 shows task automation by State. This information reflects automation as of the April 2013 - June 2013 time period. At this point in time, two of the responding States (DC and NM) did not have any automation for determination unit tasks. Two States, FL and MN, had automated clearances for applicants with no criminal history. The tasks most likely to be automated were notifications and letters and payments.

**Table 4: Task Automation**

State	No Hit Clearances	Notifications and Letters	Payments	State Rap Back	Other	Number of Tasks with Automation (Whole or Part)	Automation
AK		x	x			2	Medium
DC						0	Low
FL	x	x		x	x <sup>(1)</sup>	4	High
MN	x	x	x		x <sup>(2)</sup>	4	High
NM						0	Low
UT			x	x		2	Medium

<sup>(1)</sup> Parsing of criminal history information into background screening database.

<sup>(2)</sup> Maltreatment determinations.

**Table 3: Tasks Completed by Determination Unit Staff**

State	User Support and Set Up	Data Mgmt and Reconciliation	Applicant Appeals	Criminal History Review and Fitness Determination	Investigate Missing Dispositions	Review Registry Results	Review Rap Back Results	Sending Notifications	Other	Number of Tasks Completed	Workload Tasks Category
AK		x <sup>(1)</sup>	x <sup>(2)</sup>	x	x	x	x	x		7	Medium
DC			x <sup>(3)</sup>	x	x	x		x		5	Low
FL			x	x	x	x	x	x		6	Medium
MN	x		x	x	x	x		x	x <sup>(4)</sup>	7	High
NM	x	x	x	x	x	x	x	x		8	High
UT			x	x			x	x		4	Low

<sup>(1)</sup> Data management only.

<sup>(2)</sup> Corrections only.

<sup>(3)</sup> Corrections only/staff meet with applicants when requested as part of appeals process.

<sup>(4)</sup> Review maltreatment history.

## Task and Automation Matrix

States were categorized into high, medium, and low automation States based on their responses to the task and automation questions. Table 5 below shows the results of this categorization with tasks as the rows and automation as the columns. High task States reported 7 or 8 tasks assigned to their determination unit and one of these tasks was user set up and support. Medium task States had 6 or 7 assigned tasks and low task States had 4 or 5 assigned tasks. High automation States had 4 automated tasks, including no hit clearances. Medium automation States had 2 automated tasks and low automation States had no automated determination unit tasks.

**Table 5: Workload Tasks and Automation Matrix**

Tasks	Automation		
	High	Medium	Low
High	MN		NM
Medium	FL	AK	
Low		UT	DC

Note that three States were placed in "matching" task and automation categories. MN with a high number of tasks assigned and high automation; AK with medium tasks and automation, and DC with low tasks and automation.

## Results and Conclusions

CNA's main purpose in the analysis of the reported data was to produce an estimate of the number of FTE staff needed by States to complete determination unit tasks. In this analysis, we looked at three different measures of workload:

- Unadjusted determinations: This is the number of determinations completed in the April 2013 - June 2013 time period.
- Adjusted determinations: This is the number of determinations adjusted to give more weight to applicants with a criminal history. We used a simple formula for adjusted determinations equal to Determinations multiplied by (1 + Percent of Applicants with a Criminal History). This results in the determination numbers rising for all States, but States with higher percentages of applicants with a criminal history get a larger rise in the number of determinations than States with smaller percentages.
- Determination with criminal history record information (CHRI): This is the number of determinations multiplied by the percent of applicants with a criminal history.

Table 6 presents the calculation of the number of FTE determination staff needed for each of the three workload measures by State and on average across all States. Using unadjusted determinations, the number of FTE determination staff required per thousand determinations made ranged from a low of 0.17 (in MN) to a high of 1.33 (in UT). UT's staffing ratio is almost 8 times larger than MN's. On average, 0.74 FTE staff was needed to complete one thousand unadjusted determinations.

The data show that adjusting determinations to give more weight for applicants with a criminal history lowers somewhat the number of determination staff required (that is, a greater workload is completed by the same FTE staff) and diminishes the range between the high and low values. Adjustment lowered the average number of FTE determination unit staff needed per thousand determinations from 0.74 to 0.62.

Using a workload measure that focuses only on those determinations made when a criminal history is present is most appropriate when no hit clearances are automated (which was true in 2 of 6 responding States). When no hit clearances are automated, determination unit staff resources are not spent on completing determinations for applicants with no criminal history. On average, 4.08 FTE staff was needed to complete one thousand determinations with CHRI.

**Table 6: Staff Required Per Workload Measure by State and on Average**

State	Unadjusted Determinations		Adjusted Determinations		Determinations with CHRI	
	Number of Determinations Made	Number of FTE Determination Staff / '000 Overall Determinations	Number of Determinations Made Adjusted for Percent with Criminal History	Number of FTE Determination Staff / '000 Adjusted Determinations	Fitness Determinations Made with a Criminal History	Number of FTE Determination Staff/ '000 Determinations with a Criminal History
AK	5,379	1.12	6,293	0.95	914	6.56
DC	1,161	1.08	1,358	0.92	197	6.33
FL	57,342	0.21	68,237	0.18	10,895	1.10
MN	69,697	0.17	80,152	0.15	10,455	1.15
NM	4,924	0.51	5,665	0.44	741	3.37
UT	1,614	1.33	1,974	1.09	360	5.97
<b>Average</b>		<b>0.74</b>		<b>0.62</b>		<b>4.08</b>

We used the number of FTE determination staff per thousand adjusted determinations to further analyze staffing given our task and automation categories. The task and automation matrix below is populated with each State's number of FTE staff per thousand adjusted determinations.

**Table 7: FTE Staff Per '000 Adjusted Determination by Task and Automation Category**

Tasks	Automation			Average
	High	Medium	Low	
High	0.15		0.44	<b>0.30</b>
Medium	0.18	0.95		<b>0.56</b>
Low		1.09	0.92	<b>1.00</b>
<b>Average</b>	<b>0.16</b>	<b>1.02</b>	<b>0.68</b>	

Table 7 points to the main conclusion that can be drawn from this data—that high automation creates efficiencies that lower the number of determination staff required. Our high automation States had an average number of FTE staff per thousand adjusted determinations of 0.16.

The matrix also highlights what looks like something of a paradox: staffing requirements falling as the number of tasks assigned to the determination unit rises. This can be explained as a combination of generally higher automation in higher task States and the small size of low task States. The two low task States (DC and Utah) had 1.25 and 2.15 FTE determination unit staff, respectively, which is likely the lower bound of determination unit size.