

# Research to Practice

The 2010-2011 National Survey of Community Rehabilitation Providers: Estimating the Number of Community Rehabilitation Providers in the United States

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#### Introduction

This is the second in a series of research to practice briefs based on the 2010–2011 National Survey of Community Rehabilitation Providers (CRPs) funded by the Administration on Developmental Disabilities and the National Institute on Disability and Rehabilitation Research. The aim of the survey was to identify and describe trends in employment and non-work services for individuals with intellectual and developmental disabilities (IDD) and other disabilities who receive services from CRPs. The purpose of this brief is to provide a national estimate of the number of CRPs in operation in the United States.

While making such an estimate was not the survey's original intent, we have fielded multiple requests for the total number of CRPs derived from our research efforts. Despite several potential limitations, we are in a unique position to produce an estimate using data collected during the sampling and implementation phases of the survey research. This brief will describe the sampling frame, sampling methodology, verification process, and a step-by-step description of how the estimate was calculated.

## **Background**

In 2003, the Research and Training Center (RTC) on Community Rehabilitation Providers to Improve Employment Outcomes estimated that there are approximately 8,100 CRPs that provide services to adults, youth, Social Security beneficiaries, and other people with disabilities (Menz, Napp, Koopmann, & Hagen-Foley). A national estimate of CRPs may be important to researchers, practitioners, federal agencies, and disability advocates for a variety of reasons. Enabling people with disabilities to enter the labor market is a priority concern for federal and state policy makers (Silverstein, Julnes, & Nolan, 2005; Kiernan, Hoff, Freeze, & Mank, 2011; NACDD, 2011). Policy shifts over the last two decades

have established an increasing emphasis on integrated employment, and the federal government has set the tone for broad-based systems change (Rogan & Rinne, 2011).

CRPs are greatly impacted by these policy shifts, and are at the forefront of changes due to their role as the primary source of day and employment supports for people with disabilities. Furthermore, CRPs serve as a key community resource to re-engage individuals with disabilities into the community as a whole and provide equal economic participation (Menz, 2003). CRPs also play an integral role in carrying out disability-related employment policies, such as Ticket to Work and the Workforce Investment Act (Boeltzig, Butterworth, & Gilmore, 2006).

# Our estimate calculation indicates that there are 5,408 CRPs nationally.

Furthermore, the sampling and data collection phases of the 2010–2011 CRP survey supported the theory that the landscape of CRPs varies significantly across states. The variation in states' policies regarding licensing, accreditation, and definition of services highlighted the challenge in producing a national estimate of CRPs.

For example, some states have statutes in place that provide licenses to individual people--as opposed to community-based organizations--to provide day or employment services to one or more individuals with a disability. In other states, the majority of day and employment service providers are state-operated, and there are few private non-profit organizations in the market of CRPs. This variation across states and CRPs' role in providing employment services to millions of individuals with disabilities nationwide further strengthens the case for developing an estimate.





Past findings indicate that the majority (70%) of those served by CRPs are individuals with intellectual and developmental disabilities (IDD) (Metzel, Boeltzig, Butterworth, Sulewski, & Gilmore, 2007; Inge et al., 2009). Over two thirds of CRPs provide work and nonwork services in both integrated and facility-based settings (Metzel, 2007). Based on the most recent survey findings conducted by the Institute for Community Inclusion in FY 2010–2011, 1,016 CRPs reported serving a total of 201,672 individuals with all disabilities across employment and day services. Individuals with IDD represented 75% (n=150,330) of people supported by CRPs. The average number of individuals with all disabilities supported per CRP was 198 (Domin & Butterworth, 2012).

## **Sampling Frame**

The team of researchers consulted various sources to assemble a comprehensive list of all potential CRPs in the nation. We collected lists from key disability organizations, including The Arc, United Cerebral Palsy, NISH, APSE, Easter Seals, United Way, International Clubhouse Coalition, NAMI, CARF, and various federal-state agencies and programs such as mental health, vocational rehabilitation, IDD, and Ticket to Work.

The lists were compiled into a master database. At this phase, the database housed over 20,000 records; each record contained an organization name and contact information (address, phone, email, contact person). Each record was considered to be a potential CRP. Multiple operating locations of CRPs were included in the database and treated as unique records.

Researchers and graduate assistants then conducted preliminary cleaning of the master list to eliminate ineligible types of organizations, such as One-Stop Career Centers (American Job Centers) or medical providers. In addition, we conducted a preliminary round of record cleaning to eliminate duplicate records in the master list.

A particular challenge was distinguishing duplicates for CRPs that have multiple operating locations. If a record matched another in the fields of organization name, street address, city, state, and zip code, it was considered a duplicate and eliminated from the database. In the case that the organization name was the same but the street address, city, state, or zip code differed, the record was considered a unique operating location of an organization and remained in the pool.

Following these initial cleaning efforts, we finalized a sampling frame consisting of 11,712 potential CRPs. Using this sampling frame, we then designed and executed a multi-step random sampling procedure.

# Sampling Methodology

From the list of 11,712 organizations, we drew a random sample of 4,418 organizations. To draw the random sample, the records were migrated into SPSS and assigned a random identification number. Then, state by state, records were randomly selected to be included in the sample. This sampling design had two scenarios:

- 1) In states for which there were less than 100 records, all organizations were included in the sample.
- 2) In states for which there were more than 100 records, a random sample of 100 records was drawn.

This sampling strategy produced a final sample of 4,418 organizations.

# **Sample Verification**

We designed a verification process to validate each record in the random sample for sampling inclusion criteria. Due to the variable nature of the lists used to compile the database of 11,712 organizations, this methodology was selected to ensure the organizations in the sample were the target audience for this research. The 4,418 organizations were examined by researchers and trained graduate students using two key eligibility requirements: 1) the organization must provide day or employment services to people with disabilities, and 2) the record must include a valid mailing address, telephone number, and email address.

The criteria for a valid email address was dropped midway through the sampling process in order to accelerate the sample verification. As a result, during the first half of sample verification, an organization that provided day or employment services, but did not have a working email address, was disqualified from the sample. This means that there are a number of CRPs that were not positively verified and included in the sample, which has implications for our estimate that will be explained later.

If an organization met these criteria, it was included in the sample and therefore deemed a CRP. If an organization did not meet these requirements, it was not included in the sample and marked "disqualified." If the disqualified organization existed in a state with more than 100

organizations in the mailing list, the next randomly selected organization was checked for eligibility. This process continued until a) the target of 100 CRPs was reached in states with more than 100 organizations in the mailing list, and b) all organizations in states with less than 100 organizations in the mailing list were verified. In some cases, the mailing list pool was exhausted in states with more than 100 organizations in the original list, i.e., the pool was depleted before we reached 100 verified CRPs in the sample. In these cases, we included all verified CRPs in the sample.

The verification process continued on a rolling basis during survey implementation, as organizations were found to be ineligible during the fielding period. Throughout the implementation period, the survey sample was adjusted to reflect changes in organizations' eligibility to participate in the study. An organization in the sample was found to be ineligible for the following reasons: address and phone number is invalid (n=61), the organization does not meet the definition of CRP for this research (n=221), employment and/or day services have been discontinued since the time of sampling (n=38), or the organization is a duplicate (n=78), i.e., the organization appears in the sample twice.

In order to maintain the ideal sample size, CRPs that were found ineligible were replaced using the next randomly selected organization from the state. This occurred for states with organizations in excess of the targeted sample. Therefore, states with fewer than 100 CRPs had no replacement pool and ineligible organizations were simply removed from the sample. Throughout the survey implementation, we conducted five waves of replacement. The replacement waves consisted of 26 to 76 cases, for a total of 282 replacement cases across five waves.

#### **Verification Results**

In sum, there were 11,712 organizations in the mailing list. As we attempted to reach and maintain the target sample of 4,418 CRPs, we examined 7,735 organizations during the verification process. Of these, 3,551 met the sampling criteria during the sampling phase and implementation phase (including replacement procedures) of the survey: 1) provide day or employment services to people with disabilities, and 2) have a valid mailing address, telephone number, and/or email.

From this, we can calculate an eligibility rate by dividing the total number of organizations found eligible (CRPs) by the total number of organizations examined for eligibility.

#### Eligibility rate = 3,551 / 7,735 = 0.459

Then, we can take this rate of eligibility and apply it to the total number of records in the mailing list to estimate the number of CRPs we would have identified if we examined all 11,712. We multiply the eligibility rate by the total number of records in the mailing list to produce an estimate of the number of CRPs in the national mailing list: Estimate = 0.459 \* 11,712 = 5,376

This estimate can be further refined by separating the states for which we have an exact figure and states for which we can use the state-specific eligibility rate to make an estimate. We examined all organizations in the mailing list for 32 states (either because the original list contained fewer than 100 records, or because the list was exhausted during the verification and replacement phase). From these 32 states (including the District of Columbia), we positively identified 1,682 CRPs.

For the other 19 states, we can estimate the number of CRPs using the eligibility rate for each state multiplied by the number of organizations in the mailing list for that state. We estimate an additional 3,726 CRPs exist in the nation, for a total of 5,408.

## **Findings**

Our estimate calculation indicates that there are 5,408 CRPs nationally. Considering possible error and CRPs that were not identified in the original list, we suggest that there are between 5,000 and 6,000 CRPs that provide employment and/or non-work services to people with disabilities in the United States as of 2009. This estimate is based on the sampling criteria for the 2010–2011 National Survey of Community Rehabilitation Providers, and is not a statistical calculation, which limits our ability to provide a confidence interval for this estimate.

Table 1 on the following page provides the data points used to calculate this estimate for each state, and includes the total figures in the final row.

Table 1. State-by-State Data Points for Sampling, Verification, and Estimate Calculation

Data Points	(1)	(2)	(3)	(4)	(5)
State	Number of potential	Number of CRPs	Number of CRPs found eligible	CRP eligibility	Estimated number of tota
	CRPs in original mailing list	examined for eligibility	& included in the final sample 1	rate <sup>2</sup>	eligible CRPs in sample 3
AK	33	33	19	0.576	19
AL	132	132	67	0.508	67
AR	105	105	64	0.610	64
AZ	183	183	86	0.470	86
CA	648	209	100	0.478	310
CO	109	109	63	0.578	63
CT	163	163	93	0.571	93
DC	32	32	10	0.313	10
DE	77	77	28	0.364	28
FL	501	313	98	0.313	157
GA	236	236	99	0.419	99
HI	44	44	24	0.545	24
IA	177	162	99	0.611	108
ID	50	50	22	0.440	22
IL	419	168	97	0.577	242
IN	301	228	98	0.430	129
KS	302	200	101	0.505	153
KY	159	159	68	0.428	68
LA	284	182	93	0.511	145
MA	450	239	100	0.418	188
MD	267	195	102	0.523	140
ME	82	82	42	0.512	42
MI	264	185	95	0.514	136
MN	420	156	99	0.635	267
MO	252	252	94	0.373	94
MS	88	88	41	0.466	41
MT	71	71	42	0.592	42
NC	311	199	99	0.497	155
ND	61	61	24	0.393	24
NE	46	46	35	0.761	35
NH	179	179	51	0.285	51
NJ	228	228	97	0.425	97
NM	352	352	65	0.185	65
NV	78	78	32	0.410	32
NY	435	138	100	0.725	315
ОН	590	245	97	0.396	234
OK	174	174	94	0.540	94
OR	139	139	79	0.568	79
PA	456	154	100	0.649	296
RI	73	73	46	0.630	46
SC	103	103	54	0.524	54
SD	48	48	28	0.583	28
TN	258	249	95	0.382	98
TX	1164	349	98	0.281	327
UT	53	53	29	0.547	29
VA	164	164	93	0.567	93
VT	40	40	23	0.575	23
WA	399	249	98	0.394	157
WI	367	216	100	0.463	170
WV	69	69	33	0.478	33
WY	76	76	37	0.487	37
TOTAL	11712	7735	3551	0.459	TOTAL SUM=5408

<sup>&</sup>lt;sup>1</sup>This number is out of Data Point 2

<sup>&</sup>lt;sup>2</sup> Eligibility rate was calculated by dividing Data Point 3 by Data Point 2 <sup>3</sup>Estimate was calculated by multiplying Data Point 4 with Data Point 1

#### **Limitations**

The study was not designed to produce a national estimate of the number of CRPs in operation across the country; therefore, the limitations should be carefully considered. This figure should be used only when providing users with the contextual information:

- This estimate applies only to CRPs that met the inclusion criteria for this study; therefore, some organizations that meet a broader definition of "CRP" may not have been included.
- This estimate applies only to CRPs that had multiple forms of contact information available in mailing lists (some publicly available, some made available upon request).

There are also two assumptions made by the researchers to support the production of a national estimate of CRPs:

- Our efforts to build a national mailing list of all potential CRPs were comprehensive and exhaustive.
- Our verification procedures were appropriate and valid.

Additional limitations apply to the sampling procedures we employed for this study:

- Organizations that provide day and/ or employment services to people with disabilities were disqualified if they did not have a valid email address; this inclusion criterion changed during the sampling procedure. As a result, the eligibility rate may be higher and our estimate may be low.
- Organizations that were not identified from one of the project's data sources are not included in these estimates. These could be CRPs that provide services on a private purchase basis only, or that provide services that are funded by an entity that did not respond to the survey.
- Duplicates exist. We identified duplicates throughout follow-up and even during the data analysis phase; it is possible that a significant number of duplicates went undetected in the sample, but more importantly, in the 3,977 organizations that were not examined (Data Point 2 total subtracted from Data Point 1 total).

- Researchers and graduate students executed eligibility verification protocols, which are subject to human error.
- CRPs are historically highly volatile / highturnover organizations that frequently go out of business, move locations, and adapt services to meet demands. It can be a difficult population to document and measure at a given point in time.
- The sampling verification took several months, during which the reliability of the mailing list decreased due to changes in the sample population.

#### **Conclusion**

In providing this estimate of the number of CRPs in operation in the United States, we have attempted to address a national policy question using the resources available. A great deal of effort was dedicated to refining the sample for the 2010–2011 CRP survey, and the documentation of each step of the process has allowed us to extrapolate our findings beyond the original goals of the study. Despite the limitations of this estimate, it serves as an important measure to researchers, practitioners, federal agencies, and advocates who aim to positively impact the lives of individuals with disabilities.

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