

Critical attributes of vocational rehabilitation facilities:
Effects of facility size

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ABSTRACT

This study investigates the characteristics of rehabilitation facilities and examines these characteristics relative to identified national trends in vocational assessment. Data was collected in three broad areas. They are: (1) Client characteristics. (2) Referral sources. (3) Facility characteristics. Analysis of the data in each area was conducted with facility size as a variable. The conclusions drawn from the results of this study should help facility personnel refine existing programs and plan for the development of new programs. Additionally, this study should be helpful to state/federal personnel charged with developing and implementing individual rehabilitation plans.

Vocational rehabilitation facilities today are a major source of vocational assessments for state vocational rehabilitation agencies under purchase of service agreements. Current trends, as identified by rehabilitation professionals in a variety of settings, clearly show that facilities can be a focus of vocational assessment activities even in radically changing political climates. Some of the trends and issues noted at the First National Forum on Issues in Vocational Assessment (1984) included a need to: (1) improve the marketing of assessment services; (2) enhance professionalism; (3) build service networks by specializing vocational services; (4) stress the identification of transferable skills; and (5) incorporate knowledge of biomedical and technological advances into the assessment of vocational potentials.

The identification of trends in staffing, clientele, and services within vocational rehabilitation facilities can help improve our understanding of the factors that will influence the provision of vocational assessments in this latter half of the decade and beyond. This understanding will be helpful to planners within state agencies, rehabilitation facilities, and educational institutions.

An examination of facility characteristics should help at a number of levels. First, it will help assessment personnel working in rehabilitation facilities adapt their services to incorporate these noted trends. Secondly, it will be useful for facility directors and supervisors, as they improve their facilities to meet changing needs and trends, and as they strive to smoothly incorporate and integrate services or programs for optimum effectiveness and efficiency. And thirdly, this knowledge will be of benefit to state and federal agencies faced by seemingly ever tightening budgets.

This project was conducted to provide comprehensive and current knowledge about the structures of vocational rehabilitation facilities. Data represents the fiscal year 1981 to 1982. Utilizing a comprehensive survey sent to all vocationally oriented facilities accredited by CARF, data was collected on 221 facilities (approximately a 40% return rate).

The data collected addressed three broad content areas. The first was Client Characteristics, which included: (1) primary disabilities of the clients; (2) demographic characteristics of the clients; (3) client education; and (4) information about various types of skill training programs completed by the clients. The second content area addressed Client Referral Sources, such as State Vocational Rehabilitation Agencies, Developmental Disability Boards, and Special Education. The third content area addressed Facility Characteristics, including: (1) the number of clients served within the fiscal year; (2) fiscal resources of the facilities; (3) patterns of facility staffing; and (4) programs

and services offered by the facilities.

For analysis purposes, and to clarify the trends found in this study, all responding facilities were classified into one of four size categories, based upon the average number of clients served per day within the fiscal year under investigation. These categories were:

- Small Facilities.....1-30 clients served per day
- Small-Medium Facilities.....31-70 clients served per day
- Medium-Large Facilities.....71-100 clients served per day
- Large Facilities.....101+ clients served per day

Client Characteristics

Primary Disabilities

Results for client disabilities showed that by far the large majority of clients within the facilities were mentally retarded (51%), followed by clients who were mentally ill (15%), and then emotionally disturbed (7%). The combined categories of orthopedic, stroke, multiple sclerosis, and muscular dystrophy only accounted for 6% of the clients. When disabilities were combined into functional categories, it was evident (Table 1) that over half the clients (55%) had a disability related to intellectual functioning. Twenty-one percent of the clients had a disability related to emotional or mental functioning, and 16% had a physical capacities disability.

Table 1

Clients' Primary Disabilities (%)
After Grouping Disabilities

Category	FACILITY SIZE					D
	Small	S-Med	Me-La	Large	Aver	
A. Emotional/Mental Functioning	25.64	19.88	20.22	18.94	20.64	
B. Intellectual Functioning	35.16	58.33	52.28	62.35	54.66	<.001
C. Physical Capacities	22.90	14.17	19.37	12.88	16.38	.01
D. Communication Capacities	8.10	4.83	4.67	2.94	4.76	<.05
E. Social Deviance	8.19	2.79	3.46	1.98	3.56	<.005

When accounting for facility size effects on client disability categories, small facilities differed the most from the rest of the sample. Percentage wise, they served a larger variety of disabilities. Small facilities evidenced a significantly lower percentage of clients with the most predominant disabilities (intellectual functioning), and a relatively higher percentage of clients with the less frequently appearing disabilities (including disabilities of physical capacities, communication disorders, and social deviance).

Selected Demographic Characteristics

Several variables were utilized to describe client demographics. These included client sex, race, age, education, and skill training.

Data for sex of clients showed that slightly more than half the clients (55%) were males.

Race data showed that over three-fourths (77%) of the clients were white, and 15% were black. No significant effects of facility size were found for either of these variables.

Client age data showed that, across facilities, the largest percentage of clients (44%) were in their early career ages (25 to 40), and 28% were in their late teens to mid twenties. Thus, 72% of the clients were between 19 and 40. Facility size analyses showed that small facilities again differed from the rest of the sample, in that they served a relatively higher percentage of young clients (18 years of age or less) and a relatively lower percentage of early career age clients.

Data for education showed that over half the clients (58%) had less than a high school education, and an additional 18% had a special education diploma as their highest level of education. Nineteen percent of the clients had a high school diploma as their highest level of education. These results showed that about 95% of all of the clients had a high school diploma or less. This can be seen in Table 2.

Table 2

Client Education
(in percents)

ITEMS	FACILITY SIZE					SIGN.
	SMALL	SM-MD	MD-LA	LARGE	AVER.	
EDUCATION LEVEL OF CLIENTS ENTERING FACILITY						
< High School Diploma	48.26	60.25	63.92	56.86	57.89	
High School Diploma or GED	28.20	16.40	16.43	18.54	18.99	.0121
Special Ed. Diploma	14.79	19.02	15.19	21.22	18.28	
Some College	7.40	3.50	3.34	2.83	3.89	.0009
College Graduate	1.93	1.30	.92	1.12	1.26	

This table also shows that when considering facility size, small facilities evidenced a higher percentage of clients with a high school diploma as their highest level of education, and also a higher percentage of clients who had completed some college. This suggests that the educational level of clients within the small facilities was higher than in the larger facilities.

Client skill training data was consistent with the above. Most clients (86%) had no skill training prior to entering the facility. Five percent each had some prior skill training and prior vocational/technical studies. Facility size analyses showed that small facilities had higher percentages of clients with apprenticeships or vocational/technical studies, and a lower percentage of clients with no prior skill training.

Referral Sources

The results of analyses of client referral sources showed that, across facility size, State Vocational Rehabilitation Agencies were by far the largest referral source, accounting for over half (52%) of all client referrals. No other single source accounted for more than 8% of total client referrals.

Facility size analyses showed that the relative percentage of referrals from State V.R.

Agencies was significantly higher in small facilities than in the larger sized facilities. In fact, the caseloads of small facilities reflected approximately a 50% higher relative referral rate from State V.R. Agencies than was the case for large facilities.

Referral source tabulations indicated that, across respondents, only five referral sources accounted for four or more percent of the clients. These were:

State Vocational Rehabilitation Agency.....	52%
Developmental Disabilities Boards.....	8%
State Mental Health.....	7%
Self-Referrals.....	5%
Special Education.....	4%

Facility Characteristics

Numbers of Clients Served/Client Tenure

The average facility in this sample served 387 clients within a fiscal year. Not unexpectedly, large facilities served the greatest average number of clients -- 495. However, small facilities served the next largest mean number of clients per year -- 432.5. Medium-large facilities showed the lowest mean. This shows that both large and small facilities served the greatest number of clients per year.

Table 3

Total Number of Clients Served Per Year, and Length of Client Stay at Facility

Size of Facility	# Clients Served Per Year	# Days At Facility
Small	432.5	58.89
Small-Medium	335.9	157.13
Medium-Large	274.3	177.83
Large	495.0	176.36
Average	387.0	151.85

The second column of Table 3 sheds some light upon this pattern. It clearly shows that the average number of days clients spent at a facility was very similar across different sized facilities, except for small facilities. The overall average number of days clients spent at the facility was about 152 days. For small-medium, medium-large, and large facilities, these means were very similar, ranging from 158 to 178 days. But at small facilities, clients stayed a significantly shorter average of 59 days. This explains the large numbers of clients served by small facilities. Small facilities had a much higher rate of client turnover.

Fiscal Information

Using some established accounting principles, seven possible sources of facility income were established. The income for each of these categories is listed on Table 4.

As can be seen, the average total yearly income for all facilities was \$768,988. Two categories of income accounted for 89% of total facility income -- Fees for Services (\$347,439) and Earned Income (\$336,339). Amounts of other income were: Subsidy Income (\$50,363); Special Grants and Projects (\$15,868); Tax Support (\$8,403); and Interest Income (\$2,223). "Other

Table 4
Fiscal Resources (in Dollars)
of Responding Facilities
(Across Different Size Facilities)

SOURCE OF FUNDS	AVERAGE INCOME
Fees for Services	\$347,439
Earned Income	\$336,339
Tax Support	\$8,403
Interest Income	\$2,223
Subsidy Income	\$50,363
Special Grants and Projects	\$15,868
"Other" Income	\$8,353

Income" accounted for an additional \$8,353.

Facility size effects on total facility income were also found. The means for total facility income were: Small Facilities - \$410,538; Small-Medium Facilities - \$338,883; Medium-Large Facilities - \$1,356,274. This pattern indicates that Large Facilities had a distinctly and significantly higher total level of income than the three small size groups of facilities. (The three smaller sized groups of facilities did not differ significantly from each other). This pattern may reflect the greater range of facilities, in terms of size, within the large facility group.

Staffing of Facilities

Three general categories of staff were assessed. As shown in Table 5, client services staff accounted for the largest number of staff within the facilities, with about 25 such FTE staff being the average. Management staff averaged six per facility, and support staff averaged about four. When considering facility size, large facilities showed significantly higher means for all three categories of staff than the three smaller size groups.

Table 5

Staffing of Facilities
Grouped into Three Major Categories
(in Full-Time Equivalents -- FTEs)

STAFFING CATEGORIES	FACILITY SIZE				
	SMALL	SM-MD	MD-LA	LARGE	AVER.
Management Staff	3.20	4.52	5.27	9.45	5.96
Client Services Staff	9.89	16.01	26.02	41.26	24.86
Support Staff	1.92	2.60	3.67	6.22	3.83

CARF Accreditation Patterns

Since facilities were selected to meet the inclusion criteria for the present study, accreditation patterns do not reflect national patterns of CARF accreditation.

In this sample of facilities, the following percentages of accreditation were found:

Vocational Development.....	72.3%
Sheltered Employment.....	56.9%
Work Activities.....	50.9%
Personal/Social Development....	11.8%
Speech Pathology.....	2.7%
Audiology.....	0.7%

Only Sheltered Employment and Work Activity showed any significant effects for facility size.

These are shown on Table 6. The percentage of large facilities accredited in Sheltered Employment was significantly greater than the corresponding percentage for small-medium facilities; and the percentage of large facilities accredited in Work Activity was significantly greater than the corresponding percentages for both the small and the medium-large facilities. These patterns indicate that large facilities seemed to be more oriented toward Sheltered Employment and Work Activities than small facilities.

Table 6

Means Comparisons, by Facility Size, of CARF Accreditation in Sheltered Employment and Work Activity (in percents)

AREA OF ACCREDITATION	FACILITY SIZE					AVER.	SIGN.
	SMALL	SM-MD	MD-LA	LARGE			
Sheltered Employment	48.57	49.28	51.02	73.13	56.82	=.01	
Work Activity	11.43	56.52	42.86	71.64	50.91	<.001	

Availability of Programs/Services

The absence or presence of 19 categories of programs/services was also assessed within the responding facilities. Results are shown on Table 7.

Table 7

Availability of Programs/Services Within the Facilities in the Sample (in Percents)

PROGRAMS/SERVICES	FACILITY SIZE					AVER.	SIGN.
	SMALL	SM-MD	MD-LA	LARGE			
A. Vocational/ Work Evaluation	88.6	78.3	81.6	85.3	82.8		
B. Psychological Testing	31.4	35.3	25.0	42.7	34.7		
C. Vocational Counseling	60.0	57.4	68.8	75.0	65.8		
D. Personal Counseling	37.1	47.1	54.2	55.9	49.8		
E. Social Services	14.3	23.5	37.5	36.8	29.2	.0500	
F. Remedial Education	25.7	39.7	43.8	50.0	41.6		
G. Work Adjustment Training	71.4	79.4	85.4	85.3	81.3		
H. Occupational Skill Training	20.0	16.2	41.7	54.4	34.3	.0001	
I. On-The-Job Training	25.7	22.1	35.4	26.5	26.9		
J. Job Seeking Skills Training	54.3	60.3	64.6	69.1	63.0		
K. Job Placement	48.6	58.8	75.0	80.9	67.6	.0017	
L. Sheltered Employment	42.9	69.1	66.7	77.9	67.1	.0041	
M. Work Activities	20.0	55.9	66.7	82.4	60.7	.0001	
N. Independent Living	22.9	20.6	43.8	36.8	31.1	.0258	
O. Daily Living Skills	28.6	41.2	62.5	60.3	49.8	.0021	
P. Residential Living	14.3	14.7	20.8	19.1	17.4		
Q. Recreation	22.9	26.5	45.8	41.2	34.7		
R. Medical Services	20.0	10.3	22.9	30.9	21.0	.0311	
S. Other	11.4	7.4	16.7	17.6	13.2		

Consistent with the CARF accreditation patterns mentioned previously, the two most frequently offered programs were Vocational/Work Evaluation (82.8% of the facilities) and Work Adjustment Training (offered by 81.3% of the facilities). The remaining programs, evident in 50% or more of the facilities, were:

- Job Placement.....67.6%
- Sheltered Employment.....67.1%
- Vocational Counseling.....65.8%
- Job Seeking Skills Training..63.0%
- Work Activities.....60.7%

Facility size effects suggested that, on many of the comparisons, the percentage of facilities offering a specific service/program tended to increase with facility size. Large facilities

tended to offer a wider array of services/programs than the smaller ones. This seems consistent with the larger numbers of staff and also clients found within the larger facilities.

Implications of the Results

The results which were obtained help to clarify the structure of a national sample of vocationally oriented CARF accredited facilities, and can be used to address some of the issues pointed out above.

The above data were collected in the three primary content areas of clients, referrals, and facilities. Additionally, the data were analyzed by facility size because some of the characteristics were skewed by the numbers of clients served by the facility. Thus, the implications of this study will be examined using four focus areas:

1. Client Characteristics
2. Client Referral Sources
3. Facility Characteristics
4. Size Related Characteristics

Client Characteristics

With an overall average of 51% of the clients in this study having a primary diagnosis of mental retardation, two approaches appear to be open to facility service planners. Facilities may choose to sharpen their marketing strategies with these clients, promoting services to mentally retarded clients as a primary specialty area. On the other hand, facility planners may be wise to broaden their service base to provide services for other disability populations, particularly populations that have service needs closely allied to the services provided mentally retarded clientele. The most successful strategies will probably incorporate elements of both approaches. Facilities can specialize their services and provide these services to many populations.

This study found that 77% of facility clients were white. The prevalence of disabilities within minority populations has not been found to significantly deviate from the norm. Thus, at least within the limitations of this study's sample, minorities seem to be under-represented in facilities. More investigation needs to be conducted to determine if facilities should implement an affirmative action plan aimed at providing services to minority populations. In any case, this may be an overlooked market for facility services.

Most facilities were found to be serving 19-40 year old, "career age" clients. This is not surprising considering the vocational emphasis of rehabilitation facilities. However, significant markets also exist for clients in the under 18 and over 40 age groupings. In our discussion of size specific characteristics below, we will note that some facilities have seen these market potentials and acted to boost client loads.

Given the populations served, findings showing an educational level of less than a high school diploma for 58% of the clients in facilities is not surprising. However, this client

characteristic may significantly shape the curriculum development of facility programs. In addition, some of the curriculum elements designed to address educational deficits may provide market openings for the facility.

Client Referral Sources

Overall, facilities received an average of 52% of their client referrals from vocational rehabilitation agencies. Only five sources individually provided more than 4% of facility referrals. However, an average of 24% of facility referrals were received from a diverse base of sources. This fact is of significant interest considering the threats of budget reductions within the state/federal rehabilitation system in the near future.

Presently small, but potentially important sources of client referrals include private industry councils, insurance carriers, public school programs, and other rehabilitation facilities. The latter source is very interesting. The fact that this source is mentioned by reporting facilities at all shows that specialization can even create an inter-facility network leading to better service provision for clients and a larger referral reach for facilities.

Facility Characteristics

Fees for services and earned income tend to account for equal shares (and the largest percentage) of facility operating revenues. Administrators of facilities have heard for years that the balance of fees versus earned income needs to be restructured to weight heavily to the earned income side. Certainly some shift in this direction is to be expected. However, it is not undesirable to strive for continued balance in these two areas by identifying and soliciting clientele from other market areas. A fees for services - earned income balance may, in fact, help keep the facility's mission clearly in focus.

Client service staff were found to account for the largest number of employees in facilities. This should be interesting to many staff members who often criticize the number of management related personnel in their organizations. Generally, the staff to management ratios was reported at four to one. Also interesting was the data for support personnel. Though greater specialization may influence these figures, this study indicated that the client service staff to support staff ratio normally averages six to one.

Size Related Characteristics

Most characteristics skewed on the basis of size were found in small facilities. Some characteristics of large facilities could also be related to their size. Lower per day client counts could possibly account for their apparently non-traditional approach to marketing their services.

Small facilities had several marked characteristics. Small facilities served a larger

variety of disabilities; they served larger numbers of non-mentally retarded clients; they served the largest number of clients under 18; they served more educated clients; they had the highest percentage of vocational rehabilitation referrals; and they had high per year client counts, but kept them on their case loads for half the time of all other facility categories.

These characteristics of small facilities point to market flexibility. Larger facilities should also be able to provide small-facility-like flexibility through a greater use of service specific control centers. Creating program structures that give service supervisors more acting authority (with attendant responsibility) may help these facilities gain the flexibility needed to compete for many service and clientele markets.

Large facilities also were found to have characteristics that were significantly different from the average. Large facilities served highest percentage of mentally retarded clients. They also, perhaps because of their clientele base, relied heavily on locally based DD boards for their referrals. As a final consequence of their client population, they also tended to provide sheltered employment and work adjustment services as primary providing programs. From this base, large facilities are in a good position to specialize in services to mentally retarded clients and in the service areas of sheltered employment and work adjustment for other disability referrals. Any diversification of their services should be attempted using either the above characteristics as a benchmark or through the use of highly autonomous program centers as described above.

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