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The first section of this report provides descriptive information about the financial structure of a sample of sheltered workshops (n=123) in terms of the variety of their sources of income and their expenses during fiscal year 1966. The relationship between differences in financial structure and other organizational characteristics is examined in the second section. While sheltered workshops derive income from (1) sales, services, and contracts, (2) client fees, (3) fees from referring agencies, (4) community fund drives, (5) workshop fund drives, (6) parent organizations, and (7) other miscellaneous sources, there is a large amount of variability among workshops, both in the magnitude of their incomes and in the relative amounts received from each source. Workshop expenses include (1) staff salaries, (2) overhead, (3) supplies and materials, (4) client wages, and (5) miscellaneous expenses. If variations in financial structure are a valid indicator, workshops constitute a heterogeneous population of organizations. The relationships between financial structure and (1) level of technological complexity, (2) services and programs, (3) professional density, (4) administrative and supervisory density, (5) disability mix, (6) client tenure, (7) composition of boards of directors, and (8) community setting are analyzed. The data are presented in 25 tables. (IM)

NEW YORK STATE SCHOOL of INDUSTRIAL and LABOR RELATIONS, A Statutory College of the State University, at CORNELL UNIVERSITY

THE FINANCIAL STRUCTURE OF SHELTERED WORKSHOPS

by John R. Kimberly

ORGANIZATION AND ADMINISTRATION OF SHELTERED WORKSHOPS:
Research Report Series, No. 3

The Financial Structure of Sheltered Workshops

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New York State School of Industrial and Labor Relations,
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Cornell University, Ithaca, New York
June 1968

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Preface

This is the third in a series of research reports published by the Region II Rehabilitation Research Institute at Cornell University. This series is designed to provide a means for disseminating information gathered in the course of research into the "organization and administration of sheltered workshops" which is supported by the Social and Rehabilitation Service (formerly VRA) of the United States Department of Health, Education and Welfare.

As the report was being prepared, a number of interesting and, we think, important questions emerged, some of which could be answered at least partially by referring to the data, others to which no readily apparent answers presented themselves. With respect to the latter group of questions, two comments are in order: First of all, it seems that very little is known about the absolute and relative costs of running various parts of the total workshop program, and, at the same time, about what contribution each part makes to the "progress toward normal living and a productive vocational status" of the client. If more were known about these dimensions, that is, if some form of cost-benefit analysis could be applied to workshop programming, then more effective planning and utilization of personnel and facilities could be implemented. Second, little is known about the capital structure of sheltered workshops and, for example, about how much it costs to provide a place for a client in sheltered employment. Answers to questions such as these are important if we are to develop better rehabilitation and social accounting techniques.

The information contained in this report was gathered from 123 sheltered workshops in Region II. A complete description of the sample and how it was generated can be found in the first report in this series, *Wage Levels in Sheltered Employment*, by William H. Button.

A substantial debt is owed to each of the workshop directors who aided in our research by completing the survey instrument which was used to gather the data. We would also like to acknowledge the cooperation of the state agencies in New York, Pennsylvania, and New Jersey under whose sponsorship the survey was carried out. Finally, special thanks must go to several individuals who aided in the preparation of this report. Susan Winslow performed all of the computer-related work involved in the analysis of the data. William Button, research director of the Research Institute, read and offered helpful criticisms of early drafts of the report. And, finally, Mrs. Roni McClure found time in her busy schedule to type and retype various drafts of the report.

J.R.K.

Ithaca, New York
June, 1968

The Financial Structure of Sheltered Workshops

INTRODUCTION

The members of the Region II Research Institute staff feel that little of a concrete, empirical nature is known about the financial structure of sheltered workshops. It seems to us that, particularly in light of the increasing amounts of financial resources currently being allocated to vocational rehabilitation in general and to workshops in particular by the federal government, an analysis of this aspect of their organization and administration would be timely.

Sheltered workshops pose some interesting problems from both an administrative and a research point of view. For example, in some ways workshops resemble small business organizations and in others they resemble professional, therapeutic organizations. They are concerned, on one hand, with the production of goods and services and, on the other, with the provision of a variety of rehabilitative services and programs to their disabled client populations. This dual focus of activities is reflected in their financial structure, and this report intends to provide information to persons concerned with both kinds of activities as well as to persons concerned with long-range planning and policy making in these organizations. Hopefully, the information contained in this report will be useful as an empirical point of departure for these groups, particularly since financial data on this large a sample of workshops has, to our knowledge, never been generally available previously in this form and with this degree of completeness.

As has previously been the case in this series, this report is meant to be descriptive and analytic rather than evaluative. Since it is based on quantitative, rather than qualitative, information, it has certain potential advantages and limitations of which the reader should be well aware in assessing its usefulness. The statistical techniques used in the second section of the report, while they do indicate associations between certain variables, do not imply causality, that is, they do not enable one to make statements of the "a is the cause of b" variety. What it does enable one to say, however, is that whenever "a" is present there is a reasonable degree of certainty that "b" will be present as well. Once again, we feel that information of this sort will be useful as an indicator of the current financial structure of workshops and can be used as a base-line for those concerned with problems of change and control.

The first section of this report provides general descriptive information about sources of workshop income and the kinds of expenditures incurred; the second analyzes the differences in financial structure among workshops and the way in which these differences are related to other organizational characteristics.

FINANCIAL STRUCTURE: GENERAL CHARACTERISTICS

The information contained in this section is based on a survey of sheltered workshops in New York, New Jersey, and Pennsylvania conducted by the Region II Research Institute. One section of the survey instrument requested information about income and expenses for a complete fiscal year. Since information of this type has never been collected from a large number of workshops in this fashion before, a number of steps were taken to insure reliability. First, workshop directors were assured that the data would be treated in a strictly confidential manner and would be reported in aggregates only; that no workshop would be identified by name; and that data from individual shops would be reported only together with data from all other participating organizations. Second, items were built into the survey instrument which permitted checks on the internal consistency of responses. A workshop which reported, for example, that it employed five full time professional staff personnel and yet paid out only $6,000 in annual professional staff salaries would have been asked to provide us with more information about its salary scales. Third, the data reported to us was checked by state facilities specialists to see if it agreed with their records and general impressions. Finally, a number of site visits were made by members of the Institute staff to a variety of workshops to get first-hand information about their financial structures. In all cases in which a discrepancy was found or a question arose, the workshops were contacted either by letter or by telephone in an attempt to clarify the problems. This procedure seemed to be effective, and enabled us to include information from 123 workshops in our final sample.[1]

1 These 123 workshops represent roughly 72 percent of the total number of workshops in the three states surveyed. They serve, however, 91.5 percent of all clients receiving workshop services in these states. For a complete description of the sample and how it was generated, see W.H. Button, *Wage Levels in Sheltered Employment*, (Ithaca: Region II Rehabilitation Research Institute, Cornell University, December 1967), Research Report 1, pp. 2-3.

One further comment about the data collection procedure should be made. The information included in this report was collected in December 1966 and January 1967. This means that changes in workshop organization and financial structure which may have taken place as a result of the changes in the minimum wage provisions effective February 1, 1967 will not be reflected in this report. It should also be noted, however, that the Institute is currently in the process of extending its survey into five additional states, and that this new information will reflect changes which may have occurred.

SOURCES OF WORKSHOP INCOME

Sheltered workshops derive income from a variety of sources. The following discussion illustrates this variety and provides a breakdown of the information for each state and for the sample as a whole.

Income from Sales, Services, and Contracts

Three of the major sources of income in sheltered workshops are the sale of finished goods, the provision of services, and the completion of subcontract work. In general, income from these sources can be thought of as earned income, or income from production or business activities. Table 1 contains a breakdown of the dollar amounts of business income.

The fact that workshops did nearly $26 million worth of business in three states in 1966 may come as a surprise to those who are concerned with the role of workshops in the community. This figure certainly indicates that, in addition to the role they may play in the rehabilitation of disabled clients, workshops play an important role in the economic sector of the community.

The data also indicate that there is an enormous amount of variation among workshops with respect to the total volume of business income received. The high and low workshops differ by a factor of nearly 2,500 in business income; a fact which suggests that, in terms of their organization and administration, they constitute a very heterogeneous population and quite likely face very different classes of problems in their everyday operations.

Of further interest is the proportion of this total income accounted for by subcontract work. Our figures indicate that subcontracting generated $8,027,600 worth of business income for workshops or nearly one-third of the total. Also, of the 123 shops included in the sample, 109 indicated that they perform subcontracting work; however, within this group there is a large amount of variability in the percentage of total income accounted for by that form of business activity.[2]

Income from Fees from Clients

Although the practice is by no means universal, some workshops charge a fee to the client's family for the services they provide in the shop. Sometimes there is a standard fee for all clients, sometimes the fee is based on the ability of the client's family to pay, and sometimes payment is requested by the shop only when the client is not sponsored by some outside agency. Table 2 contains information on these fees.

Income from Fees from Referring Agencies

Often workshops perform certain evaluation and rehabilitation services on a fee basis for other local or state agencies in which clients are referred to the workshop for varying lengths of time by counselors who are supervising the cases. Each state has its own program with its own idiosyncracies, but typically a client will be referred for functional and psychological evaluation lasting approximately one to two months

TABLE 1

Income from Sales, Services and Contracts

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$18,924,500	$1,727,000	$5,020,200	$25,671,700
Highest Shop	4,656,000	372,000	1,077,400	4,656,000
Lowest Shop	2,400	2,200	1,900	1,900
Average Amount per Shop	386,214	101,588	88,074	208,713
Number of Shops	49	17	57	123

2 For an excellent study of subcontracting in workshops, see Michael M. Dolnick, *Contract Procurement Practices of Sheltered Workshops*, (Chicago: National Society for Crippled Children and Adults, 1963).

TABLE 2

Income from Fees from Clients

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$32,800	$45,300	$60,800	$138,900
Highest Shop	11,000	27,700	17,600	27,700
Lowest Shop	0	0	0	0
Average Amount per Shop	4,100	6,471	3,040	3,969
Number and Percent of Shops Charging Fees	8(16.3%)	7(41.2%)	20(35.1%)	35(28.5%)

TABLE 3

Income from Fees from Referring Agencies

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$1,553,100	$264,300	$785,100	$2,602,500
Highest Shop	219,000	57,900	136,000	219,000
Lowest Shop	0	0	0	0
Average Amount per Shop	36,979	18,879	21,219	227,984
Number and Percent of Shops Receiving Income from Referring Agencies	42(85.7%)	14(82.4%)	37(64.9%)	93(75.6%)

followed by three to six months of personal adjustment training. The workshop will be reimbursed on a fixed weekly per client fee basis for these services. Just as income from sales, services, and contracts can be thought of as income from business activities, income from fees from clients and from referring agencies can be thought of as income from rehabilitation activities. Data on the amounts of money workshops received from referring agencies is contained in Table 3.

Although it appears as though workshops in New York are getting more referral income than workshops in the other two states, this is true only in an absolute sense. Workshops in New York serve an average of 98 clients daily, while shops in New Jersey serve 56 and those in Pennsylvania serve 50. Hence, when the amount of referral income received *per client* during the year is calculated, the average in Pennsylvania is approximately $424, that in New York is $377, and that in New Jersey is $337. It should also be noted, however, that whereas workshops in Pennsylvania receive the highest annual referral income per client, only 37, or less than two-thirds, of Pennsylvania workshops receive any referral income at all. This figure is quite a bit higher in New York and New Jersey, and may well be a reflection of differing state policies regarding utilization of workshop facilities.

Income from Community Fund Drives

Most communities have a single annual fund drive, with proceeds allocated to the various charitable organizations in the area, which is designed to avoid a proliferation of separate drives for each organization and to encourage prospective donors to make one contribution to cover all charities. Because workshops vary considerably in the degree to which they see themselves as charitable organizations, there is considerable variation in the amounts of money they receive from community sources such as the Community Chest or the United Fund. In fact, only 47 of the 123 workshops included in the sample reported that they had received income from these sources. Table 4 contains data about community sources of income.

Income from Workshop Fund Drives

In some cases, workshops organize and conduct their own independent fund drives. Our data indicate that this

TABLE 4

Income from Community Fund Drives

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$718,300	$56,200	$466,700	$1,241,200
Highest Shop	320,700	18,900	85,100	320,700
Lowest Shop	0	0	0	0
Average Amount per Shop	39,906	11,240	19,446	26,409
Number and Percent of Shops Receiving Income from Community Chest	18(36.7%)	5(29.4%)	24(42.1%)	47(38.2

method of generating income is usually an alternative to the community drive and is used relatively infrequently; only 36 workshops reported that they received income from an independent fund drive. Our impression is that independent fund drives are launched only when major capital expenditures are anticipated or an expansion of facilities is planned. A successful fund drive requires careful planning and a highly organized effort, and most workshops do not have the personnel to undertake such an effort on an annual basis. Table 5 contains information on income generated by independent fund drives

TABLE 5

Income from Workshop Fund Drives

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$725,400	$42,000	$266,600	$1,034,000
Highest Shop	256,100	28,900	71,000	256,100
Lowest Shop	0	0	0	0
Average Amount per Shop	95,338	10,500	16,663	28,722
Number and Percent of Shops Receiving Income from Fund Drives	16(32.7%)	4(23.5%)	16(28.1%)	36(29.3%)

Income from Parent Organizations

Some workshops are independent organizations, others are a part of larger agencies, and still others are affiliated with state or national associations or other administrative systems. Income from parent organizations includes income from any organization of which the workshop is a part or with which it is formally affiliated. As is evident from an inspection of Table 6, workshops typically do not receive large amounts of income from this source, nor do many workshops report receiving any income from it.[3]

Income from Grants

Since the 1954 amendments to the Vocational Rehabilitation Act, the federal government has become deeply involved in supporting the rehabilitation activities of sheltered workshops through a variety of grant programs. Most important among these programs are the salary support grants providing money for the hiring of qualified professional personnel, extension and improvement grants for the expansion and/or upgrading of existing facilities and services, facilities grants for the construction of new workshops, and research and demonstration grants for research into the rehabilitation process. Although only a few more than half of the workshops surveyed received income from grants, nearly all of the workshops founded since the adoption of the amendments in 1954

3 Parent organizations make more of a contribution in actuality than these figures indicate. Often they will help a workshop if it is running a deficit, but such help is not included in our data.

TABLE 6

Income from Parent Organizations

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$47,900	$26,000	$162,300	$236,200
Highest Shop	44,000	10,600	61,400	61,400
Lowest Shop	0	0	0	0
Average Amount per Shop	11,975	6,500	11,593	10,736
Number and Percent of Shops Receiving Income from Parent Organizations	4(8.2%)	4(23.5%)	14(24.6%)	22(17.9%)

had income from this source.[4] It is our impression that grant money will constitute an increasingly significant proportion of workshop income, barring unforseen circumstances which would drastically reduce federal spending in this area. At the present, for example, it is difficult to assess the impact of increased defense spending on the availability of grant money to workshops. Table 7 includes information on income from grants.

TABLE 7

Income from Grants

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$1,380,700	$24,200	$400,100	$1,805,000
Highest Shop	240,400	5,500	56,100	240,400
Lowest Shop	0	0	0	0
Average Amount per Shop	47,610	3,025	12,503	26,159
Number and Percent of Shops Receiving Income from Grants	29(59.2%)	8(47.1%)	32(56.1%)	69(56.1%)

Other Income

In addition to the sources discussed above, workshops receive income from a variety of miscellaneous sources such as unsolicited gifts, bequests, dividends, interest, and so on. The income from these sources is summarized in Table 8.

Discussion

The preceding tables are meant to provide insights into the variety of sources of workshop income and to give an idea of the magnitude of these sources in dollar amounts. When all of the items are summed, the total income of workshops in New York state in 1966 was $23,705,200; of workshops in New Jersey $2,230,200; and of workshops in Pennsylvania $7,706,100. Thus, for all workshops in the three states included in the sample, total income from all sources in 1966 was $33,641,500.

It is difficult to estimate from these tables, however, the *relative* contribution of each major source of income to the total. Therefore, Table 9 was developed to illustrate what percentage of the total income received by workshops each major source constituted, on the average.

What may be of interest is the fact that, on the average, income from business activities — sales, services, and contracts — accounts for approximately three-quarters of workshop income; while the next largest item, fees from referring agencies, accounts for less than ten percent. Also important, however, is the fact that the *median* percentage of total income accounted for by sales, services, and contracts is 50 percent. This indicates that the largest workshops, as measured

4 The history of the workshop movement has had an interesting impact on the structure of workshops. This impact has been analyzed in J.R. Kimberly, "Organization History, Age, and Structure," (mimeo), RII RRI, Cornell University, January 1968.

TABLE 8

Other Income

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$313,000	$45,200	$544,700	$903,200
Highest Shop	64,000	31,500	292,600	292,600
Lowest Shop	0	0	0	0
Average Amount per Shop	13,622	5,022	14,334	12,903
Number and Percent of Shops Listing Income from Other Sources	23(46.9%)	9(52.9%)	38(66.7%)	70(56.9%)

by total income, derive most of their income from sales, services, and contracts, while smaller workshops tend to rely on other sources for their income.

As noted earlier, there is a large amount of variability among workshops both in the magnitude of their income and in the relative amounts received from each source. Although Table 9 does not provide any insights into this variability, the second section of this report will deal with the relationship between variability in sources of income and other organizational characteristics.

WORKSHOP EXPENSES

The problem of allocating financial resources confronts any organization which incurs costs in the course of its operation. Associated with most organizations are both fixed and variable costs of operation, and these costs are usually met with revenues obtained from ongoing activities and other sources. We have found that there is a great deal of inter-workshop variability in both the absolute amount of e tures incurred and the distribution of these expen across a variety of items. The following discussion illu this variability with actual expense data

Total Staff Salaries

Associated with any workshop are at least o usually several, non-client staff personnel. These pe may include executive directors, social workers, rehabil counselors, shop supervisors, contract procurement spe secretaries, and others. These individuals are employe full-time, a part-time, or a consultative basis, and are re ated by the workshop for their services. The costs workshop of employing these individuals are, of cou lated to their number and qualifications. That staff s and hence the number and qualifications of staff pe

TABLE 9

Percent Contribution of Major Sources of Income to Total Income

Source of Income	New York	New Jersey	Pennsylvania	Total Sample
Sales, Services and Contracts	79.8%	77.4%	65.2%	76.3%
Fees from Clients	.2	2.0	.8	.4
Fees from Referring Agencies	6.6	11.9	10.1	7.7
Community Chest	3.0	2.5	6.1	3.7
Workshop Fund Drive	3.1	1.9	3.4	3.1
Parent Organizations	.2	1.2	2.1	.7
Grants	5.8	1.1	5.2	5.4
Other Income	1.3	2.0	7.1	2.7
Total Income	100.0	100.0	100.0	100.0

vary considerably among workshops is evident from the data presented in Table 10.

The average amount of salaries paid to staff is quite a bit higher in New York than in either New Jersey or Pennsylvania; but this fact is explained, in part, by the fact that the average workshop in New York has 18.01 paid staff employees, while in New Jersey there are 7.82 and in Pennsylvania 8.85.

Overhead Expenses

Included in the category of overhead expenses are disbursements for such items as rent, fuel, utilities, and insurance. Because the amount of sophistication in accounting procedures varied from workshop to workshop, we are less certain of the reliability of this particular item than of most other

TABLE 10

Total Staff Salaries

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$4,642,000	$644,300	$1,676,700	$6,963,000
Highest Shop	496,300	97,500	180,900	496,000
Lowest Shop	500	8,100	1,000	500
Average Amount per Shop	94,735	37,900	29,416	56,610

TABLE 11

Distribution of Salaries by Staff Position

	Professional Salaries		Administrative and Supervisory Salaries		Clerical Salaries	
	New York	New Jersey	New York	New Jersey	New York	New Jersey
Total Amount	$1,738,600	$233,700	$1,801,100	$311,500	$1,102,700	$99,100
Highest Shop	256,600	40,900	142,000	45,800	197,000	16,500
Lowest Shop	0	0	300	0	0	400
Average Amount Per Shop	35,482	14,606	36,757	18,324	22,504	5,829
Number of Shops with These Expenses	45	15	49	15	46	17

In New York and New Jersey, workshop directors were asked to break down their salary expenses into three categories: professional, administrative and supervisory, and clerical. Although this breakdown was not requested in Pennsylvania, an estimate of professional salary expenses for the whole state has been made and reported elsewhere.[5] Table 11 contains a breakdown of this information for the two states in which it was requested.

items. As noted earlier, attempts were made to verify information when questions arose, but in spite of these efforts, there are undoubtly some weaknesses in the data. It is difficult to understand why two workshops in New York and one in Pennsylvania reported no expenses for overhead, but we are satisfied that our aggregate overhead data is not misrepresentative since these three are small organizations.[6] Table 12 includes information on overhead expenses.

5 J.R. Kimberly, *Professional Staffing in Sheltered Workshops,* (Ithaca: RII RRI, Cornell University, December 1967), Research Report 2, p. 5.

6 The total expenses of the three workshops reporting no overhead were $23,000, $51,400, and $17,600. The fact that their expenses were so low indicates that their overhead was minimal, if not zero.

TABLE 12

Overhead Expenses

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$1,864,200	$281,000	$796,600	$2,942,700
Highest Shop	409,000	88,400	188,900	409,000
Lowest Shop	0	1,200	0	0
Average Amount per Shop	39,664	6,582	14,225	24,522
Number of Shops Reporting Overhead Expenses	47	17	56	120

Supplies and Materials Expenses

The expenses incurred by a workshop for supplies and materials were broken down into two categories; expenses associated with administration and those associated with production. In particular, supply and materials expenses for production vary from workshop to workshop, largely as a function of whether the shop depends on prime manufacturing or subcontracting as the basic kind of work it provides. Prime manufacturing generally requires the purchase of raw materials, whereas in much of the subcontracting done by workshops the contractor provides the materials and the work centers around various finishing activities. Table 13 presents a breakdown of supply and materials expenses into those associated with administration and those associated with production.

TABLE 13

Supplies and Materials Expenses

I. For Administration

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$280,600	$35,700	$233,300	$549,600
Highest Shop	92,700	9,500	84,900	92,700
Lowest Shop	0	0	0	0
Average Amount per Shop	6,377	2,550	4,666	5,089
Number and Percent of Shops Reporting Administrative Expenses	44(89.8%)	14(82.4%)	50(87.7%)	108(87.8%)

II. For Production

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$7,607,800	$106,200	$1,309,600	$9,023,600
Highest Shop	3,080,000	67,600	381,600	3,080,000
Lowest Shop	0	0	0	0
Average Amount per Shop	165,387	8,169	23,386	78,466
Number and Percent of Shops Reporting Production Expenses	46(93.9%)	13(76.5%)	56(98.2%)	115(93.5%)

Some care should be used in interpreting the data on supply and material expenses for production. One workshop in New York had over three million dollars worth of such expenses and thus unrealistically raises the average expense per workshop for the total. If we drop this one workshop from the sample, the average expenditure per workshop for production supplies and materials becomes $52,632, a more useful figure for comparative purposes.

Client Wages

An earlier report in this series contained an extensive analysis of wages paid to clients in sheltered workshops and of the apparent relations of variations in average hourly wages to other organizational characteristics.[7] The present report will include only aggregate data on the amounts of money paid to clients as wages in 1966.

The question of appropriate wage rates in sheltered workshops is emotionally charged. The debate is reflected in the recent amendments to the Fair Labor Standards, effective February 1, 1967, which made exemption certification more difficult for workshops to obtain. As mentioned earlier, the information in this report was collected prior to this date and, therefore, does not reflect any changes in total client wage expenses due to these amendments. The information we do have is contained in Table 14.

As was the case with staff salaries, the higher average total amount of wages paid to clients in New York needs further explanation. The higher average is due to two factors. First, as noted earlier, workshops in New York serve more clients daily than workshops in the other two states; and second, as Button has shown, workshops in New York pay a higher average *hourly* wage than workshops in the other two states.[8]

The fact that workshops paid out almost $11 million in wages to clients in 1966 is also important. This sum is presumably helping to provide economic subsistence to disabled individuals, and whereas it might not be sufficiently large to constitute a "living wage" it does constitute an alternative to straight welfare payments.

TABLE 14

Client Wage Expenses

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$7,336,700	$814,400	$2,685,000	$10,961,100
Highest Shop	1,643,700	180,500	739,600	1,643,700
Lowest Shop	1,900	1,000	3,700	1,000
Average Amount per Shop	149,729	52,612	47,105	88,749

TABLE 15

Other Expenses

	New York	New Jersey	Pennsylvania	Total Sample
Total Amount	$2,805,100	$223,300	$950,000	$3,979,300
Highest Shop	551,000	120,100	281,400	551,000
Lowest Shop	0	0	0	0
Average Amount per Shop	62,336	20,300	22,114	40,195
Number and Percent of Shops Reporting Other Expenses	45(91.8%)	11(64.7%)	43(75.4%)	99(80.5%)

7 W.H. Button, *Wage Levels in Sheltered Employment.*

8 *Ibid*, p. 3.

Other Expenses

Workshops have a wide variety of other expenses such as transportation for clients, taxes, and so on. The amount spent on this group of items is contained in Table 15.

Discussion

When the totals listed in the preceding tables are summed, one finds that workshops in New York had total expenses of $24,536,600 in 1966; those in New Jersey had total expenses of $2,191,200; and those in Pennsylvania $7,652,300. Total expenses for all workshops in the three states included in the sample in 1966 were $34,380,000. Unfortunately, we have no information about the financing of the $738,500 aggregate deficit which was accumulated during the year.

Profiles of the three states and the total sample based on the *relative* amounts of total expenses accounted for by each expense item are found in Table 16.

Table 16 shows that wages paid to clients account for approximately one-third of total workshop expenses. If the New York workshop with such large production expenses were dropped from the sample, this percentage would be even higher.

This table raises the question of why there are such large inter-state differences in the percent of total expenses spent on supplies and materials for production. The answer to this question draws on two different kinds of information. First, as already noted, one workshop in New York had production expenses of better than $3 million, thus skewing the average for the state as a whole. Even with this workshop temporarily removed from the sample, however, both New York and Pennsylvania have much larger percentages of their expenses accounted for by production supplies and materials than New Jersey. We believe that this difference can be explained in terms of inter-state differences in the types of work performed.

As noted earlier, prime manufacturing usually requires a much heavier investment in supplies and materials than subcontracting or salvage. Therefore, we would expect that, in terms of types of work performed, New York and Pennsylvania would have larger percentages of prime manufacturing and lower percentages of subcontracting and salvage then New Jersey. And, indeed, Table 17 indicates that this is the case.

Apparently, workshops in New Jersey tend to have relatively small expenditures for production supplies and materials at least partly because of their minimal involvement in prime manufacturing. In this regard it is interesting that all but one of New Jersey's workshops have been founded since 1950. Since an earlier finding indicates that newer workshops tend to rely less on prime manufacturing and more on subcontracting than older ones,[9] the low percentage of prime manufacturing performed in New Jersey workshops is not surprising.

TABLE 16

Percent Contribution of Major Expense Items to Total Expenses

Expense Items	New York	New Jersey	Pennsylvania	Total Sample
Staff Salaries	18.9%	29.4%	21.9%	20.3%
Overhead	7.6	12.9	10.4	8.5
Supplies & Materials Administrative	1.1	1.5	3.1	1.6
Supplies & Materials Production	31.0	4.8	17.1	26.2
Client Wages	30.0	37.2	35.1	31.9
Other Expenses	11.4	10.2	12.4	11.5
Total Expenses	100.0	100.0	100.0	100.0

9 Kimberly, "Organization History, Age, and Structure."

TABLE 17

Types of Work Performed

	New York	New Jersey	Pennsylvania
Percent Prime Manufacturing	16.3	1.7	24.5
Percent Subcontracting	73.9	82.8	52.1
Percent Salvage	3.6	11.1	6.2
Percent Other	6.3	4.4	17.2

FINANCIAL STRUCTURE AND OTHER ORGANIZATIONAL CHARACTERISTICS

In the above description of the general financial structure of workshops indicating major sources of income and major types of expenses, one fact which has emerged is that, if variations in financial structure are a valid indicator, workshops constitute a heterogeneous population of organizations. This finding raises a very important question: What other differences in organizational characteristics are associated with differences in financial structure? Or, phrased differently, if we know something about the financial structure of a workshop, are we in a position to make any statements about what other of its structural characteristics are likely to be? The purpose of this section of the report is to attempt to provide an answer to these questions, that is, to analyze the relationship between financial structure and other organizational characteristics. [10]

It has already been suggested that, in a general sense, the income derived by a workshop from the sale of finished goods and the completion of subcontract work can be thought of as income derived from its business activities, while income from clients' and referring agencies' fees can be thought of as income derived from its rehabilitation activities. This does not imply that clients who are involved in the production of goods and services are not being rehabilitated, for, indeed, remunerated employment is the primary therapeutic modality in the workshop program. We do feel, however, that by focusing on this one characteristic of the workshop's financial structure — the percent of total income derived from sales, services, and contracts — we can predict what certain of its other structural characteristics are likely to be. In other words, we are suggesting that there is a relationship between financial structure and other organizational characteristics.

In Table 9 it was discovered that, on the average, approximately three quarters of a workshop's income is derived from sales, services, and contracts. It was also noted, however, that the median value of this variable was fifty percent, that is, half of the workshops derived less than fifty percent of their total income from sales, services, and contracts and half derived fifty percent or more of their income from this source. For the purposes of the analysis in this section the sample of workshops will be dichotomized at this median value. The financial structure of those workshops below the median will be called "Low Business" and that of workshops above the median will be called "High Business," and the relationship between this characteristic and other structural characteristics will be analyzed.

Level of Technological Complexity

In general, the levels of technological complexity are lower in workshops than in industry. Because of the limitations on the productive capacities of clients due to their disabilities, workshops typically make use of simple, routine tasks in their production processes. There remains, however, a large amount of variability among workshops regarding the complexity of the technology found.

We suspected that workshops which relied for more than half of their income on the sales of goods and the completion of subcontract work would be likely to have higher levels of technological complexity than those whose business income was relatively less important. These "high business" workshops would be more competitive with business in the community and would find it necessary to make the technological adaptations to permit competition on as equal a basis as possible.

From survey instrument information concerning the number and variety of different jobs performed in each workshop, a classification scheme was developed which permitted characterizing each shop in terms of the relative amounts of high manual, low manual, service, and white-collar work being performed. It was discovered that service and white-collar work accounted for only 13 percent of all work performed, and subsequently it was decided to include only the high manual and low manual categories in the analysis.

To test our notions about the relationship between financial structure and technology, it was predicted that "high

10 This section of the report is based largely on findings reported in J.R. Kimberly, "Comparative Organizational Analysis: An Empirical Study of Rehabilitation Organizations," Master's Thesis, New York State School of Industrial and Labor Relations, Cornell University, 1967.

business" shops would have relatively high percentages of their work classified as high manual and that "low business" shops would have relatively high percentages of their work classified as low manual. Both variables were dichotomized at the sample mean, and Chi square tests of independence were used.[11] The results are contained in Table 18.

personal adjustment training, vocational training, medical management, and psychological counseling. While most workshops offer a core of about four of these formal services and programs, our data indicate that there is a good deal of variability among shops regarding the number of services offered ir addition to the basic four. We felt, however, that if a workshop

TABLE 18

Financial Structure and Technological Complexity

		Financial Structure	
		Low Business	High Business
Percent of Total Work Classified as Low Manual	High	42	24
	Low	21	36
N = 123	$X^2 = 7.76$	$p < .01$	

		Financial Structure	
		Low Business	High Business
Percent of Total Work Classified as High Manual	High	16	33
	Low	47	27
N = 123	$X^2 = 10.04$	$p < .01$	

On the basis of the significant values of Chi square found, the null hypothesis that there is no relationship between financial structure and technological complexity can be rejected. It seems apparent that there is such a relationship and that it is in the direction predicted, that is, that workshops which derive a large percentage of their total income from the sale of goods and the completion of subcontract work do have relatively high levels of technological complexity.

Services and Programs

Workshops typically offer their client populations a variety of formal services and programs including evaluation, received a large percentage of its total income from business activities, it would be less likely to have additional services and programs than one which did not rely as heavily on income from that source. It was reasoned that additional services and programs require a variety of additional professional staff personnel to run them and might also involve a larger amount of the client's time in the shop, time which might otherwise be used in the production process.

To test our notions about the relationship between financial structure and the number of services and programs offered, it was predicted that "high business" workshops would have fewer formal services and programs than the "low business" shop. The number of services and programs was dichotomized at seven; those shops offering seven or more services and programs are classified as being high service and those offering fewer than seven are classified as being low service. The results of the Chi square test are contained in Table 19.

The value of Chi square obtained indicates that the null hypothesis that there is no relationship between financial structure and the number of formal services and programs offered by the workshop can be rejected, and that there is indeed a relationship between the two variables in the direction predicted.

11 The Chi square test permits one to determine the significance of differences between two groups. In our analysis, we are attempting to determine whether a number of variables are associated with financial structure, that is, whether there are any differences between high and low business workshops with respect to, for example, high and low levels of technological complexity. The Chi square procedure involves testing the null hypothesis that no difference between the two variables exists. A statistically significant value of Chi square means simply that there is some association between the variables, but says nothing about the strength of this relationship. It should be noted further that no inferences about the interaction of variables can be made on the basis of Chi square results.

TABLE 19

Financial Structure and Services and Programs

		Financial Structure	
		Low Business	High Business
Number of Formal Services and Programs	High	45	27
	Low	18	33

N = 123 $X^2 = 7.80$ $p < .01$

Professional Density

The great variation among workshops regarding the number and qualifications of professional staff personnel in their employ has been documented elsewhere.[12] Our reasoning about the possible relationship between this variable and the workshop's financial structure is based on the focus on business-related activities in the "high business" shops. Although this focus by no means precludes the involvement of professional staff personnel, we predicted that "high business" shops would typically have lower professional densities than "low business" shops. To test this prediction, the professional density variable was dichotomized at the sample and the Chi square procedure was used. The results of this procedure are contained in Table 20.

TABLE 20

Financial Structure and Professional Density

		Financial Structure	
		Low Business	High Business
Professional Density	High	35	13
	Low	28	47

N = 123 $X^2 = 13.44$ $p < .001$

The value of Chi square indicates that the null hypothesis that there is no relationship between financial structure and professional density can be rejected. It is clear that workshops which derive over half of their income from sales, services, and contracts tend to have lower densities of professional staff personnel than workshops with less than one-half of their income from this source.

Administrative and Supervisory Density

Just as there is variation among workshops with respect to professional density, there is variation among workshops with respect to the density of the administrative and supervisory component. This component includes shop supervisors, contract procurement specialists, and any other non-client, non-clerical staff personnel who do not have the educational backgrounds to permit their classification as professionals.

We suspected that "high business" workshops would have higher densities of administrative and supervisory personnel than "low business" workshops, primarily because of their focus on business activities. It seemed reasonable to predict that this would be the case, particu[illegible]iew of the fact that the "high business" shops rely on production income and this income requires more administrators and supervisors than professionals. Accordingly the variable was dichotomized at the sample mean and the prediction was tested with the Chi square procedure. The results are contained in Table 21.

TABLE 21

Financial Structure and Administrative and Supervisory Density

		Financial Structure	
		Low Business	High Business
Administrative and Supervisory Density	High	29	24
	Low	34	36

N = 123 $X^2 = .244$ $p < .70$

12 Kimberly, *Professional Staffing in Sheltered Workshops.*

The results do indicate that there is a lack of association between the two variables being discussed. Although we were puzzled at first by these results, an explanation seemed to emerge. Every workshop, regardless of its particular financial structure, is involved in the production of goods and services or contract work, and utilizes remunerated employment as the basic therapeutic modality. Its business activities must be coordinated, supervised, and administered by a number of people. The above data suggest that there is a basic core group of administrators and supervisors that any workshop must employ and that variations in its density, while not related to the financial structure of the shop, might well be related to workshop size. This possibility has not been empirically examined; at this point all that can be said is that there is little relationship between administrative and supervisory density and financial structure.

Disability Mix

The range of client disabilities served in sheltered workshops is wide; in the survey instrument used by the Institute, sixteen different disability categories were used, and the list could conceivably be expanded. Within this range, however, there is a great deal of variation among workshops regarding the kinds of disability groups served. Some shops serve only one disability group, some serve primarily two or three, and some serve a large number of disability groups.

Without becoming involved in questions of diagnostic techniques, and assuming that our diagnostic categories adequately encompassed the range of disabilities being served, some thoughts about differences between disability categories can be discussed. From our reading of the literature, our own systematic observations of client behavior, and several discussions with people in the field, it seems to us that there are some differences among disability groups regarding the level of complexity of work which can be performed. It seems, for example, that the blind, the orthopedically impaired, and those with arrested T.B. and cardiac conditions may, in general, be able to perform jobs requiring higher skill levels than the mentally retarded, the emotionally ill, or the neurologically impaired. That there are many exceptions to the preceding generality is undoubtedly true, for there are varying degrees of severity within each disability category as well as disagreements about the categories themselves. We felt, however, that there might be some relationship between the kinds of disability groups a workshop serves and its financial structure and that, in order to discover if such a relationship existed, some analytical distinction between disabilities had to be made.

Our reasoning is based on an assumption that workshops which rely heavily on income from sales and subcontracts will tend to attempt to maximize the productive efforts of their client populations in order to insure a steady flow of output. We would predict, therefore, that "high business" workshops would tend to have client populations composed primarily of the blind, the orthopedically impaired, and arrested T.B. and cardiac cases and that "low business" workshops would tend to have client populations composed primarily of the mentally retarded, the emotionally ill, and the neurologically impaired.

To test this notion, disability ratios were calculated for each workshop which permitted splitting the sample into two groups, those serving primarily the blind, etc. (Type A) and those serving primarily the mentally retarded, etc. (Type B). The Chi square procedure was used to test for independence; the results of this procedure are contained in Table 22.

TABLE 22

Financial Structure and Disability Mix

		Financial Structure	
		Low Business	High Business
Disability Mix	Type A	12	36
	Type B	51	24

N = 123 $X^2 = 19.98$ $p < .001$

The significant value of Chi square obtained indicates that the null hypothesis that financial structure and disability mix are independent can be rejected. We can conclude, therefore, that there is a relationship between financial structure and disability mix and that it is in the direction predicted.

Client Tenure

It is apparent that clients spend varying lengths of time in sheltered employment. In fact, some people have classified workshops according to this variable, that is, in terms of whether the workshop basically provides short-term, transitional, or long-term employment for its clients. It is also apparent that the length of time a client spends in a workshop is dependent upon a number of different factors, including the nature and degree of severity of his disability and the opportunities for placement which exist in the community.

In considering the possible relationship between financial structure and client tenure, it seemed to us that those workshops which derived large percentages of their total income from sales and contracts might, because of the salience of production activities, tend to employ clients for longer periods of time than other workshops. A relatively stable and more highly trained labor force might be more productive than one in which high rates of turnover and hence continuous training were characteristic.

To test this notion, it was decided to examine differences in the average length of time spent in the workshop by all clients. This figure was possible to compute directly from the information provided on the survey instrument. We predicted that "high business" workshops would tend to have clients whose average tenure was greater than that of clients in "low business" shops. The tenure variable was dichotomized at 24 months; workshops which had client populations whose average tenure was greater than 2 years were called "high tenure" and those with average tenure of less than 2 years were called "low tenure." The Chi square test of independence was used, and the results are contained in Table 23.

TABLE 23

Financial Structure and Client Tenure

		Financial Structure	
		Low Business	High Business
Client Tenure	High	21	40
	Low	42	20

N = 123 $X^2 = 12.37$ $p < .001$

The significant value of Chi square obtained indicates that the null hypothesis that there is no relationship between financial structure and client tenure can be rejected. Indeed it appears that those workshops which rely on income from business activities tend to employ clients for longer periods of time than workshops with large amounts of income from other sources as well.

Composition of Boards of Directors

Discussions with several workshop directors gave us the impression that boards of directors play quite different roles from workshop to workshop. Some boards play quite an active role in the continuing activities of the shops, some are involved primarily in basic policy decisions, and still others are relatively inactive. We were unable to obtain systematic information regarding the specific role of the boards, but we did have information about their compositions, and felt that there might be some relationship between the financial structure of a workshop and the composition of its board of directors.

Basically, we felt that workshops which we call "high business" might have a higher percentage of their boards of directors representing the industrial sector of the community than our "low business" shops since these people are generally familiar with business practices and have contacts in the community which might be useful to the shop's business activities. To test this notion, we computed the percent of members of the board of directors from industry for each shop and dichotomized this variable at the sample mean. Using the Chi square procedure, we obtained the results presented in Table 24.

TABLE 24

Financial Structure and Boards of Directors

		Financial Structure	
		Low Business	High Business
Percent of Members of Board of Directors from Industry	High	25	39
	Low	37	20

N = 121 $X^2 = 7.17$ $p < .01$

The results indicate that the null hypothesis that there is no relationship between financial structure and the composition of boards of directors can be rejected. They suggest that such a relationship exists and further that some examination of the relationship between boards of directors and workshop administration might clarify some questions about inter-workshop differences.

Community Setting

The nature of the relationship between an organization and its environment is an area of inquiry which is receiving an increasing amount of both theoretical and empirical attention from researchers.[13] There is a growing recognition of the importance of the environment – the economic, social, and political context – in which an organization is located as a variable which affects its structure and activities. To cite but one example of the importance of environmental factors for sheltered workshops, we have often heard workshop directors say that unemployment rates in the community have an important impact on the ease with which clients can be placed. Thus, two workshops which resembled each other in all other respects might have quite different placement rates if one was located in a community with a low unemployment rate, while the other was in a community where these rates were high and jobs were simply not available.

Considering the network of organizational relationships that a sheltered workshop must establish and maintain in the community, one is impressed with the complexity of its environment. As a very preliminary attempt to demonstrate

13 For a representative bibliography of work done in this area see Roland L. Warren, "The Interorganizational Field", *Administrative Science Quarterly* 12(3), December 1967.

the relationship between the financial structure of a workshop and its environment, we decided to focus on the level of development of the community's health system. At a high level of generality, it might be argued that the health system of a community is comprised of a number of different organizations such as hospitals, sanitoriums, mental institutions, and physical medicine facilities; sheltered workshops, because of their involvement in the rehabilitation of handicapped persons, would be included within a community's health system. As such, they must establish and maintain relationships with certain other organizations in such areas as the referral of clients and the recruitment of professional staff personnel. We felt that our "low business" workshops would more likely be in communities having highly developed health systems than in ones with relatively undeveloped health systems, and that they would tend to be in such communities more than our "high business" workshops, largely because the distribution of their sources of income indicates relationships with outside organizations one would expect to find in such a community.

To test this notion, a measure of the level of development of the community's health system was developed and based on information available in items 80 and 809 in *Community Business Patterns,* (published by the U.S. Department of Commerce, Bureau of the Census) and on county population statistics. A ratio of the two was computed for each shop, and the variable was dichotomized at the sample mean. The Chi square was used to test for independence; the results are presented in Table 25.

TABLE 25

Financial Structure and Community Setting

		Financial Structure	
		Low Business	High Business
Level of Development of Health System	High	42	22
	Low	20	35

$N = 119$ $\quad X^2 = 9.02$ $\quad p < .01$

The results indicate that we can reject the null hypothesis and conclude that there is a relationship between community setting, as we have defined it, and the financial structure of workshops. They also suggest that planners might well consider the nature of the community in which proposed workshops are to be located, for this seems to be related to some important dimensions of workshop organization and administration.

Summary

This report has described the financial structure of a sample of sheltered workshops in terms of the variety of their sources of income and their expenses during fiscal year 1966 and has examined the relationship between differences in financial structure and other organizational characteristics. We have tried to provide quantitative and analytical information to people in the field concerned with the everyday administration of, and with long-range planning and policy-making for, these organizations.

In a sense, the findings presented in the report raise as many questions as they answer. Of particular importance is the question of developing strategies for the procurement of funds and allocation of resources for sheltered workshops. Should workshops attempt to develop highly sophisticated production techniques which might enable them to increase the dollar volume of their business activities but which might also have other consequences for their function as rehabilitation organizations? Should workshops seek to broaden their base of community support by organizing annual fund drives? Should workshops be encouraged to develop programs which would increase the amount of income they receive from grants? What are the optimal capital to labor ratios in sheltered employment? What role do boards of directors play in the administration of workshops and are there optimal mixes of backgrounds of members? These are only a few of the questions which have occurred to us in the course of preparing this report. If it has its intended impact, these are only a few of the questions it might raise in the mind of the reader.

By way of conclusion, two further comments should be made. First, whereas we feel that much has been learned about the financial structure of sheltered workshops through analysis of the data already collected, there is much more that might be known about this area which would be of interest for research and of use for administration. In particular, we feel that there is a gap in our knowledge of the capital structure of workshops, of their total assets and liabilities, and of their "market value." This, then, is one area toward which future research might be directed profitably.

Our final comment concerns the data collection process. While we gratefully acknowledge the cooperation of all those who participated in our research undertaking, we noted numerous differences among workshops regarding the sophistication of accounting procedures used. It is our feeling that the use of cost accounting procedures enables organizations to use the kinds of information such procedures yields for policy-setting and decision-making processes. While we do not mean to prescribe, we do feel that the long-range payoffs of instituting these procedures would far outweigh any short-term costs that might be incurred, and might help to provide answers to the very kinds of questions this report has raised.

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