

ED 021 271

By- Button, William H.

WAGE LEVELS IN SHELTERED EMPLOYMENT.

State Univ. of New York, Ithaca. School of Industrial and Labor Relations at Cornell Univ.

Spons Agency- Social and Rehabilitation Service (DHEW), Washington, D.C.

Pub Date Dec 67

Note- 10p.

Available from- Limited numbers of copies are available from the Reg. Res. Inst., SRS, N.Y. State School of Industrial & Labor Relations, Cornell U., Ithaca, N.Y. 14850.

EDRS Price MF-\$0.25 HC-\$0.48

Descriptors- *HANDICAPPED, JOB SKILLS, JOB TENURE, JOB TRAINING, MENTALLY HANDICAPPED, MINIMUM WAGE LAWS, NEUROLOGICALLY HANDICAPPED, PHYSICALLY HANDICAPPED, *REHABILITATION PROGRAMS, RESEARCH, *SHELTERED WORKSHOPS, *VOCATIONAL REHABILITATION, *WAGES

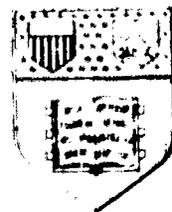
This report has presented information regarding the average level of wages paid in a sample of 123 workshops. Many complex influences affect a workshop's wage practice. This was illustrated in the brief analysis of association between a workshop's wage level and disability, business characteristics, job structure, and client characteristics. It is apparent that in most cases workshops who pay clients wages equal to, or in excess of, the minimums now required by law have the following characteristics: (1) older clients with relatively long service in the shop, (2) clients whose basic disabilities are physical impairments or chronic disease, (3) jobs requiring relatively higher levels of skill, and (4) income generated principally by the sale of goods and services. Some workshops paying clients below \$0.75 per hour may have characteristics similar in many respects to those enumerated above; however, the statistical analysis of available data suggests that wage levels in sheltered workshops are strongly associated with the organizational profile outlined. (Author)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

CORNELL UNIVERSITY REHABILITATION RESEARCH INSTITUTE

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



WAGE LEVELS IN SHELTERED EMPLOYMENT

ORGANIZATION AND ADMINISTRATION
OF SHELTERED WORKSHOPS:

Research Report Series, No. 1

CG 002 350

EDUC 1271

Wage Levels in Sheltered Employment

by

William H. Button

**Cornell University Rehabilitation Research Institute
New York State School of Industrial and Labor Relations,
A Statutory College of the State University,
Cornell University, Ithaca, New York
December 1967**

This research was conducted under the auspices of the RSA Region II Rehabilitation Research Institute at the New York State School of Industrial and Labor Relations, Cornell University, Ithaca, New York. The Research Institute is funded by Grant No. RD-2075-G, from the Social and Rehabilitation Services, U.S. Department of Health, Education and Welfare, Washington, D.C. Limited numbers of additional copies of this report are available at no charge on request from the Regional Research Institute, SRS, New York State School of Industrial and Labor Relations, Cornell University, Ithaca, New York, 14850.

Preface

This report is the first published research conducted by the Region II Rehabilitation Research Institute at the New York State School of Industrial and Labor Relations at Cornell University and supported by the Social and Rehabilitation Service (formerly VRA) of the U.S. Department of Health, Education and Welfare. The Institute, established in early 1966, has as its core area of research, "the organization and administration of sheltered workshops." Since scholars trained in industrial relations are concerned with varied psychological, sociological, and institutional aspects of industrial society, the opportunity to study sheltered workshops from the perspective of the behavioral sciences, including economics, has provided an important opportunity for research with theoretical, as well as practical, applications in this field. The explicit emphasis upon work as a modality of behavioral change, evident in sheltered workshops, provides an exceptional area for research dealing with issues important to those concerned with the complex problems of integrating disadvantaged groups into industrial society.

This publication is the first of a series of research reports dealing with a large body of data collected from 123 sheltered workshops in Region II. The initial items in the series will deal with various aspects of the organizational structure and of both the rehabilitative and goods-producing systems characteristic of sheltered workshops. Of particular concern will be the interaction between these systems, for, in the course of our research, we have come to believe that most of what needs to be learned about sheltered workshops from the administrative or organizational standpoint, is directly or indirectly related to the activities of enhancing the adaptive functioning of disabled individuals and adding economic value to materials and goods.

Acknowledgements are due to the many organizations and individuals who contributed to this study. We are indebted to the several state agencies in New York, Pennsylvania, and

New Jersey with whom the data collection process was jointly sponsored. An important measure of thanks must also be given to the many works' directors and members of their staffs who patiently filled out the survey form requiring a measure of detail in reporting information about their organization which had rarely, if ever, been asked of them before. Aware as we are of the large numbers of inquiries in questionnaire form on a director's desk, we hope that they will be "paid back" in the near future as the information which they have provided is translated into realistic and effective plans to service and aid the disabled. We recognize these patient directors as important collaborators in our research.

Finally, recognition and thanks are due to several on our staff who have aided the author in interpreting the data and preparing this report. Jon Madalia, now doing graduate work at Stanford University, performed many of the computer related tasks for this analysis with an unusual cheerfulness accompanied by relentless attention to the need for accuracy and precision. John R. Kimberly read and offered many useful criticisms of early drafts of the paper and suggested, through research reported in his M.S. thesis *Comparative Organizational Analysis: An Empirical Study of Rehabilitation Organizations*. (Cornell University, 1967), many of the ideas which underlie the comparisons and relationships reported. Professor William J. Wasmuth, with whom the author has worked for several years, also furnished useful commentary upon the manuscript, and, in his role as Director of the Research Institute, in many other ways facilitated the entire research process. Finally, Mrs. Ronetta McClure has been instrumental in all phases of this research project from its inception to the final manuscript which she has so frequently retyped.

W. H. B.

Ithaca, New York
October 20, 1967

Wage Levels in Sheltered Employment

by

William H. Button

Introduction

Wages paid to clients in sheltered workshops are of particular concern to workshop directors, state-agency personnel and many others concerned with rehabilitation; however, no recent large scale study of wage practices within sheltered workshops has been conducted. Since sheltered workshops in the vast majority of cases are exempt from the provisions of the minimum wage law, they do not participate in the BLS establishment reporting system which provides data regarding community and industrial wage levels. Yet, there is a need to know more about wage levels in these organizations.

The following report is based on estimates of *average hourly wages* paid in a sample of 123 workshops within the states of New York, Pennsylvania, and New Jersey. The Cornell Regional Research Institute, sponsored by the Vocational Rehabilitation Administration, has been analyzing survey data gathered from these workshops, including a considerable body of information regarding the distribution of wages and hours of work within workshops. The report is based on information gathered regarding wage levels during the calendar year 1966. Since that time, the new provisions of the federal minimum wage law have gone into effect. As the data will reveal, the impact of these new provisions has probably had varied effects upon these different workshops. By the time full compliance with the new laws is in effect, many workshops will have undoubtedly modified policies and practices regarding wages in both their employment and rehabilitation programs.

The Sample

In cooperation with state-wide planning and facilities personnel and the state directors of rehabilitation agencies within the states of New York, New Jersey, and Pennsylvania, the original survey from which these data were derived was conducted among 171 different places of business certificated by the Department of Labor as exempt from the provisions of the Wage and Hours Law and classified as non-profit institutions. ¹Data regarding the response to the survey is included in Table 1.

¹ This estimate is based on the recent publication from the U.S. Department of Labor. See: U.S. Department of Labor, *Sheltered Workshops: A Pathway to Regular Employment*, Manpower Research Bulletin No. 15, U.S. Government Printing Office, Washington, D.C. 1967, 36 pp.

TABLE 1

Workshop Response Analysis

	Original Mailing	Non-Respondents	In Operation Less Than 1 Yr.	Incomplete Data	Final Sample
N.Y.	83	18	6	10	49
N.J.	22	4	1	0	17
Penna.	66	2	3	4	57
Total	171	24	10	14	123

Since the Department of Labor provides and requires a certificate from each unit operating in a separate location, and since in a number of instances the separate units were actually satellites of a larger workshop organization, returns were not received from all 171 units to whom the original questionnaire was distributed.

Thus, in the non-response group are some branch locations of workshops; data regarding these units were reported. Also in the non-response group were eleven workshops associated under common management which did not participate as a matter of policy. Finally, some of the non-responding units are known to be marginal operations serving very few clients. Both the independent workshops which did not respond and the group of 10 workshops in operation less than one year are generally small in terms of numbers of clients served.²

The sample includes a heterogeneous population of workshops: single disability shops serving such populations as the blind, the retarded, and others; workshops of varying size levels from less than a dozen clients to well over 500. Also the sources and types of income received by the workshops differ significantly across the sample. Some organizations included depend almost exclusively upon the sale of goods and services to provide operating income; others depend heavily upon fees earned from state agencies for the provision of rehabilitation services or, alternately, upon community support for their income. Finally, within the sample there are workshops which stress placement of clients in competitive employment and others which place emphasis upon provision of economic secu-

² The 123 workshops on whom data are reported in the final sample serve daily 91.5% (8648) of all clients receiving services in these states (9426). This is based on Department of Labor estimates from the source previously cited.

rity to disabled populations through providing employment opportunities to clients over fairly long periods of time. It is difficult to specify exactly what constitutes the "average" workshop; for practical purposes, however, we believe that this sample represents a considerable portion of the variability in workshop organization and administration to be found within the United States. As a consequence, we would suggest that the data presented provide a basis for estimating wage levels in other populations of workshops. These generalizations must be limited, however, to the year 1966, since substantial changes have undoubtedly taken place following the implementation of the new minimum wage regulations affecting workshops.

Wage Estimates

Ideally, an accurate estimate of the level of hourly wages paid to workshop clients would be obtained through sampling payroll records of every shop each month. Information regarding wages paid and days and hours worked would provide the basis for calculation of an estimated hourly wage. Since such information was not available within the framework of the present survey, it was necessary to estimate average hourly wages by calculations involving a number of different variables. Each workshop furnished the following information which was used to estimate average hourly wages for the workshop as a whole: average daily attendance throughout the year; total wages paid per year; hours worked per week; hours worked per year; the distribution of clients in earnings categories running from under \$10 per week to \$65 and over per week; and the distribution of clients in hours-worked-per-week categories running from under 10 hours up to 40 hours. Since it was recognized that a figure such as "average daily attendance" does not always reflect the number of people *paid* in a workshop, this measure, along with numbers of clients appearing in the earnings-per-week distributions was also used to calculate the average hourly wage. For the workshops in New York and New Jersey, average hourly wages were calculated for each workshop in five different ways. The estimate which we have used represents the *average* of these *average estimates*. Since we did not request the distribution of client hours per week for Pennsylvania workshops, only four estimates of average hourly wages per workshop were calculated. As was the case in New York and New Jersey, our estimates for Pennsylvania are based upon averages of these four different methods of calculating the average hourly wage.

Intercorrelations between the different estimates of average hourly wages calculated for each workshop in each of the three states ranged from a low Pierson r of .65 to a high of .99. As a consequence of the high intercorrelations of these estimates, we believe that the estimated average hourly wage per workshop presented in our data is an accurate reflection of average per hour wages within each shop. Tables 2A, 2B, and 2C present the correlation matrices and the operational defini-

tions of the variables used as a basis of calculating the estimates which will be presented in the next portion of this report.

TABLE 2A

Intercorrelations of Six Estimates of Average Hourly Wages 49 Workshops, New York State

Variable (mean-cents per hour).	1 (.720)	2 (.796)	3 (.603)	4 (.643)	5 (.654)	6 (.683)
1	---	.82	.93	.95	.97	.98
2		---	.78	.75	.73	.85
3			---	.96	.94	.97
4				---	.98	.98
5					---	.97

$$\text{Var. 1} = \frac{\text{Total Wages Paid Year}}{\text{Average Served Daily} \times \text{Estimated Annual Hours}}$$

$$\text{Var. 2} = \frac{\text{Estimated Total Weekly Wages Paid (see note 2)}}{\text{Estimated Hours Worked Per Week (see note 1)}}$$

$$\text{Var. 3} = \frac{\text{Total Wages Paid Year}}{\text{Average Served Daily} \times \text{Hours Worked Per Year}}$$

$$\text{Var. 4} = \frac{\text{Total Wages Paid Year}}{\text{Average Served Daily} \times \text{Scheduled Hours Worked Per Week} \times 50 \text{ Weeks Per Year}}$$

$$\text{Var. 5} = \frac{\text{Total Wages Paid Year}}{\text{Total No. Clients Receiving Wages} \times \text{Hours Worked Per Week} \times 50 \text{ Weeks Per Year}}$$

$$\text{Var. 6} = \text{Average of Variables 1, 2, 3, 4, and 5.}$$

Note 1. Calculated on basis of distribution of clients in Hours-Worked-Per-Week Categories.

Note 2. Calculated on basis of distribution of clients in Earnings-Per-Week Categories.

Table 2B

Intercorrelations of Six Estimates of Average Hourly Wages 17 Workshops, New Jersey

Variable*	1	2	3	4	5	6
mean	(.456)	(.612)	(.432)	(.431)	(.356)	(.482)
1	---	.90	.99	.99	.98	.98
2		---	.89	.88	.87	.95
3			---	.99	.99	.98
4				---	.99	.98
5					---	.98

*For definitions of variables, see notes on Table 1-A

Table 2C

Intercorrelations of Five Estimates of Average Hourly Wages 57 Workshops, Pennsylvania

Variables (means)	1	2	3	4	5
	(.514)	(.518)	(.634)	(.532)	(.548)
1	---	.99	.77	.79	.96
2		---	.78	.79	.97
3			---	.65	.85
4				---	.90

Var. 1 = $\frac{\text{Total Wages Paid Year}}{\text{Average Served Daily} \times \text{Annual Hours Worked}}$

Var. 2 = $\frac{\text{Total Wages Paid Year}}{\text{Average Served Daily} \times \text{Scheduled Hours Worked Per Week} \times 50 \text{ Weeks Per Year}}$

Var. 3 = $\frac{\text{Total Weekly Wages}}{\text{Total Clients Receiving Wages} \times \text{Hours Worked Per Week}}$

Var. 4 = $\frac{\text{Total Wages Paid Year}}{\text{Total Clients Receiving Wages} \times \text{Hours Worked Per Week}}$

Var. 5 = Average of Variables 1, 2, 3, and 4.

Distribution of Average Hourly Wages Within 123 Workshops

The basic distribution of average hourly wages for 123 shops within the three states is presented in Table 3. In each of the three states more workshops appear in the category, "25 ¢ per hour or less" than appear in any other category. In addition, it may be noted that 67 percent of the workshops in all three states were paying less than 75¢ per hour in 1966.

There appear to be slight differences between the states in terms of the percentage falling under the newly prescribed minimum wage (70¢ per hour in New Jersey and Pennsylvania, 75 ¢ per hour in New York). In New York 63 percent, in New Jersey 76 percent, and in Pennsylvania 68 percent of all shops included in the sample, were paying during 1966 less than 75¢ per hour. The impact of the new regulations regarding minimum wage levels for workshop clients will be felt most, it would appear, by the 67 percent of workshops in the three states paying on average less than 75¢ per hour and also by those workshops whose *average* is only slightly above the minimum.

TABLE 3

Distribution of Average Hourly Wages for New York, New Jersey, and Pennsylvania Workshops

Distribution of Workshop Average Hourly Wages, 1966

	25¢	26-49¢	50-74¢	75¢	\$1.01-	\$1.00	\$1.49	\$1.50+	Total
New York	13	7	11	5	8	4	4	4	49
New Jersey	6	5	2	3	1	0	0	0	17
Pennsylvania	20	9	10	11	6	1	1	1	57
Totals	39	21	23	20	15	5	5	5	123

State-by-state comparison reveals some differences between the three states. Particularly significant here is the fact that nearly 25 percent of the workshops in New York State are paying on the average over \$1.00 per hour to clients in their organizations. This fact accounts for the significant difference between the mean average hourly rate for New York State workshops (68.3 ¢) as compared with New Jersey (48.2¢) and Pennsylvania (54.8¢) presented in Table 4.

TABLE 4

Hourly Wages / 123 Sheltered Workshops

	Min.	Max.	Average
New York (N=49)	.08	1.71	\$.683
New Jersey (N=17)	.13	1.47	\$.482
Pennsylvania (n=57)	.12	1.65	\$.548

The scope of the problem confronting workshops in adjusting to the new minimum wages is once again illustrated in the distribution in Table 5. Table 5 presents the percentage distributions of clients the earnings-per-week categories. The number of clients about whom data was available is indicated in parenthesis below the name of the states. In New York

State in 1966 approximately 3000 clients out of the 4,720 were earning below the rate of 75¢ per hour; in New Jersey 613 clients out of 923, or 66 percent had take-home pay below the level of 75¢ per hour; the same applied to 63 percent of clients reported in Pennsylvania, or 1,892.³ Thus, in 1966 only 1 client in 3 earned over 75¢ an hour based on the calculation of an average 33-hour work week, and between 10 and 15 percent of the clients served in workshops earned \$1.50 per hour or more.

TABLE 5

Distribution of Workshop Clients
in Earnings Per Week Categories

<u>Earnings Per Week</u>	<u>N.Y. (4720)</u>	<u>N.J. (923)</u>	<u>Penna. (2962)</u>
Under \$10.00	32.9%	40.8%	29.3%
\$10 - \$14.99	13.5%	12.8%	16.2%
\$15 - \$19.99	9.8%	7.3%	9.4%
\$20 - \$24.99	7.4%	5.6%	9.0%
\$25 - \$34.99	10.6%	6.0%	15.2%
\$35 - \$44.99	3.2%	3.1%	
\$45 - \$54.99	7.4%	14.0%	20.86%*
\$55 - \$64.99	4.1%	7.8%	
\$65 and over	5.1%	2.4%	

* Includes all clients earning between \$35 and over \$65 per week.

Discussion

Numerous factors must be examined to account properly for the differences which exist in average hourly wages among workshops. In the following section of this report four of these factors will be examined. It should be emphasized that there is no single aspect of a workshop's structure, policy or operating characteristics which by itself adequately explains the variability noted in the sample. Due to limitations of space, we will not be able to discuss fully *all* of the factors which account for variability in wages paid among the workshops. At this time the discussion will focus on four factors which account for a considerable portion of this variability: 1) sources of income for the workshop; 2) the nature of the jobs performed by clients; 3) the disability groups served by the workshop; and 4) two demographic characteristics of the client population within the workshop, age and tenure.

³ This calculation is based upon an *average* 33-hour work week for the sample as a whole.

Wages and Sources of Income

Sheltered workshops have three principal sources of income - from the sale of goods and services, from fees charged state agencies for services provided clients, and from the community in the form of charitable contributions. As one might expect, the extent to which the workshop depends upon one or more of these sources as its principal source of income affects significantly many facets of the workshop operation. For the purposes of the present analysis of wages, the sample of 123 workshops was divided along two axes as may be seen in Table 6. The sales of each workshop as a percent of its total income was calculated and cross tabulated with the average hourly wage paid in that workshop. As careful examination of Table 6 reveals, there is a strong association between the extent to which a workshop depends upon sales as its principal source of income and the average level of wages paid in the workshop. Thus, those workshops in which the average level of wages is 25¢ or less per hour, appear to derive significantly less of their income from sales as opposed to other sources than do workshops who pay more than 25¢ per hour. Similarly, 66 percent of the workshops whose sales of goods and services constitute 76 percent or more, of their total income pay in excess of 75¢ per hour on the average. A Pearson r correlation coefficient calculated for the sample of 123 between these variables was .66 (P=<.01).

TABLE 6

		<u>Average Hourly Wages and Sales Income</u>				
		<u>Sales as a Percent of Total Income by Workshop</u>				
Workshop Average Hourly Wage		<u>0-25%</u>	<u>26-50%</u>	<u>51-75%</u>	<u>76-100%</u>	<u>Total</u>
	\$0-.25	17	18	4	3	42
	\$.26-.75	6	19	13	7	45
	\$.76-1.00	0	1	5	12	18
	\$1.01+	0	4	5	19	18
Total	23	42	27	31	123	

The figures and distributions in Table 6 suggest a strong association between the extent to which a workshop supports itself from sales of goods and services and the level of wages paid clients. They further suggest that within those organizations where sales is a relatively small proportion of their total income, it is extremely unlikely that clients will receive wages in excess of 75¢ per hour. This may indicate that the workshops find it impossible or inappropriate to distribute to clients, as wages, income dollars received from sources other than sales. On the other hand, there appear to be a limited number of workshops which do receive a high proportion of their total income from the sales of goods and

services and at the same time pay a relatively low average hourly wage. As can be noted in Table 6, there are 27 workshops which receive over 50 percent of their income from the sales of goods and services and at the same time are paying their clients an average of 75 ¢ an hour or less; of this 27, 7 of them were paying less than 25 ¢ per hour. Other factors, may serve to explain this situation, including the influence of the types of jobs performed by clients.

Types of Jobs and Wages

The survey requested that workshops indicate the percentage of people working in 17 different typical kinds of jobs found in workshops. In coding and processing the data, the percentages of workshop clients performing different jobs were summed into four separate job groups which included: 1) low manual jobs (unskilled jobs such as bench assembly, inspection and packaging, etc.); 2) high manual jobs (semi-skilled and skilled work such as electrical wiring, power sewing, machine operating, soldering, etc.); 3) service jobs (unskilled jobs in which the emphasis is on physical labor, for example, janitorial work); and 4) clerical jobs (including principally the sorting and collating tasks often performed in workshops). Table 7 presents the mean percentage per workshop of such jobs for each of the three states. It will be observed then that in New Jersey four out of five jobs (79.7 percent) fall into the unskilled category, being either low manual jobs or service jobs, as contrasted with 70 percent in Pennsylvania and 72 percent in New York. The number of semi-skilled or skilled jobs found in New York and Pennsylvania is substantially greater than the number of those jobs found in New Jersey, while the proportion of clerical jobs appears nearly equal for all three states.

TABLE 7

Distribution of Types of Jobs Performed by Workshop Clients

	<u>N.Y.</u>	<u>N.J.</u>	<u>Pa.</u>
% Low Manual Jobs	66.6	74.0	65.5
% High Manual Jobs	20.0	11.7	22.7
% Service Jobs	5.8	5.7	5.1
% Clerical Jobs	7.5	8.5	6.7

To investigate the relationship between skill level and wages, a correlational analysis between average hourly wage in the workshop and the percentage of jobs falling into these different categories was calculated for the sample of 123 workshops as a whole; the results of this analysis are presented in Table 8. A strong association between the wage levels in a workshop and the percentage of clients performing semi-skilled or skilled jobs will be noted. A somewhat weaker, but still significant negative association ($p < .05$), may be seen between

wages and the percentage of clients in unskilled jobs. The negative, but inconclusive, association between wages and the percent of clerical jobs performed may be accounted for by the lack of distinction on the questionnaire between routine clerical tasks such as sorting, collating, stuffing envelopes, etc. and clerical jobs requiring greater skills such as operating typewriters, comptometers, and other office machines. The evidence in Table 8, however, offers support to the assertion that one of the significant factors affecting workshop wages is the nature of the jobs performed by clients. Thus, wage differentials in workshops, as in industry in general, are a function of skill requirements of different jobs, and workshop's wage policy must take into account factors affecting skill demands made on clients.

TABLE 8

Correlations Between Average Hourly Wages and Types of Jobs (N=123)

<u>Average Hourly Wage</u>	<u>Correlation Coefficient</u>
% Low Manual	-.1878
% High Manual	+.3405
% Service	-.1784
% Clerical	-.1117

Disability and Wages

The relationship between disability and the level of wages paid is probably one of the most complex and difficult issues to investigate. Impressions formed by members of the Regional Research Institute during visits to a variety of workshops suggest that the productivity of individuals with different disabilities varies significantly. Associated with these impressions, however, are always important *organizational factors* which affect individual productivity and which are only indirectly related to the nature of the disability possessed by the handicapped worker. In order to investigate this problem, a correlational analysis was performed between the *average hourly earnings* in the workshop and the *percentage of clients* which each workshop classified into 16 different primary disability categories. The results of this analysis are presented in Table 9.

TABLE 9

Disability and Average Hourly Wages
(N=123)

<u>% Client Population in Disability Classifications</u>	<u>Correlation Coefficient</u>
Blind	+ .4355
Orthopedic	+ .3873
Tuberculosis	+ .3331
Hard of Hearing	+ .3191
Socially Disadvantaged	+ .2418
Cardiovascular	+ .2298
CVA (Strokes)	+ .1744
Visual Deficiencies	+ .1354
Alcoholism	+ .1209
Drug Addiction	+ .1106
Deaf	+ .0887
Neurological (Other Than C.P.)	+ .0699
Epilepsy	+ .0187
Cerebral Palsy	-.1293
Mental Illness	-.1657
Mental Retardation	-.6319

If we make the assumption that the average level of hourly wages paid in a workshop is, in part at least, a reflection of the average productivity of the labor units employed, it will be observed in Table 9 that there is marked discrepancy in the productivity of individuals falling into different diagnostic categories. The basic split which the distribution of correlation coefficients suggests is the distinction between physically handicapped and emotionally ill or mentally retarded individuals. There is a strong positive association between a high level of average hourly wages and the extent to which a workshop employs individuals who are the victims of cardiovascular disorders, blindness, and orthopedic problems. On the other end of the scale there appears to be a strong negative association between a large number of mentally retarded or emotionally disturbed clients and their average per hour level of earnings.

These findings do not constitute conclusive evidence that there are significant differences in productivity between the two disability groups, since numerous other factors of an *organizational nature* affect the measures of association observed in this correlational analysis. These factors include the historical fact that organizations serving the physically impaired and the blind have been in operation longer than have those serving the mentally retarded and the emotionally ill. As a consequence of this greater experience, these organizations may have had greater opportunities to develop an optimal mode of operation relative to the markets and clients they serve than has been possible to date among the younger units serving the retarded and the emotionally ill. In addition, workshops serving mental retardates, especially, serve clients who *at the time*

of intake have little or no previous work experience, training, or relevant skills. Thus, these two types of organizations differ in terms of the length of time required for them to bring clients to equal levels of productivity.

In order to determine the extent to which information regarding disability contributed to the variability noted in average hourly wages, a multiple regression was performed. A multiple r of .8287 was observed between the dependent variable, average hourly wage, and the 16 disability classifications. This high degree of association ($r^2 = .6868$) suggests that the implementation of a wage policy, such as the minimum wage law, affecting workshops must be tempered by considerations regarding the type of disability groups served by a given workshop. Provisions of the minimum wage law amendments and its administrative regulations appear to provide some flexibility for workshops to modify their wage policies and practices relative to differences in productivity characteristic of the particular disabled population which they serve.

Age, Tenure and Wages

The final two factors selected for analysis in relation to wages are the *average age* of the client population and the *average tenure* (or seniority) of clients in the workshop. As may be seen in Table 10, there were considerable differences in the workshop averages among the three states. One of the factors affecting the average age of a client population is the characteristics of that population's disabilities. The relatively young average age of New Jersey's and Pennsylvania's workshop population reflects the fact that in both states approximately 2 clients in 5 (40 percent) are mentally retarded, whereas only 25 percent of New York's client population are so classified.

TABLE 10

Summary Characteristics of Clients
Receiving Workshop Services, 1966

	New York	Pennsylvania	New Jersey
Mean Age	38.5 yrs.	33.2 yrs.	31.4 yrs.
Mean Tenure	25.2 mos.	19.6 mos.	21.2 mos.

The observed association between average hourly wages in a workshop and the average age and tenure of clients suggests that these factors are important. For the 123 workshops, *average age* and *average hourly wages* correlated +.5690 ($P < .05$) and *tenure* and *wages* +.4124 ($P < .05$). Apparently, the length of time clients remain in workshops is positively associated with their remuneration. This "seniority effect" is comparable to most industrial situations. It is also evident that as their tenure increases, clients tend to move to more highly skilled jobs. The correlation between tenure and percent of clients in semi-skilled or skilled jobs was +.2283

($P < .05$). The shops with relatively long-tenured clients also have relatively higher percentages of income from the sales of goods and services ($r = +.3060$) ($P < .05$).

Summary

This report has presented information regarding the average level of wages paid in a sample of 123 workshops. In many ways the use of the statistic, average hourly wage, to represent the wage practices of workshops is misleading. Because of the nature of the basic data furnished by the workshops, it was not possible to calculate accurately the distribution of wages *within* each shop directly. In some shops many or all of the clients receive wages varying but slightly from the average. In others, equal proportions of clients may receive well above and well below the average. The actual distributions within each shop are influenced by a number of things, especially the disability mix. Thus, there is no uniform solution to the problem of adjusting a workshop's wage practices to conform to the new standards required by law. That there will be many shops affected by the new minimum wage provisions seems a certainty, however.

Many complex influences affect a workshop's wage practice. This was illustrated in the brief analysis of association between a workshop's wage level and disability, business characteristics, job structure, and client characteristics.

It is apparent that in most cases workshops who pay clients wages equal to, or in excess of, the minimums now required by law have the following characteristics:

1. Older clients with relatively long service in the shop.
2. Clients whose basic disabilities are physical impairments or chronic disease.
3. Jobs requiring relatively higher levels of skill.
4. Income generated principally by the sale of goods and services.

Some workshops paying clients below 75¢ per hour may have characteristics similar in many respects to those enumerated above; however, the statistical analysis of available data suggests that wage levels in sheltered workshops are strongly associated with the organizational profile outlined above. This profile is, of course, a reflection of both policies adopted by the individual workshop and of historical factors which have affected the changing trends in the workshop movement over the past 50 years. While historical influences can never be eliminated, policies affecting workshops can be and often are, modified, particularly in response to the increased opportunities made available to serve the disabled through federal legislation affecting rehabilitation in general and sheltered workshops in particular.

This report is the first of a series in which the results of this study of workshops will be published. Many other facets of workshop structure and programming remain to be examined, some of which have bearing on wage practices. It has been the purpose of this report, however, to furnish basic data to workshop policy makers and others in state and federal agencies concerned with the use of sheltered employment as a means of serving the disabled.