

The Sheltered Workshop As a Community Recycling Center

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MANY SHELTERED WORKSHOPS do not provide actual work. Sheltered workshops often exist to provide a place for handicapped individuals to spend their day engaging in arts and crafts activities that are unsalable. Many sheltered workshops have greenhouses that grow and sell plants and herbs for little more than it costs to buy seed. Most workshops do business on a contract by contract basis where a contract is awarded to the workshop to produce a product for a limited period of time. When a contract of this type is awarded to a workshop, most of the workers are pulled from their regular jobs to work on the contract until it is finished. This is an extremely inefficient way to run a business and a haphazard means of providing training to sheltered workers. Brown, Wright, and Hitchings* have provided some helpful guidelines for sheltered workshops when procuring work contracts.

Those sheltered workshops administered by persons possessing sufficient skills in marketing and business administration to run a workshop in a lucrative manner are fortunate. One of the basic rules of marketing is that a business must produce a product that the public will buy and not produce a product and hope that the public will buy it. This necessitates the need for research into market areas prior to manufacturing a product or providing a service. Typically, the administrator must make a choice as to whether to run a lucrative business or to provide education and training to the workers with state and federal subsidies. Rarely are the two functions done simultaneously. Ideally, the production of a product or service by sheltered workers would also provide training for workers.

The need exists for an everpresent, readily accessible market for the services of a sheltered workshop. This type of market for services could be obtained through waste recycling. Recyclable wastes such as paper, metal, and glass are always available, and waste recycling could provide a marketable service for sheltered workshop employees while providing useful training. These services would make the community more aware of the sheltered workshop as a viable

community resource. Recycling endeavors of sheltered workshops would necessitate the workshop becoming intricately related to the community in that all wastes must be obtained from and sold to the community where the workshop exists. This would seem

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to make the community aware of the workshop as a community resource. Even sheltered workshops that have contracted to provide services or manufactured goods at a sizable profit could benefit from providing recycling services by involving the community in these endeavors.

The present study attempted to investigate the extent to which sheltered workshops in the United States are engaged in recycling, the amount of profit accrued to recycling, the types of materials most frequently recycled, and the market values of various recyclable materials in different regions.

Participants

The Wage and Hour Division of the U.S. Department of Labor supplied a list of 3,057 rehabilitation workshops in 41 states and the District of Columbia.

*Brown, L. F.; Wright, E.; and Hitchings, W. Guidelines for Procuring Work Contracts for Sheltered Workshop Clients. *Career Development for Exceptional Individuals*. 1978. 1:88-96.

About the Article . . .

SHELTERED WORKSHOPS need an everpresent, readily accessible market for their services. Waste recycling would appear to provide such a market for sheltered workers' services as well as promoting community involvement and awareness. The present study surveyed 3,057 sheltered workshops in 41 states and the District of Columbia in an attempt to find out approximately how many workshops are engaged

in recycling activities, profits gained through recycling, the types of materials recycled, and the market values of various recyclable materials in different regions of the country. Results showed that 307 of the workshops responding did recycling. Some showed profits, some incurred losses, but all said that recycling served as an excellent source of training for sheltered workers.

Of the 3,057 questionnaires sent out, responses were obtained from 788 (25.8%) of the workshops.

Method

Questionnaire

A cover letter explaining the purpose of the survey accompanied each questionnaire. The questionnaire asked questions primarily concerned with profits from recycling, materials recycled, and methods used to collect and process materials. Follow-up letters to prompt returns were not used; however, any returns giving unusual or unclear answers were followed-up by phone calls.

Results

Of the 788 total responses received, 307 sheltered workshops indicated that they did recycling. Each material (paper, metal, and glass) was analyzed for a mean selling price, a range, and standard deviation. A list was compiled of the other unique items that sheltered workshops recycled.

Analysis of Sheltered Workshops Recycling Paper

Of the total 307 sheltered workshops reporting that they recycled, 157 indicated they recycled paper.

Of this 157, a mean selling price for paper to be recycled was \$2.23 per 100 pounds. There was a standard deviation of 4.82 and a range of 0 for a low to \$45.00 per 100 pounds for a high. The high price of \$45.00 for 100 pounds of paper was for computer paper.

Sheltered Workshops Recycling Metal

Of the total 307 sheltered workshops recycling, 127 indicated that they were recycling some sort of metal. A total of 10 different kinds of metal were recycled. A summary of the number of workshops recycling each metal, the mean selling price per 100 pounds, the standard deviation, and range of prices are listed in Table I.

Sheltered Workshops Recycling Glass

Of the total 307 sheltered workshops recycling, only 35 indicated that they did recycling of this material. This low number might reflect the danger involved in handling glass. It must be sorted by color and crushed before many companies will buy the glass. A mean selling price of \$1.06 per 100 pounds was reported with a standard deviation of 1.15. A range for glass resale was 0 for a low and \$5.00 per 100 pounds for a high price.

TABLE I—Metals Recycled by Sheltered Workshops

Type of Metal	#of Workshops Recycling	Mean Price per 100 lbs.	Standard Deviation	Range Low/High
1 Steel	31	\$ 2.00	4.10	00/20.00
2 Aluminum	76	8.06	8.43	00/25.00
3 Copper	23	12.17	16.23	00/50.00
4 Brass	14	12.54	14.31	00/40.00
5 Tin	10	2.10	4.92	00/16.00
6 Gold	2	No Profit	—	—
7 Silver	2	30.00	—	—
8 Bimetal	6	.69	.46	.10/1.38
9 Bronze	1	.00	—	—
10 Zinc	3	7.67	9.29	.01/18.00

SPECIAL REPORT

Sheltered Workshops Recycling Other Materials

Many workshops indicated other materials that were recycled besides paper, metal, and glass. Many cotton and fiber materials were recycled throughout the southern portion of the United States. Recycling corrugated cardboard and computer cards realized a profit for many sheltered workshops. Also, some workshops recycled rubber through tires and other products. The following list shows some of the other interesting items recycled:

- | | |
|--------------------------------------|-------------------------|
| —plastics | —coat hangers |
| —clothing | —bicycles |
| —lumber | —bailer twine |
| —electrical meters
and appliances | —plastic gloves |
| —kaowool | —nuts and bolts |
| —yarn and thread | —paper clips |
| —furniture | —steel drums |
| —wreath easels | —skids |
| —pallets | —foam rubber |
| —thread cones | —polyester |
| —pop cartons | —beer cases |
| —batteries | —printing plates |
| —telephone parts | —photographic chemicals |
| —mardi gras beads | —sawdust |
| | —fluorescent lamps |

Copy of Report Requested

Of the total 307 responding "yes" to the recycling question, 277 indicated they wanted a copy of the final report. Along with the 373 requesting a copy of the report from the "no" responses, this yields a total of 650 workshops requesting a report from 788 responses. This is 82 percent of the total respondents requesting more information about recycling. The results of this study should provide added insight into the area of recycling for sheltered workshops.

Individual State Analysis

Further data analysis was done on an individual state basis. These data were analyzed to see if some regions of the United States or individual states recycled certain materials over others.

The best geographical area for recycling activity occurred around the Great Lakes. The states of Minnesota, Michigan, Illinois, Indiana, and Ohio did recycling with paper, metal, and glass. The Great Lakes might be used as a means of transportation for these materials. Michigan has a mandatory deposit on all beverage containers of soda and beer. This deposit has reduced this kind of litter but has raised storage problems for the local businessmen who have to return money for the containers to the customers.

The southern states do more recycling of textile materials than the northern states. This recycling ef-

fort could be influenced by the cotton crops and local textile industries.

Discussion

This study surveyed 3,057 sheltered workshops in 41 states and the District of Columbia as to their waste recycling activities; 788 (25.8%) of the workshops responded to the survey. Of these respondents, 307 workshops indicated that they were engaged in some waste recycling.

Paper was recycled in 157 workshops with an average selling price of \$2.23 per 100 pounds and a range of 0 to \$45.00 per 100 pounds. The large fluctuations in the prices are due to the fact that many types of paper are recycled, including computer paper, newsprint, and cardboard. Also, paper products are used for insulation material where there is a large seasonal and geographic difference in market value.

Metal was recycled by 127 workshops with 10 different metals being recycled. The average selling price depended on the type of metal with bimetals yielding the lowest price (\$.69/100 lbs.) and silver giving the highest price (\$30.00/100 lbs.).

Glass was recycled by 35 workshops with an average market value of \$ 1.06 per 100 lbs. and a range of 0 to \$5.00 per 100 lbs. The fact that glass must be sorted by color and crushed before it is sold make it a precarious and possibly harmful material for many sheltered workers to handle.

Numerous materials other than paper, metals, and glass were found to be recycled by workshops. Of these materials, corrugated cardboard, computer cards, and tires appeared most prevalent and profitable.

Whether or not a workshop gained a profit as a result of its waste recycling activities, all workshops that did recycling reported that recycling provided good training for their clients. Although several workshops have made a very lucrative business through recycling and have received great amounts of publicity, others say that they have lost thousands of dollars. One workshop reported that after contracting with Reynold's Aluminum to recycle aluminum cans, its storage bins began to collect garbage and rats. This workshop had to call the local junk dealer to haul away the cans and then clear out the rats. In spite of its accrued rodent problem, this workshop contended that the recycling project may have succeeded if better planning and "leadership" could have been obtained.

With emphasis on conservation of energy, it would appear that recycling would be a good business venture. However, as with any business, planning is essential to the success of a recycling operation. Since it takes a great volume of any material for recycling to make money, a business has to plan to collect, store,

process, and ship tremendous quantities of materials. Publicity is crucial to make the community aware of a recycling center if such volume is to be obtained.

The authors found that some regions had bimetal cans while other areas had all aluminum cans. It would be profitable to recycle soda and beer cans if the cans distributed in that region were aluminum and sell for an average of \$8.06/100 lbs. or about \$.01 per can, as opposed to an area that distributed bimetal cans worth an average of \$.69/100 lbs. No reasons could be found for using these different metal cans in different regions of the country. In addition, when recycling aluminum, one should consider that aluminum siding could add sharply to the poundage. Sheltered workshops could contract with local construction and aluminum siding companies to recycle scrap aluminum.

It was also advised by several workshops that one of the first steps in developing any recycling effort is

to contract all local businesses to assess the need to recycle any material, or how these businesses could benefit from a recycling program.

Overall, the authors found that aluminum, corrugated cardboard, and tires were probably the most profitable materials to recycle. Of course, as stated previously, a location where bimetal cans are distributed could be deleterious to aluminum recycling. Also, the workshop should be near a place to sell the materials, otherwise shipping cost might diminish profits. Any sheltered workshop considering a program in recycling should look closely at market values, material availability, transportation, and storage costs.

The authors wish to thank Art Rom of the Wage and Hour Division of the U.S. Department of Labor for his help, and R. T. Walls for his support and encouragement. Appreciation is also due to G. Rutter of the Indiana County Recycling Center and J. DeJohn of Owens Illinois Glass Company for information.

Survey on Sheltered Workshop Recycling Efforts

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|------|------|--|
| Yes | .No | 1. Are you doing any recycling? |
| Yes | . No | 2. Do you recycle paper?
What profits can be expected per 100 lbs.? |
| Yes | No | 3. Do you recycle metal?
What kind? _____
What are your profits per 100 lbs. for each metal? |
| Yes | . No | 4. Do you recycle glass?
What profits can be expected per 100 lbs.? |
| Yes | No | 5. Do you recycle anything else?
If yes, what? _____ |
| | | 6. Please comment on the system you use to pick-up, process, and deliver your materials _____ |
| .Yes | . No | 7. Do you want a copy of the final report? |
| Yes | . No | 8. Overall, are you satisfied with your recycling program? How? _____ |