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A STUDY OF INDUSTRIAL LAUNDRY SERVICE WITH  
EMPHASIS ON THE ROLE OF PACKAGING

Thesis for the Degree of M. S.  
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## ABSTRACT

### A STUDY OF INDUSTRIAL LAUNDRY SERVICE WITH EMPHASIS ON THE ROLE OF PACKAGING

by Paul D. Bobb

This thesis deals with the second phase of a study conducted for the Institute of Industrial Launderers by the School of Packaging at Michigan State University. The primary objective of this phase of the study was to determine the importance of the package to the users of garment rental service.

A service questionnaire was developed in which the packaging functions could be dealt with indirectly. This treatment allowed investigation of the protective and utility functions of the package, but did not lend itself to quantitatively determining the sales appeal value of the various packages being used within the industry.

Twelve participating laundries distributed 1,980 questionnaires of which 416 were usable returns. Analysis of the returns show a general satisfaction with the status quo. There does seem to be a generally greater degree of satisfaction with the overall service provided by those laundries packaging their rental garments in plastic.

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By

Paul D. Bobb

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## TABLE OF CONTENTS

	<u>Page No.</u>
Acknowledgments.....	ii
List of Tables.....	iii
Introduction.....	1
Questionnaire Development.....	3
Results.....	8
Analysis of Cross Tabulations.....	13
Conclusions.....	35
Appendix.....	40

## LIST OF TABLES

<u>Table No.</u>		<u>Page No.</u>
1	Analysis of Returns.....	7
2	Type of Garment Packaging.....	9
3	Response to Quality Variables in Question 6.....	10
4	Type of Business Cross Tabulated With Question 5.....	13
5	Quality Variables Ranked by Type of Business.....	14
6	Type of Packaging Cross Tabulated With Question 6 - Colored Uniforms	16
7	Type of Packaging Cross Tabulated With Question 7 - Colored Uniforms	20
8	Type of Packaging Cross Tabulated With Question 6 - White Industrial Uniforms.....	21
9	Type of Packaging Cross Tabulated With Question 7 - White Industrial Uniforms.....	23
10	Type of Packaging Cross Tabulated With Question 6 - Coveralls and Jackets.....	25
11	Type of Packaging Cross Tabulated With Question 7 - Coveralls and Jackets.....	26
12	Type of Packaging Cross Tabulated With Question 6 - White Uniform Shirts.....	28
13	Type of Packaging Cross Tabulated With Question 7 - White Uniform Shirts.....	29



<u>Table No.</u>		<u>Page No.</u>
14	Type of Packaging Cross Tabulated With Question 6 - White Dress Shirts	31
15	Type of Packaging Cross Tabulated With Question 7 - White Dress Shirts	32

## INTRODUCTION

This thesis deals with the second phase of a study conducted for the Institute of Industrial Launderers by the School of Packaging. The objective of this phase of the study was to determine the importance of the package to the users of rental laundry service.

The first phase of the research project consisted of a study of the roles of the package as viewed by the managers of industrial laundries. Mr. Neely, author of the first study, determined that the industrial laundry managers are aware of the roles of packaging as related to their business but are not packaging to best accomplish these roles.<sup>1</sup>

Both studies were conducted under the auspices of the Institute's Research and Development Committee which is responsible for research into cleaning methods, garment materials, equipment, production techniques and other aspects of industrial laundering.

The idea of supplying and servicing rental garments is not a recent innovation. Rental laundry service dates back to the early post Civil War era, when a few enterprising individuals began supplying business with clean towels regularly at a rental charge only slightly more than the cost of laundering.

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<sup>1</sup>Neely, Ned S., A Study of the Roles of Packaging as Seen by Managers of Industrial Laundry Businesses, Tech. Report No. 1, Project 7, School of Packaging, Michigan State University, June 1, 1965.

Rental service has expanded greatly from those early days. Today we have linen supply services, diaper services and industrial launderers, all dealing in different segments of the rental service market.

The industrial launderers originally supplied only industrial towels and uniforms. Service now includes wiping cloths, dust control mops, treated rugs and most recently--executive shirts and slacks. The rental service includes distribution, pick-up, laundering, finishing, or repair or replacement as needed. In this way the industrial launderer frees his customer from the need to maintain a capital investment in laundering facilities of his own.

In pursuing this study, the author found it necessary to learn the language of the industry. This was accomplished by visits to various linen and laundry services, as well as discussions with Mr. Humphrey of the institute's research committee.

It was determined that we would try to determine how users of industrial laundries viewed the overall service being rendered. Many of these services are directly affected by the packaging methods and materials being used.

An example of this theory would be a garment that had been thoroughly laundered but not packaged to protect it from the handling and storage conditions it may encounter before use by the customer. Dirty garments would reveal this weakness in the service without focusing undue attention on the package itself. Other

areas of the overall service which are directly related to the packaging are excessive wrinkling and the ease of handling and storing of laundered garments until they are needed.

Based on the funds and time available for the study, it was decided that a questionnaire would be the best method of gathering customer opinion information. The main objective of the questionnaire was to evaluate as accurately as possible the industrial laundry services currently being offered and relate these to the packaging techniques used.

#### QUESTIONNAIRE DEVELOPMENT

It was decided that this questionnaire should be structured in a manner that would de-emphasize any direct connection with the School of Packaging. This was done to avoid the possibility of the respondents trying to give the answers they believed the author wanted rather than honestly evaluating the service rendered by the laundry.

By developing a service questionnaire, packaging was dealt with indirectly. Responses to those questions concerning various quality characteristics and distribution methods were related to the type of packaging being used to determine the importance of the package in meeting customer demands.

This treatment allowed investigation of the protection and utility functions of the package, but did not lend itself to determining the sales appeal of various packaging techniques. It was thought that

the latter function could best be evaluated through market tests by cooperating laundries.

The form and wording of the questionnaire was developed under the direction of the late Dr. E. A. Brand of the Marketing Department, Michigan State University. A statement completion form was used rather than a direct question approach because it helps the respondent identify with the study and is believed to be easier to complete. The questionnaire and cover letter that were distributed to 1,980 customers of cooperating laundries are included as an appendix.

Questions 1, 2 and 5 were used to obtain general information for classification purposes. The remainder of the questions sought to determine the respondents' opinions about those aspects of the rental service which are related to the packaging being used.

The questionnaire was limited to ten statements because the author felt more statements would not give sufficient additional data to offset the possibility of lost interest due to the length of the questionnaire.

The form and wording were kept as simple and uncomplicated as possible to avoid confusion. In many cases the questionnaire was to be distributed to the laborer wearing the rental uniform. This type of individual is not likely to spend time trying to interpret a mailed questionnaire. His opinions, however, are necessary to assure that the results of the study are representative.

The wording of the statements was tested on people using rental service as well as people completely unfamiliar with it in order to locate possible sources of confusion. Three editings were required prior to final drafting.

### Sample Selection

Twelve laundries were selected to participate in this phase of the study. Selection was based on geographical location, participation in the initial phase of the study, size of laundry and a stated willingness to participate. Since institute members are fairly evenly distributed across the country, three various sized laundries were selected from each section.

Selection by geographical location was in accordance with the Census of Business, published by the United States Department of Commerce. This classification was used for the questionnaire coding as well as for participating service selections. The classification is as follows:

- |               |  |
|---------------|--|
| Northeast     | - Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, New York, Pennsylvania, and New Jersey.  |
| North Central | - Wisconsin, Michigan, Illinois, Indiana, Ohio, Minnesota, North Dakota, South Dakota, Nebraska, Iowa, Missouri and Kansas.  |
| South         | - Maryland, Washington D. C., West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma and Texas. |

West - Montana, Idaho, Wyoming, Colorado, Utah, Nevada, Arizona, New Mexico, Washington, Oregon and California.

One hundred sixty five questionnaires, introductory letters, and return envelopes were sent to each participating laundry for distribution. A copy of the questionnaire in its final form and the introductory letter are included in the appendix.

The laundry manager was asked to arrange for personal delivery of the questionnaires to a representative cross section of his customers. Personal delivery was used to elicit a more sizable rate of return than is characteristic of mail surveys. Managers were encouraged to use this as an opportunity to build customer goodwill through contact as an individual rather than an account number.

The stratified sampling method was used to assure a representative sample of each laundry's market. Emphasis was placed on this to prevent distribution to the 165 most easily reached customers which would have decreased the validity and usefulness of the results.

The total sample size was 1,980 of which 416 were usable returns. These returns were representative of each section of the country based on the percent sent to each area with the exception of the southern area. Based on the data presented in Table 1, we feel the results of the questionnaire are valid for all areas except the South which may be questionable due to the small number of returns from this area.

TABLE 1

## Analysis of Returns

	<u>Actual Percent Membership</u>	<u>Percent of Sample</u>	<u>Number Returned</u>	<u>Percent of Total Returns</u>
North Eastern	23	25	98	23.56
North Central	24	2 25	191	45.91
South	23	25	34	8.17
West	19	25	93	22.36

The return, self-addressed, stamped envelopes provided with each questionnaire were addressed to an East Lansing post office box rather than to the School of Packaging. This was done to further protect against bias being introduced by associating the School of Packaging with the survey.

Approximately ten weeks were allowed for questionnaires to be distributed and returned to the University. All returns were edited, then tabulations and cross tabulations were run on the CDC 3600 computer.



## RESULTS

### Question by Question Tabulations and Analysis

A total of 416 replies were received of 1,980 questionnaires distributed. This is a 21 percent return--far above the average ten percent normally experienced with mail questionnaires. For a percentage and raw score breakdown see Table 1.

Questions 1 and 2 concerning the type of company and average number of employees show that 56 percent of the respondents were involved in service industries and 55 percent of the companies had fifteen or less employees. It was also shown in replies to the second question that 47 percent of the companies had 76 to 100 percent of their employees wearing rental garment. This might indicate that the laundry services were not getting into larger manufacturing organizations which have maintenance personnel who could be using rental services.

Question 3 asked what type of rental garments were being used and how they are packaged. A comparison can be made between Mr. Neely's study of the laundry owners and this study which deals with the customers as to packaging materials being used for each type of garment. See Table 2.

TABLE 2

## Type of Garment Packaging

	Paper		Plastic		Twine		Box		Other	
	I	II	I	II	I	II	I	II	I	II
Colored Uniforms	44	36	22	19	25	38	1	*	8	4
White uniforms	45	55	23	28	28	9	5	*	2	4
Coveralls and jackets	38	26	18	18	40	39	1	*	3	12
White uniform shirts	38	53	30	33	18	5	8	*	6	5
White dress shirts	21	19	29	35	6		39	24	5	4

Note: I = Current Study; II = Mr. Neely's Study of Laundry Managers

\*This method of packaging was not considered in Mr. Neely's study.

Variances shown in Table 2 may be due to sampling error or to changes initiated in the past year. There does not seem to be any general trend toward or away from specific types of packaging materials. Cross tabulations of the type of package used and the respondent's evaluation of its ability to assure receipt of a satisfactory garment are shown in Tables 6 - 15.

Question 4 dealt with methods of distribution of the garments within the company. Replies indicate that in 76 percent of the cases garments were either distributed directly to the individual or placed

in an unattended area for pickup by the individual. Distribution methods and their relationship to the quality variables in Questions 6 and 7 will be discussed in a later section.

It was indicated in 55 percent of the responses that the employer pays the entire cost of the laundry service. Thirty percent of the respondents indicated that the company and employee shared the expense of laundry service. The remaining 15 percent indicated the employee was required to pay the entire fee himself.

Question 6 asked if the garment rental service was satisfactory in terms of supplying garments which were clean, well pressed, packaged satisfactorily, in good repair and not excessively wrinkled. Table 3 gives the frequencies and percentages of people expressing satisfaction or not responding in each of these five areas.

TABLE 3

## Response to Quality Variables in Question 6

	<u>No Response</u>		<u>Satisfactory</u>	
	<u>Frequency</u>	<u>Percent Across</u>	<u>Frequency</u>	<u>Percent Across</u>
Cleanliness of Garments	29	7.0	387	93.0
Press of Garments	170	40.9	246	59.1
Repairs Made	202	48.6	214	51.4
Garments not Wrinkled	200	48.1	216	51.9
Packaging of Garments	175	42.1	241	57.9

It is to the credit of the institute members that 93 percent of the sample indicated that the garments they received were clean. Contrary to the author's initial hypothesis, packaging was recognized as being a weak area of laundry service. Response to this question also indicates that the package was not adequately preventing wrinkling of the garments after they were pressed.

Question 7 asked for an indication of the frequency with which the packaging and delivery service provided garments that were clean, well pressed, convenient to store, and maintained in good condition until used. Only three possible choices were given which was not a sufficient number since many questionnaires had no response to this question. This may also have caused a greater degree of satisfaction to be indicated in this question than was evidenced in Question 6.

"Almost always" was the most frequent response to each part of Question 7. The percent indicating "almost always" for each quality characteristic was as follows:

Clean	96.9 percent
Well pressed	77.8 percent
Convenient to store	92.1 percent
Maintained in good condition until used	87.4 percent

The mode response was used to determine the most frequent ranking of the quality characteristics in Question 8. The most frequent order was (1) clean, (2) well pressed, (3) good repair,

(4) delivered on time without shortages, (5) packaged to keep clean,  
(6) convenient to handle and store.

Ninety-two percent of the respondents indicated that garments were assigned to individuals and not issued from stock by size. This may be valuable in developing a marketing plan which will emphasize individual service.

## ANALYSIS OF CROSS TABULATIONS

TABLE 4

Type of Business Cross Tabulated With Question 5

		<u>Employee</u>	<u>Company</u>	<u>Both</u>
Retail	Frequency	12.00	48.00	17.00
	% Across	15.58	62.34	22.08
Service	Frequency	26.00	117.00	84.00
	% Across	11.45	51.54	37.00
Manufacturing	Frequency	22.00	59.00	22.00
	% Across	21.36	57.38	21.36

Table 4 shows a tabulation of who pays for the rental service in retail service, and manufacturing organizations. Two hundred and twenty-four of the respondents, or 55 percent, indicated that the company paid the full cost of the service. There were only slight variations between the different types of organizations. Retail employers paid the full cost in 62 percent of the cases, manufacturing employers paid in full in 57 percent of the cases, and service organizations in 51 percent of the cases. Within the total sample only 15 percent of the respondents indicated that the employee paid the full cost; the remaining 30 percent had a cost sharing plan for the rental service.

TABLE 5

## Quality Variables Ranked by Type of Business

Rank	Retail	Service	Manufacturing
1	Clean	Clean	Clean
2	Wrinkle-free	Wrinkle-free	On time without shortages
3	In good repair	In good repair	In good repair
4	On time without shortages	On time without shortages	Wrinkle-free
5	Convenient to handle	Packaged to stay clean	Packaged to stay clean
6	Packaged to stay clean	Convenient to handle	Convenient to handle

As might be expected, retail and service organizations were more interested in having clean, wrinkle-free garments than were the manufacturing organizations. Manufacturing organizations indicated it was important to have the garments on time and without shortages. Generally, there was very little difference in order of ranking based on the type of company. Table 5 illustrates this fact.

Company size had no significant effect in the ranking of the quality characteristics in Question 8. The order of importance is the same as that shown in Table 5 for types of companies.

It was also found that the percentage of people using the service within a given company did not change the order of preference for the quality characteristics. That is, companies with less than 25 percent of their employees wearing rental garments ranked the desired characteristics in the same order of preference as companies with 50, 75, or

100 percent of their personnel wearing rental garments. The most frequent ranking order from most to least important for all respondents was:

1. Clean.
2. Well pressed and not wrinkled when ready to use.
3. In good repair.
4. Delivered on time without shortage.
5. Packaged to keep laundry clean, etc.
6. Convenient to handle and store.

A cross tabulation was run between the results of Question 3 and Question 6. The tabulated data is shown in Tables 6, 8, 10, 12, and 14. The correlations show the relationship between the packaging for each garment and if the garments are satisfactory in terms of the quality variables in Question 6.

The top line in each cell is the frequency of response for that combination of variables. The second line in each cell indicates the percent indicating satisfaction or not responding within the cell, while the third line indicates the percent of the column total indicating the service is satisfactory or not responding. Each of the tables deals with one of the five types of rental garments studied.

Table 6 deals with colored uniform packaging and customer satisfaction with the garment in terms of cleanliness, press, packaging, repairs, and not being excessively wrinkled. For the total sample of those using colored uniforms, 94 percent indicated that the laundry



TABLE 6

Type of Packaging Cross Tabulated With Question 6

Colored Uniforms

	Cleanliness		Press		Packaging		Repairs		Not Excessively Wrinkled	
	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.
Paper	F	141.00	9.00	87.00	63.00	93.00	57.00	72.00	73.00	77.00
	% A	94.00	6.00	58.00	42.00	62.00	38.00	48.00	48.67	51.33
	% T	41.96	2.68	25.89	18.75	27.68	16.96	21.43	21.73	22.92
Plastic	F	69.00	4.00	49.00	24.00	57.00	16.00	32.00	45.00	28.00
	% A	94.52	5.48	67.12	32.88	78.08	21.92	43.84	61.64	38.36
	% T	20.54	1.19	14.58	7.14	16.96	4.76	9.52	13.39	8.33
Twine	F	80.00	4.00	47.00	37.00	28.00	56.00	37.00	41.00	43.00
	% A	95.24	4.76	55.95	44.05	33.33	66.67	44.05	48.81	51.19
	% T	23.81	1.19	13.99	11.01	8.33	16.67	11.01	12.20	12.80
Box	F	3.00	0.00	2.00	1.00	3.00	0.00	3.00	2.00	1.00
	% A	100.00	0.00	66.67	33.33	100.00	0.00	100.00	66.67	33.33
	% T	0.89	0.00	0.60	0.30	0.89	0.00	0.89	0.60	0.30
Other	F	24.00	2.00	19.00	7.00	11.00	15.00	16.00	16.00	10.00
	% A	92.31	7.69	73.08	26.92	42.31	57.69	61.54	61.54	38.46
	% T	7.14	0.60	5.65	2.08	3.27	4.46	4.76	4.76	2.98
Total	F	317.00	19.00	204.00	132.00	192.00	144.00	160.00	177.00	159.00
	% A	94.35	5.65	60.71	39.29	57.14	42.86	47.62	52.68	47.32
	% T	94.35	5.65	60.71	39.29	57.14	42.86	47.62	52.68	47.32

Key: % A = Percent Across      % T = Percent Total      F = Frequency  
 Sat. = Satisfactory      No R. = No Response

service provided clean garments. This is unexpected since there are obviously varying degrees of protection against soiling offered by each of the packaging materials. Colored garments do not show soiling as well as white, which may explain why even twine packaging provided "clean" garments 95 percent of the time. This opinion is reinforced by the data shown in Table 7, indicating that only 83 percent of the people receiving white uniforms tied in twine were satisfied with the cleanliness of the garments.

The initial press and whether the garments are wrinkle-free when ready to use can be discussed together. Garments packaged in plastic were ranked best in this respect. Sixty-two percent of the respondents that receive colored garments wrapped in plastic indicated that the garments were satisfactorily wrinkle-free. No package can replace a good initial press, but it can help reduce complaints due to wrinkles received after pressing and prior to use. In over 50 percent of the cases, twine and paper were not satisfactory in providing wrinkle-free garments.

The packaging of colored garments was reviewed as being satisfactory by only 57 percent of the sample. Twine was least satisfactory with only 33 percent of the respondents indicating satisfaction. Paper was satisfactory to 62 percent of the people who received colored garments packaged in paper. Plastic packages for colored uniforms seem to have best customer appeal since 78 percent indicated plastic to be a satisfactory package.

Since Question 6 is dichotomous, Question 7 was used to allow possible intermediate degrees of satisfaction to be expressed. Cross tabulation of Question 7 and Question 3 will be shown in Tables 7, 9, 11, 13 and 15. Data shown in these tables can be read in the same manner as Tables 6, 8, 10, 12 and 14. All frequencies and percentages are cell values.<sup>2</sup>

Table 7 indicates that the packaging and delivery service provide colored garments that are "almost always" clean according to 97 percent of the sample. Plastic packages were credited with "almost always" providing colored garments that were clean 100 percent of the time. Of those indicating colored garments were clean only "half the time", 55 percent were receiving garments tied in twine only.

The data in Table 7 also seems to indicate that colored garments packaged in plastic are better pressed than those packaged in paper or twine. This may be psychological, due to the sales appeal of the "see through" plastic package and not due to a press which is physically superior. Garments packaged in paper or tied in twine were only rated as being "almost always" well pressed by 75 percent of the sample. If we can assume that finishing operations are comparable in various institute member's plants, the package seems to be the important variable in the way the customer views the press of colored uniforms.

Paper and plastic packages were credited by 94 percent and 95 percent of the sample respectively with "almost always" providing garments

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<sup>2</sup>Cell values refer to a single combination of two values.

that were convenient to store. Twine-tied bundles of colored uniforms were convenient to store for 84 percent of the sample. This may be attributed to the difficulty of maintaining the garments in usable condition during storage since twine serves no protective function.

When asked specifically how often garments were maintained in good condition, 85 percent of the sample indicated "almost always". There were no significant differences between various packaging materials and their ability to maintain colored uniforms in usable condition.

White industrial uniform packaging can be evaluated by the cross tabulations shown in Tables 7 and 8. Cleanliness was viewed as satisfactory for 90 percent of the sample. Twine only seems to be the least satisfactory method of packaging for providing white uniforms that are clean, since only 83 percent of the sample expressed satisfaction in this area.

Garments with a good initial press and not excessively wrinkled when ready for use were satisfactory to approximately 60 percent of the respondents receiving garments in paper or plastic. Uniforms tied in twine only were rated satisfactory by less than 40 percent of the respondents.

The packaging of white industrial uniforms does not seem to be very satisfactory to the customer. Paper and plastic are rated satisfactory by 65 percent and 55 percent of the respondents respectively. Packaging with twine only was satisfactory to only 38 percent of the sample

TABLE 7

Type of Packaging Cross Tabulated With Question 7

Colored Uniforms

	Clean			Well Pressed			Convenient To Store			Maintained in Good Condition			
	A	H	O	A	H	O	A	H	O	A	H	O	
Paper	F	135.00	3.00	0.00	103.00	20.00	13.00	115.00	5.00	2.00	114.00	14.00	6.00
	% A	97.83	2.17	0.00	75.74	14.71	9.56	94.26	4.10	1.64	85.07	10.45	4.48
	% T	43.13	0.96	0.00	33.33	6.47	4.21	41.97	1.82	0.73	38.91	4.78	2.05
Plastic	F	69.00	0.00	0.00	58.00	6.00	4.00	57.00	2.00	1.00	57.00	6.00	3.00
	% A	100.00	0.00	0.00	85.29	8.82	5.88	95.00	3.33	1.67	86.36	9.09	4.55
	% T	22.04	0.00	0.00	18.77	1.94	1.29	20.80	0.73	0.36	19.45	2.05	1.02
Twine	F	72.00	5.00	0.00	59.00	10.00	8.00	57.00	6.00	5.00	56.00	11.00	1.00
	% A	93.51	6.49	0.00	76.62	12.99	10.39	83.82	8.82	7.35	82.35	16.18	1.47
	% T	23.00	1.60	0.00	19.09	3.24	2.59	20.80	2.19	1.82	19.11	3.75	0.34
Box	F	3.00	0.00	0.00	2.00	1.00	0.00	3.00	0.00	0.00	3.00	0.00	0.00
	% A	100.00	0.00	0.00	66.67	33.33	0.00	100.00	0.00	0.00	100.00	0.00	0.00
	% T	0.96	0.00	0.00	0.65	0.32	0.00	1.09	0.00	0.00	1.02	0.00	0.00
Other	F	25.00	1.00	0.00	18.00	3.00	4.00	20.00	0.00	1.00	20.00	1.00	1.00
	% A	96.15	3.85	0.00	72.00	12.00	16.00	95.24	0.00	4.76	90.91	4.55	4.55
	% T	7.99	0.32	0.00	5.83	0.97	1.29	7.30	0.00	0.36	6.83	0.34	0.34
Total	F	304.00	9.00	0.00	240.00	40.00	29.00	252.00	13.00	9.00	250.00	32.00	11.00
	% A	97.12	2.88	0.00	77.67	12.94	9.39	91.97	4.74	3.28	85.32	10.92	3.75
	% T	97.12	2.88	0.00	77.67	12.94	9.39	91.97	4.74	3.28	85.32	10.92	3.75

K: A = Almost Always      H = Half the Time      O = Occasionally  
 % A = Percent Across      % T = Percent Total      F = Frequency

**TABLE 8**

**Type of Packaging Cross Tabulated With Question 6**

**White Industrial Uniforms**

	Cleanliness		Press		Packaging		Repairs		Not Excessively Wrinkled		
	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	
Paper	F	40.00	3.00	23.00	20.00	28.00	15.00	27.00	16.00	26.00	17.00
	% A	93.02	6.98	53.49	46.51	65.12	34.88	62.79	37.21	60.47	39.53
	% T	41.67	3.13	23.96	20.83	29.17	15.63	28.13	16.67	27.08	17.71
Plastic	F	20.00	2.00	13.00	9.00	12.00	10.00	10.00	12.00	13.00	9.00
	% A	90.91	9.09	59.09	40.91	54.55	45.45	45.45	54.55	59.09	40.91
	% T	20.83	2.08	13.54	9.38	12.50	10.42	10.42	12.50	13.54	9.38
Twine	F	20.00	4.00	10.00	14.00	9.00	15.00	9.00	15.00	8.00	16.00
	% A	83.33	16.67	41.67	58.33	37.50	62.50	37.50	62.50	33.33	66.67
	% T	20.83	4.17	10.42	14.58	9.38	15.63	9.38	15.63	8.33	16.67
Box	F	4.00	1.00	2.00	3.00	4.00	1.00	1.00	4.00	3.00	2.00
	% A	80.00	20.00	40.00	60.00	80.00	20.00	20.00	80.00	60.00	40.00
	% T	4.17	1.04	2.08	3.13	4.17	1.04	1.04	4.17	3.13	2.08
Other	F	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00
	% A	100.00	0.00	100.00	0.00	100.00	0.00	100.00	0.00	100.00	0.00
	% T	2.08	0.00	2.08	0.00	2.08	0.00	2.08	0.00	2.08	0.00
Total	F	86.00	10.00	50.00	46.00	55.00	41.00	49.00	47.00	52.00	44.00
	% A	89.58	10.42	52.08	47.92	57.29	42.71	51.04	48.96	54.17	45.83
	% T	89.58	10.42	52.08	47.92	57.29	42.71	51.04	48.96	54.17	45.83

Key: % A = Percent Across      % T = Percent Total      F = Frequency  
 Sat. = Satisfactory      No R. = No Response

receiving uniforms bundled in this manner.

Table 9 deals with the respondent's estimation of how frequently white industrial uniforms are clean, well pressed, convenient to store and maintained in good condition. The data seems to indicate that institute members are providing white uniforms that are "almost always" clean to 96 percent of their customers.

Paper and plastic packages for white industrial uniforms supplied garments that were well pressed and maintained in good condition to 90 percent of the sample. For all other types of rental garments, plastic packages were rated more frequently as providing a superior product than the other forms of packaging. The author cannot explain the fact that paper is indicated as being a better package for white uniforms unless it can be attributed to sampling error or the sample size being small for this particular cell.

Nearly 100 percent of the respondents indicated that garments packaged in paper and plastic were convenient to handle and store. Garments that were tied in twine only were convenient to store for only 83 percent of the respondents. It is the author's opinion that these garments were not convenient to store because of the lack of protection against dust and wrinkling provided by twine.

It can be determined from Tables 8 and 9 that there is much room for improvement in satisfying customer needs and demands. The slightly more critical attitude toward white garment service may be due to a belief by customers that white garments are higher quality than

TABLE 9

Type of Packaging Cross Tabulated With Question 7  
White Industrial Uniforms

		Clean			Well Pressed			Convenient To Store			Maintained in Good Condition			
		A	H	O	A	H	O	A	H	O	A	H	O	
Paper	F	36.00	1.00	0.00	32.00	5.00	0.00	32.00	1.00	0.00	0.00	35.00	3.00	0.00
	% A	97.30	2.70	0.00	86.49	13.51	0.00	96.97	3.03	0.00	0.00	92.11	7.89	0.00
	% T	42.86	1.19	0.00	37.65	5.88	0.00	44.44	1.39	0.00	0.00	43.75	3.75	0.00
Plastic	F	19.00	1.00	0.00	17.00	4.00	0.00	16.00	0.00	0.00	0.00	17.00	2.00	0.00
	% A	95.00	5.00	0.00	80.95	19.05	0.00	100.00	0.00	0.00	0.00	89.47	10.53	0.00
	% T	22.62	1.19	0.00	20.00	4.71	0.00	22.22	0.00	0.00	0.00	21.25	2.50	0.00
Twine	F	20.00	0.00	1.00	15.00	4.00	1.00	15.00	2.00	1.00	1.00	15.00	2.00	1.00
	% A	95.24	0.00	4.76	75.00	20.00	5.00	83.33	11.11	5.56	5.56	83.33	11.11	5.56
	% T	23.81	0.00	1.19	17.65	4.71	1.18	20.83	2.78	1.39	1.39	18.75	2.50	1.25
Box	F	4.00	0.00	0.00	4.00	0.00	1.00	3.00	0.00	0.00	0.00	3.00	0.00	0.00
	% A	100.00	0.00	0.00	80.00	0.00	20.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00
	% T	4.76	0.00	0.00	4.71	0.00	1.18	4.17	0.00	0.00	0.00	3.75	0.00	0.00
Other	F	2.00	0.00	0.00	2.00	0.00	0.00	2.00	0.00	0.00	0.00	2.00	0.00	0.00
	% A	100.00	0.00	0.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	100.00	0.00	0.00
	% T	2.38	0.00	0.00	2.35	0.00	0.00	2.78	0.00	0.00	0.00	2.50	0.00	0.00
Total	F	81.00	2.00	1.00	70.00	13.00	2.00	68.00	3.00	1.00	1.00	72.00	7.00	1.00
	% A	96.43	2.38	1.19	82.35	15.29	2.35	94.44	4.17	1.39	1.39	90.00	8.75	1.25
	% T	96.43	2.38	1.19	82.35	15.29	2.35	94.44	4.17	1.39	1.39	90.00	8.75	1.25

Key: A = Almost Always H = Half the Time O = Occasionally  
 % A = Percent Across % T = Percent Total F = Frequency



colored garments. This is consistent with Mr. Neely's findings that institute members were generally using more sophisticated packaging on white garments than on colored garments.

Ninety-one percent of the coverall and jacket customers surveyed indicated that the garments they use are satisfactorily clean. Detailed data is shown in Tables 10 and 11. Table 11 shows that only one subject felt that the rental service was not supplying garments that were "almost always" clean when packaged in paper or plastic.

Coverall and jacket finishing was rated as "almost always" good by 75 percent of the respondents. Only 56 percent of the sample indicated that finishing was satisfactory. Coveralls and jackets packaged in plastic attained a twelve percent higher indication of satisfaction. This once again illustrates how garments which may not have a physically better finish are judged superior due to the influence of the package.

Table 10 points out a significant difference in how coverall and jacket customers view various packaging materials. Seventy-nine percent of the respondents receiving garments packaged in plastic were satisfied with this as a package for their garments. Only 63 percent were satisfied with paper as a package and only slightly over one-third, or 26 of 64 respondents, were satisfied with having jackets and coveralls tied in twine only.

Paper bundles were more often indicated as providing garments that are maintained in good condition and not excessively wrinkled than were plastic wraps. At the same time, however, the plastic package

TABLE 10

Type of Packaging Cross Tabulated With Question 6

Coveralls and Jackets

	Cleanliness		Press		Packaging		Repairs		Not Excessively Wrinkled		
	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	
Paper	F	68.00	3.00	40.00	31.00	45.00	26.00	42.00	29.00	43.00	28.00
	% A	95.77	4.23	56.34	43.66	63.38	36.62	59.15	40.85	60.56	39.44
	% T	36.56	1.61	21.51	16.67	24.19	13.98	22.58	15.59	23.12	15.05
Plastic	F	30.00	4.00	23.00	11.00	27.00	7.00	14.00	20.00	18.00	16.00
	% A	88.24	11.76	67.65	32.35	79.41	20.59	41.18	58.82	52.94	47.06
	% T	16.13	2.15	12.37	5.91	14.52	3.76	7.53	10.75	9.68	8.60
Twine	F	67.00	7.00	35.00	39.00	26.00	48.00	42.00	32.00	31.00	43.00
	% A	90.54	9.46	47.30	52.70	35.14	64.86	56.76	43.24	41.89	58.11
	% T	36.02	3.76	18.82	20.97	13.98	25.81	22.58	17.20	16.67	23.12
Box	F	1.00	0.00	1.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
	% A	100.00	0.00	100.00	0.00	100.00	0.00	0.00	100.00	0.00	100.00
	% T	0.54	0.00	0.54	0.00	0.54	0.00	0.00	0.54	0.00	0.54
Other	F	4.00	2.00	5.00	1.00	3.00	3.00	2.00	4.00	3.00	3.00
	% A	66.67	33.33	83.33	16.67	50.00	50.00	33.33	66.67	50.00	50.00
	% T	2.15	1.08	2.69	0.54	1.61	1.61	1.08	2.15	1.61	1.61
Total	F	170.00	16.00	104.00	82.00	102.00	84.00	100.00	86.00	95.00	91.00
	% A	91.40	8.60	55.91	44.09	54.84	45.16	53.76	46.24	51.08	48.92
	% T	91.40	8.60	55.91	44.09	54.84	45.16	53.76	46.24	51.08	48.92

Key: % A = Percent Across % T = Percent Total F = Frequency  
 Sat. = Satisfactory No R. = No Response

TABLE 11

Type of Packaging Cross Tabulated With Question 7

Coveralls and Jackets

	Coveralls and Jackets															
	Clean				Well Pressed				Convenient To Store				Maintained in Good Condition			
	A	H	O	A	H	O	A	H	O	A	H	O	A	H	O	
Paper	F	64.00	1.00	0.00	51.00	11.00	4.00	57.00	4.00	4.00	0.00	59.00	5.00	1.00		
	% A % T	98.46 37.21	1.54 0.58	0.00 0.00	77.27 30.36	16.67 6.55	6.06 2.38	93.44 38.00	6.56 2.67	0.00 0.00	90.77 37.11	7.69 3.14	1.54 0.63			
Plastic	F	31.00	0.00	0.00	25.00	4.00	2.00	2.00	0.00	0.00	1.00	25.00	3.00	1.00		
	% A % T	100.00 18.02	0.00 0.00	0.00 0.00	80.65 14.88	2.38 2.38	6.45 1.19	96.00 16.00	0.00 0.00	0.00 0.00	4.00 0.67	10.34 1.89	3.45 0.63			
Twine	F	65.00	4.00	0.00	45.00	9.00	10.00	49.00	3.00	5.00	5.00	50.00	7.00	2.00		
	% A % T	94.20 37.79	5.80 2.33	0.00 0.00	70.31 26.79	14.06 5.36	15.63 5.95	85.96 32.67	5.26 2.00	8.77 3.33	11.86 4.40	3.39 1.26				
Box	F	1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00		
	% A % T	100.00 0.58	0.00 0.00	0.00 0.00	0.00 0.00	100.00 0.60	0.00 0.00	100.00 0.67	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00				
Other	F	5.00	1.00	0.00	5.00	1.00	0.00	5.00	1.00	0.00	0.00	5.00	0.00	1.00		
	% A % T	83.33 0.00	16.67 0.00	0.00 0.00	83.33 2.08	16.67 0.60	0.00 0.00	83.33 3.33	16.67 0.67	0.00 0.00	83.33 3.14	0.00 0.00	16.67 0.63			
Total	F	166.00	6.00	0.00	126.00	26.00	16.00	136.00	8.00	6.00	6.00	139.00	15.00	5.00		
	% A % T	96.51 96.51	3.49 3.49	0.00 0.00	75.00 75.00	15.48 15.48	9.52 9.52	90.67 90.67	5.33 5.33	4.00 4.00	4.00 4.00	87.42 87.42	9.43 9.43	3.14 3.14		

Key:  
A = Almost Always  
% A = Percent Across

H = Half the Time  
% T = Percent Total

O = Occasionally  
F = Frequency

was considered more convenient to handle and store. A plastic package with a paper-board base would combine the merits of both packages for coveralls and jackets. The plastic would allow the customer to see the garment and, at the same time, the paperboard base would help prevent the garments from being wrinkled. Another advantage of this combination package would be its increased ease of stacking.

Tables 12 and 13 show how white uniform shirt customers view their rental service. As it has been for all previous garments studied, white uniform shirts are thought to be satisfactorily clean by 90 percent of the users and "almost always" clean by 97 percent of the users. It seems safe to conclude that the problem facing industrial laundries is not getting the garments cleaner, but finishing, repairing and maintaining the garments in good condition until the customer is ready to use them.

The data indicates that the customers are not very well satisfied with the press of the garments they receive. However, as seen in other cases, garments packaged in plastic have a much higher percentage indicating the finishing to be satisfactory. In Table 12, we see that plastic packaged garments are viewed as having a satisfactory press by 72 percent of the customers, while the average for paper, twine, box and other forms is only 53 percent. White uniform shirts wrapped in plastic were termed "almost always" well pressed by 88 percent of the respondents renting garments packaged in plastic.

TABLE 12

Type of Packaging Cross Tabulated With Question 6

White Uniform Shirts

	Cleanliness		Press		Packaging		Repairs		Not Excessively Wrinkled		
	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	
Paper	F	40.00	6.00	22.00	24.00	25.00	21.00	18.00	28.00	25.00	21.00
	% A	86.96	13.04	47.83	52.17	54.35	45.65	39.13	60.87	54.35	45.65
	% T	32.79	4.92	18.03	19.67	20.49	17.21	14.75	22.95	20.49	17.21
Plastic	F	33.00	3.00	26.00	10.00	25.00	11.00	21.00	15.00	24.00	12.00
	% A	91.67	8.33	72.22	27.78	69.44	30.56	58.33	41.67	60.67	33.33
	% T	27.05	2.46	21.31	8.20	20.49	9.02	17.21	12.30	19.67	9.84
Twine	F	22.00	0.00	14.00	8.00	8.00	14.00	12.00	10.00	10.00	12.00
	% A	100.00	0.00	63.64	36.36	36.36	63.64	54.55	45.45	45.45	54.55
	% T	18.03	0.00	11.48	6.56	6.56	11.48	9.84	8.20	8.20	9.84
Box	F	9.00	1.00	5.00	5.00	7.00	3.00	5.00	5.00	3.00	7.00
	% A	90.00	10.00	50.00	50.00	70.00	30.00	50.00	50.00	30.00	70.00
	% T	7.38	0.82	4.10	4.10	5.74	2.46	4.10	4.10	2.46	5.74
Other	F	7.00	1.00	4.00	4.00	6.00	2.00	3.00	5.00	2.00	6.00
	% A	87.50	12.50	50.00	50.00	75.00	25.00	37.50	62.50	25.00	75.00
	% T	5.74	0.82	3.28	3.28	4.92	1.64	2.46	4.10	1.64	4.92
Total	F	111.00	11.00	71.00	51.00	71.00	51.00	59.00	63.00	64.00	58.00
	% A	90.98	9.02	58.20	41.80	58.20	41.80	48.36	51.64	52.46	47.54
	% T	90.98	9.02	58.20	41.80	58.20	41.80	48.36	51.64	52.46	47.54

Key: % A = Percent Across      % T = Percent Total      F = Frequency  
 Sat. = Satisfactory      No R. = No Response

TABLE 13

Type of Packaging Cross Tabulated With Question 7

White Uniform Shirts

	Clean			Well Pressed			Convenient To Store			Maintained in Good Condition														
	F	% A	% T	F	% A	% T	F	% A	% T	F	% A	% T												
Paper	41.00	95.35	36.94	29.00	72.50	26.85	7.00	17.50	6.48	31.00	91.18	33.33	1.00	2.94	1.08	30.00	81.08	29.13	5.00	13.51	4.85	2.00	5.41	1.94
Plastic	32.00	96.97	28.83	28.00	87.50	25.93	4.00	12.50	3.70	25.00	92.59	26.88	1.00	3.70	1.08	26.00	83.87	25.24	5.00	16.13	4.85	0.00	0.00	0.00
Twine	20.00	100.00	18.02	17.00	85.00	15.74	0.00	0.00	0.00	16.00	88.89	17.20	1.00	5.56	1.08	17.00	89.47	16.50	1.00	5.26	0.97	1.00	5.26	0.97
Box	8.00	100.00	7.21	6.00	66.67	5.56	2.00	22.22	1.85	8.00	100.00	8.60	0.00	0.00	0.00	8.00	100.00	8.99	0.00	0.00	0.00	0.00	0.00	0.00
Other	7.00	100.00	6.31	5.00	71.43	4.63	1.00	14.29	0.93	5.00	83.33	5.38	1.00	16.67	1.08	8.00	100.00	8.99	0.00	0.00	0.00	0.00	0.00	0.00
Total	108.00	97.30	97.30	85.00	78.70	78.70	14.00	12.96	12.96	85.00	91.40	91.40	4.00	4.30	4.30	89.00	86.41	86.41	11.00	10.68	10.68	3.00	2.91	2.91

K: A = Almost Always  
 % A = Percent Across  
 H = Half the Time  
 % T = Percent Total  
 O = Occasionally  
 F = Frequency

The two most favored package forms for white uniform shirts were plastic wrapped and a box. The plastic wrapped garments were termed satisfactorily packaged by 69 percent of those receiving them in plastic and 70 percent of those receiving shirts in a box were also satisfied with the present package form. The reliability of the data concerning packaging white uniform shirts in a box is questionable since only ten people responded. Although paper was checked as being a satisfactory package by only 54 percent of the respondents, it was credited as doing equally well in maintaining the garments in good condition and being convenient to store in plastic.

Executive rentals accounted for only 16 percent of our sample. However, in talking with one laundry manager, it was pointed out that this is a growing element of the rental garment business. Many institute members have not yet added executive rentals to their service. The data in Table 14 and 15 may be of use in developing a service that will satisfy the needs of this new market.

Because of the small number of respondents that fall within the scope of Tables 14 and 15, it is necessary to read the data with some reservation. Since only four people were receiving white dress shirts bundled in twine, it cannot be said with certainty that they are representative of the entire population. The discussion will have to be limited to box, paper and plastic in relation to Questions 6 and 7.

The data seems to indicate that cleanliness is not a problem for white dress shirts. Ninety-two percent of the respondents indicated

TABLE 14

Type of Package Cross Tabulated With Question 6

		White Dress Shirts									
		Cleanliness		Press		Packaging		Repairs		Not Excessively Wrinkled	
		Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.	Sat.	No R.
Paper	F	13.00	1.00	5.00	9.00	5.00	9.00	6.00	8.00	6.00	8.00
	% A	92.86	7.14	35.71	64.29	35.71	64.29	42.86	57.14	42.86	57.14
Plastic	% T	19.70	1.52	7.58	13.64	7.58	13.64	9.09	12.12	9.09	12.12
	F	18.00	1.00	15.00	4.00	16.00	3.00	14.00	5.00	14.00	5.00
Twine	% A	94.76	5.26	78.95	21.05	84.21	15.79	73.68	26.32	73.68	26.32
	% T	27.27	1.52	22.73	6.06	24.24	4.55	21.21	7.58	21.21	7.58
Box	F	4.00	0.00	3.00	1.00	1.00	3.00	3.00	1.00	2.00	2.00
	% A	100.00	0.00	75.00	25.00	25.00	75.00	75.00	25.00	50.00	50.00
Other	% T	6.06	0.00	4.55	1.52	1.52	4.55	4.55	1.52	3.03	3.03
	F	24.00	2.00	13.00	13.00	16.00	10.00	11.00	15.00	11.00	15.00
Total	% A	92.31	7.69	50.00	50.00	61.54	38.46	42.31	57.69	42.31	57.69
	% T	36.36	3.03	19.70	19.70	24.24	15.15	16.67	22.73	16.67	22.73
Other	F	2.00	1.00	0.00	3.00	1.00	2.00	0.00	3.00	0.00	3.00
	% A	66.67	33.33	0.00	100.00	33.33	66.67	0.00	100.00	0.00	100.00
Total	% T	3.03	1.52	0.00	4.55	1.52	3.03	0.00	4.55	0.00	4.55
	F	61.00	5.00	36.00	30.00	39.00	27.00	34.00	32.00	33.00	33.00
Total	% A	92.42	7.58	54.55	45.45	59.09	40.91	51.52	48.48	50.00	50.00
	% T	92.42	7.58	54.55	45.45	59.09	40.91	51.52	48.48	50.00	50.00

Key: % A = Percent Across      % T = Percent Total      F = Frequency  
 Sat. = Satisfactory      No R. = No Response



TABLE 15

Type of Packaging Cross Tabulated With Question 7

White Dress Shirts

	Clean				Well Pressed				Convenient To Store				Maintained in Good Condition			
	A	H	O	F	A	H	O	F	A	H	O	F	A	H	O	
Paper	F	14.00	0.00	0.00	8.00	3.00	2.00	10.00	10.00	2.00	1.00	9.00	2.00	2.00	2.00	
	% A	100.00	0.00	0.00	61.54	23.08	15.38	76.92	76.92	15.38	7.69	69.23	15.38	15.38	15.38	
Plastic	F	23.73	0.00	0.00	13.11	4.92	3.28	19.23	19.23	3.85	1.92	15.52	3.45	3.45	3.45	
	% A	94.44	0.00	0.00	84.21	10.53	5.26	100.00	100.00	0.00	0.00	88.24	11.76	0.00	0.00	
Twine	F	28.81	1.69	0.00	26.23	3.28	1.64	28.85	28.85	0.00	0.00	25.86	3.45	0.00	0.00	
	% A	100.00	0.00	0.00	100.00	0.00	0.00	100.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	
Box	F	3.00	0.00	0.00	3.00	0.00	0.00	3.00	3.00	0.00	0.00	4.00	0.00	0.00	0.00	
	% A	100.00	0.00	0.00	100.00	0.00	0.00	100.00	100.00	0.00	0.00	100.00	0.00	0.00	0.00	
Other	F	5.08	0.00	0.00	4.92	0.00	0.00	5.77	5.77	0.00	0.00	6.90	0.00	0.00	0.00	
	% A	21.00	0.00	0.00	18.00	3.00	2.00	19.00	19.00	0.00	0.00	19.00	0.00	0.00	0.00	
Total	F	100.00	0.00	0.00	78.26	13.04	8.70	100.00	100.00	0.00	0.00	90.48	9.52	0.00	0.00	
	% A	35.59	0.00	0.00	29.51	4.92	3.28	36.54	36.54	0.00	0.00	32.76	3.45	0.00	0.00	
Total	F	2.00	1.00	0.00	2.00	0.00	1.00	2.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	
	% A	66.67	33.33	0.00	66.67	0.00	33.33	100.00	100.00	0.00	0.00	66.67	33.33	0.00	0.00	
Total	F	0.00	0.00	0.00	3.28	0.00	1.64	3.85	3.85	0.00	0.00	3.45	1.72	0.00	0.00	
	% A	57.00	2.00	0.00	47.00	8.00	6.00	49.00	49.00	2.00	1.00	49.00	7.00	2.00	2.00	
Total	F	96.61	3.39	0.00	77.05	13.11	9.84	94.23	94.23	3.85	1.92	84.48	12.07	3.45	3.45	
	% T	96.61	3.39	0.00	77.05	13.11	9.84	94.23	94.23	3.85	1.92	84.48	12.07	3.45	3.45	

Key: A = Almost Always      H = Half the Time      O = Occasionally  
 % A = Percent Across      % T = Percent Total      F = Frequency

the rental service supplied garments that were clean. It cannot be said that the customers were as well satisfied with the press on executive rentals.

Only 36 percent of the respondents were satisfied with the press on garments wrapped in paper, while 50 percent and 79 percent indicated satisfaction with the press of garments packaged in folding cartons and plastic respectively. When asked to indicate the frequency in Question 7, 77 percent indicated that the white dress shirts they received were "almost always" well pressed, 13 percent indicated only well pressed "half the time", and ten percent indicated they were "occasionally" well pressed.

The results of the tabulations seem to indicate that plastic is seen by the customers as providing superior garments in relation to the variables of Questions 6 and 7. This is consistent with the results shown in column 3 of Table 14. Eighty-four percent of those receiving white shirts in plastic were satisfied with it as a package. Only 36 percent and 62 percent respectively indicated a paper wrap or a box to be a satisfactory package for white dress shirts.

A final cross tabulation was made with the variables of Question 6 and 7 to determine if the method of distribution affected customer satisfaction. It was found that the method of distribution had very little effect on these variables. Customers that received their garments from a stockroom attendant seemed to rate the laundry service as slightly more satisfactory than did customers having other forms of distribution.

It would seem that the method of distributing garments within the customer's facilities is a matter of convenience for both the laundry and the customer.

## CONCLUSIONS

The American economy can be characterized as one of affluence. For this reason business must cater to the specific needs and demands of their target markets. Most of us can survive without the product of any particular manufacturer quite easily. The industrial laundry market is no exception to this fact.

It has been said that an industrial laundry in a given area has a captive market. This is doubtful in the author's opinion and can be shown to be a weak defense against change. There are a number of sources of competition for industrial laundry services.

One source of competition observed stems from larger users laundering their own garments. A large manufacturer of sewing machines decided to purchase and launder all its own wiping cloths when the industrial laundry service could not assure that its wiping cloths would be silicone-free. The problem being that the finish would not adhere to the cabinets if they had been rubbed with a wiping cloth containing silicone.

Industrial laundries are faced with two other sources of competition. One is from individual workers supplying their own garments. A final and possibly the most serious form of competition is another industrial laundry recognizing the needs of the market and providing a better all-around service to meet these needs.

This is a market oriented approach. The laundry which recognizes and adjusts to the changing customer demands is the laundry

which will grow and realize profits. Institute members should be interested in providing a service that best satisfies its customer's needs. This is not done altruistically, however. Generally speaking, customers are willing to pay the price for goods and services that best meet their needs.

It has been stated throughout this report that virtually all the laundries in the sample were providing clean garments to their customers. There can be little chance for competition to capitalize on this point as a weakness in service.

The danger of competition taking over some of the market comes in areas such as the finishing, repairing and packaging which are not a satisfactory element of the laundry service. A service that could improve upon any or all of the above elements would gain a competitive advantage in the market.

One area which has not been dealt with thus far in the report is repairs made on worn garments. This was the most frequent area of complaint in the open-end question Number Ten of the survey. In one case, the respondent indicated that he had changed services twice and was considering changing again or dropping the service entirely if repairs were not made on worn garments.

Another frequent complaint of respondents, especially those involved in manufacturing, was not having garments delivered on time without shortages. It is not difficult to visualize the potential result

of a laundry not delivering the correct number of garments at the time desired by the customer.

One element of the marketing mix which institute members offer their target markets is the package. The package should be an integral part of the total service offered by the laundry. It is not a variable cost which should be cut to a minimum. It should not be an after thought but a planned part of the total service offered by the laundry.

Many institute members are not aware that their package can and should assume this role in the service they offer. Survey results show that only 58 percent of the respondents felt that the present packaging was satisfactory. Equally important is the fact that the present packaging methods are not adequately performing the protective and utility functions that the customer demands. Had the laundry manager been market oriented, this would have been less likely to occur. By being market oriented, the laundries would be concerned with all phases of operation that combine to provide a satisfactory product at the point of end use.

The packaging cannot compensate for a poor initial press on a garment but it can help reduce wrinkles caused by handling. The package should protect the garments from soiling and be useful by making handling and storing convenient. These are functions which rental garment packaging can and should do as a part of the total mix

offered to the customer.

Another important function of laundry packaging is the sales creating and image building that can be done with a good product in a good package. These functions are difficult to assign a dollar value and are often evaluated after the fact, that is, in lost sales to competitors.

The sales appeal value of the various packages studied was difficult to determine. From the data compiled it can be seen that customers prefer plastic wrapped garments over other forms of packaging currently being used by institute members. In addition, laundries using plastic as a packaging material were more frequently rated as supplying garments which are well pressed, maintained in good condition, and convenient to handle and store.

Assuming that all other factors such as laundering and finishing are equal, it seems that the see-thru plastic package does influence the customer's opinion of the over-all service provided by the laundry.

Based on the data compiled in this study, it is felt that better packages can and should be developed. Institute members can enhance their business by better utilizing the sales appeal value of the package. At the same time, more efficient packaging systems could be developed which would increase the output and decrease the labor involved. The author would propose that a number of packaging

systems be developed for various sized laundry operations that would best satisfy the needs of the markets being serviced.

It should be remembered that when packages and packaging systems are developed, the problem is not permanently solved. The industrial laundry market is changing and will continue to change. Only as the institute members are cognizant of this will the study be of its utmost value.



## APPENDIX

Post Office Box 247

Dear Uniform Rental Customer:

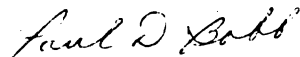
Your Industrial Laundry is currently involved in a nation-wide survey to determine your feelings about their service. Michigan State University is conducting this study under the sponsorship of the Institute of Industrial Launderers, of which your laundry is a member.

The members of the Institute in their continuing effort to maintain the highest possible standards of service, would appreciate your cooperation in this study. Please be candid in answering the questionnaire since your laundry will see only the final tabulated results of this survey.

It is important to both you and the University that you complete the questionnaire as soon as possible. This is necessary so the results may be tabulated and returned to the Institute members for their use in serving you better. A stamped, self-addressed envelope has been provided for your convenience in returning the completed questionnaire.

Thank you in advance for your cooperation.

Sincerely,



Paul D. Bobb  
Graduate Research Assistant

PB:sjp

**SERVICE QUESTIONNAIRE**

for the

**Institute of  
Industrial Launderers**

Conducted by

**MICHIGAN STATE  
UNIVERSITY**

Service Questionnaire For Institute Of Industrial Launderers

Please check all appropriate answers for the following:

1. Our Company is a  
 retail store  
 service organization  
 manufacturing company
2. The average number of employees in the company is  
 1 to 15 people  
 16 to 40  
 41 to 100  
 100 to 200  
 over 200

2a. Of this number, \_\_\_\_\_% use rental garments.

3. We use the following rental garments:

colored uniforms, delivered in

- paper wrap  
 plastic wrap  
 tied in twine only  
 a box  
 other, explain \_\_\_\_\_

white industrial uniforms, delivered in

- paper wrap  
 plastic wrap  
 tied in twine only  
 a box  
 other, explain \_\_\_\_\_

coveralls and jackets, delivered in

- paper wrap  
 plastic wrap  
 tied in twine only  
 a box  
 other, explain \_\_\_\_\_

white uniform shirts, delivered in

- paper wrap  
 plastic wrap  
 tied in twine only  
 a box  
 other, explain \_\_\_\_\_

white dress shirts, delivered in

- paper wrap  
 plastic wrap  
 tied in twine only  
 a box  
 other, explain \_\_\_\_\_

4. The rental garments are distributed by:
- |   |  |
|---|--|
| <input type="checkbox"/> stockroom attendant  | <input type="checkbox"/> locker delivery       |
| <input type="checkbox"/> unattended storeroom | <input type="checkbox"/> other, please explain |
| <input type="checkbox"/> laundry driver       | _____  |
5. The garment rental service is paid for
- |  |
|--|
| <input type="checkbox"/> in full by the employee |
| <input type="checkbox"/> in full by the company  |
| <input type="checkbox"/> partial payment by each |
6. The garment rental service is satisfactory in terms of
- |   |   |
|---|---|
| <input type="checkbox"/> cleanliness of garments      | <input type="checkbox"/> repairs (buttons replaced, tears mended, etc.) |
| <input type="checkbox"/> press of garments            | <input type="checkbox"/> garments not being excessively wrinkled        |
| <input type="checkbox"/> packaging of rental garments |   |
7. The packaging and delivery service provide garments that are: (Please circle how often after each response).
- |  |
|--|
| <input type="checkbox"/> Clean: almost always, half the time, occasionally                                   |
| <input type="checkbox"/> Well pressed: almost always, half the time, occasionally                            |
| <input type="checkbox"/> Convenient to store: almost always, half the time, occasionally                     |
| <input type="checkbox"/> Maintained in good condition until used: almost always, half the time, occasionally |
8. Please rank the following quality characteristics (1 through 6) in order of importance to your company, 1 being most important, 6 the least important.
- |   |
|---|
| <input type="checkbox"/> well pressed and not wrinkled when we are ready to use |
| <input type="checkbox"/> in good repair   |
| <input type="checkbox"/> delivered on time without shortage                     |
| <input type="checkbox"/> clean  |
| <input type="checkbox"/> convenient to handle and store                         |
| <input type="checkbox"/> packaged to keep laundry clean, etc.                   |
9. Rental garments are presently
- |  |
|--|
| <input type="checkbox"/> issued from stock by size |
| <input type="checkbox"/> assigned to individuals   |
10. Please make any other comments concerning your rental service which may not have been adequately covered. (Deliveries, packaging, repair of garments, etc.) If these areas are not to your satisfaction, please state why. What improvements would you suggest?

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