

DOCUMENT RESUME

ED 110 633

CE 004 417

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 TITLE Task Analysis: Optometric Assistant; Final Report and Supplement to Final Report.
 INSTITUTION Lakeshore Technical Inst., Sheboygan, Wis.
 SPONS AGENCY Office of Education (DHEW), Washington, D.C.; Wisconsin State Board of Vocational, Technical, and Adult Education, Sheboygan.
 PUB DATE Jun 74
 NOTE 129p.; Pages 82 through 108 (analysis of Frequency Tables) may reproduce poorly
 EDRS PRICE MF-\$0.76 HC-\$6.97 Plus Postage
 DESCRIPTORS Curriculum Development; Data Analysis; Educational Needs; Educational Programs; *Health Occupations Education; Occupational Surveys; *Optometrists; *Paramedical Occupations; Post Secondary Education; *Surveys; Tables (Data); *Task Analysis
 IDENTIFIERS *Optometrist Assistants

ABSTRACT

The two-part task analysis provides data relating to: (1) the frequency and proficiency of tasks in an optometric practice that are presently or could be assigned to an assistant and (2) the employment potential for trained optometric assistant graduates. The results were to be utilized for curriculum development for the optometric assistant training program. A task analysis survey form was sent to the 347 members of the Wisconsin Optometric Association and to the 65 Optometric Assistants of Wisconsin members (with 50.4 percent of the optometrists and 66.2 percent of the assistants responding). The analysis and implications of the general information data are discussed and indicate the necessity for curriculum to include skills and knowledges for the graduate to successfully meet certification requirements. The task analysis data, the second section, examines 14 task categories and concludes that further studies should be made in the selection of tasks for the curriculum. The 70-page appendix includes correspondence, the task analysis survey form, responses, and analyses of frequency and proficiency in tabular and graph form. The accompanying supplement to the final report supplies general information and averages of frequency responses. (JB)

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FINAL REPORT

Project No. 11.009.151.224

TASK ANALYSIS

OPTOMETRIC ASSISTANT

June 1974

LAKESHORE TECHNICAL INSTITUTE

Cleveland, Wisconsin

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Final Report

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TASK ANALYSIS

OPTOMETRIC ASSISTANT

Prepared by

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Cleveland, Wisconsin

June 1974

The research reported herein was performed pursuant to a grant or contract with the Wisconsin Board of Vocational, Technical and Adult Education, partially reimbursed from an allocation of Federal funds from the U.S. Office of Education, U.S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official State Board or U.S. Office of Education position or policy.

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Endorsement

The Wisconsin Optometric Association, Jack Fitzgerald, O.D., president, the Optometric Assistants of Wisconsin, Ms. Marion Krane, president, and the American Optometric Association, Robert E. Day, president, endorsed the project, with the first two also providing letters of endorsement which were enclosed with the survey form.

Acknowledgements

A number of persons were instrumental in the successful completion of this study. Many ancillary personnel such as secretaries, duplicating personnel, computer personnel, and others too numerous to mention were involved. Each of them was an important factor for without any one of them this project could not have been completed as efficiently as it was.

However, special recognition should be given to those persons who gave unselfishly of their time and energy to assist in the completion of this project. Most of the assistance by these persons was in the area of reactions to suggested tasks, suggestions for deleting or adding tasks and task wording, and formats for the task survey form and letters.

Particularly, the following individuals are to be thanked for their participation in this project.

Lakeshore Technical Institute Staff

Mr. George Gruber - Health Occupations Supervisor

Paulette Schmidt, O.D. - Lead Instructor for Optometric Assistant Program

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Summary

The Optometric Assistant Task Analysis Project was undertaken to provide data (1) relating to the frequency and proficiency of tasks in an optometric practice that are presently or could be assigned to an assistant and (2) relating to the employment potential for trained optometric assistant graduates.

A task survey form was constructed and distributed to 347 Wisconsin Optometric Association members and 65 Optometric Assistants of Wisconsin members for completion. The return (53%) was sufficient to allow the analysis of data to be meaningful. In addition, 47 respondents completed and returned the first page of the task survey form.

The data has been tabulated for easy determination of the average frequency and proficiency needed for each of the tasks. The data also indicated that a curriculum should include the necessary information and skills so that a graduate may become certified. This tabulated data will be utilized in the evaluation and development of the curriculum within the Optometric Assistant Program at Lakeshore Technical Institute as it will be nested within the Health Core Curriculum beginning in the fall of 1974. This development will take place during the fall semester of the 1974-75 school year. Other schools might utilize the data in a similar manner.

The data also indicated that there is a sufficient statewide job market for graduates, even though the number of graduates per year will be increased with the advent of January and June graduations.

Introduction

Lakeshore Technical Institute is one of a small number of institutions within the United States that has begun optometric assistant training programs. The development of these programs has been in response to the need for additional personnel in the eye care field to provide quality care to an ever-increasing number of patients. The use of trained ancillary personnel along with new technological advances should assist the optometric practices to provide the care required.

Drs. Alden Haffner and Jerome Sherman conducted a national survey of optometrists in 1970. A large majority, 91.5%, of the respondents answered "yes" when asked to respond to the following question:

"Do you believe that the responsibilities of appropriately trained assistants can be extended beyond the scope of secretarial duties in order to aid usefully the optometrist to perform his professional duties?"

The study also indicated that 75.2% of the West North Central States respondents employed assistants who performed duties beyond secretarial work. While a large percentage employed these ancillary personnel, only 1.3% indicated that their assistants had formal post-secondary education and training to become optometric assistants.

The Optometric Assistant Program was initiated at Lakeshore Technical Institute in 1966 with the first class graduating in the spring of 1968. A simplified topic area analysis was conducted before the program was begun, which served as the basis for the program development. In addition, a practicing optometrist was hired to develop the program.

The combination of analysis and professional guidance lead to the development of an excellent program. The graduates were accepted by the optometric profession and found to be competent in the skills for which they were trained.

The Lakeshore Optometric Assistant Program is the only such program in the state. It has enjoyed the complete support of the Wisconsin Optometric Association including granting of scholarships and providing publicity. The program has also been a popular one with students and has had a waiting list of students for each of the years since its inception. Students enrolled have come from areas throughout the state.

The Optometric Assistant Program has an advisory committee that has the responsibility for assisting in the program development and in ensuring the integrity and relevance of the program. The committee decided, at its spring meeting in 1972, that the optometric field had changed considerably during the past few years which warranted a more

detailed task analysis of the assistant's role in the practice. Both changes in the attitude toward the use of ancillary personnel and technological advances in optometry were cited. Another predicated factor favoring the development of a task analysis form was the expressed concern of some students that training in some skills might not be utilized upon graduation. The advisory committee did not feel that they had enough information to make a decision at that time.

This decision came after the report of a task analysis for the Dental Assistant Program had been completed. It was decided that a similar task analysis procedure be followed.

Purpose of Study

The Lakeshore Technical Institute conducted the task analysis to determine answers to the following questions:

1. What are the tasks that optometrists believe to be within the range of duties of an optometric assistant?
2. How proficient must the trained optometric assistant be when performing these tasks in an optometric office?
3. What is the employment potential for the optometric assistant graduates for 1975-77 and assess the capability of the "Health Core Curriculum" to provide for this potential by its conversion to two-graduation classes per year?
4. Is there a trend toward specialization sufficient to warrant several tracks within the program thereby allowing students to specialize, yet remain employable?
5. What level of training or certification status of the assistant prior to employment is desired by the optometrist?

Sample

A task analysis survey form was sent to all members of the Wisconsin Optometric Association and the Optometric Assistants of Wisconsin members, numbering 347 and 65 respectively.

This membership sample was selected for several reasons. The first was that members of an organization tend to respond to projects having the endorsement of the organization. Secondly, a definition of the person's position has been assessed before membership is granted. This is particularly so in the health occupation field in which rather stringent requirements are usually set. The third reason was that of ready availability of names and addresses of persons throughout the state. This was especially important because Lakeshore Technical Institute's program is the only one in the state and graduates find positions in various parts of the state. Fourth, this selective process conveniently defines a whole population.

The 100-person sample of non-responders** used for the general information portion of the task analysis form was selected by every second non-responder from a list arranged by Zip Code. This was done in order to assure that the population was not skewed to geographical area.

**The non-responders were those persons not returning the entire completed task analysis form by May, 1974.

Task Analysis Survey Form Development

The task analysis survey form was constructed in two parts. The first part was designed to obtain general preliminary information while the second part was designed to obtain frequency and proficiency information relating to the tasks which are presently or could be assigned to a trained optometric assistant.

The information gathered in the first part would be used to make decisions regarding questions 3-5 under the section titled "Purposes." The information requested for these determinations included:

1. Number of optometrists in the optometric practice
2. Type of practice
3. Number of years optometric practice has been operating
4. Number of years optometrist has been practicing
5. Number of assistants normally employed
6. Type of training background assistant has

7. Number of graduates to be hired in 1975-77, if available
8. Level of training desired of an optometric assistant

The questions were posed with stated choices of responses. The respondent was to place a check in the blank in front of the response that best agreed with the respondent's status or feeling.

The second part of the task analysis survey form consisted of suggested tasks for which the respondent was to circle the frequency of the task and proficiency desired. The final form, containing 202 tasks, required between one and two hours to complete.

The final form designated six choices for frequency. They were:

1. Never.
2. Seldom - several times per year
3. Sometimes - 5-10 times per year
4. Monthly - averages at least once per month.
5. Weekly - averages at least once per week
6. Daily - averages at least once per day

These choices seemed to be sufficient to meet almost all task situations in the average optometric practice.

Six levels of proficiency choices were also available to the respondents. These were:

1. None - no knowledge of task needed
2. Some - only recognition and acquaintance with terminology
3. Limited - can assist and/or perform simple parts of task as directed by optometrist
4. Moderate - can perform task with constant guidance
5. Proficient - can perform entire task with little guidance
6. Very proficient - can initiate and perform entire task without guidance

These choices seemed to also correlate with the feelings of the respondents quite readily.

Both literature and jury members were important sources of tasks included in the task analysis survey form. A listing of the publications providing tasks is included in the appendix. The jury was used to evaluate and suggest new tasks and to make suggestions for deletion of tasks and the modification of a task for clarification.

The following is a summary of the important steps followed in construction of the task survey form and the letters used in the survey.

1. Preliminary listing of tasks was selected from literature sources and staff members.
2. Listing of preliminary tasks was submitted to each staff member for format evaluation, clarification, deletions, and additions.
3. Preliminary tasks and format of tasks and survey form were revised in accordance with staff suggestions.
4. Listing of revised preliminary tasks was submitted to each jury member for format evaluation, clarification, deletions, additions, and word structure.
5. Preliminary tasks were revised in accordance to jury suggestions.
6. General preliminary information questions were formulated.
7. Tentative listing of tasks and general preliminary information questions were distributed to Lakeshore Technical Institute - Optometric Assistant Advisory Committee members for their reactions and concerns when completing the survey form.
8. Letters to accompany task analysis survey form were composed.
9. Tasks were defined and the general information questions were modified on the basis of the advisory committee members' recommendations.
10. The final form was prepared and duplicated.

Administration of the Task Analysis Survey Form

The members of the sample were informed of the task analysis survey form by letter sent approximately one week before the form itself. A sample of this letter is included in the appendix. The letter indicated the purpose of the study, an estimate of time necessary to complete the form and the endorsement by the member's professional organization.

The task analysis survey form* and a cover letter* were sent to the members of the sample population on April 11, 1974. The cover letter indicated the importance of completing the form, and provided instructions for returning it within a week. The task analysis survey form included the directions for completion.

Reminder letters* were sent to anyone whose task analysis survey form was not received by May 6. Phone calls were made to a sample of twenty persons on May 20 in an effort to determine why they had not responded. A summary of their responses is also enclosed in the appendix under Summary of Number of Responses.

To ascertain the characteristics of the non-responder, the general information page of the task analysis survey form was sent to a selected sample on May 24. A cover letter* was included which indicated the purpose of the study and details concerning the completion and returning of the form.

The data contained on returned forms was then punched on computer cards and taken to the University of Wisconsin-Stout Computer Center for processing. The printouts* were then returned for analysis and decision making.

*Copies of these are included in the Appendix.

Responses

The response was adequate for the data analysis to be reliable as 50.4% of the optometrists and 66.2% of the optometric assistants' responses were usable. This resulted in a 52.9% usable response overall.

In addition to the above, 47 returned the general information portion of task analysis survey form only. The analysis indicates that this group was similar in make-up to the group that returned the entire form.

Analysis and Implications of General Information Data

The data was analyzed in a number of ways in order to provide the information necessary to answer the questions listed in the section on "Purposes of the Study".

A number of tabulations are included here with the possible implications of such information. The analysis and implications will be presented in the same order as the items appear in the task analysis survey form. The actual tabulations can be found in the table form in the appendix.

1. How many optometrists are there in your practice?

| | <u>Optometrist</u> | <u>Optometric Assistant</u> |
|----------|--------------------|-----------------------------|
| 1) one | 67% | 60% |
| 2) two | 43% | 28% |
| 3) three | 7% | 9% |
| 4) four | 1% | 0% |

The great majority of optometric practices within the state of Wisconsin have only one optometrist. This is based on the responses of the optometrists and optometric assistant. Next in frequency is optometrist practice with two optometrists. Those practices having three or more optometrists made up only about 10% of the total.

The assistant will find that she will most likely find employment in either of the first two categories (single or partnership). Her training should reflect the range of duties usually associated with these. The curriculum should provide instruction and experiences appropriate for these as well. The low percentage of assistants employed in offices with three or more optometrists indicates that no special effort should be made to modify the program's curriculum in that direction.

2. What best characterized your type of practice?

| | <u>Optometrist</u> | <u>Optometric Assistant</u> |
|---|--------------------|-----------------------------|
| 1) general practice (primarily examining and dispensing) | 9% | 12% |
| 2) general practice plus some contact lens work | 82% | 84% |
| 3) primarily a contact lens practice | 2% | 5% |
| 4) contact lens and vision training practice with little general practice | 2% | 0% |
| 5) vision training practice with some general practice | 5% | 0% |

The type of practice most generally found is the general practice with some contact lens work in Wisconsin. The general practice category was a distant second with about 10% of the responses. The others had responses of 5% or less.

The implication here is that training primarily in the areas of knowledge and skills utilized in general practices and in contact lens practices would be most important to be offered in a training program. The majority of the curriculum should center in these areas.

3. How many years has your practice been operating?

| | <u>Optometrists</u> | <u>Optometric Assistants</u> |
|-----------------------|---------------------|------------------------------|
| 1) 0 - 2 years | 8% | 5% |
| 2) 3 - 5 years | 3% | 7% |
| 3) 6 - 10 years | 9% | 15% |
| 4) 11 - 15 years | 9% | 24% |
| 5) more than 15 years | 70% | 49% |

A significant difference in responses between optometrists and optometric assistants was evident on this question. Over 70% of the optometrists were in practices that had been in operation for more than 15 years. The other categories had responses from 14% down to 2% with a trend toward a correlation of the lower percentage with the fewer years that practice has been operating.

The responses from the optometric assistants correlated with the number of years that practice had been in operation from a high of 49% in more than 15 years to a low of 5% for 0 - 2 years.

This gives some indication that the optometric assistants are being employed to a similar extent in practices of various years of operation.

4. How many years have you been practicing optometry?

| | <u>Optometrists</u> | <u>Optometric Assistants</u> |
|-----------------------|---------------------|------------------------------|
| 1) 0 - 2 years | 10% | 44% |
| 2) 3 - 5 years | 7% | 21% |
| 3) 6 - 10 years | 12% | 26% |
| 4) 11 - 15 years | 8% | 9% |
| 5) more than 15 years | 64% | 0% |

The large majority of optometrists have been practicing for more than 15 years. As in #3, the responses from the other categories were around the 10% level but seemingly followed no set pattern.

The data indicates that almost two-thirds of the assistants have been employed for five years or less. Less than 10% have been employed for more than ten years. The changing attitude in favor of greater utilization of paraprofessionals in the optometric practice and availability of trained assistants are two factors most likely responsible for the high percentage within the last 10 years.

5. How many assistants are normally employed by your practice?

| | <u>Optometrists</u> | <u>Optometric Assistants</u> |
|--------------------|---------------------|------------------------------|
| 1) none | 6% | 2% |
| 2) one | 36% | 28% |
| 3) two | 31% | 47% |
| 4) three | 16% | 19% |
| 5) more than three | 12% | 5% |

Most optometric offices employ either one or two assistants. The sample responses indicate an estimated 260 assistants employed. Extending this data to the entire state indicates that approximately 700 optometric assistants are employed by optometrists in Wisconsin.

6. How many of your assistants are diploma graduates?

- 1) none 76%
- 2) one 16%
- 3) two 6%
- 4) three 1%
- 5) more than three 0%

7. How many of your assistants are self-trained in your practice?

- 1) none 11%
- 2) one 0%
- 3) two 0%
- 4) three 0%
- 5) four 0%

This data implies that a considerable amount of time and effort on the part of Wisconsin optometrists is spent in training assistants for their practices. Although it is possible that some assistants have attended schools or workshops of short durations (usually two to three weeks), most of the training was done by the optometrist.

Because of the nature of most on-the-job training in health occupations, a scarcity of education in background theory for most of these present assistants is indicated. There is a need for a cooperative effort of the Wisconsin Optometric Association, the Optometric Assistants of Wisconsin, and Lakeshore Technical Institute in providing the opportunity for these assistants to gain additional theory education. A feasibility study for this type of venture should be undertaken.

8-11. How many diploma graduates would you anticipate hiring during: 8. 1974-75; 9. 1975-76; 10. 1976-77; 11. 1977-78, if trained assistants would be available?

| | <u>1974-75</u> | <u>1975-76</u> | <u>1976-77</u> | <u>1977-78</u> | <u>Total Assistants</u> |
|------------------|----------------|----------------|----------------|----------------|-------------------------|
| 1) one | 48 | 45 | 39 | 35 | 167 |
| 2) two | 2 | 2 | 2 | 3 | 18 |
| 3) three | 0 | 0 | 1 | 1 | 6 |
| Total Assistants | 52 | 49 | 46 | 44 | 191 |

When expanded to the total number of optometrists in the state, the prediction can be made that approximately 120 assistants will be hired during each of the next four years. In all probability, this number will be made up of trained diploma graduates of optometric assistant programs, supplemented by other health occupation diploma graduates and high school graduates trained on the job.

The number to be hired over the next four years tends to support the change in the number of LTI Paraoptometric program entry dates which will increase the number of available graduates from the present maximum of 24 to a maximum of 40 per year. The new Lakeshore Technical Institute Health Core Curriculum will permit the Paraoptometric Program to graduate a maximum of 20 optometric students each January and June. Optometrists primarily interested in employment of persons only trained in business office skills may secure the services of certificate graduates from the core portion of the Health Core Curriculum.

12. If you were to hire an assistant during the next few years, which of the following levels of certification would you desire the assistant to have?

- 1) certified person not wanted for position
- 2) not interested in certification status of assistant
- 3) completed most of requirements to be eligible to take the certification examination
- 4) eligible to take the certification examination
- 5) full certification status

Of the optometrists responding, 45% indicated that they would prefer to hire a certified assistant. Another 20% indicated that they would prefer that the assistant be eligible to take the certification examination, even though the person need not have completed it. Another 20% indicated that they would prefer to have an assistant that has completed most of the requirements for certification, if not, all of them. Only 16% indicated that they were either not interested in the assistant's certification status or did not want a certified person as an assistant.

The underlying reason for the strong interest in the certification of assistants is probably two-fold. First, it is an indication of the level of proficiency expected of the assistants. Secondly, and probably most important, is the emphasis on some evidence of competence in paraoptometric tasks. This indicates that as a whole the optometrists believe that certification of those individuals engaged in ophthalmic care is just as important or more important than certification in other fields, such as auto mechanics, welding, or dental assisting.

The data clearly indicates that the curriculum of any optometric program must include the knowledge and skills necessary for the graduate to satisfactorily complete certification requirements. It is recommended that the program itself be able to meet or exceed the minimum standards set up by a certifying agency.

Analysis and Implications of Tasks Data

The investigator is making no attempt to interpret the data that is presented in the task portion of the survey. It is felt that this is to be the responsibility of the persons charged with the responsibility of the development of the curriculum. For this reason only several summaries will be included in addition to the computer print-out tabulation of the raw data and the mean and standard deviation for the frequency and proficiency for the items which are included in the appendix.

Several respondents commented on the length of the instrument and, even though it was designed for easy answering, the length of time required to complete it. This could be the main explanation for the 53% return of the entire task analysis instrument while another 47 readily responded to a single general information page.

The tasks were listed in fourteen categories which represented the major areas of responsibilities of an assistant. The survey form was organized this way to make it easy for the respondent to complete. This arrangement should also make it easier for the curriculum developers and others interested in analyzing the data.

The fourteen categories are:

- 1) Reception of Patients and Visitors
- 2) Public Relations
- 3) Secretarial
- 4) Scheduling Patients
- 5) Patient Records
- 6) Office Management
- 7) Bookkeeping and Billing
- 8) Handling Finances
- 9) Emergency and Safety
- 10) Examining Room
- 11) Dispensing
- 12) Laboratory Procedures
- 13) Patient Education
- 14) Role of Assistant in Examinations

One summary of the task data tabulation is the mean and standard deviation of both frequency and proficiency for each of the tasks. This summary, located in the appendix, has the tasks organized in the same way, including the statement of the task, that they were presented to the respondents.

Another available summary is the computer printout. The manner in which the data was fed into the computer resulted in two computer printouts, one for the frequency and the other for the proficiency of the tasks. Both of these are included in the appendix as Optometrists and Optometric Assistant - Analysis of Frequency and Optometrists and Optometric Assistants - Analysis of Proficiency, respectively.

The tasks are identified by number but the task statement is not included in the printouts. The following information is included:

- 1) item number
- 2) number and percent of omits
- 3) number and percent of each response 1-6
- 4) mean
- 5) standard deviation
- 6) P- correlation
- 7) Q_1
- 8) Q_2
- 9) Q_3
- 10) IQR
- 11) total number of respondents for the item

Summary of Task Frequency

| <u>Category</u> | <u>Definition</u> | <u>Number</u> | <u>Per Cent</u> |
|-----------------|--|---------------|-----------------|
| 1 | Never | 2 | 1.0 |
| 2 | Seldom- several times per year | 37 | 18.3 |
| 3 | Sometimes- 5 to 10 times per year | 64 | 31.7 |
| 4 | Monthly- averages at least 1 per month | 64 | 31.7 |
| 5 | Weekly- averages at least 1 per week | 29 | 14.4 |
| 6 | Daily- averages at least 1 per day | 6 | 3.0 |

Summary of Task Proficiency

| <u>Category</u> | <u>Definition</u> | <u>Number</u> | <u>Per Cent</u> |
|-----------------|--|---------------|-----------------|
| 1 | None- no knowledge of task | 0 | 0 |
| 2 | Some- only recognition and acquaintances with terminology | 13 | 6.4 |
| 3 | Limited- can assist and/or perform simple parts of task as directed by optometrist | 53 | 26.2 |
| 4 | Moderate- can perform task with constant guidance | 75 | 37.1 |
| 5 | Proficient- can perform entire task with very little guidance. | 59 | 29.2 |
| 6 | Very Proficient- can initiate and perform entire task without guidance | 2 | 1.0 |

Selection of tasks to be included in the curriculum, and the emphasis to be placed on them, can not be based on the frequency or proficiency alone. An example which indicated the folly of this approach is a task in first aid which might have a low frequency because of the nature of the task even though the proficiency required might be high. An assistant must be capable of handling the situation even though it might never occur. The curriculum developer will therefore have to construct a selection guide which gives relative weights to both.

Upon examination of the data one finds a number of omits for tasks within certain categories. Although it is possible that errors were introduced during the key punching and processing, the explanation is that most omits were from respondents in an optometric practice that

did not involve itself in the activities of that particular category. The respondents did not respond to tasks within the category because they did not feel that their experience could justify a specific response.

Category #1, Reception of Patients, was unique because the mean for the responses of frequency and proficiency was at the 4 level-monthly and moderately, respectively for all tasks except 1.01. This task had a mean response level of 5- weekly and proficient, respectively.

Most of the responses in Category #14, Role of Assistant in Examining, were at the 2 and 3 levels for both frequency and proficiency, seldom and sometimes and some and limited, respectively. This indicates that the assistant's role in most examinations would be very limited. One respondent's comment referred the researcher to the state regulations on optometry which outline the responsibility of optometrist.

Responses to tasks within other categories were scattered. No pattern could be established within categories or between categories, while correlations between frequency and proficiency were found in categories 1 and 14, no such correlations were found within the other categories. The indication here is that each task must be treated individually rather than collectively in a category when decisions on inclusion and emphasis are made.

Only two tasks were found to be universally high for both frequency and proficiency, as they were given a 6 level of response in both. These two are applicable for all types of practices. The two are #4.01- Make Appointments for New Patients and #8.04- Accept and post payments received to patient ledger card for payments on account (cash, check, credit card).

Further analysis will be conducted during the fall of 1974 for the purpose of establishing the tasks and levels of emphasis for the Health Core Curriculum- Optometric Assistant Program at Lakeshore Technical Institute. The results of the curriculum development will be evaluated at intervals to determine if the decisions and recommendations based on the analysis of the data are supported with additional data obtained at later dates.

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| | |
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LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION - DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

September 26, 1973

Dear Dr. -----:

A few years ago, Lakeshore Technical Institute developed a new program designed to train assistants for the optometric office. The initial survey of tasks that such an assistant could perform was conducted in 1966. The results were used in developing the original program.

During the past few years, a number of changes have taken place both in the instruments and equipment available in the office and the doctor's attitude toward the tasks that could be entrusted to an assistant. We are attempting to produce a graduate who has had experiences that will enable her or him to perform competently within the most current framework of the profession. In order to accomplish this, we are interested in determining the tasks that are or might be performed by a trained assistant. We are attempting to determine these tasks through the use of a task analysis survey.

Because of your position and expertise in the field, we would like to enlist your help as a jury member in this important task. As a jury member, you will be called upon to react to several task analysis forms and make suggestions and additions as you see fit. These forms will be sent to you shortly.

It is unfortunate that we cannot offer remuneration for your efforts. However, we can offer publicity in resultant reports and publications and the satisfaction of having contributed to a valuable development in your own field. We will also share the results of our survey with you.

Please complete the enclosed form before October 5 and mail it in the enclosed envelope. If for some reason you find that you are unable to function in the capacity as a jury member, we would appreciate it if you would give this to a colleague for consideration.

Thank you for your assistance in this study.

Sincerely,

Marvin A. Schrader
Curriculum Specialist

MJS

18

Enc. (2)

ERIC
Full Text Provided by ERIC

26

I accept the appointment to your Optometric Assistant Task Analysis Jury.

Signature

Current Position

School or Practice

Office Phone Number

Address

September 23, 1973

Dr. Jack Fitzgerald, President
Wisconsin Optometric Association
Six South Carroll Street
Madison, WI 53073

Dear Dr. Fitzgerald:

A few years ago your association was very instrumental in developing the Optometric Assistant Program at our school. Because of the assistance and support given by your Association in both encouragement and scholarships, it has become one of the most successful programs at our school.

We have appreciated your support and would again like to enlist the cooperation and assistance of your Association in assessing the needs and desires of the optometrists of Wisconsin. Such a survey was last conducted in 1966. As you well know, the changes that have taken place in the instruments, equipment, techniques and the attitudes toward using an assistant during the interim years have been tremendous. Therefore, we would like to again survey the optometrists using a prepared task analysis form which they could complete and return. This would enable us to update our present program and make it even more worthwhile for the graduates and the optometric profession in Wisconsin.

In order to ensure a worthwhile survey result, we would like to obtain the names and addresses of optometrists within the state, several optometrists willing to assist us in the development of the survey form, and a letter of endorsement which could be included with the survey forms sent to the optometrists.

We would also like to include the assistants in the survey as they are actually doing the tasks. The difficulty of obtaining names of assistants other than our own graduates is creating some concern among our faculty. I would appreciate having some of your insights as to how this problem might be solved or lessened.

I would appreciate reactions and suggestions that you might have in regard to this proposal. You may contact me either by letter or by calling 414-458-4183, Ext. 50 for additional information or clarification.

Thank you for your personal assistance in this study.

Sincerely,

Marvin A. Schrader
Curriculum Specialist



GEORGE J. WHITE
EXECUTIVE DIRECTOR

• 119 MONONA AVENUE • MADISON, WISCONSIN 53703 • PHONE: AREA 608/257-1907


October 5, 1973

Mr. Marvin A. Schrader
Lakeshore Technical Institute
843 Jefferson Avenue
Sheboygan, Wisconsin 53081

Dear Mr. Schrader:

Doctor Fitzgerald has asked me to respond to your letter of September 23rd. We will cooperate with your proposed survey of optometrists and assistants in Wisconsin. We would suggest that you use the Advisory Committee to help you prepare the survey. The best source of names of optometric assistants in Wisconsin is Jackie Maki, %Vaslow and Schilling, O.D.s, 423 Jay Street, LaCrosse, Wisconsin. She is one of the organizers of the Wisconsin Optometric Assistants Association. We can supply you with the names and addresses of all the optometrists in the State, or if you prefer, you can mail the envelopes to us and we will address them for you directly from our addressograph plates. When your survey form is completed, if you will mail a copy to us, we will prepare a letter of endorsement to be enclosed with it.

Sincerely,


GEORGE J. WHITE
Executive Director

GJW/mlj

cc: J. T. Fitzgerald, O.D.

October 18, 1973

Robert E. Day, O.D.
3034 Broadway
Garland, TX 75040

Dear Dr. Day:

Lakeshore Technical Institute has the only Optometric Assistant Program in Wisconsin. A very general survey of tasks that such an assistant could perform was conducted in 1956. The results were then used in developing the original program.

During the past few years, a number of changes have taken place, both in the instruments and equipment available in the office and the doctor's attitude toward the tasks that could be entrusted to such an assistant. We are attempting to produce a graduate who has had experiences that will enable her or him to perform competently within the most current framework of the profession. In order to accomplish this, we are interested in determining the tasks that are or might be performed by a trained assistant. We are attempting to determine these through the use of a task analysis survey.

I would like to modify, add, and delete from an existing task analysis survey form if possible. However, I have not been able to find an instance where such a survey has been done, either for the optometric assistant or for the optometrist. Therefore, I would appreciate it greatly if you could forward any information that you or your association may have that pertains to any such studies that have been carried on.

I have already enlisted the assistance of the Wisconsin Optometric Association for which we are deeply grateful. Additional individual members of your association have also volunteered their services as jury members for the survey form itself. These actions indicate the interest being generated in the optometric assistant position which is becoming an integral part of the optometric practice.

Thank you in advance for any assistance that you may be able to give in regard to this survey.

Sincerely,

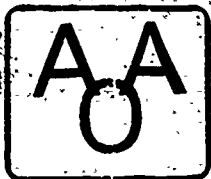
Marvin A. Schrader
Curriculum Specialist

mjs

21

cc: Bernard J. Shanon, O.D.

AMERICAN OPTOMETRIC ASSOCIATION



PRESIDENT
ROBERT E. DAY, O.D.
3034 BROADWAY
GARLAND, TEXAS 75041

October 24, 1973

Mr. Marvin A. Schrader
Lakeshore Technical Institute
843 Jefferson Avenue
Sheboygan, Wisconsin 53081

Dear Mr. Schrader:

Thank you for your letter regarding your proposed task analysis survey.

I am sending your letter to Mr. J. Harold Bailey, the Executive Director of the American Optometric Association, and I am sure that he will be in contact with you.

We will certainly cooperate in any way and Mr. Bailey will send any pertinent information which we might have compiled.

Thank you very much.

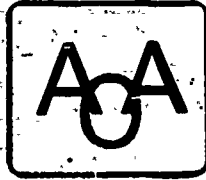
Sincerely yours,

Robert E. Day, O.D.

RED:bw

CC: Mr. J. Harold Bailey
Dr. Bernard J. Shannon

AMERICAN OPTOMETRIC ASSOCIATION



DIVISION OF EDUCATION
AND
MANPOWER
ELLIS S. SMITH, JR., Director

December 19, 1973

Mr. Marvin A. Schrader
Lakeshore Technical Institute
843 Jefferson Avenue
Sheboygan, WI 53081

Dear Mr. Schrader:

This letter is in response to your inquiry regarding your proposed task analysis survey.

Enclosed is a copy of "A National Study of Assisting Manpower in Optometry," published in August, 1971. This study provides a comprehensive listing of possible tasks to be performed by the technician.

For more information, I recommend that you get in touch with Jerald W. Strickland, O.D., Indiana University, Division of Optometry, Bloomington, Indiana 47401, Chairman of our AOA Committee on Paraoptometric Personnel.

Please let me know if I can be of further assistance.

Sincerely yours,

Ellis S. Smith, Jr.

ESS/d/143

Enclosure

cc: R. E. Day, O.D.; B. J. Shannon, O.D.;
J. W. Strickland, O.D.; J. H. Bailey

October 29, 1973.

Miss Jackie Maki
% Vaslow & Schilling, O.D.s
423 Jay Street
LaCrosse, Wisconsin

Dear Miss Maki:

Mr. George White, Executive Director of the Wisconsin Optometric Association, has referred me to you in my attempt to obtain the names of optometric assistants within the state. By the time you read this, you will also have had a chance to talk to Dr. Paulette Schmidt, one of our own staff members. She has also referred me to you because of your part in the organization of the optometric assistants in Wisconsin.

Our Optometric Assistant Program is the only one in the state. A few years ago, Lakeshore Technical Institute developed a new program designed to train assistants for the optometric office. The initial survey of tasks that such an assistant could perform was conducted in 1966. The results were used in developing the original program.

During the past few years, a number of changes have taken place, both in the instruments and equipment available in the office and the doctors' attitudes toward the tasks which could be entrusted to an assistant. We are attempting to produce a graduate who has had experiences that will enable him or her to perform competently within the most current framework of the profession. In order to accomplish this, we are interested in determining the tasks that are or might be performed by a trained assistant. We are attempting to determine these tasks through the use of a task analysis survey.

We plan to survey as many Wisconsin optometrists and their assistants as can be located in this state. The Wisconsin Optometric Association is supplying the names of optometrists within the state. I am hoping that you might be able to send names and addresses of as many optometric assistants that you might be able to.

Because of your expertise in the optometric assisting field, I would also like to enlist your help as a jury member in the important task of setting up the task analysis survey. As a jury member, you will be called upon to react to several task analysis forms and make suggestions and additions as you see fit. These forms will be sent to you shortly.

Miss Jackie Maki
Page 2
October 26, 1973

It is unfortunate that we cannot offer remuneration for your efforts. However, we can offer personal recognition in resultant publications and the satisfaction of having contributed to a valuable development in your own field. We will also share the results of our survey with you.

Please complete the enclosed form and the list of names and addresses before November 8 and mail it in the enclosed envelope.

Thank you for your assistance in this study. It will be greatly appreciated by the members of our optometric assistant instructional staff.

Sincerely,

Marvin A. Schrader
Curriculum Specialist

mjs

Enclosures (2)

LAKE SHORE Technical Institute

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183

SHEBOYGAN, WISCONSIN - 53081

November 12, 1973

Harold Halfin, Ed. D.
Director, Ed. Specialist Program
University of Wisconsin-Stout
Menomonie, WI 54751

Dear Dr. Halfin:

I want to express my appreciation to you for your willingness to serve as a jury member on our Optometric Assistant Task Analysis. Your help and cooperation will assist greatly in the clarification of the role of the Optometric Assistant and an Optometric practice and in the structuring of the Para-Optometric Program curriculum.

Enclosed is a Tentative Task Analysis form. Because it is important that the form communicate in the language of Optometry, please feel free to question, criticize, modify, crossout, and/or add as you see fit. The following questions are only suggested as a guide.

1. Is the format practical?
2. Are the instructions clear?
3. Is the description of the task complete?
4. Is the correct terminology used?
5. Is it easy to answer using the response choices given?
6. Is the task suited to the section to which it has been assigned?

React to the task description itself; do not rate the "frequency" or "proficiency" at this time, because these columns are included to illustrate the format being considered.

Make your reactions, changes and suggestions directly on the form. Five blanks have been provided after each section for adding tasks which you feel should be added or transferred from other sections. Additional comments should also be written directly on the form. Use the back or attach a separate sheet if you find that not enough space has been provided.

*There are
right in... not understand Task 8.15.
I am... be appropriate, I
will... record
26
Hull*

Harold Halfin, Ed. D.
Page 2
November 12, 1973

Please return the form with your reactions and comments in the enclosed, return envelope by November 23. May I again thank you for your willingness to help. Your insight will provide guidance and impetus to the development of a sound and comprehensive task survey.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

dag

enc. Task Analysis Form
Return Envelope

Dr. Halfin,

This is mainly to keep you up to date but any comments will be welcome.

Thanks,

Marv

LAKE SHORE Technical Institute

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

February 14, 1974

Mrs. Kathy Wagner
332-1/2 Park Street
Plymouth, WI 53073

Dear Mrs. Wagner:

Enclosed is a tentative Task Analysis Form. I would like to enlist your services, as Paraoptometric Advisory Committee member, to react to the form. I would like you to complete the form and as you are completing the form note any difficulties in interpretation or wording. Please return the completed form to me in the enclosed, postpaid envelope by February 25, 1974.

If you find it difficult to respond to a particular question or task, answer it as you think it might most often be interpreted by other optometrists and optometric assistants. In addition, please note your concern on the form. Use the back or attach a separate sheet if you find that not enough space has been provided. I would also appreciate either a call at 458-4183, Ext. 50 or a meeting with you for the purpose of discussing any reactions you might have.

Thank you for your concern for the Paraoptometric Program at Lakeshore Technical Institute. It is only through the dedication of persons like yourself that the program is successful.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

MAS:nrr

Enclosures (2): Task Analysis Form
Return Envelope

Some of the tasks are only done when a patient requires them. It is hard to expect a frequency. Depend on practice of doctor. On last page I have done most of text but it depends when I have to perform them.

March 11, 1974

TO: ALL WISCONSIN OPTOMETRISTS

Dear Doctor:

The enclosed Paraoptometric (Optometric Assistant) Task Analysis Survey has the approval of the Wisconsin Optometric Association. The analysis jury members who participated in preparing this questionnaire include - Doctors K. H. Gibson, A. L. Lindell, Paulette Schmidt, J. R. Sonnenburg, and myself from Wisconsin. I urge your cooperation in completing and returning the form. The information provided will be valuable in planning the curriculum for optometric assistants.

Sincerely,

Jack T. Fitzgerald
9

JACK T. FITZGERALD, O.D.
President.

JTF/jat

March 19, 1974

TO: ALL WISCONSIN OPTOMETRIC ASSISTANTS

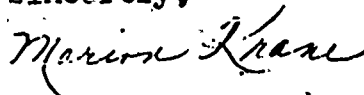
Dear Assistant:

The enclosed Paraoptometric Task Analysis Survey has the approval of the Association of Optometric Assistants of Wisconsin.

The assistants serving as analysis jury members, who participated in preparing this questionnaire, include Jackie Maki, La Crosse, and Rita Blanke, Sheboygan.

Please complete and return the survey, the information provided is to be used in planning the curriculum for the optometric assistants course.

Sincerely,



Marion Krane
President

LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

April 5, 1974

Dear Optometrist:

The Wisconsin Optometric Association was instrumental in starting the Optometric Assistant Program at Lakeshore Technical Institute and has supported the program with advisory committee members and student scholarships since its beginning in 1967.

A number of changes in the operation of the optometric practice and the use of assistants have occurred since the program's inception. It is very important to the optometric profession to assess the duties assigned to or anticipated for the optometric assistants. The educational program should reflect these duties so that qualified optometric assistants are available to fill the optometrist's needs.

The Wisconsin Optometric Association is endorsing a State of Wisconsin-Lakeshore Technical Institute Task Survey to determine the duties of the optometric assistant in Wisconsin. This survey will be sent to you within the next week. It will take about two hours to complete. It was determined by the members making up the survey that fewer questions and less time involved would not make the survey useful.

We would hope that you would find the time to complete the form so that the results can truly represent the profession in Wisconsin. Thank you for your assistance in this project.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

mjs

Enc. - Endorsement Letter

LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183

SHEBOYGAN, WISCONSIN - 53081

April 12, 1974

Dear Optometric Assistant of Wisconsin Member:

The optometric profession was instrumental in starting the Optometric Assistant Program at Lakeshore Technical Institute and has supported the program with advisory committee members and student scholarships since the beginning of 1967.

A number of changes in the operation of the optometric practice and the use of assistants have occurred since the program's inception. It is very important to the optometric profession to assess the duties done by you in the practice. The training program should reflect those duties so that new optometric assistants will be available to work with you in assisting the optometrist.

The Optometric Assistant of Wisconsin Association is endorsing a State of Wisconsin-Lakeshore Technical Institute Task Survey to determine the duties of the optometric assistant in Wisconsin. This survey will be sent to you within the next week. It will take about two hours to complete. It was determined by the members making up the survey that fewer questions and less time involved would not make the survey useful.

We would hope that you could find time to complete the form so that the results can truly represent the profession.

Thank you for your assistance in this study.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

dag

Enc. - Endorsement Letter

LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

April 10, 1974

Dear Optometrist:

Lakeshore Technical Institute is the only technical institute in Wisconsin charged with the responsibility of training optometric assistants in the state. Your assistance is essential to the evaluation of our Optometric Assistant Program. Please complete the enclosed questionnaire within five days and return in the enclosed envelope.

I realize that there are many demands on your time. Please understand that this is of vital importance to the optometric profession in Wisconsin. You, as a member of the Wisconsin Optometric Association, have supported the program through yearly scholarships, and your officers have endorsed this survey. (See enclosed letter.) The Wisconsin Vocational, Technical and Adult Education Board has also approved funds for this study. Your response is necessary in order for the survey to be as useful as possible.

We are also making an attempt to determine the employment market for our graduates so that we might make adjustments in the program so that a realistic supply of graduates might be maintained. It is for this reason that additional information is being asked concerning your practice. All responses will be kept strictly confidential and additional comments regarding the program are welcome.

If you have any questions, please contact me at the above address, or call me at 414-458-4183, Ext. 50.

Thank you for your assistance in this very important effort. I will be happy to share pertinent results of the study with you once the responses have been tabulated.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

dag

enc. 3 - Wisconsin Optometric Association Letter
Task Analysis Form 33
Return Envelope

LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

April 15, 1974

Dear Optometric Assistant:

Lakeshore Technical Institute is the only technical institute charged with the responsibility of training optometric assistants in the state of Wisconsin. Your assistance is essential to the evaluation of the Optometric Assistant Training Program at our school. Please complete the enclosed questionnaire within one week and return it in the enclosed envelope.

I realize that there are many demands on your time. Please understand that this is of vital importance to the optometric assistant's identity in Wisconsin. Your employer, through the Wisconsin Optometric Association, has endorsed this study. The officers of your newly formed organization, the Optometric Assistants of Wisconsin, have endorsed this survey, (see enclosed letters). The Wisconsin Vocational, Technical and Adult Education Board has also approved funds for this study. Your response is necessary in order for this survey to be as useful as possible.

All responses will be kept strictly confidential and additional comments regarding the program are welcome.

If you have any questions, please contact me at the above address or call me at 414-458-4183, Ext. 50.

Thank you for your assistance in this very important effort. I will be happy to share the pertinent results of the study with you once the responses have been tabulated.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

dag

enc. 4 - Optometric Assistants of Wisconsin Endorsement Letter
Wisconsin Optometric Association Endorsement Letter
Task Analysis Form
Return Envelope

April 23, 1974

**Arol Augsburger, O.D.
Clinical Coordinator
College of Optometry
Ohio State University
352 West 10th Street
Columbus, OH 43210**

Dear Dr. Augsburger:

The enclosed task analysis has now been sent to the optometrists and optometric assistants within the state of Wisconsin. The analysis form represents the culmination of a great deal of thought and dedication by many persons, including yourself, for which I am deeply grateful.

I would like to ask one more favor of you. Please complete one of the task analysis forms, from your perception of the tasks that the optometric assistant could perform. Return it in the enclosed envelope. You may keep the other one for future reference.

Your assistance in this entire project has been extremely helpful in designing a survey form that should be very useful in curriculum development for the Optometric Assistant Program at Lakeshore Technical Institute. Again, I thank you for your willingness to assist in this project.

I will send you a copy of the report when the results have been tabulated and recommendations made.

Sincerely,

**Marvin A. Schrader
Curriculum Specialist**

MS:hb

**Enclosures (5) Task Analysis Forms (2)
Return Envelope
Endorsement Letters (2)**

LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

Dear Optometrist:

Remember that yellow Optometric Assistant Task Analysis Form that you put away for completing at a later date? It's important that your response be included in the study. Please complete it now, and return it in the envelope that was provided.

Please accept my thanks if it is already in the mail.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

mjs

LAKE SHORE *Technical Institute*

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

Dear Optometric Assistant:

Remember that yellow Optometric Assistant Task Analysis Form that you put away for completing at a later date? It's important that your response be included in the study. Please complete it now and return it in the envelope that was provided.

Please accept my thanks if it is already in the mail.

Sincerely,

Marvin A. Schrader

Marvin A. Schrader
Curriculum Specialist

mjs

LAKESHORE



Technical Institute

Frederick J. Nierode
District Director

VOCATIONAL, TECHNICAL AND ADULT EDUCATION-DISTRICT ELEVEN

May 24, 1974

843 JEFFERSON AVENUE PHONE 414-458-4183
SHEBOYGAN, WISCONSIN - 53081

Dear Optometrist:

I am presently conducting a survey concerning the utilization of optometric assistants in the State of Wisconsin. This study is of vital concern to the operation of our Optometric Assistant Program. The study has the endorsement of the Wisconsin Optometric Association, which has supported the program at our school.

Won't you please take a few minutes out of your busy schedule to complete these few questions and return them in the envelope provided by June 1.

Thank you for your assistance in this important survey.

Sincerely,

Marvin A. Schrader
Curriculum Specialist

MAS/all

Enclosures

OPTOMETRIC PRACTICE INFORMATION - OPTOMETRIST

Your responses to the following information concerning your practice will enable the information to be analyzed in an effort to establish optometric practice patterns and trends in the manner in which assistants are used and the tasks performed by them. Please answer the following questions by inserting a ✓ in the space before the number or statement that best agrees with your answer.

1. How many optometrists are there in your practice?
1) ___one; 2) ___two; 3) ___three; 4) ___more than three.

2. What best characterizes your type of practice?
1) ___general practice (primary examining and dispensing).
2) ___general practice plus some contact lens work.
3) ___primarily a contact lens practice.
4) ___contact lens and vision training practice with little general practice.
5) ___vision training practice with some general practice.

3. How many years has your practice been operating?
1) ___0 - 2; 2) ___3 - 5; 3) ___5 - 10; 4) ___10 - 15; 5) ___more than 15.

4. How many years have you been practicing optometry?
1) ___0 - 2; 2) ___3 - 5; 3) ___5 - 10; 4) ___10 - 15; 5) ___more than 15.

5. How many assistants are normally employed by your practice?
1) ___none; 2) ___one; 3) ___two; 4) ___three; 5) ___more than three.

6. How many of your assistants are diploma graduates?
1) ___none; 2) ___one; 3) ___two; 4) ___three or more.

7. How many of your assistants are self-trained in your practice?
1) ___none; 2) ___one; 3) ___two; 4) ___three or more.

8. How many diploma graduates would you anticipate hiring during 1974-75, if trained assistants would be available?
1) ___none; 2) ___one; 3) ___two; 4) ___three.

9. How many diploma graduates would you anticipate hiring during 1975-76, if trained assistants would be available?
- 1) ___ none; 2) ___ one; 3) ___ two; 4) ___ three.
10. How many diploma graduates would you anticipate hiring during 1976-77, if trained assistants would be available?
- 1) ___ none; 2) ___ one; 3) ___ two; 4) ___ three.
11. How many diploma graduates would you anticipate hiring during 1977-78, if trained assistants would be available?
- 1) ___ none; 2) ___ one; 3) ___ two; 4) ___ three.
12. If you were to hire an assistant during the next few years, which of the following levels of certification would you desire the assistant to have?
- 1) ___ certified person not wanted for position.
- 2) ___ not interested in certification status of assistant.
- 3) ___ completed most of requirements to be eligible to take the certification examination.
- 4) ___ eligible to take the certification examination.
- 5) ___ full certification status.

OPTOMETRIC PRACTICE INFORMATION - ASSISTANT

Your responses to the following information concerning the practice in which you are employed will enable the information to be analyzed in an effort to establish optometric practice patterns and trends in the manner in which assistants are used and the tasks performed by them. Please answer the following questions by inserting a ✓ in the space before the number or statement that best agrees with your answer.

1. How many optometrists are there in the practice in which you are employed?
1) ___one; 2) ___two; 3) ___three; 4) ___more than three.

2. Which best characterizes the type of practice in which you are employed?
1) ___general practice (primarily examining and dispensing).
2) ___general practice plus some contact lens work.
3) ___primarily a contact lens practice.
4) ___contact lens and vision training practice with little general practice.
5) ___vision training with little general practice.

3. How many years has the practice been operated by the present optometrist(s)?
1) ___0 - 2; 2) ___3 - 5; 3) ___5 - 10; 4) ___10 - 15; 5) ___more than 15.

4. How many years have you been employed as an assistant?
1) ___0 - 2; 2) ___3 - 5; 3) ___5 - 10; 4) ___more than 10.

5. How many assistants are normally employed in the practice in which you are employed?
1) ___none; 2) ___one; 3) ___two; 4) ___three; 5) ___more than three.

6. Which describes the manner by which you obtained your present optometric knowledge and skills?
1) ___diploma program of a school.
2) ___trained in an optometric practice.

PARAOPTOMETRIC (OPTOMETRIC ASSISTANT) TASK ANALYSIS SURVEY
1973-74

DIRECTIONS:

Please circle the number after the statement of the task that most nearly agrees with your assessment of the performance done by the assistant in your practice or, if you have no assistant, tasks that could be performed by a trained assistant. Both "proficiency" and "frequency" of the task are to be indicated. If you have a question or comment, please indicate it between items or on an attached sheet.

The following indicates the definitions of the assessments to be used:

Frequency of Performance:

- 1 - Never
- 2 - Seldom - several times per year
- 3 - Sometimes - 5 to 10 times per year
- 4 - Monthly - averages at least 1 per month
- 5 - Weekly - averages at least 1 per week
- 6 - Daily - averages at least 1 per day

Proficiency Needed by Assistant:

- 1 - None - no knowledge of task
- 2 - Some - only recognition and acquaintances with terminology
- 3 - Limited - can assist and/or perform simple parts of task as directed by the optometrist
- 4 - Moderate - can perform task with constant guidance
- 5 - Proficient - can perform entire task with very little guidance
- 6 - Very Proficient - can initiate and perform entire task without guidance

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|-----------------------------------|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| SAMPLE | Types recall letters for patients | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 1. | <u>Reception of Patients and Visitors</u> | | | | | | | | | | | | |
| 1.01 | Greet patient and confirm appointment date and time. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.02 | Interview new patient to complete a registration form. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.03 | Interview patient for insurance or other third party sponsorship information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.04 | Complete patient screening. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.05 | Obtain signature for assignment of insurance payment to optometrist and signature authorization for release of information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.06 | Escort patient to examination or frame fitting room. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.07 | Maintain clean and orderly office. (Empty ashtrays, reorganize magazines, etc.) | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.08 | Receive non-patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 1.09 | Entertain children waiting for patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | <u>Public Relations</u> | | | | | | | | | | | | |
| 2.01 | Receive calls and answer questions from patients or potential patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.02 | Answer general questions from patient and potential patients that relate to the practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.03 | Explain fees to patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.04 | Answer letters from patients, upon approval of content by optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|------------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Some times | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 2.05 | Attend meetings and participate in community activities related to optometric practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.06 | Maintain personal information card index on each patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.07 | Explain to waiting patients what delay to expect when running behind schedule. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.08 | Send thank you letters to referral sources. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.09 | Assist patients in obtaining taxi service, etc. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | <u>Secretarial</u> | | | | | | | | | | | | |
| 3.01 | Record vision examination information. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.02 | Take dictation in shorthand and transcribe. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.03 | Arrange travel accommodations for optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.04 | Open and sort mail. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.05 | Answer optometrist's routine mail after screening by optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.06 | Place and answer telephone calls for optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.07 | Record telephone messages with time and date. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.08 | Gather data to complete statutory reports for government agencies. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3.09 | Operate typical office business machines (e.g., copy machine). | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | <u>Scheduling Patients</u> | | | | | | | | | | | | |
| 4.01 | Make appointments for new patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 4.02 | Make telephone calls to confirm patient's appointment date and time. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.03 | Arrange for next appointment before patient leaves the office. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.04 | Reschedule appointment for patient who cancels one. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.05 | Contact patients with future appointments to fill in for cancellations. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.06 | Cancel appointments for the optometrist when necessary and reschedule patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.07 | Make a daily list of optometrist's scheduled appointments for optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.08 | Make a daily list of schedule appointments with other staff (visual training, etc.) for optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.09 | Note in an appointment book scheduled times that optometrist will be away from office. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.10 | Send recall letters to patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.11 | Contact patient to remind patient of recall date. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.12 | Schedule people other than patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4.13 | Schedule progress reports on patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | <u>Patient Records</u> | | | | | | | | | | | | |
| 5.01 | Initiate a record file for a new patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.02 | Enter anecdotal notes on patient's record. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.03 | File reports and correspondence in patient's record folder. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 5.04 | Pull patient's record folder for scheduled appointments. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.05 | Review patient record files for completeness and accuracy of examination results. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.06 | Update patient's address, phone number and other personal information on information form. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.07 | Provide confidential security for patient files. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | <u>Office Management</u> | | | | | | | | | | | | |
| 6.01 | Inspect all areas and rooms for proper housekeeping, temperature, and adequate supplies. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.02 | Perform light dusting and wiping of equipment. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.03 | Arrange for maintenance and repair of equipment. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.04 | Keep an office procedure manual current. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.05 | Assist in training a new assistant. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.06 | Arrange meetings with optometrist to resolve problems. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.07 | Schedule vacations and arrange for coverage. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.08 | Participate in externship programs for Optometric Assistant training programs. | | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.09 | Set up inventory control and re-order levels for optometric supplies. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.10 | Order optometric and office supplies. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 6.11 | Keep catalogs of supplies and equipment pertinent to optometric practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.12 | Prepare statistical reports in regard to patient visits and procedures. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.13 | Prepare a budget for income and expenses. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.14 | Prepare a financial report of income and expenses. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.15 | Maintain a fee schedule for services. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.16 | Develop accounting and statistical reports related to a partnership practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.17 | Develop accounting and statistical reports related to a group practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.18 | Provide additional copies of business forms or correspondence. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.19 | Attend regular staff meetings. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | <u>Bookkeeping and Billing</u> | | | | | | | | | | | | |
| 7.01 | Complete a patient ledger card for new patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.02 | Receive and review copy of services after optometrist sees patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.03 | Prepare charge slips for services to patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.04 | Extract billing information from optometrist's notes. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.05 | Post entries from original entry record to patient's ledger card. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.06 | Type an itemized or coded bill and mail to patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 7.07 | Post an adjusting entry for difference between payment accepted and the optometrist's usual fee. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.08 | Complete indemnity insurance forms for patient to submit his claim. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.09 | Complete insurance forms for filing assigned insurance claims. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.10 | Complete Medicare payment request Form SSA-1490. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7.11 | Complete Workmens Compensation Forms. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | <u>Handling Finances</u> | | | | | | | | | | | | |
| 8.01 | Present fee at end of patient visit. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.02 | Collect payments at time of visit and make entry to an original record (cash, checks, credit card). | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.03 | Establish and control petty cash fund. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.04 | Accept and post payments received to patient ledger card for payments on account (cash, check, credit card). | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.05 | Make financial arrangements with patient, following standard operating procedures for the practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.06 | Reconcile cash count and receipts. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.07 | Prepare a bank deposit ticket. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.08 | Make bank deposits. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.09 | Reconcile bank accounts. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.10 | Process unredeemed checks returned by bank. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 8.11 | Execute a promissory note for payment. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.12 | Investigate mail returned because of incorrect addresses. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.13 | Communicate with insurance companies in regard to patient claims. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.14 | Age and analyze accounts for unusual problems and abnormal trends. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.15 | Call patient or guarantor in regard to payment of bills. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.16 | Make recommendations on offers to compromise settlement of account. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.17 | Complete a creditors' claim form for deceased patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.18 | Complete forms to assign accounts to an outside collection agency. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.19 | Review and evaluate status reports of accounts with a collection agency. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.20 | Maintain a disbursement record to fit optometrist's practice. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.21 | Review invoices for accuracy. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.22 | Prepare checks for optometrist's signature for payments of invoices, salaries, etc. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.23 | Maintain a file of paid and unpaid invoices. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.24 | Approve invoices for payment. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.25 | Enter in a check register payments made to vendors. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8.26 | Make out and sign checks, up to specified amount, for the optometrist. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 9. | <u>Emergency and Safety</u> | | | | | | | | | | | | |
| 9.01 | Identify symptoms and apply first aid for shock, fainting, asphyxia, respiratory or cardiac failure, bleeding. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.02 | Handle telephone calls regarding emergencies from patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.03 | Seek help from qualified nurse or physician for emergencies. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.04 | Provide procedures for evacuation of patients in case of fire or other emergency. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.05 | Inspect practice so that office and laboratory are in compliance with OSHA safety regulations. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.06 | Make telephone call to fire department or police in emergency. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9.07 | Be able to operate a fire extinguisher properly. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. | <u>Examining Room</u> | | | | | | | | | | | | |
| 10.01 | Determine if instruments are clean and in operating order. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.02 | Prepare and assemble necessary instruments and supplies for test. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.03 | Change head rest covers and face protectors. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.04 | Light dust and wipe equipment. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.05 | Entertain patient while optometrist is out of examining room. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.06 | Receive and seat patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | | |
|--------|--|----------------|---------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|---|
| | | Never | SeIdom. | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient | |
| 10.07 | Explain nature and after-effects of examination to patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 10.08 | Dismiss patients. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11. | <u>Dispensing</u> | | | | | | | | | | | | | |
| 11.01 | Make Interpupillary Distance measurement. | 6 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11.02 | Assist patient in frame selection. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.03 | Measure patient for frame. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.04 | Verify frame measurements. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.05 | Write frame prescription for optometrist's approval. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.06 | Make plastic frame adjustments for patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.07 | Make wire frame adjustments for patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.08 | Write contact lens prescription for optometrist's approval. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.09 | Maintain soft and hard contact lens office equipment. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.10 | Assist patient in color selection of contact lens. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.11 | Measure patient for bifocal (trifocal) sog. height. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.12 | Dispense contact lenses to patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.13 | Dispense contact lens solutions to patient. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.14 | Write or call patient when prescription is ready for delivery. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |
| 11.15 | Instruct patient when prescription should be worn. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 11.16 | Instruct patients on proper lens care (glass or hard resin). | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11.17 | Instruct patient on contact lens care and hygiene. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11.18 | Instruct patient on contact lens insertion and removal. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. | <u>Laboratory Procedures</u> | | | | | | | | | | | | |
| 12.01 | Verify prescription of regular lenses. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.02 | Neutralize lenses and determine new patient's prescription. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.03 | Inspect lens for flaws. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.04 | Insert and/or assemble lenses in plastic frames. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.05 | Insert and/or assemble lenses in wire frames. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.06 | Verify prescription of contact lenses. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.07 | Make minor repairs on plastic frames. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.08 | Make minor repairs on wire frames. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.09 | Insert or attach wearing comfort devices (large nose pads, etc.) on frames. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.10 | Temper a lens. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.11 | Edge a lens. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.12 | Make alterations on contact lens. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.13 | Clean a contact lens. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12.14 | Drop ball test a lens. | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant. | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 14. | <u>Role of Assistant in Examinations</u> | | | | | | | | | | | | |
| 14.01 | 1st, 2nd, and 3rd Degree Fusion Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.02 | Far and Near Discrimination Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.03 | Hand and Eye Coordination Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.04 | Accommodative Rock Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.05 | Macular and Peri-macular Suppression Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.06 | Horizontal and Vertical Phorias and Tropia Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.07 | Retinal Rivalry Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.08 | Stereopsis Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.09 | Cheirosopic Drawing Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.10 | Van Orden Star Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.11 | Perimeter Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.12 | Tangent Screen Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.13 | Auto Plot Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.14 | Multiple Screener Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.15 | Amslor Grid Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.16 | Near Point of Convergence Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.17 | Rotations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.18 | Pursuit Fixations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.19 | Saccadic Fixations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.20 | Hand and Eye Orientation Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant. | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| 14. | <u>Role of Assistant in Examinations</u> | | | | | | | | | | | | |
| 14.01 | 1st, 2nd, and 3rd Degree Fusion Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.02 | Far and Near Discrimination Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.03 | Hand and Eye Coordination Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.04 | Accommodative Rock Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.05 | Macular and Peri-macular Suppression Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.06 | Horizontal and Vertical Phorias and Tropia Tests | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.07 | Retinal Rivalry Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.08 | Stereopsis Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.09 | Cheirosopic Drawing Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.10 | Van Orden Star Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.11 | Perimeter Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.12 | Tangent Screen Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.13 | Auto Plot Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.14 | Multiple Screener Visual Field Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.15 | Amslor Grid Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.16 | Near Point of Convergence Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.17 | Rotations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.18 | Pursuit Fixations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.19 | Saccadic Fixations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.20 | Hand and Eye Orientation Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|-------------------------------------|----------------|--------|----------------------|--------|-------|------|------------------|---------|----------|------------|---------------|---|
| | | Never | Seldom | Sometimes Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient | |
| 14.21 | Near to Far Fixations Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.22 | Pupillary Reflexes Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.23 | Donders Amplitude Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.24 | Brock String Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.25 | Cover Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.26 | Color Perception Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.27 | Stereo Fly Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.28 | Telebinocular Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.29 | Keratometry Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.30 | McKay Marg Tonometry Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.31 | No Contact A.O. Tonometry Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.32 | Visual Acuities Test (far and near) | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.33 | Sphygmomanometry Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.34 | Retinoscopy Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.35 | Glucose Tear Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.36 | Shirmer Tear Test | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 14.37 | Fluorescein Installation | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |

Summary of Number of Responses

1. Entire Task Analysis Survey Form

| | <u>Optometrists</u> | <u>Optometric Assistant</u> | <u>Total</u> |
|--|---------------------|-----------------------------|--------------|
| Number sent form | 347 | 65 | 412 |
| Number returning form | 175 - 50.4% | 43 - 66.2% | 218 - 52.9% |
| Number indicating retirement or non-employed | 3 - 0.9% | 2 - 3.1% | |

2. General Information Portion of Task Analysis Survey Form

| | |
|--|----------|
| Number sent | 100 |
| Number returning form | 47 - 47% |
| Number indicating retirement | 3 - 3% |
| Number indicating completion of entire form also | 3 - 3% |
| Number returning form after key punching date | 2 - 2% |

3. Telephone Sample

| | |
|---|---------|
| Number called | 20 |
| Number indicating not having received entire form | 2 - 10% |
| Number indicating retired status | 1 - 5% |

Summary of General Information Responses

| Item no. | Opto. | Opto. Ass't | Non Resp. |
|----------|---------|-------------|-----------|
| 1.1 | 118-67% | 26-60% | 28-65% |
| 1.2 | 43-24% | 12-28% | 13-30% |
| 1.3 | 13- 7% | 4- 9% | 2- 5% |
| 1.4 | 2- 1% | 1- 2% | 0- 0% |
| 2 | | | |
| 2.1 | 16- 9% | 5-12% | 5-11% |
| 2.2 | 146-82% | 35-84% | 35-81% |
| 2.3 | 3- 2% | 2- 5% | 2- 5% |
| 2.4 | 8- 4% | 0- 0% | 1- 2% |
| 2.5 | 5- 3% | 0- 0% | 0- 0% |
| 3 | | | |
| 3.1 | 14- 8% | 2- 5% | 2- 5% |
| 3.2 | 6- 3% | 3- 7% | 2- 5% |
| 3.3 | 15- 9% | 6-15% | 1- 2% |
| 3.4 | 16- 9% | 10-24% | 6-14% |
| 3.5 | 122-70% | 20-49% | 32-74% |
| 4 | | | |
| 4.1 | 18-10% | 19-44% | 1- 2% |
| 4.2 | 12- 7% | 9-21% | 3- 7% |
| 4.3 | 20-12% | 11-26% | 4- 9% |
| 4.4 | 13- 8% | 4- 9% | 6-14% |
| 4.5 | 110-64% | 0- 0% | 29-67% |

| Item no. | Opto. | Opto. Ass't | Non Resp. |
|----------|---------|-------------|-----------|
| 5 | | | |
| 5.1 | 10- 6% | 1- 2% | 4- 9% |
| 5.2 | 61-36% | 12-28% | 20-47% |
| 5.3 | 53-31% | 20-47% | 9-21% |
| 5.4 | 27-16% | 8-19% | 7-16% |
| 5.5 | 20-12% | 2- 5% | 3- 7% |
| 6 | | | |
| 6.1 | 129-76% | 7-17% | 33-79% |
| 6.2 | 28-16% | 34-83% | 9-21% |
| 6.3 | 11- 6% | 0- 0% | 0- 0% |
| 6.4 | 2- 1% | 0- 0% | 0- 0% |
| 7 | | | |
| 7.1 | 19-11% | 0- 0% | 6-15% |
| 7.2 | 70-42% | 0- 0% | 19-46% |
| 7.3 | 57-34% | 0- 0% | 8- 2% |
| 7.4 | 24-14% | 0- 0% | 8-20% |
| 8 | | | |
| 8.1 | 115-70% | | 28-70% |
| 8.2 | 48-29% | | 11-28% |
| 8.3 | 2- 1% | | 1- 3% |
| 8.4 | 0- 0% | | 0- 0% |
| 9. | | | |
| 9.1 | 104-69% | | 24-63% |
| 9.2 | 45-30% | | 12-32% |
| 9.3 | 2- 1% | | 2- 5% |
| 9.4 | 0- 0% | | 0- 0% |

| Item no. | Opto. | Opto. Ass c | Non Resp. |
|----------|--------|-------------|-----------|
| 10. | | | |
| 10.1 | 99-70% | | 16-47% |
| 10.2 | 39-28% | | 16-47% |
| 10.3 | 2- 1% | | 2- 6% |
| 10.4 | 1- 1% | | 0- 0% |
| 11. | | | |
| 11.1 | 99-72% | | 16-48% |
| 11.2 | 35-25% | | 16-48% |
| 11.3 | 3- 2% | | 1- 3% |
| 11.4 | 1- 1% | | 0- 0% |
| 12. | | | |
| 12.1 | 1- 1% | | 0- 0% |
| 12.2 | 24-15% | | 4-10% |
| 12.3 | 32-20% | | 7-17% |
| 12.4 | 32-20% | | 10-24% |
| 12.5 | 72-45% | | 21-50% |

**PARAOPTOMETRIC (OPTOMETRIC ASSISTANT) TASK ANALYSIS SURVEY
1973-74**

DIRECTIONS:

Please circle the number after the statement of the task that most nearly agrees with your assessment of the performance done by the assistant in your practice or, if you have no assistant, tasks that could be performed by a trained assistant. Both "proficiency" and "frequency" of the task are to be indicated. If you have a question or comment, please indicate it between items or on an attached sheet.

The following indicates the definitions of the assessments to be used:

Frequency of Performance:

- 1 - Never
- 2 - Seldom - several times per year
- 3 - Sometimes - 5 to 10 times per year
- 4 - Monthly - averages at least 1 per month
- 5 - Weekly - averages at least 1 per week
- 6 - Daily - averages at least 1 per day

Proficiency Needed by Assistant:

- 1 - None - no knowledge of task
- 2 - Some - only recognition and acquaintances with terminology
- 3 - Limited - can assist and/or perform simple parts of task as directed by the optometrist
- 4 - Moderate - can perform task with constant guidance
- 5 - Proficient - can perform entire task with very little guidance
- 6 - Very Proficient - can initiate and perform entire task without guidance

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|-----------------------------------|----------------|---|---|---|---|---|------------------|---|---|---|---|---|
| SAMPLE | Types recall letters for patients | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |



| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | Never 1 | Seldom 2 | Sometimes 3 | Monthly 4 | Weekly 5 | Daily 6 | None 1 | Some 2 | Limited 3 | Moderate 4 | Proficient 5 | V. Proficient 6 |
| 1. | <u>Reception of Patients and Visitors</u> | (Mean) | (Std Dev) | | | | (Mean) | (Std Dev) | | | | | |
| 1.01 | Greet patient and confirm appointment date and time. | 4.885 | 1.975 | | | | 4.840 | 1.846 | | | | | |
| 1.02 | Interview new patient to complete a registration form. | 4.423 | 2.216 | | | | 4.400 | 2.084 | | | | | |
| 1.03 | Interview patient for insurance or other third party sponsorship information. | 4.115 | 2.088 | | | | 4.298 | 2.013 | | | | | |
| 1.04 | Complete patient screening. | 3.524 | 2.295 | | | | 3.736 | 2.175 | | | | | |
| 1.05 | Obtain signature for assignment of insurance payment to optometrist and signature authorization for release of information. | 3.674 | 2.077 | | | | 4.112 | 2.062 | | | | | |
| 1.06 | Escort patient to examination or frame fitting room. | 4.454 | 2.226 | | | | 4.417 | 2.133 | | | | | |
| 1.07 | Maintain clean and orderly office. (Empty ashtrays, reorganize magazines, etc.) | 4.427 | 2.206 | | | | 4.218 | 2.107 | | | | | |
| 1.08 | Receive non-patients. | 4.405 | 2.175 | | | | 4.380 | 2.072 | | | | | |
| 1.09 | Entertain children waiting for patients. | 3.577 | 1.993 | | | | 4.048 | 2.021 | | | | | |
| 2. | <u>Public Relations</u> | (Mean) | (Std Dev) | | | | (Mean) | (Std Dev) | | | | | |
| 2.01 | Receive calls and answer questions from patients or potential patients. | 4.524 | 2.190 | | | | 4.334 | 2.033 | | | | | |
| 2.02 | Answer general questions from patient and potential patients that relate to the practice. | 4.319 | 2.170 | | | | 4.199 | 2.003 | | | | | |
| 2.03 | Explain fees to patients. | 4.038 | 2.197 | | | | 4.151 | 2.055 | | | | | |
| 2.04 | Answer letters from patients, upon approval of content by optometrist. | 3.468 | 2.023 | | | | 3.927 | 2.014 | | | | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|-----------|---------|-----------|-------|------------------|------|---------|-----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2.05 | Attend meetings and participate in community activities related to optometric practice. | | | | | | | | | | | | |
| | | | 2.177 | | | 1.120 | | 3.186 | | | 1.946 | | |
| 2.06 | Maintain personal information card index on each patient. | | | | | | | | | | | | |
| | | | 3.429 | | | 2.335 | | 3.522 | | | 2.245 | | |
| 2.07 | Explain to waiting patients what delay to expect when running behind schedule. | | | | | | | | | | | | |
| | | | 4.407 | | | 1.833 | | 4.788 | | | 1.713 | | |
| 2.08 | Send thank you letters to referral sources. | | | | | | | | | | | | |
| | | | 2.800 | | | 1.980 | | 3.394 | | | 2.184 | | |
| 2.09 | Assist patients in obtaining taxi service, etc. | | | | | | | | | | | | |
| | | | 3.091 | | | 1.824 | | 3.970 | | | 2.150 | | |
| 3. | <u>Secretarial</u> | | (Mean) | | | (Std Dev) | | (Mean) | | | (Std Dev) | | |
| 3.01 | Record vision examination information. | | | | | | | | | | | | |
| | | | 2.550 | | | 2.063 | | 2.970 | | | 2.169 | | |
| 3.02 | Take dictation in shorthand and transcribe. | | | | | | | | | | | | |
| | | | 1.716 | | | 1.451 | | 2.194 | | | 1.872 | | |
| 3.03 | Arrange travel accommodations for optometrist. | | | | | | | | | | | | |
| | | | 1.776 | | | 1.218 | | 2.576 | | | 1.979 | | |
| 3.04 | Open and sort mail. | | | | | | | | | | | | |
| | | | 4.404 | | | 2.171 | | 4.430 | | | 2.019 | | |
| 3.05 | Answer optometrist's routine mail after screening by optometrist. | | | | | | | | | | | | |
| | | | 3.145 | | | 2.108 | | 3.576 | | | 2.123 | | |
| 3.06 | Place and answer telephone calls for optometrist. | | | | | | | | | | | | |
| | | | 4.128 | | | 2.199 | | 4.214 | | | 2.132 | | |
| 3.07 | Record telephone messages with time and date. | | | | | | | | | | | | |
| | | | 3.966 | | | 2.215 | | 4.093 | | | 2.172 | | |
| 3.08 | Gather data to complete statutory reports for government agencies. | | | | | | | | | | | | |
| | | | 2.637 | | | 1.913 | | 3.137 | | | 2.122 | | |
| 3.09 | Operate typical office business machines (e.g., copy machine). | | | | | | | | | | | | |
| | | | 3.856 | | | 2.187 | | 4.089 | | | 2.106 | | |
| 4. | <u>Scheduling Patients</u> | | (Mean) | | | (Std Dev) | | (Mean) | | | (Std Dev) | | |
| 4.01 | Make appointments for new patients. | | | | | | | | | | | | |
| | | | 5.766 | | | 0.952 | | 5.589 | | | 1.050 | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | Never 1 | Seldom 2 | Sometimes 3 | Monthly 4 | Weekly 5 | Daily 6 | None 1 | Some 2 | Limited 3 | Moderate 4 | Proficient 5 | V. Proficient 6 |
| 4.02 | Make telephone calls to confirm patient's appointment date and time. | | | 4.387 | | 1.832 | | | 5.046 | | | 1.561 | |
| 4.03 | Arrange for next appointment before patient leaves the office. | | | 4.636 | | 1.659 | | | 5.032 | | | 1.505 | |
| 4.04 | Reschedule appointment for patient who cancels one. | | | 4.840 | | 1.337 | | | 5.333 | | | 1.171 | |
| 4.05 | Contact patients with future appointments to fill in for cancellations. | | | 3.955 | | 1.759 | | | 4.953 | | | 1.619 | |
| 4.06 | Cancel appointments for the optometrist when necessary and reschedule patient. | | | 3.767 | | 1.333 | | | 5.420 | | | 1.034 | |
| 4.07 | Make a daily list of optometrist's scheduled appointments for optometrist. | | | 4.209 | | 2.239 | | | 4.503 | | | 2.016 | |
| 4.08 | Make a daily list of schedule appointments with other staff (visual training, etc.) for optometrist. | | | 2.738 | | 2.168 | | | 3.244 | | | 2.211 | |
| 4.09 | Note in an appointment book scheduled times that optometrist will be away from office. | | | 4.458 | | 1.410 | | | 5.186 | | | 1.333 | |
| 4.10 | Send recall letters to patient. | | | 4.406 | | 1.492 | | | 5.165 | | | 1.480 | |
| 4.11 | Contact patient to remind patient of recall date. | | | 3.309 | | 1.933 | | | 4.230 | | | 2.027 | |
| 4.12 | Schedule people other than patients. | | | 3.953 | | 1.488 | | | 4.885 | | | 1.358 | |
| 4.13 | Schedule progress reports on patients. | | | 4.152 | | 1.823 | | | 4.662 | | | 1.751 | |
| 5. | <u>Patient Records</u> | | | (Mean) | | (Std Dev) | | | (Mean) | | | (Std Dev) | |
| 5.01 | Initiate a record file for a new patient. | | | 5.528 | | 1.269 | | | 5.483 | | | 1.183 | |
| 5.02 | Enter anecdotal notes on patient's record. | | | 3.733 | | 1.903 | | | 4.448 | | | 1.870 | |
| 5.03 | File reports and correspondence in patient's record folder. | | | 5.096 | | 1.390 | | | 5.241 | | | 1.278 | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|--------|-----------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5.04 | Pull patient's record folder for scheduled appointments. | | | | | 5.707 | 1.056 | 5.440 | | | | 1.202 | |
| 5.05 | Review patient record files for completeness and accuracy of examination results. | | | | | 3.953 | 2.168 | 4.135 | | | | 2.029 | |
| ----- | | | | | | | | | | | | | |
| 5.06 | Update patient's address, phone number and other personal information on information form. | | | | | 5.366 | 1.307 | 5.275 | | | | 1.214 | |
| 5.07 | Provide confidential security for patient files. | | | | | 5.302 | 1.441 | 5.220 | | | | 1.381 | |
| 5.08 | <u>Office Management</u> | | | | | (Mean) | (Std Dev) | (Mean) | | | | (Std Dev) | |
| 5.01 | Inspect all areas and rooms for proper housekeeping, temperature, and adequate supplies. | | | | | 5.197 | 1.362 | 5.060 | | | | 1.311 | |
| 5.02 | Perform light dusting and wiping of equipment. | | | | | 4.953 | 1.531 | 4.877 | | | | 1.560 | |
| 5.03 | Arrange for maintenance and repair of equipment. | | | | | 2.690 | 1.713 | 3.418 | | | | 1.976 | |
| 5.04 | Keep an office procedure manual current. | | | | | 2.834 | 1.761 | 3.589 | | | | 2.066 | |
| 5.05 | Assist in training a new assistant. | | | | | 2.544 | 1.574 | 3.845 | | | | 1.976 | |
| ----- | | | | | | | | | | | | | |
| 5.06 | Arrange meetings with optometrist to resolve problems. | | | | | 2.973 | 1.647 | 3.827 | | | | 1.994 | |
| 5.07 | Schedule vacations and arrange for coverage. | | | | | 2.549 | 1.295 | 3.734 | | | | 1.903 | |
| 5.08 | Participate in externship programs for Optometric Assistant training programs. | | | | | 2.263 | 1.232 | 3.425 | | | | 2.077 | |
| 5.09 | Set up inventory control and re-order levels for optometric supplies. | | | | | 3.519 | 1.585 | 4.184 | | | | 1.801 | |
| 5.10 | Order optometric and office supplies. | | | | | 4.052 | 1.286 | 4.842 | | | | 1.358 | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|--------|-----------|---------|--------|------------|------------------|------|---------|----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6.11 | Keep catalogs of supplies and equipment pertinent to optometric practice. | | | | | 3.718 | 1.685 | 4.100 | | | | 1.759 | |
| 6.12 | Prepare statistical reports in regard to patient visits and procedures. | | | | | 2.786 | 1.798 | 3.442 | | | | 2.096 | |
| 6.13 | Prepare a budget for income and expenses. | | | | | 1.473 | 1.025 | 2.027 | | | | 1.753 | |
| 6.14 | Prepare a financial report of income and expenses. | | | | | 1.985 | 1.508 | 2.712 | | | | 2.097 | |
| 6.15 | Maintain a fee schedule for services. | | | | | 2.960 | 2.024 | 4.080 | | | | 1.940 | |
| 6.16 | Develop accounting and statistical reports related to a partnership practice. | | | | | 1.372 | 1.101 | 1.751 | | | | 1.659 | |
| 6.17 | Develop accounting and statistical reports related to a group practice. | | | | | 2.129 | 1.703 | 2.269 | | | | 1.798 | |
| 6.18 | Provide additional copies of business forms or correspondence. | | | | | 3.238 | 1.729 | 3.192 | | | | 2.123 | |
| 6.19 | Attend regular staff meetings. | | | | | 2.778 | 1.439 | 3.000 | | | | 2.072 | |
| 7. | <u>Bookkeeping and Billing</u> | | | | | (Mean) | (Std/ Dev) | (Mean) | | | | (Std Dev) | |
| 7.01 | Complete a patient ledger card for new patients. | | | | | 4.362 | 2.177 | 4.313 | | | | 2.114 | |
| 7.02 | Receive and review copy of services after optometrist sees patient. | | | | | 4.322 | 2.152 | 5.147 | | | | 1.462 | |
| 7.03 | Prepare charge slips for services to patient. | | | | | 4.961 | 1.840 | 4.820 | | | | 1.830 | |
| 7.04 | Extract billing information from optometrist's notes. | | | | | 4.877 | 1.839 | 4.466 | | | | 2.025 | |
| 7.05 | Post entries from original entry record to patient's ledger card. | | | | | 5.520 | 1.330 | 5.336 | | | | 1.312 | |
| 7.06 | Type an itemized or coded bill and mail to patient. | | | | | 4.598 | 1.525 | 5.212 | | | | 1.327 | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | Never 1 | Seldom 2 | Sometimes 3 | Monthly 4 | Weekly 5 | Daily 6 | None 1 | Some 2 | Limited 3 | Moderate 4 | Proficient 5 | V. Proficient 6 |
| 7.07 | Post an adjusting entry for difference between payment accepted and the optometrist's usual fee. | | 4.318 | | 1.873 | | | 4.729 | | 1.735 | | | |
| 7.08 | Complete indemnity insurance forms for patient to submit his claim. | | 4.000 | | 1.788 | | | 4.564 | | 1.656 | | | |
| 7.09 | Complete insurance forms for filing assigned insurance claims. | | 4.213 | | 1.693 | | | 4.654 | | 1.582 | | | |
| 7.10 | Complete Medicare payment request Form SSA-1490. | | 4.269 | | 1.877 | | | 4.565 | | 1.725 | | | |
| 7.11 | Complete Workmens Compensation Forms. | | 3/535 | | 2.068 | | | 3.963 | | 2.026 | | | |
| 8. | <u>Handling Finances</u> | | (Mean) | | (Std Dev) | | | (Mean) | | (Std Dev) | | | |
| 8.01 | Present fee at end of patient visit. | | 5.236 | | 1.523 | | | 5.283 | | 1.212 | | | |
| 8.02 | Collect payments at time of visit and make entry to an original record (cash, checks, credic card). | | 5.454 | | 1.187 | | | 5.329 | | 1.093 | | | |
| 8.03 | Establish and control petty cash fund. | | 5.130 | | 1.573 | | | 5.097 | | 1.416 | | | |
| 8.04 | Accept and post payments received to patient ledger card for payments on account (cash, check, credit card). | | 5.703 | | 0.949 | | | 5.507 | | 0.944 | | | |
| 8.05 | Make financial arrangements with patient, following standard operating procedures for the practice. | | 5.122 | | 1.520 | | | 5.072 | | 1.333 | | | |
| 8.06 | Reconcile cash count and receipts. | | 5.081 | | 1.529 | | | 5.124 | | 1.386 | | | |
| 8.07 | Prepare a bank deposit ticket. | | 4.217 | | 1.858 | | | 4.791 | | 1.670 | | | |
| 8.08 | Make bank deposits. | | 4.237 | | 1.982 | | | 4.703 | | 1.791 | | | |
| 8.09 | Reconcile bank accounts. | | 3.675 | | 1.944 | | | 4.226 | | 2.030 | | | |
| 8.10 | Process unredeemed checks returned by bank. | | 3.246 | | 1.733 | | | 4.230 | | 1.897 | | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | Never 1 | Seldom 2 | Sometimes 3 | Monthly 4 | Weekly 5 | Daily 6 | None 1 | Some 2 | Limited 3 | Moderate 4 | Proficient 5 | V. Proficient 6 |
| 8.11 | Execute a promissory note for payment. | 2.418 | | | 1.662 | | | 3.186 | | | 2.095 | | |
| 8.12 | Investigate mail returned because of incorrect addresses. | 3.527 | | | 1.079 | | | 4.410 | | | 1.701 | | |
| 8.13 | Communicate with insurance companies in regard to patient claims. | 2.797 | | | 1.611 | | | 3.748 | | | 2.012 | | |
| 8.14 | Age and analyze accounts for unusual problems and abnormal trends. | 2.616 | | | 1.397 | | | 3.729 | | | 2.005 | | |
| 8.15 | Call patient or guarantor in regard to payment of bills. | 3.773 | | | 1.725 | | | 4.510 | | | 1.666 | | |
| 8.16 | Make recommendations on offers to compromise settlement of account. | 2.818 | | | 1.707 | | | 3.671 | | | 2.014 | | |
| 8.17 | Complete a creditors' claim form for deceased patients. | 2.792 | | | 1.967 | | | 3.584 | | | 2.113 | | |
| 8.18 | Complete forms to assign accounts to an outside collection agency. | 3.580 | | | 1.636 | | | 4.512 | | | 1.689 | | |
| 8.19 | Review and evaluate status reports of accounts with a collection agency. | 3.009 | | | 1.524 | | | 4.078 | | | 1.834 | | |
| 8.20 | Maintain a disbursement record to fit optometrist's practice. | 3.101 | | | 2.077 | | | 3.569 | | | 2.123 | | |
| 8.21 | Review invoices for accuracy. | 4.813 | | | 1.527 | | | 5.221 | | | 1.318 | | |
| 8.22 | Prepare checks for optometrist's signature for payments of invoices, salaries, etc. | 3.928 | | | 1.951 | | | 4.556 | | | 1.931 | | |
| 8.23 | Maintain a file of paid and unpaid invoices. | 4.323 | | | 1.828 | | | 4.635 | | | 1.773 | | |
| 8.24 | Approve invoices for payment. | 3.947 | | | 1.859 | | | 4.536 | | | 1.928 | | |
| 8.25 | Enter in a check register payments made to vendors. | 3.497 | | | 1.990 | | | 4.073 | | | 2.088 | | |
| 8.26 | Make out and sign checks, up to specified amount, for the optometrist. | 2.550 | | | 1.848 | | | 3.484 | | | 2.269 | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|-----------|-----------|-----------|--------|-----------|------------------|-----------|---------|-----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. | <u>Emergency and Safety</u> | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) |
| 9.01 | Identify symptoms and apply first aid for shock, fainting, asphyxia, respiratory or cardiac failure, bleeding. | 2.428 | 2.002 | 3.148 | 2.100 | 3.148 | 2.100 | 3.148 | 2.100 | 3.148 | 2.100 | 3.148 | 2.100 |
| 9.02 | Handle telephone calls regarding emergencies from patient. | 3.520 | 1.673 | 4.500 | 1.656 | 4.500 | 1.656 | 4.500 | 1.656 | 4.500 | 1.656 | 4.500 | 1.656 |
| 9.03 | Seek help from qualified nurse or physician for emergencies. | 2.995 | 1.773 | 4.134 | 1.889 | 4.134 | 1.889 | 4.134 | 1.889 | 4.134 | 1.889 | 4.134 | 1.889 |
| 9.04 | Provide procedures for evacuation of patients in case of fire or other emergency. | 2.371 | 1.710 | 3.446 | 2.080 | 3.446 | 2.080 | 3.446 | 2.080 | 3.446 | 2.080 | 3.446 | 2.080 |
| 9.05 | Inspect practice so that office and laboratory are in compliance with OSHA safety regulations. | 2.492 | 1.812 | 3.127 | 2.087 | 3.127 | 2.087 | 3.127 | 2.087 | 3.127 | 2.087 | 3.127 | 2.087 |
| 9.06 | Make telephone call to fire department or police in emergency. | 2.346 | 1.630 | 3.836 | 2.048 | 3.836 | 2.048 | 3.836 | 2.048 | 3.836 | 2.048 | 3.836 | 2.048 |
| 9.07 | Be able to operate a fire extinguisher properly. | 2.682 | 1.878 | 3.852 | 1.936 | 3.852 | 1.936 | 3.852 | 1.936 | 3.852 | 1.936 | 3.852 | 1.936 |
| 10. | <u>Examining Room</u> | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) | (Mean) | (Std Dev) |
| 10.01 | Determine if instruments are clean and in operating order. | 4.855 | 1.702 | 4.945 | 1.513 | 4.945 | 1.513 | 4.945 | 1.513 | 4.945 | 1.513 | 4.945 | 1.513 |
| 10.02 | Prepare and assemble necessary instruments and supplies for test. | 4.131 | 1.974 | 4.385 | 1.790 | 4.385 | 1.790 | 4.385 | 1.790 | 4.385 | 1.790 | 4.385 | 1.790 |
| 10.03 | Change head rest covers and face protectors. | 4.555 | 1.907 | 4.673 | 1.750 | 4.673 | 1.750 | 4.673 | 1.750 | 4.673 | 1.750 | 4.673 | 1.750 |
| 10.04 | Light dust and wipe equipment. | 5.235 | 1.310 | 5.256 | 1.235 | 5.256 | 1.235 | 5.256 | 1.235 | 5.256 | 1.235 | 5.256 | 1.235 |
| 10.05 | Entertain patient while optometrist is out of examining room. | 3.613 | 1.986 | 4.227 | 1.886 | 4.227 | 1.886 | 4.227 | 1.886 | 4.227 | 1.886 | 4.227 | 1.886 |
| 10.06 | Receive and seat patient. | 5.639 | 0.995 | 5.442 | 0.971 | 5.442 | 0.971 | 5.442 | 0.971 | 5.442 | 0.971 | 5.442 | 0.971 |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|---------|-----------|-------|------------------|------|---------|-----------|------------|---------------|
| | | Never | Seldom | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10.07 | Explain nature and after-effects of examination to patients. | | 3.790 | | | 1.948 | | 4.455 | | | 1.748 | | |
| 10.08 | Dismiss patients. | | 5.209 | | | 1.407 | | 5.190 | | | 1.233 | | |
| 11. | <u>Dispensing</u> | | (Mean) | | | (Std Dev) | | (Mean) | | | (Std Dev) | | |
| 11.01 | Make Interpupillary Distance measurement. | | 3.281 | | | 2.128 | | 3.728 | | | 2.085 | | |
| 11.02 | Assist patient in frame selection. | | 4.600 | | | 1.903 | | 4.752 | | | 1.609 | | |
| 11.03 | Measure patient for frame. | | 3.612 | | | 2.096 | | 4.005 | | | 1.975 | | |
| 11.04 | Verify frame measurements. | | 3.995 | | | 2.006 | | 4.525 | | | 1.830 | | |
| 11.05 | Write frame prescription for optometrist's approval. | | 4.083 | | | 2.004 | | 4.410 | | | 1.909 | | |
| 11.06 | Make plastic frame adjustments for patient. | | 4.380 | | | 1.895 | | 4.636 | | | 1.607 | | |
| 11.07 | Make wire frame adjustments for patient. | | 4.107 | | | 2.031 | | 4.328 | | | 1.839 | | |
| 11.08 | Write contact lens prescription for optometrist's approval. | | 2.965 | | | 2.061 | | 3.439 | | | 2.182 | | |
| 11.09 | Maintain soft and hard contact lens office equipment. | | 4.024 | | | 1.911 | | 4.419 | | | 1.850 | | |
| 11.10 | Assist patient in color selection of contact lens. | | 2.583 | | | 1.843 | | 3.221 | | | 2.110 | | |
| 11.11 | Measure patient for bifocal (trifocal) seg. height. | | 2.454 | | | 1.982 | | 2.895 | | | 2.072 | | |
| 11.12 | Dispense contact lenses to patient. | | 2.882 | | | 1.996 | | 3.462 | | | 2.184 | | |
| 11.13 | Dispense contact lens solutions to patient. | | 3.713 | | | 1.882 | | 4.338 | | | 1.951 | | |
| 11.14 | Write or call patient when prescription is ready for delivery. | | 5.058 | | | 1.665 | | 5.155 | | | 1.480 | | |
| 11.15 | Instruct patient when prescription should be worn. | | 3.326 | | | 2.109 | | 3.819 | | | 2.094 | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | Never 1 | Seldom 2 | Sometimes 3 | Monthly 4 | Weekly 5 | Daily 6 | None 1 | Some 2 | Limited 3 | Moderate 4 | Proficient 5 | V. Proficient 6 |
| 11.16 | Instruct patients on proper lens care (glass or hard resin). | | | | | 3.945 | 2.124 | 4.240 | | | | 2.012 | |
| 11.17 | Instruct patient on contact lens care and hygiene. | | | | | 3.755 | 1.950 | 4.314 | | | | 1.926 | |
| 11.18 | Instruct patient on contact lens insertion and removal. | | | | | 3.457 | 1.989 | 3.953 | | | | 2.116 | |
| 12. | <u>Laboratory Procedures</u> | | | | | (Mean) | (Std Dev) | (Mean) | | | | (Std Dev) | |
| 12.01 | Verify prescription of regular lenses. | | | | | 4.960 | 1.829 | 4.896 | | | | 1.720 | |
| 12.02 | Neutralize lenses and determine new patient's prescription. | | | | | 4.747 | 1.935 | 4.764 | | | | 1.775 | |
| 12.03 | Inspect lens for flaws. | | | | | 4.925 | 1.811 | 4.855 | | | | 1.659 | |
| 12.04 | Insert and/or assemble lenses in plastic frames. | | | | | 4.524 | 1.956 | 4.651 | | | | 1.750 | |
| 12.05 | Insert and/or assemble lenses in wire frames. | | | | | 4.824 | 1.713 | 4.979 | | | | 1.483 | |
| 12.06 | Verify prescription of contact lenses. | | | | | 3.435 | 2.028 | 3.969 | | | | 2.140 | |
| 12.07 | Make minor repairs on plastic frames. | | | | | 4.729 | 1.655 | 4.984 | | | | 1.401 | |
| 12.08 | Make minor repairs on wire frames. | | | | | 4.776 | 1.588 | 4.938 | | | | 1.327 | |
| 12.09 | Insert or attach wearing comfort devices (large nose pads, etc.) on frames. | | | | | 4.301 | 1.749 | 4.680 | | | | 1.584 | |
| 12.10 | Temper a lens. | | | | | 2.575 | 2.086 | 2.908 | | | | 21.85 | |
| 12.11 | Edge a lens. | | | | | 1.820 | 1.576 | 2.263 | | | | 1.901 | |
| 12.12 | Make alterations on contact lens. | | | | | 2.698 | 2.221 | 2.914 | | | | 2.162 | |
| 12.13 | Clean a contact lens. | | | | | 4.152 | 2.039 | 4.469 | | | | 1.919 | |
| 12.14 | Drop ball test a lens. | | | | | 2.680 | 2.244 | 2.791 | | | | 2.140 | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|---|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | 1 Never | 2 Seldom | 3 Sometimes | 4 Monthly | 5 Weekly | 6 Daily | 1 None | 2 Some | 3 Limited | 4 Moderate | 5 Proficient | 6 V. Proficient |
| 12.15 | Engrave names with a temple engraver. | 3.235 | | | 2.331 | | | 3.500 | | | 2.226 | | |
| 12.16 | Use current prescription control procedure. | 3.955 | | | 2.296 | | | 4.080 | | | 2.108 | | |
| 13. | <u>Patient Education</u> | (Mean) | | | (Std Dev) | | | (Mean) | | | (Std Dev) | | |
| 13.01 | Orient patient to the optometric procedures. | 4.436 | | | 1.839 | | | 4.632 | | | 1.564 | | |
| 13.02 | Instruct patient on visual training procedure indicated by optometrist. | 3.264 | | | 2.083 | | | 3.671 | | | 2.034 | | |
| 13.03 | Instruct patient on reason prescription should be worn. | 3.813 | | | 1.926 | | | 4.230 | | | 1.798 | | |
| 13.04 | Instruct patient on use of bifocal (trifocal) lenses. | 3.844 | | | 1.947 | | | 4.366 | | | 1.785 | | |
| 13.05 | Instruct patient on eye exercise procedure indicated by optometrist. | 2.759 | | | 1.816 | | | 3.540 | | | 2.043 | | |
| 13.06 | Provide in-office visual training. | 2.080 | | | 1.629 | | | 2.663 | | | 1.961 | | |
| 13.07 | Keep patient visual training progress chart current. | 2.771 | | | 1.918 | | | 3.279 | | | 2.071 | | |
| 13.08 | Inform patient of government regulations regarding lens material. | 3.906 | | | 1.793 | | | 4.403 | | | 1.718 | | |
| 13.09 | Instruct patient on importance of proper lighting. | 3.015 | | | 1.579 | | | 3.900 | | | 1.776 | | |
| 13.10 | Differentiate eye care performed by each of the following: optometrist, ophthalmologist, oculist, and optician. | 3.448 | | | 1.534 | | | 4.500 | | | 1.611 | | |
| 13.11 | Explain types of refractive error to patient. | 2.741 | | | 1.597 | | | 3.561 | | | 1.916 | | |
| 13.12 | Maintain audio-visual materials in usable condition. | 2.720 | | | 1.808 | | | 3.319 | | | 2.011 | | |
| 13.13 | Maintain pamphlet rack for patient education. | 3.660 | | | 1.758 | | | 4.143 | | | 1.861 | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|--|----------------|--------|-----------|-----------|--------|-------|------------------|------|---------|-----------|------------|---------------|
| | | Never | Seldcm | Sometimes | Monthly | Weekly | Daily | None | Some | Limited | Moderate | Proficient | V. Proficient |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 2 | 3 | 4 | 5 | 6 |
| | | (Mean) | | | (Std Dev) | | | (Mean) | | | (Std Dev) | | |
| 14. | <u>Role of Assistant in Examinations</u> | | | | | | | | | | | | |
| 14.01 | 1st, 2nd, and 3rd Degree Fusion Tests | 2.915 | | | 2.029 | | | 3.312 | | | 2.082 | | |
| 14.02 | Far and Near Discrimination Tests | 2.938 | | | 2.122 | | | 3.382 | | | 2.147 | | |
| 14.03 | Hand and Eye Coordination Tests | 2.811 | | | 2.032 | | | 3.184 | | | 2.130 | | |
| 14.04 | Accommodative Rock Test | 2.263 | | | 1.854 | | | 2.771 | | | 2.087 | | |
| 14.05 | Macular and Peri-macular Suppression Test | 2.557 | | | 2.036 | | | 2.959 | | | 2.148 | | |
| 14.06 | Horizontal and Vertical Phorias and Tropia Tests | 2.584 | | | 2.078 | | | 2.923 | | | 2.175 | | |
| 14.07 | Retinal Rivalry Test | 2.119 | | | 1.835 | | | 2.587 | | | 2.067 | | |
| 14.08 | Stereopsis Test | 3.242 | | | 2.298 | | | 3.530 | | | 2.268 | | |
| 14.09 | Cheirosopic Drawing Test | 2.019 | | | 1.659 | | | 2.656 | | | 2.035 | | |
| 14.10 | Van Orden Star Test | 2.714 | | | 2.033 | | | 3.239 | | | 2.168 | | |
| 14.11 | Perimeter Visual Field Test | 2.480 | | | 1.924 | | | 3.149 | | | 2.125 | | |
| 14.12 | Tangent Screen Visual Field Test | 2.074 | | | 1.761 | | | 2.661 | | | 2.045 | | |
| 14.13 | Auto Plot Visual Field Test | 2.035 | | | 1.777 | | | 2.450 | | | 1.971 | | |
| 14.14 | Multiple Screener Visual Field Test | 1.912 | | | 1.698 | | | 2.539 | | | 2.014 | | |
| 14.15 | Amslor Grid Test | 1.647 | | | 1.435 | | | 2.185 | | | 1.823 | | |
| 14.16 | Near Point of Convergence Test | 2.510 | | | 2.107 | | | 2.767 | | | 2.044 | | |
| 14.17 | Rotations Test | 2.336 | | | 2.005 | | | 2.704 | | | 2.068 | | |
| 14.18 | Pursuit Fixations Test | 2.432 | | | 2.067 | | | 2.741 | | | 2.089 | | |
| 14.19 | Saccadic Fixations Test | 2.597 | | | 2.132 | | | 2.893 | | | 2.145 | | |
| 14.20 | Hand and Eye Orientation Test | 2.510 | | | 1.989 | | | 3.015 | | | 2.116 | | |

| Number | Task Performed by Assistant | Task Frequency | | | | | | Task Proficiency | | | | | |
|--------|-------------------------------------|----------------|-------------|----------------|--------------|-------------|------------|------------------|-----------|--------------|---------------|-----------------|--------------------|
| | | Never 1 | Seldom 2 | Sometimes 3 | Monthly 4 | Weekly 5 | Daily 6 | None 1 | Some 2 | Limited 3 | Moderate 4 | Proficient 5 | V. Proficient 6 |
| 14.21 | Near to Far Fixations Test | | 2.984 | | 2.293 | | | 3.212 | | 2.225 | | | |
| 14.22 | Pupillary Reflexes Test | | 2.075 | | 1.789 | | | 2.507 | | 1.939 | | | |
| 14.23 | Donders Amplitude Test | | 2.446 | | 2.090 | | | 2.812 | | 2.122 | | | |
| 14.24 | Brock String Test | | 1.984 | | 1.718 | | | 2.463 | | 1.974 | | | |
| 14.25 | Cover Test | | 2.765 | | 2.220 | | | 3.030 | | 2.165 | | | |
| 14.26 | Color Perception Test | | 3.871 | | 2.233 | | | 4.198 | | 2.036 | | | |
| 14.27 | Stereo Fly Test | | 3.371 | | 2.324 | | | 3.680 | | 2.217 | | | |
| 14.28 | Telebinocular Test | | 2.979 | | 2.246 | | | 3.296 | | 2.205 | | | |
| 14.29 | Keratometry Test | | 2.515 | | 2.144 | | | 2.757 | | 2.122 | | | |
| 14.30 | McKay Marg Tonometry Test | | 2.281 | | 2.015 | | | 2.543 | | 2.068 | | | |
| 14.31 | No Contact A.O. Tonometry Test | | 2.000 | | 1.814 | | | 2.415 | | 2.032 | | | |
| 14.32 | Visual Acuities Test (far and near) | | 3.257 | | 2.241 | | | 3.567 | | 2.209 | | | |
| 14.33 | Sphygmometry Test | | 1.693 | | 1.480 | | | 2.121 | | 1.853 | | | |
| 14.34 | Retinoscopy Test | | 1.462 | | 1.313 | | | 1.847 | | 1.623 | | | |
| 14.35 | Glucose Tear Test | | 1.914 | | 1.724 | | | 2.329 | | 2.022 | | | |
| 14.36 | Shirmer Tear Test | | 2.241 | | 1.910 | | | 2.538 | | 2.098 | | | |
| 14.37 | Fluorescein Installation | | 2.829 | | 2.273 | | | 3.176 | | 2.271 | | | |

**Optometrists
and
Optometric Assistants**

**Analysis of Frequency
Items 1.01 to 14.37**

Respondents = 218

AOE-4



| ITEM NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN DEV | P-COR | J1 | J2 | J3 | J4 |
|-------------|-------------|-------------|-------------|-------------|-------------|--------------|----------------------------|----------|-------|-------|-------|-------|-------|
| 4.11 | 0.296 45 | 0.067 15 | 0.110 24 | 0.082 19 | 0.073 15 | 0.155 34 | 5.309 | 1.933 | 0.347 | 1.246 | 5.169 | 5.250 | 5.905 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 38 | 154 | |
| 4.12 | 0.045 10 | 0.045 1 | 0.233 51 | 0.073 16 | 0.155 34 | 0.137 30 | 3.953 | 1.488 | 0.181 | 2.946 | 3.781 | 5.274 | 4.444 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 39 | 151 | |
| 4.13 | 0.112 15 | 0.045 7 | 0.123 27 | 0.050 11 | 0.155 34 | 0.245 53 | 4.152 | 1.623 | 0.219 | 2.798 | 4.750 | 5.759 | 2.950 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 40 | 157 | |
| 5.01 | 0.029 8 | 0.004 1 | 0.032 7 | 0.000 0 | 0.041 9 | 0.605 132 | 5.528 | 1.269 | 0.297 | 5.507 | 5.905 | 6.202 | 0.594 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 41 | 157 | |
| 5.02 | 0.119 26 | 0.096 21 | 0.160 35 | 0.041 9 | 0.035 12 | 0.235 51 | 3.723 | 1.903 | 0.215 | 2.095 | 3.337 | 5.745 | 5.649 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 42 | 154 | |
| 5.03 | 0.036 9 | 0.012 3 | 0.125 12 | 0.041 9 | 0.195 34 | 0.408 89 | 5.096 | 1.390 | 0.271 | 4.699 | 5.629 | 6.064 | 1.366 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 43 | 155 | |
| 5.04 | 0.027 5 | 0.004 1 | 0.104 12 | 0.034 9 | 0.027 5 | 0.634 139 | 5.707 | 1.056 | 0.257 | 5.969 | 5.946 | 6.225 | 0.599 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 44 | 154 | |
| 5.05 | 0.183 40 | 0.050 11 | 0.077 17 | 0.013 3 | 0.045 10 | 0.325 71 | 3.953 | 2.168 | 0.262 | 1.450 | 3.000 | 5.964 | 4.514 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 45 | 152 | |
| 5.06 | 0.032 7 | 0.010 3 | 0.032 7 | 0.018 4 | 0.096 21 | 0.509 111 | 3.366 | 1.307 | 0.270 | 5.021 | 3.810 | 6.100 | 0.800 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 46 | 153 | |
| 5.07 | 0.035 9 | 0.022 5 | 0.041 9 | 0.009 2 | 0.059 13 | 0.913 112 | 5.302 | 1.441 | 0.224 | 5.502 | 5.834 | 6.167 | 0.665 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 47 | 149 | |
| 6.01 | 0.032 7 | 0.009 2 | 0.059 13 | 0.036 9 | 0.110 24 | 0.449 93 | 5.197 | 1.362 | 0.246 | 4.833 | 5.724 | 6.114 | 1.278 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 48 | 152 | |
| 6.02 | 0.055 12 | 0.013 4 | 0.055 12 | 0.003 2 | 0.197 43 | 0.362 79 | 4.953 | 1.531 | 0.190 | 4.686 | 5.537 | 6.018 | 1.332 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 49 | 152 | |
| 6.03 | 0.123 27 | 0.123 27 | 0.160 35 | 0.032 7 | 0.050 11 | 0.087 19 | 2.690 | 1.713 | 0.282 | 1.216 | 2.351 | 3.471 | 2.254 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 50 | 152 | |
| 6.04 | 0.233 51 | 0.082 18 | 0.128 28 | 0.091 20 | 0.036 8 | 0.091 20 | 2.834 | 1.761 | 0.230 | 1.210 | 2.645 | 4.087 | 2.876 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 51 | 145 | |
| 6.05 | 0.206 45 | 0.174 38 | 0.192 42 | 0.009 2 | 0.004 1 | 0.087 19 | 2.544 | 1.574 | 0.160 | 1.316 | 2.250 | 3.148 | 1.832 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 52 | 147 | |
| 6.06 | 0.197 43 | 0.077 17 | 0.178 39 | 0.087 19 | 0.087 19 | 0.064 14 | 2.973 | 1.647 | 0.201 | 1.377 | 2.897 | 4.250 | 2.872 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 53 | 151 | |
| 6.07 | 0.188 41 | 0.129 29 | 0.266 59 | 0.059 13 | 0.018 4 | 0.032 7 | 2.549 | 1.295 | 0.105 | 1.420 | 2.612 | 3.262 | 1.842 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 54 | 151 | |
| 6.08 | 0.256 56 | 0.105 23 | 0.247 54 | 0.041 9 | 0.004 1 | 0.022 5 | 2.263 | 1.232 | 0.214 | 1.160 | 2.282 | 3.092 | 1.931 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM | | | | 55 | 148 | |

| ITEM | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | MEAN | STAN DEV | F-CO | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 | TOTAL RESPONDENTS FOR ITEM |
|------|-------|-------|-------|-------|-------|-------|----------------------------|----------|--------|-------|-------|-------|-------|-------|-------|----------------------------|
| 8.15 | 0.133 | 0.097 | 0.192 | 0.174 | 0.091 | 0.233 | 3.773 | 1.725 | -0.159 | 2.041 | 3.700 | 3.024 | 2.982 | 2.982 | 3.700 | 2.982 |
| | 29 | 15 | 42 | 33 | 20 | 51 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 196 | |
| 8.16 | 0.091 | 0.165 | 0.197 | 0.096 | 0.045 | 0.125 | 2.819 | 1.737 | -0.044 | 1.011 | 4.546 | 3.804 | 4.593 | 4.593 | 3.804 | 4.593 |
| | 20 | 36 | 43 | 21 | 10 | 27 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 196 | |
| 8.17 | 0.091 | 0.197 | 0.111 | 0.018 | 0.036 | 0.201 | 2.792 | 1.907 | -0.030 | 1.100 | 2.001 | 4.912 | 3.632 | 3.632 | 2.001 | 4.912 |
| | 20 | 75 | 43 | 4 | 8 | 44 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 196 | |
| 8.18 | 0.091 | 0.142 | 0.059 | 0.066 | 0.197 | 0.055 | 3.580 | 1.636 | -0.166 | 2.594 | 3.448 | 4.751 | 2.196 | 2.196 | 3.448 | 4.751 |
| | 20 | 31 | 13 | 53 | 43 | 41 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 198 | |
| 8.19 | 0.233 | 0.255 | 0.238 | 0.220 | 0.073 | 0.068 | 3.009 | 1.524 | -0.057 | 1.493 | 3.067 | 4.088 | 4.593 | 4.593 | 3.067 | 4.088 |
| | 51 | 21 | 52 | 48 | 16 | 15 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 233 | |
| 8.20 | 0.091 | 0.039 | 0.073 | 0.096 | 0.087 | 0.211 | 3.101 | 2.077 | -0.210 | 1.100 | 2.718 | 5.320 | 4.025 | 4.025 | 1.100 | 5.320 |
| | 21 | 22 | 16 | 21 | 19 | 46 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 197 | |
| 8.21 | 0.091 | 0.054 | 0.064 | 0.215 | 0.059 | 0.486 | 4.013 | 1.527 | -0.110 | 3.072 | 5.506 | 6.033 | 4.160 | 4.160 | 3.072 | 6.033 |
| | 20 | 14 | 4 | 47 | 13 | 106 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 192 | |
| 8.22 | 0.091 | 0.215 | 0.100 | 0.073 | 0.220 | 0.485 | 3.928 | 1.951 | -0.210 | 1.903 | 4.637 | 5.670 | 3.760 | 3.760 | 1.903 | 5.670 |
| | 20 | 47 | 13 | 16 | 48 | 63 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 209 | |
| 8.23 | 0.091 | 0.142 | 0.105 | 0.142 | 0.119 | 0.400 | 4.323 | 1.828 | -0.024 | 3.030 | 4.804 | 5.710 | 4.710 | 4.710 | 3.030 | 5.710 |
| | 31 | 10 | 23 | 31 | 26 | 39 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 210 | |
| 8.24 | 0.091 | 0.197 | 0.068 | 0.224 | 0.133 | 0.288 | 3.947 | 1.959 | -0.221 | 2.483 | 4.234 | 5.066 | 3.303 | 3.303 | 2.483 | 5.066 |
| | 43 | 11 | 15 | 49 | 29 | 63 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 210 | |
| 8.25 | 0.091 | 0.284 | 0.119 | 0.105 | 0.146 | 0.230 | 3.497 | 1.990 | -0.226 | 1.334 | 3.608 | 5.476 | 4.141 | 4.141 | 1.334 | 5.476 |
| | 52 | 13 | 26 | 23 | 32 | 51 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 207 | |
| 8.26 | 0.091 | 0.461 | 0.165 | 0.045 | 0.096 | 0.114 | 2.550 | 1.848 | -0.232 | 0.992 | 1.485 | 3.925 | 2.932 | 2.932 | 0.992 | 3.925 |
| | 105 | 10 | 35 | 10 | 21 | 25 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 207 | |
| 9.01 | 0.100 | 0.467 | 0.192 | 0.032 | 0.000 | 0.201 | 2.428 | 2.002 | -0.273 | 0.580 | 1.460 | 2.928 | 1.948 | 1.948 | 0.580 | 2.928 |
| | 102 | 102 | 42 | 7 | 0 | 44 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 196 | |
| 9.02 | 0.082 | 0.114 | 0.142 | 0.298 | 0.073 | 0.091 | 3.520 | 1.673 | 0.084 | 2.306 | 3.176 | 5.150 | 2.843 | 2.843 | 2.306 | 5.150 |
| | 19 | 25 | 31 | 65 | 16 | 43 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 200 | |
| 9.03 | 0.073 | 0.233 | 0.201 | 0.215 | 0.050 | 0.165 | 2.995 | 1.773 | -0.163 | 1.490 | 2.627 | 4.363 | 2.873 | 2.873 | 1.490 | 4.363 |
| | 16 | 51 | 44 | 47 | 11 | 36 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 202 | |
| 9.04 | 0.087 | 0.435 | 0.169 | 0.068 | 0.105 | 0.096 | 3.371 | 1.710 | -0.278 | 1.023 | 1.621 | 3.597 | 2.574 | 2.574 | 1.023 | 3.597 |
| | 19 | 95 | 37 | 15 | 23 | 21 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 199 | |
| 9.05 | 0.077 | 0.435 | 0.137 | 0.105 | 0.068 | 0.123 | 2.492 | 1.812 | -0.120 | 1.028 | 1.683 | 3.683 | 2.654 | 2.654 | 1.028 | 3.683 |
| | 17 | 95 | 30 | 23 | 15 | 27 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 201 | |
| 9.06 | 0.087 | 0.371 | 0.243 | 0.151 | 0.009 | 0.105 | 2.346 | 1.930 | -0.250 | 1.114 | 1.849 | 2.962 | 1.847 | 1.847 | 1.114 | 2.962 |
| | 19 | 81 | 53 | 33 | 2 | 23 | TOTAL RESPONDENTS FOR ITEM | | | | | | | | 199 | |

(A) % NEA STAN DEV P-CUR G1 G2 G3 13R

| | | | | | | | | | | | | | | |
|-----------|-------|-------|-------|-------|-------|-------|-------|-----------------------------------|-----------------------------------|--------|-------|-------|-------|-------|
| 110 | 0.15 | 0.344 | 0.201 | 0.110 | 0.035 | 0.036 | 0.155 | 2.652 | 1.875 | -0.237 | 1.150 | 2.031 | 3.936 | 2.120 |
| NUMBER 21 | 75 | 44 | 27 | 24 | 5 | 8 | 36 | TOTAL RESPONSES FOR ITEM 110= 195 | TOTAL RESPONSES FOR ITEM 110= 195 | | | | | |
| 111 | 0.050 | 0.082 | 0.041 | 0.119 | 0.022 | 0.135 | 0.577 | 4.855 | 1.702 | -0.107 | 3.451 | 5.676 | 6.039 | 4.637 |
| NUMBER 11 | 18 | 9 | 26 | 26 | 5 | 23 | 126 | TOTAL RESPONSES FOR ITEM 111= 207 | TOTAL RESPONSES FOR ITEM 111= 207 | | | | | |
| 112 | 0.035 | 0.142 | 0.105 | 0.176 | 0.019 | 0.055 | 0.440 | 4.131 | 1.974 | 0.045 | 2.351 | 4.561 | 5.560 | 3.574 |
| NUMBER 12 | 31 | 31 | 23 | 29 | 4 | 13 | 96 | TOTAL RESPONSES FOR ITEM 112= 508 | TOTAL RESPONSES FOR ITEM 112= 508 | | | | | |
| 113 | 0.030 | 0.155 | 0.016 | 0.105 | 0.045 | 0.110 | 0.513 | 4.555 | 1.907 | -0.193 | 3.097 | 5.575 | 6.037 | 4.940 |
| NUMBER 11 | 34 | 4 | 23 | 23 | 10 | 24 | 112 | TOTAL RESPONSES FOR ITEM 113= 207 | TOTAL RESPONSES FOR ITEM 113= 207 | | | | | |
| 114 | 0.045 | 0.036 | 0.032 | 0.045 | 0.036 | 0.026 | 0.596 | 5.235 | 1.310 | -0.095 | 4.922 | 5.703 | 6.103 | 5.177 |
| NUMBER 13 | 3 | 3 | 7 | 10 | 8 | 45 | 130 | TOTAL RESPONSES FOR ITEM 114= 208 | TOTAL RESPONSES FOR ITEM 114= 208 | | | | | |
| 115 | 0.030 | 0.201 | 0.133 | 0.197 | 0.036 | 0.059 | 0.321 | 3.613 | 1.985 | 0.007 | 1.767 | 3.209 | 5.760 | 3.995 |
| NUMBER 11 | 44 | 44 | 29 | 43 | 8 | 13 | 70 | TOTAL RESPONSES FOR ITEM 115= 207 | TOTAL RESPONSES FOR ITEM 115= 207 | | | | | |
| 116 | 0.045 | 0.013 | 0.004 | 0.059 | 0.018 | 0.041 | 0.816 | 5.639 | 0.995 | -0.044 | 5.623 | 5.915 | 6.207 | 5.584 |
| NUMBER 11 | 3 | 3 | 1 | 13 | 4 | 9 | 178 | TOTAL RESPONSES FOR ITEM 116= 208 | TOTAL RESPONSES FOR ITEM 116= 208 | | | | | |
| 117 | 0.042 | 0.151 | 0.123 | 0.224 | 0.036 | 0.027 | 0.333 | 3.790 | 1.948 | -0.062 | 2.129 | 3.316 | 5.850 | 3.741 |
| NUMBER 11 | 23 | 23 | 27 | 49 | 8 | 5 | 77 | TOTAL RESPONSES FOR ITEM 117= 200 | TOTAL RESPONSES FOR ITEM 117= 200 | | | | | |
| 118 | 0.039 | 0.061 | 0.009 | 0.119 | 0.027 | 0.087 | 0.655 | 5.209 | 1.407 | 0.021 | 4.934 | 5.783 | 6.141 | 1.257 |
| NUMBER 11 | 9 | 9 | 2 | 25 | 6 | 19 | 143 | TOTAL RESPONSES FOR ITEM 118= 202 | TOTAL RESPONSES FOR ITEM 118= 202 | | | | | |
| 119 | 0.035 | 0.344 | 0.087 | 0.119 | 0.027 | 0.087 | 0.276 | 3.281 | 2.128 | -0.123 | 1.186 | 2.846 | 5.655 | 4.463 |
| NUMBER 12 | 75 | 75 | 19 | 26 | 6 | 19 | 61 | TOTAL RESPONSES FOR ITEM 119= 206 | TOTAL RESPONSES FOR ITEM 119= 206 | | | | | |
| 120 | 0.035 | 0.119 | 0.059 | 0.142 | 0.018 | 0.036 | 0.377 | 4.600 | 1.903 | 0.219 | 2.919 | 5.674 | 6.087 | 3.167 |
| NUMBER 10 | 26 | 26 | 13 | 31 | 4 | 8 | 126 | TOTAL RESPONSES FOR ITEM 120= 208 | TOTAL RESPONSES FOR ITEM 120= 208 | | | | | |
| 121 | 0.064 | 0.261 | 0.073 | 0.169 | 0.041 | 0.041 | 0.368 | 3.612 | 2.096 | 0.071 | 1.394 | 3.283 | 5.828 | 4.434 |
| NUMBER 14 | 57 | 57 | 16 | 37 | 9 | 9 | 76 | TOTAL RESPONSES FOR ITEM 121= 204 | TOTAL RESPONSES FOR ITEM 121= 204 | | | | | |
| 122 | 0.054 | 0.174 | 0.064 | 0.229 | 0.009 | 0.041 | 0.417 | 3.995 | 2.006 | 0.114 | 2.428 | 3.500 | 5.939 | 3.510 |
| NUMBER 14 | 38 | 38 | 14 | 50 | 2 | 9 | 91 | TOTAL RESPONSES FOR ITEM 122= 204 | TOTAL RESPONSES FOR ITEM 122= 204 | | | | | |
| 123 | 0.068 | 0.178 | 0.050 | 0.188 | 0.032 | 0.059 | 0.422 | 4.089 | 2.004 | 0.124 | 3.318 | 4.769 | 5.948 | 3.430 |
| NUMBER 15 | 39 | 39 | 11 | 41 | 7 | 13 | 98 | TOTAL RESPONSES FOR ITEM 123= 203 | TOTAL RESPONSES FOR ITEM 123= 203 | | | | | |
| 124 | 0.059 | 0.091 | 0.119 | 0.174 | 0.004 | 0.055 | 0.495 | 4.380 | 1.895 | 0.163 | 2.638 | 5.550 | 6.025 | 3.387 |
| NUMBER 13 | 20 | 20 | 26 | 38 | 1 | 12 | 108 | TOTAL RESPONSES FOR ITEM 124= 205 | TOTAL RESPONSES FOR ITEM 124= 205 | | | | | |
| 125 | 0.064 | 0.174 | 0.068 | 0.183 | 0.013 | 0.045 | 0.449 | 4.107 | 2.031 | 0.173 | 3.366 | 5.100 | 5.979 | 3.612 |
| NUMBER 14 | 38 | 38 | 19 | 40 | 3 | 10 | 98 | TOTAL RESPONSES FOR ITEM 125= 204 | TOTAL RESPONSES FOR ITEM 125= 204 | | | | | |
| 126 | 0.068 | 0.422 | 0.041 | 0.105 | 0.068 | 0.045 | 0.197 | 2.965 | 2.061 | 0.041 | 1.051 | 2.521 | 5.130 | 4.079 |
| NUMBER 15 | 92 | 92 | 9 | 23 | 15 | 21 | 43 | TOTAL RESPONSES FOR ITEM 126= 203 | TOTAL RESPONSES FOR ITEM 126= 203 | | | | | |
| 127 | 0.055 | 0.178 | 0.045 | 0.165 | 0.077 | 0.137 | 0.339 | 4.024 | 1.911 | 0.078 | 2.949 | 4.933 | 5.804 | 3.234 |
| NUMBER 12 | 59 | 59 | 10 | 36 | 13 | 30 | 74 | TOTAL RESPONSES FOR ITEM 127= 206 | TOTAL RESPONSES FOR ITEM 127= 206 | | | | | |

DATE: 11-10-68
 FROM: STAN DEW
 TO: [illegible]

| | | | | | | | | | | | | |
|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| 11.10 | 0.07 | 0.174 | 0.059 | 0.041 | 0.142 | 2.583 | 1.843 | -0.029 | 1.021 | 0.022 | 3.600 | 4.522 |
| TOTAL RESPONDENTS FOR ITEM 127 = 207 | | | | | | | | | | | | |
| 11.11 | 0.142 | 0.164 | 0.019 | 0.002 | 0.130 | 2.054 | 1.982 | 0.002 | 0.760 | 1.021 | 3.440 | 4.480 |
| TOTAL RESPONDENTS FOR ITEM 128 = 207 | | | | | | | | | | | | |
| 11.12 | 0.064 | 0.142 | 0.006 | 0.110 | 0.174 | 2.862 | 1.996 | 0.192 | 1.059 | 2.034 | 4.097 | 3.070 |
| TOTAL RESPONDENTS FOR ITEM 129 = 206 | | | | | | | | | | | | |
| 11.13 | 0.041 | 0.159 | 0.105 | 0.174 | 0.233 | 3.713 | 1.082 | 0.235 | 1.088 | 3.691 | 5.460 | 3.097 |
| TOTAL RESPONDENTS FOR ITEM 130 = 206 | | | | | | | | | | | | |
| 11.14 | 0.027 | 0.073 | 0.027 | 0.009 | 0.060 | 3.058 | 1.665 | 0.142 | 4.000 | 3.704 | 6.142 | 4.342 |
| TOTAL RESPONDENTS FOR ITEM 131 = 206 | | | | | | | | | | | | |
| 11.15 | 0.024 | 0.105 | 0.027 | 0.002 | 0.288 | 3.326 | 2.109 | 0.211 | 1.221 | 2.958 | 5.710 | 4.489 |
| TOTAL RESPONDENTS FOR ITEM 132 = 199 | | | | | | | | | | | | |
| 11.16 | 0.036 | 0.128 | 0.027 | 0.002 | 0.399 | 3.942 | 2.124 | 0.270 | 1.442 | 4.777 | 2.823 | 4.082 |
| TOTAL RESPONDENTS FOR ITEM 133 = 200 | | | | | | | | | | | | |
| 11.17 | 0.050 | 0.198 | 0.050 | 0.137 | 0.279 | 3.755 | 1.950 | 0.151 | 1.663 | 3.681 | 5.680 | 3.810 |
| TOTAL RESPONDENTS FOR ITEM 134 = 200 | | | | | | | | | | | | |
| 11.18 | 0.064 | 0.150 | 0.059 | 0.133 | 0.233 | 3.457 | 1.985 | 0.142 | 1.351 | 3.285 | 5.514 | 4.100 |
| TOTAL RESPONDENTS FOR ITEM 135 = 201 | | | | | | | | | | | | |
| 12.01 | 0.036 | 0.058 | 0.004 | 0.032 | 0.674 | 4.960 | 1.829 | -0.067 | 4.750 | 5.809 | 6.154 | 1.404 |
| TOTAL RESPONDENTS FOR ITEM 137 = 203 | | | | | | | | | | | | |
| 12.02 | 0.040 | 0.073 | 0.018 | 0.032 | 0.605 | 4.747 | 1.935 | -0.084 | 3.156 | 5.750 | 6.125 | 2.960 |
| TOTAL RESPONDENTS FOR ITEM 138 = 198 | | | | | | | | | | | | |
| 12.03 | 0.041 | 0.096 | 0.004 | 0.022 | 0.655 | 4.925 | 1.811 | -0.003 | 3.416 | 5.797 | 6.148 | 2.731 |
| TOTAL RESPONDENTS FOR ITEM 139 = 201 | | | | | | | | | | | | |
| 12.04 | 0.037 | 0.082 | 0.013 | 0.100 | 0.522 | 4.824 | 1.956 | -0.018 | 2.676 | 5.605 | 6.052 | 3.376 |
| TOTAL RESPONDENTS FOR ITEM 140 = 204 | | | | | | | | | | | | |
| 12.05 | 0.059 | 0.077 | 0.010 | 0.110 | 0.564 | 4.824 | 1.713 | -0.080 | 3.375 | 5.666 | 6.083 | 2.708 |
| TOTAL RESPONDENTS FOR ITEM 141 = 205 | | | | | | | | | | | | |
| 12.06 | 0.002 | 0.307 | 0.041 | 0.096 | 0.238 | 3.435 | 2.028 | 0.017 | 1.246 | 3.656 | 5.538 | 4.272 |
| TOTAL RESPONDENTS FOR ITEM 142 = 200 | | | | | | | | | | | | |
| 12.07 | 0.068 | 0.013 | 0.160 | 0.045 | 0.088 | 4.729 | 1.655 | 0.187 | 3.350 | 5.562 | 6.021 | 4.671 |
| TOTAL RESPONDENTS FOR ITEM 143 = 203 | | | | | | | | | | | | |
| 12.08 | 0.077 | 0.036 | 0.142 | 0.045 | 0.472 | 4.776 | 1.588 | 0.176 | 3.443 | 5.524 | 6.014 | 4.008 |
| TOTAL RESPONDENTS FOR ITEM 144 = 201 | | | | | | | | | | | | |
| 12.09 | 0.073 | 0.100 | 0.068 | 0.080 | 0.344 | 4.301 | 1.749 | 0.029 | 2.875 | 4.895 | 5.826 | 2.951 |
| TOTAL RESPONDENTS FOR ITEM 145 = 202 | | | | | | | | | | | | |

AOI-11



| ITEM | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN DEV | P-COR | U1 | Q2 | Q3 | J-R |
|---------------------------|--------------|-------------|-------------|-------------|-------------|-------------|-------|----------------------|--------|-------|-------|-------|-------|
| 154 13.12 NUMBER 14 | 0.376 82 | 0.129 28 | 0.142 31 | 0.056 15 | 0.110 24 | 0.110 24 | 2.720 | 1.938 | 0.060 | 1.121 | 4.214 | 4.300 | 3.178 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 164 | 204 | | | |
| 165 13.13 NUMBER 15 | 0.192 42 | 0.090 11 | 0.155 34 | 0.201 44 | 0.142 31 | 0.188 41 | 3.660 | 1.759 | -0.003 | 2.295 | 3.829 | 5.185 | 2.390 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 155 | 203 | | | |
| 166 14.01 NUMBER 17 | 0.417 91 | 0.041 9 | 0.114 25 | 0.096 21 | 0.025 12 | 0.197 43 | 2.915 | 2.029 | -0.120 | 1.032 | 4.519 | 4.895 | 3.843 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 166 | 201 | | | |
| 167 14.02 NUMBER 22 | 0.431 54 | 0.036 8 | 0.082 18 | 0.082 18 | 0.036 8 | 0.229 50 | 2.938 | 2.122 | -0.047 | 1.021 | 1.959 | 3.520 | 4.495 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 167 | 196 | | | |
| 168 14.03 NUMBER 14 | 0.454 99 | 0.041 9 | 0.092 18 | 0.110 24 | 0.050 11 | 0.189 41 | 2.811 | 2.032 | -0.247 | 1.010 | 1.722 | 4.635 | 3.666 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 168 | 202 | | | |
| 169 14.04 NUMBER 14 | 0.582 127 | 0.041 9 | 0.055 12 | 0.059 13 | 0.082 18 | 0.100 22 | 2.269 | 1.854 | -0.246 | 0.899 | 1.291 | 3.711 | 2.880 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 169 | 201 | | | |
| 170 14.05 NUMBER 17 | 0.536 117 | 0.032 7 | 0.050 11 | 0.077 17 | 0.055 12 | 0.169 37 | 2.557 | 2.036 | -0.222 | 0.929 | 1.358 | 4.426 | 3.496 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 170 | 201 | | | |
| 171 14.06 NUMBER 16 | 0.541 118 | 0.041 9 | 0.027 6 | 0.082 18 | 0.045 10 | 0.188 41 | 2.584 | 2.078 | -0.149 | 0.927 | 1.356 | 4.550 | 3.622 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 171 | 202 | | | |
| 172 14.07 NUMBER 14 | 0.519 135 | 0.059 13 | 0.036 8 | 0.045 10 | 0.041 9 | 0.119 26 | 2.119 | 1.835 | -0.187 | 0.872 | 1.244 | 2.843 | 1.971 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 172 | 201 | | | |
| 173 14.08 NUMBER 16 | 0.433 95 | 0.027 6 | 0.045 10 | 0.032 7 | 0.064 14 | 0.221 70 | 3.242 | 2.258 | 0.043 | 1.031 | 2.459 | 5.778 | 4.146 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 173 | 202 | | | |
| 174 14.09 NUMBER 14 | 0.582 127 | 0.133 29 | 0.064 14 | 0.022 5 | 0.041 9 | 0.091 20 | 2.019 | 1.659 | -0.126 | 0.901 | 1.303 | 2.396 | 1.494 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 174 | 204 | | | |
| 175 14.10 NUMBER 15 | 0.472 103 | 0.059 13 | 0.100 22 | 0.036 8 | 0.082 18 | 0.178 39 | 2.714 | 2.033 | -0.183 | 0.992 | 1.485 | 4.847 | 3.854 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 175 | 203 | | | |
| 176 14.11 NUMBER 16 | 0.477 104 | 0.119 26 | 0.105 23 | 0.022 5 | 0.036 8 | 0.165 36 | 2.480 | 1.924 | 0.022 | 0.985 | 1.471 | 3.434 | 2.449 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 176 | 202 | | | |
| 177 14.12 NUMBER 17 | 0.605 132 | 0.073 16 | 0.059 13 | 0.050 11 | 0.018 4 | 0.114 25 | 3.074 | 1.761 | -0.003 | 0.880 | 1.261 | 2.711 | 1.830 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 177 | 201 | | | |
| 178 14.13 NUMBER 21 | 0.619 135 | 0.045 10 | 0.087 19 | 0.009 2 | 0.022 5 | 0.119 26 | 2.035 | 1.777 | -0.106 | 0.864 | 1.229 | 2.644 | 1.779 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 178 | 197 | | | |
| 179 14.14 NUMBER 24 | 0.619 135 | 0.096 21 | 0.041 9 | 0.004 1 | 0.022 5 | 0.109 23 | 1.912 | 2.029 | -0.071 | 0.859 | 1.218 | 1.999 | 1.140 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 179 | 194 | | | |
| 180 14.15 NUMBER 28 | 0.678 149 | 0.055 12 | 0.041 9 | 0.013 3 | 0.027 6 | 0.055 12 | 1.647 | 1.435 | -0.097 | 0.820 | 1.141 | 1.462 | 0.641 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 180 | 190 | | | |
| 181 14.16 NUMBER 18 | 0.550 120 | 0.059 13 | 0.050 11 | 0.000 0 | 0.047 9 | 0.206 45 | 2.510 | 2.107 | -0.263 | 0.916 | 1.333 | 4.946 | 4.027 |
| | | | | | | | TOTAL | RESPONDENTS FOR ITEM | 181 | 200 | | | |

AD-12

MEAN STAN DEV P-COR Q1 Q2 Q3 Q4

| ITEM NUMBER | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN DEV | P-COR | Q1 | Q2 | Q3 | Q4 |
|-------------------------------------|-----|----|----|---|----|----|-------|----------|--------|-------|-------|--------|-------|
| 14.17 NUMBER 15 | 125 | 14 | 11 | 4 | 7 | 38 | 2.336 | 2.005 | -0.246 | 0.898 | 1.295 | 3.431 | 2.533 |
| TOTAL RESPONDENTS FOR ITEM 192= 177 | | | | | | | | | | | | | |
| 14.18 NUMBER 15 | 125 | 9 | 11 | 9 | 8 | 51 | 2.432 | 2.067 | -0.276 | 0.898 | 1.255 | 4.374 | 3.476 |
| TOTAL RESPONDENTS FOR ITEM 183= 159 | | | | | | | | | | | | | |
| 14.19 NUMBER 17 | 118 | 10 | 11 | 6 | 9 | 47 | 2.597 | 2.132 | -0.265 | 0.825 | 1.355 | 5.128 | 4.213 |
| TOTAL RESPONDENTS FOR ITEM 184= 201 | | | | | | | | | | | | | |
| 14.20 NUMBER 18 | 109 | 16 | 25 | 4 | 6 | 40 | 2.510 | 1.989 | -0.468 | 0.958 | 1.417 | 3.500 | 2.541 |
| TOTAL RESPONDENTS FOR ITEM 185= 200 | | | | | | | | | | | | | |
| 14.21 NUMBER 17 | 102 | 13 | 10 | 2 | 4 | 68 | 2.984 | 2.298 | -0.29 | 0.887 | 1.475 | 5.768 | 4.780 |
| TOTAL RESPONDENTS FOR ITEM 186= 199 | | | | | | | | | | | | | |
| 14.22 NUMBER 20 | 129 | 18 | 18 | 1 | 4 | 28 | 2.075 | 1.789 | -0.118 | 0.883 | 1.267 | 2.583 | 1.699 |
| TOTAL RESPONDENTS FOR ITEM 187= 170 | | | | | | | | | | | | | |
| 14.23 NUMBER 21 | 121 | 12 | 13 | 3 | 2 | 46 | 2.446 | 2.090 | -0.277 | 0.907 | 1.314 | 4.083 | 3.176 |
| TOTAL RESPONDENTS FOR ITEM 188= 197 | | | | | | | | | | | | | |
| 14.24 NUMBER 20 | 135 | 15 | 16 | 3 | 6 | 23 | 1.984 | 1.718 | -0.199 | 0.856 | 1.233 | 2.399 | 1.533 |
| TOTAL RESPONDENTS FOR ITEM 189= 198 | | | | | | | | | | | | | |
| 14.25 NUMBER 17 | 112 | 8 | 16 | 0 | 7 | 57 | 2.765 | 2.220 | -0.259 | 0.946 | 1.392 | 5.622 | 4.6 |
| TOTAL RESPONDENTS FOR ITEM 190= 200 | | | | | | | | | | | | | |
| 14.26 NUMBER 15 | 63 | 9 | 20 | 6 | 9 | 96 | 3.871 | 2.233 | 0.045 | 1.305 | 4.888 | 5.371 | 4.665 |
| TOTAL RESPONDENTS FOR ITEM 191= 203 | | | | | | | | | | | | | |
| 14.27 NUMBER 16 | 87 | 10 | 15 | 3 | 5 | 82 | 3.371 | 2.324 | -0.079 | 1.080 | 2.766 | 5.884 | 4.803 |
| TOTAL RESPONDENTS FOR ITEM 192= 202 | | | | | | | | | | | | | |
| 14.28 NUMBER 19 | 100 | 9 | 17 | 4 | 6 | 63 | 2.979 | 2.246 | -0.241 | 0.997 | 1.495 | 5.710 | 4.712 |
| TOTAL RESPONDENTS FOR ITEM 193= 199 | | | | | | | | | | | | | |
| 14.29 NUMBER 18 | 123 | 10 | 12 | 0 | 6 | 49 | 2.515 | 2.144 | -0.275 | 0.806 | 1.315 | 5.333 | 4.426 |
| TOTAL RESPONDENTS FOR ITEM 194= 200 | | | | | | | | | | | | | |
| 14.30 NUMBER 19 | 131 | 10 | 12 | 4 | 1 | 51 | 2.281 | 2.015 | -0.254 | 0.879 | 1.259 | 3.187 | 2.307 |
| TOTAL RESPONDENTS FOR ITEM 195= 199 | | | | | | | | | | | | | |
| 14.31 NUMBER 20 | 144 | 6 | 11 | 5 | 5 | 27 | 2.000 | 1.814 | -0.294 | 0.843 | 1.187 | 2.250 | 1.406 |
| TOTAL RESPONDENTS FOR ITEM 196= 198 | | | | | | | | | | | | | |
| 14.32 NUMBER 16 | 86 | 13 | 15 | 7 | 13 | 68 | 2.857 | 2.241 | -0.013 | 1.087 | 2.633 | 5.6757 | 4.670 |
| TOTAL RESPONDENTS FOR ITEM 197= 202 | | | | | | | | | | | | | |
| 14.33 NUMBER 19 | 154 | 9 | 12 | 5 | 5 | 14 | 1.693 | 1.480 | -0.167 | 0.823 | 1.146 | 1.469 | 0.646 |
| TOTAL RESPONDENTS FOR ITEM 198= 179 | | | | | | | | | | | | | |
| 14.34 NUMBER 19 | 170 | 8 | 7 | 8 | 9 | 19 | 1.462 | 1.313 | -0.177 | 0.792 | 1.085 | 1.377 | 0.585 |
| TOTAL RESPONDENTS FOR ITEM 199= 199 | | | | | | | | | | | | | |

ACF-13

| ITEM | 0117 | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN. DEV. | P-COR | U1 | U3 | U4 |
|-------|-------------|------------|-------------|-------------|-------------|-------------|-------------|----------------|--------------------------|---------------------|--------------|--------------|-------|
| 14.35 | 0.087 19 | 0.012 3 | 0.027 6 | 0.064 14 | 0.022 5 | 0.064 16 | 0.082 15 | 1.914 TOTAL | 1.726 RESPONDENTS FOR | -0.252 DENIS FOR | 0.031 118 | 0.030 200 | 0.063 |
| 14.36 | 0.097 19 | 0.027 6 | 0.064 14 | 0.022 7 | 0.069 15 | 0.129 28 | | 2.241 TOTAL | 1.913 RESPONDENTS FOR | -0.300 DENIS FOR | 0.079 118 | 0.079 201 | 0.495 |
| 14.37 | 0.097 19 | 0.027 6 | 0.064 14 | 0.022 3 | 0.013 4 | 0.284 62 | | 2.029 TOTAL | 2.273 RESPONDENTS FOR | -0.270 DENIS FOR | 0.940 118 | 0.080 202 | 0.727 |

RELIABILITY

| SOURCE | SS | MS |
|-------------------|------------------------|----------------|
| AMONG INDIVIDUALS | 217. 156248219.0000 | 720025.01174 |
| AMONG ITEMS | 201. 322155815.0000 | 24903412.05409 |
| RESIDUAL | 43517. 156230993.0000 | 35619.62934 |
| TOTAL | 21901. 5021474830.0000 | 233946.06292 |

RELIABILITY COEFFICIENT = 1.00497

STANDARD ERROR OF MEASUREMENT = 2889.86279

MEAN SCORE = 62220.828

STANDARD DEVIATION = 30233.140



Optometrists
and
Optometric Assistants

Analysis of Proficiency
Items 1.01 to 14.37

Respondents = 218

AOP-2

| ITEM | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN DEV | P-COR | Q1 | Q2 | Q3 | Q4 |
|------|-------|-------|-------|-------|-------|-------|-------|----------------------|---------|-------|-------|-------|-------|
| 1.01 | 0.150 | 0.004 | 0.009 | 0.045 | 0.160 | 0.560 | 4.840 | 1.846 | 0.272 | 4.607 | 5.602 | 6.082 | 1.475 |
| | 30 | 1 | 2 | 10 | 35 | 124 | TOTAL | RESPONDENTS FOR ITEM | 1= 207 | | | | |
| 1.02 | 0.242 | 0.009 | 0.013 | 0.27 | 0.192 | 0.477 | 4.400 | 2.084 | 0.315 | 1.490 | 2.470 | 5.990 | 4.000 |
| | 53 | 2 | 3 | 6 | 42 | 104 | TOTAL | RESPONDENTS FOR ITEM | 2= 210 | | | | |
| 1.03 | 0.232 | 0.009 | 0.013 | 0.068 | 0.238 | 0.389 | 4.293 | 2.013 | 0.000 | 1.777 | 2.134 | 5.330 | 3.389 |
| | 51 | 2 | 2 | 15 | 52 | 85 | TOTAL | RESPONDENTS FOR ITEM | 3= 202 | | | | |
| 1.04 | 0.316 | 0.013 | 0.064 | 0.059 | 0.137 | 0.350 | 5.750 | 2.175 | 0.420 | 1.428 | 4.550 | 5.802 | 4.573 |
| | 69 | 3 | 14 | 13 | 30 | 72 | TOTAL | RESPONDENTS FOR ITEM | 4= 201 | | | | |
| 1.05 | 0.232 | 0.009 | 0.045 | 0.073 | 0.192 | 0.266 | 4.112 | 2.002 | 0.420 | 1.401 | 4.864 | 5.059 | 4.427 |
| | 55 | 2 | 10 | 16 | 42 | 80 | TOTAL | RESPONDENTS FOR ITEM | 5= 200 | | | | |
| 1.06 | 0.232 | 0.018 | 0.018 | 0.036 | 0.100 | 0.532 | 4.417 | 2.133 | 0.291 | 1.490 | 2.612 | 6.050 | 4.209 |
| | 52 | 4 | 4 | 8 | 22 | 116 | TOTAL | RESPONDENTS FOR ITEM | 6= 206 | | | | |
| 1.07 | 0.247 | 0.022 | 0.022 | 0.049 | 0.165 | 0.451 | 4.210 | 2.107 | 0.259 | 1.453 | 2.290 | 2.922 | 4.490 |
| | 54 | 4 | 10 | 10 | 35 | 54 | TOTAL | RESPONDENTS FOR ITEM | 7= 200 | | | | |
| 1.08 | 0.220 | 0.018 | 0.018 | 0.032 | 0.185 | 0.458 | 4.380 | 2.072 | 0.430 | 1.812 | 2.437 | 2.987 | 4.175 |
| | 50 | 4 | 4 | 7 | 40 | 100 | TOTAL | RESPONDENTS FOR ITEM | 8= 205 | | | | |
| 1.09 | 0.233 | 0.027 | 0.064 | 0.096 | 0.159 | 0.348 | 4.048 | 2.021 | 0.250 | 1.541 | 4.789 | 2.000 | 4.000 |
| | 51 | 4 | 11 | 21 | 37 | 76 | TOTAL | RESPONDENTS FOR ITEM | 9= 200 | | | | |
| 2.01 | 0.224 | 0.019 | 0.032 | 0.022 | 0.233 | 0.412 | 4.934 | 2.033 | 0.305 | 2.125 | 2.420 | 2.927 | 2.002 |
| | 49 | 4 | 7 | 5 | 51 | 90 | TOTAL | RESPONDENTS FOR ITEM | 10= 208 | | | | |
| 2.02 | 0.233 | 0.018 | 0.018 | 0.073 | 0.256 | 0.344 | 4.199 | 2.003 | 0.274 | 1.624 | 2.000 | 2.010 | 4.100 |
| | 51 | 4 | 4 | 16 | 56 | 75 | TOTAL | RESPONDENTS FOR ITEM | 11= 206 | | | | |
| 2.03 | 0.247 | 0.009 | 0.045 | 0.055 | 0.215 | 0.366 | 4.151 | 2.055 | 0.324 | 1.449 | 2.021 | 5.859 | 4.410 |
| | 34 | 2 | 10 | 12 | 47 | 80 | TOTAL | RESPONDENTS FOR ITEM | 12= 205 | | | | |
| 2.04 | 0.252 | 0.022 | 0.058 | 0.100 | 0.197 | 0.302 | 3.927 | 2.014 | 0.199 | 1.436 | 4.659 | 5.719 | 4.233 |
| | 55 | 3 | 15 | 22 | 43 | 66 | TOTAL | RESPONDENTS FOR ITEM | 13= 206 | | | | |
| 2.05 | 0.339 | 0.055 | 0.064 | 0.119 | 0.206 | 0.123 | 3.186 | 1.946 | 0.200 | 1.168 | 2.420 | 5.000 | 3.831 |
| | 74 | 12 | 14 | 26 | 45 | 27 | TOTAL | RESPONDENTS FOR ITEM | 14= 198 | | | | |
| 2.06 | 0.366 | 0.027 | 0.032 | 0.041 | 0.137 | 0.307 | 3.522 | 2.245 | 0.201 | 1.121 | 4.222 | 5.757 | 4.659 |
| | 80 | 5 | 7 | 9 | 30 | 67 | TOTAL | RESPONDENTS FOR ITEM | 15= 199 | | | | |
| 2.07 | 0.058 | 0.133 | 0.000 | 0.027 | 0.073 | 0.463 | 4.788 | 1.713 | 0.241 | 4.484 | 5.490 | 5.997 | 1.513 |
| | 22 | 0 | 6 | 18 | 51 | 101 | TOTAL | RESPONDENTS FOR ITEM | 16= 202 | | | | |
| 2.08 | 0.068 | 0.385 | 0.022 | 0.036 | 0.068 | 0.160 | 3.394 | 2.184 | 0.072 | 1.104 | 2.900 | 2.590 | 4.489 |
| | 84 | 2 | 8 | 15 | 35 | 56 | TOTAL | RESPONDENTS FOR ITEM | 17= 203 | | | | |
| 2.09 | 0.077 | 0.279 | 0.018 | 0.041 | 0.064 | 0.371 | 3.970 | 2.150 | 0.211 | 1.323 | 4.890 | 5.879 | 4.555 |
| | 61 | 4 | 9 | 14 | 32 | 81 | TOTAL | RESPONDENTS FOR ITEM | 18= 201 | | | | |
| 2.09 | 0.077 | 0.467 | 0.022 | 0.041 | 0.064 | 0.110 | 2.970 | 2.169 | 0.249 | 0.992 | 1.485 | 5.364 | 4.371 |
| | 102 | 5 | 9 | 14 | 24 | 47 | TOTAL | RESPONDENTS FOR ITEM | 19= 201 | | | | |

AP-3

| ITEM | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN DEV | 1-C-1 | J1 | J2 | J3 | J4 |
|------|-----------------|--------------|-------------|-------------|-------------|--------------|------------------------------------|----------|-------|-------|-------|-------|-------|
| 3.02 | 20 NUMBER 12 | 0.655 141 | 0.604 11 | 0.555 12 | 0.532 18 | 0.103 23 | 2.194 | 1.872 | 0.000 | 0.569 | 1.652 | 3.005 | 2.759 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 20= 203 | | | | | | |
| 3.03 | 21 NUMBER 15 | 0.565 114 | 0.541 9 | 0.555 12 | 0.151 33 | 0.114 25 | 2.576 | 1.979 | 0.109 | 0.949 | 1.393 | 1.719 | 3.774 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 21= 203 | | | | | | |
| 3.04 | 22 NUMBER 4 | 0.073 47 | 0.030 7 | 0.050 11 | 0.179 39 | 0.449 98 | 4.630 | 2.019 | 0.045 | 0.000 | 5.423 | 5.954 | 2.904 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 22= 202 | | | | | | |
| 3.05 | 23 NUMBER 15 | 0.369 73 | 0.322 5 | 0.336 8 | 0.160 35 | 0.260 55 | 3.576 | 2.143 | 0.132 | 1.195 | 4.143 | 3.023 | 4.429 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 23= 203 | | | | | | |
| 3.06 | 24 NUMBER 13 | 0.250 56 | 0.227 6 | 0.204 11 | 0.109 37 | 0.431 94 | 4.214 | 2.122 | 0.244 | 3.419 | 2.273 | 2.924 | 4.539 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 24= 205 | | | | | | |
| 3.07 | 25 NUMBER 14 | 0.264 59 | 0.332 7 | 0.332 5 | 0.160 35 | 0.417 91 | 4.093 | 2.172 | 0.252 | 3.164 | 2.152 | 5.939 | 4.975 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 25= 204 | | | | | | |
| 3.08 | 26 NUMBER 15 | 0.409 90 | 0.336 8 | 0.335 12 | 0.160 35 | 0.201 44 | 3.137 | 2.122 | 0.116 | 1.359 | 2.791 | 2.007 | 4.242 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 26= 203 | | | | | | |
| 3.09 | 27 NUMBER 15 | 0.273 58 | 0.256 4 | 0.313 4 | 0.238 52 | 0.348 76 | 4.089 | 2.106 | 0.200 | 1.370 | 5.013 | 5.335 | 4.464 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 27= 202 | | | | | | |
| 4.01 | 28 NUMBER 7 | 0.000 6 | 0.000 0 | 0.004 2 | 0.114 25 | 0.536 117 | 5.589 | 1.050 | 0.311 | 5.332 | 5.254 | 6.171 | 0.545 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 28= 131 | | | | | | |
| 4.02 | 29 NUMBER 5 | 0.302 14 | 0.018 4 | 0.013 3 | 0.146 32 | 0.412 90 | 5.046 | 1.561 | 0.248 | 4.730 | 5.053 | 6.077 | 1.327 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 29= 132 | | | | | | |
| 4.03 | 30 NUMBER 35 | 0.298 13 | 0.013 3 | 0.018 4 | 0.169 37 | 0.389 85 | 5.032 | 1.505 | 0.309 | 4.592 | 5.600 | 6.050 | 1.354 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 30= 153 | | | | | | |
| 4.04 | 31 NUMBER 35 | 0.298 7 | 0.004 1 | 0.041 9 | 0.192 42 | 0.426 93 | 5.333 | 1.171 | 0.343 | 4.982 | 5.677 | 6.089 | 1.106 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 31= 153 | | | | | | |
| 4.05 | 32 NUMBER 59 | 0.316 17 | 0.004 1 | 0.064 14 | 0.137 30 | 0.385 84 | 4.953 | 1.619 | 0.351 | 4.575 | 5.613 | 6.050 | 1.461 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 32= 149 | | | | | | |
| 4.06 | 33 NUMBER 58 | 0.311 5 | 0.000 0 | 0.027 6 | 0.201 44 | 0.426 93 | 5.420 | 1.034 | 0.322 | 5.056 | 5.693 | 6.096 | 1.039 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 33= 150 | | | | | | |
| 4.07 | 34 NUMBER 55 | 0.298 33 | 0.009 2 | 0.022 5 | 0.114 25 | 0.371 81 | 4.503 | 2.016 | 0.254 | 2.964 | 5.555 | 6.027 | 3.005 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 34= 153 | | | | | | |
| 4.08 | 35 NUMBER 71 | 0.325 68 | 0.000 0 | 0.041 9 | 0.100 22 | 0.183 40 | 3.244 | 2.211 | 0.209 | 3.040 | 3.111 | 3.581 | 4.540 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 35= 147 | | | | | | |
| 4.09 | 36 NUMBER 68 | 0.311 9 | 0.009 2 | 0.050 11 | 0.174 38 | 0.399 87 | 5.186 | 1.333 | 0.292 | 4.828 | 5.637 | 6.060 | 1.240 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 36= 150 | | | | | | |
| 4.10 | 37 NUMBER 67 | 0.307 14 | 0.000 0 | 0.013 3 | 0.160 35 | 0.426 93 | 5.165 | 1.680 | 0.258 | 4.921 | 5.688 | 6.094 | 1.172 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 37= 151 | | | | | | |

APP 4

ITEM STA DEV REGR CL CE UD JUR

| ITEM | STA | DEV | REGR | CL | CE | UD | JUR |
|------|------------------------------------|-------|-------|-------|-------|-------|-------|
| 4.11 | 0.169 | 0.009 | 0.136 | 0.45 | 0.146 | 0.288 | 4.230 |
| | 37 | 2 | 8 | 10 | 32 | 63 | 2.000 |
| | TOTAL RESPONDENTS FOR ITEM 38= 124 | | | | | | |
| 4.12 | 0.130 | 0.022 | 0.036 | 0.055 | 0.261 | 0.266 | 4.885 |
| | 3 | 2 | 3 | 12 | 57 | 73 | 0.472 |
| | TOTAL RESPONDENTS FOR ITEM 39= 146 | | | | | | |
| 4.13 | 0.100 | 0.013 | 0.036 | 0.041 | 0.172 | 0.221 | 4.002 |
| | 22 | 3 | 3 | 7 | 42 | 70 | 0.231 |
| | TOTAL RESPONDENTS FOR ITEM 40= 147 | | | | | | |
| 5.01 | 0.036 | 0.000 | 0.004 | 0.022 | 0.119 | 0.518 | 5.483 |
| | 9 | 0 | 1 | 5 | 26 | 113 | 0.292 |
| | TOTAL RESPONDENTS FOR ITEM 41= 153 | | | | | | |
| 5.02 | 0.114 | 0.027 | 0.024 | 0.029 | 0.140 | 0.293 | 4.449 |
| | 23 | 6 | 3 | 13 | 32 | 64 | 0.472 |
| | TOTAL RESPONDENTS FOR ITEM 42= 147 | | | | | | |
| 5.03 | 0.041 | 0.000 | 0.015 | 0.055 | 0.174 | 0.417 | 2.241 |
| | 9 | 0 | 3 | 12 | 38 | 91 | 0.009 |
| | TOTAL RESPONDENTS FOR ITEM 43= 153 | | | | | | |
| 5.04 | 0.030 | 0.000 | 0.000 | 0.045 | 0.110 | 0.495 | 5.440 |
| | 3 | 0 | 0 | 10 | 24 | 108 | 0.209 |
| | TOTAL RESPONDENTS FOR ITEM 44= 147 | | | | | | |
| 5.05 | 0.169 | 0.018 | 0.027 | 0.055 | 0.151 | 0.256 | 4.135 |
| | 37 | 4 | 5 | 12 | 33 | 56 | 0.461 |
| | TOTAL RESPONDENTS FOR ITEM 45= 146 | | | | | | |
| 5.06 | 0.026 | 0.000 | 0.000 | 0.001 | 0.201 | 0.394 | 2.212 |
| | 8 | 0 | 2 | 9 | 46 | 86 | 0.283 |
| | TOTAL RESPONDENTS FOR ITEM 46= 142 | | | | | | |
| 5.07 | 0.034 | 0.013 | 0.018 | 0.027 | 0.146 | 0.417 | 5.220 |
| | 9 | 3 | 4 | 6 | 32 | 91 | 0.222 |
| | TOTAL RESPONDENTS FOR ITEM 47= 142 | | | | | | |
| 6.01 | 0.036 | 0.004 | 0.022 | 0.059 | 0.229 | 0.325 | 5.060 |
| | 9 | 1 | 5 | 13 | 50 | 71 | 0.315 |
| | TOTAL RESPONDENTS FOR ITEM 48= 149 | | | | | | |
| 6.02 | 0.025 | 0.064 | 0.013 | 0.032 | 0.045 | 0.192 | 4.877 |
| | 14 | 14 | 7 | 10 | 42 | 71 | 0.248 |
| | TOTAL RESPONDENTS FOR ITEM 49= 147 | | | | | | |
| 6.03 | 0.321 | 0.224 | 0.041 | 0.036 | 0.105 | 0.128 | 3.418 |
| | 49 | 49 | 8 | 23 | 31 | 28 | 0.307 |
| | TOTAL RESPONDENTS FOR ITEM 50= 148 | | | | | | |
| 6.04 | 0.206 | 0.032 | 0.041 | 0.064 | 0.123 | 0.169 | 3.589 |
| | 45 | 7 | 9 | 14 | 27 | 37 | 0.275 |
| | TOTAL RESPONDENTS FOR ITEM 51= 139 | | | | | | |
| 6.05 | 0.343 | 0.174 | 0.027 | 0.022 | 0.077 | 0.169 | 3.845 |
| | 38 | 38 | 5 | 7 | 17 | 37 | 0.257 |
| | TOTAL RESPONDENTS FOR ITEM 52= 142 | | | | | | |
| 6.06 | 0.334 | 0.188 | 0.013 | 0.041 | 0.082 | 0.178 | 3.827 |
| | 41 | 41 | 3 | 9 | 18 | 39 | 0.193 |
| | TOTAL RESPONDENTS FOR ITEM 53= 145 | | | | | | |
| 6.07 | 0.325 | 0.169 | 0.032 | 0.068 | 0.091 | 0.151 | 3.734 |
| | 37 | 37 | 7 | 15 | 20 | 33 | 0.206 |
| | TOTAL RESPONDENTS FOR ITEM 54= 147 | | | | | | |
| 6.08 | 0.353 | 0.247 | 0.013 | 0.027 | 0.064 | 0.133 | 3.425 |
| | 54 | 54 | 3 | 6 | 14 | 29 | 0.199 |
| | TOTAL RESPONDENTS FOR ITEM 55= 141 | | | | | | |

91

92

ADD

| REV | OMI | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|----------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------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| 7.08 | NUMBER 2 | 0.110 | 0.022 | 0.055 | 0.087 | 0.185 | 0.321 | 0.485 | 0.621 | 0.72 | 0.821 | 0.921 | 1.021 | 1.121 | 1.221 | 1.321 | 1.421 | 1.521 | 1.621 | 1.721 | 1.821 | 1.921 | 2.021 | 2.121 | 2.221 | 2.321 | 2.421 | 2.521 | 2.621 | 2.721 | 2.821 | 2.921 | 3.021 | 3.121 | 3.221 | 3.321 | 3.421 | 3.521 | 3.621 | 3.721 | 3.821 | 3.921 | 4.021 | 4.121 | 4.221 | 4.321 | 4.421 | 4.521 | 4.621 | 4.721 | 4.821 | 4.921 | 5.021 | 5.121 | 5.221 | 5.321 | 5.421 | 5.521 | 5.621 | 5.721 | 5.821 | 5.921 | 6.021 | 6.121 | 6.221 | 6.321 | 6.421 | 6.521 | 6.621 | 6.721 | 6.821 | 6.921 | 7.021 | 7.121 | 7.221 | 7.321 | 7.421 | 7.521 | 7.621 | 7.721 | 7.821 | 7.921 | 8.021 | 8.121 | 8.221 | 8.321 | 8.421 | 8.521 | 8.621 | 8.721 | 8.821 | 8.921 | 9.021 | 9.121 | 9.221 | 9.321 | 9.421 | 9.521 | 9.621 | 9.721 | 9.821 | 9.921 | 10.021 | 10.121 | 10.221 | 10.321 | 10.421 | 10.521 | 10.621 | 10.721 | 10.821 | 10.921 | 11.021 | 11.121 | 11.221 | 11.321 | 11.421 | 11.521 | 11.621 | 11.721 | 11.821 | 11.921 | 12.021 | 12.121 | 12.221 | 12.321 | 12.421 | 12.521 | 12.621 | 12.721 | 12.821 | 12.921 | 13.021 | 13.121 | 13.221 | 13.321 | 13.421 | 13.521 | 13.621 | 13.721 | 13.821 | 13.921 | 14.021 | 14.121 | 14.221 | 14.321 | 14.421 | 14.521 | 14.621 | 14.721 | 14.821 | 14.921 | 15.021 | 15.121 | 15.221 | 15.321 | 15.421 | 15.521 | 15.621 | 15.721 | 15.821 | 15.921 | 16.021 | 16.121 | 16.221 | 16.321 | 16.421 | 16.521 | 16.621 | 16.721 | 16.821 | 16.921 | 17.021 | 17.121 | 17.221 | 17.321 | 17.421 | 17.521 | 17.621 | 17.721 | 17.821 | 17.921 | 18.021 | 18.121 | 18.221 | 18.321 | 18.421 | 18.521 | 18.621 | 18.721 | 18.821 | 18.921 | 19.021 | 19.121 | 19.221 | 19.321 | 19.421 | 19.521 | 19.621 | 19.721 | 19.821 | 19.921 | 20.021 | 20.121 | 20.221 | 20.321 | 20.421 | 20.521 | 20.621 | 20.721 | 20.821 | 20.921 | 21.021 | 21.121 | 21.221 | 21.321 | 21.421 | 21.521 | 21.621 | 21.721 | 21.821 | 21.921 | 22.021 | 22.121 | 22.221 | 22.321 | 22.421 | 22.521 | 22.621 | 22.721 | 22.821 | 22.921 | 23.021 | 23.121 | 23.221 | 23.321 | 23.421 | 23.521 | 23.621 | 23.721 | 23.821 | 23.921 | 24.021 | 24.121 | 24.221 | 24.321 | 24.421 | 24.521 | 24.621 | 24.721 | 24.821 | 24.921 | 25.021 | 25.121 | 25.221 | 25.321 | 25.421 | 25.521 | 25.621 | 25.721 | 25.821 | 25.921 | 26.021 | 26.121 | 26.221 | 26.321 | 26.421 | 26.521 | 26.621 | 26.721 | 26.821 | 26.921 | 27.021 | 27.121 | 27.221 | 27.321 | 27.421 | 27.521 | 27.621 | 27.721 | 27.821 | 27.921 | 28.021 | 28.121 | 28.221 | 28.321 | 28.421 | 28.521 | 28.621 | 28.721 | 28.821 | 28.921 | 29.021 | 29.121 | 29.221 | 29.321 | 29.421 | 29.521 | 29.621 | 29.721 | 29.821 | 29.921 | 30.021 | 30.121 | 30.221 | 30.321 | 30.421 | 30.521 | 30.621 | 30.721 | 30.821 | 30.921 | 31.021 | 31.121 | 31.221 | 31.321 | 31.421 | 31.521 | 31.621 | 31.721 | 31.821 | 31.921 | 32.021 | 32.121 | 32.221 | 32.321 | 32.421 | 32.521 | 32.621 | 32.721 | 32.821 | 32.921 | 33.021 | 33.121 | 33.221 | 33.321 | 33.421 | 33.521 | 33.621 | 33.721 | 33.821 | 33.921 | 34.021 | 34.121 | 34.221 | 34.321 | 34.421 | 34.521 | 34.621 | 34.721 | 34.821 | 34.921 | 35.021 | 35.121 | 35.221 | 35.321 | 35.421 | 35.521 | 35.621 | 35.721 | 35.821 | 35.921 | 36.021 | 36.121 | 36.221 | 36.321 | 36.421 | 36.521 | 36.621 | 36.721 | 36.821 | 36.921 | 37.021 | 37.121 | 37.221 | 37.321 | 37.421 | 37.521 | 37.621 | 37.721 | 37.821 | 37.921 | 38.021 | 38.121 | 38.221 | 38.321 | 38.421 | 38.521 | 38.621 | 38.721 | 38.821 | 38.921 | 39.021 | 39.121 | 39.221 | 39.321 | 39.421 | 39.521 | 39.621 | 39.721 | 39.821 | 39.921 | 40.021 | 40.121 | 40.221 | 40.321 | 40.421 | 40.521 | 40.621 | 40.721 | 40.821 | 40.921 | 41.021 | 41.121 | 41.221 | 41.321 | 41.421 | 41.521 | 41.621 | 41.721 | 41.821 | 41.921 | 42.021 | 42.121 | 42.221 | 42.321 | 42.421 | 42.521 | 42.621 | 42.721 | 42.821 | 42.921 | 43.021 | 43.121 | 43.221 | 43.321 | 43.421 | 43.521 | 43.621 | 43.721 | 43.821 | 43.921 | 44.021 | 44.121 | 44.221 | 44.321 | 44.421 | 44.521 | 44.621 | 44.721 | 44.821 | 44.921 | 45.021 | 45.121 | 45.221 | 45.321 | 45.421 | 45.521 | 45.621 | 45.721 | 45.821 | 45.921 | 46.021 | 46.121 | 46.221 | 46.321 | 46.421 | 46.521 | 46.621 | 46.721 | 46.821 | 46.921 | 47.021 | 47.121 | 47.221 | 47.321 | 47.421 | 47.521 | 47.621 | 47.721 | 47.821 | 47.921 | 48.021 | 48.121 | 48.221 | 48.321 | 48.421 | 48.521 | 48.621 | 48.721 | 48.821 | 48.921 | 49.021 | 49.121 | 49.221 | 49.321 | 49.421 | 49.521 | 49.621 | 49.721 | 49.821 | 49.921 | 50.021 | 50.121 | 50.221 | 50.321 | 50.421 | 50.521 | 50.621 | 50.721 | 50.821 | 50.921 | 51.021 | 51.121 | 51.221 | 51.321 | 51.421 | 51.521 | 51.621 | 51.721 | 51.821 | 51.921 | 52.021 | 52.121 | 52.221 | 52.321 | 52.421 | 52.521 | 52.621 | 52.721 | 52.821 | 52.921 | 53.021 | 53.121 | 53.221 | 53.321 | 53.421 | 53.521 | 53.621 | 53.721 | 53.821 | 53.921 | 54.021 | 54.121 | 54.221 | 54.321 | 54.421 | 54.521 | 54.621 | 54.721 | 54.821 | 54.921 | 55.021 | 55.121 | 55.221 | 55.321 | 55.421 | 55.521 | 55.621 | 55.721 | 55.821 | 55.921 | 56.021 | 56.121 | 56.221 | 56.321 | 56.421 | 56.521 | 56.621 | 56.721 | 56.821 | 56.921 | 57.021 | 57.121 | 57.221 | 57.321 | 57.421 | 57.521 | 57.621 | 57.721 | 57.821 | 57.921 | 58.021 | 58.121 | 58.221 | 58.321 | 58.421 | 58.521 | 58.621 | 58.721 | 58.821 | 58.921 | 59.021 | 59.121 | 59.221 | 59.321 | 59.421 | 59.521 | 59.621 | 59.721 | 59.821 | 59.921 | 60.021 | 60.121 | 60.221 | 60.321 | 60.421 | 60.521 | 60.621 | 60.721 | 60.821 | 60.921 | 61.021 | 61.121 | 61.221 | 61.321 | 61.421 | 61.521 | 61.621 | 61.721 | 61.821 | 61.921 | 62.021 | 62.121 | 62.221 | 62.321 | 62.421 | 62.521 | 62.621 | 62.721 | 62.821 | 62.921 | 63.021 | 63.121 | 63.221 | 63.321 | 63.421 | 63.521 | 63.621 | 63.721 | 63.821 | 63.921 | 64.021 | 64.121 | 64.221 | 64.321 | 64.421 | 64.521 | 64.621 | 64.721 | 64.821 | 64.921 | 65.021 | 65.121 | 65.221 | 65.321 | 65.421 | 65.521 | 65.621 | 65.721 | 65.821 | 65.921 | 66.021 | 66.121 | 66.221 | 66.321 | 66.421 | 66.521 | 66.621 | 66.721 | 66.821 | 66.921 | 67.021 | 67.121 | 67.221 | 67.321 | 67.421 | 67.521 | 67.621 | 67.721 | 67.821 | 67.921 | 68.021 | 68.121 | 68.221 | 68.321 | 68.421 | 68.521 | 68.621 | 68.721 | 68.821 | 68.921 | 69.021 | 69.121 | 69.221 | 69.321 | 69.421 | 69.521 | 69.621 | 69.721 | 69.821 | 69.921 | 70.021 | 70.121 | 70.221 | 70.321 | 70.421 | 70.521 | 70.621 | 70.721 | 70.821 | 70.921 | 71.021 | 71.121 | 71.221 | 71.321 | 71.421 | 71.521 | 71.621 | 71.721 | 71.821 | 71.921 | 72.021 | 72.121 | 72.221 | 72.321 | 72.421 | 72.521 | 72.621 | 72.721 | 72.821 | 72.921 | 73.021 | 73.121 | 73.221 | 73.321 | 73.421 | 73.521 | 73.621 | 73.721 | 73.821 | 73.921 | 74.021 | 74.121 | 74.221 | 74.321 | 74.421 | 74.521 | 74.621 | 74.721 | 74.821 | 74.921 | 75.021 | 75.121 | 75.221 | 75.321 | 75.421 | 75.521 | 75.621 | 75.721 | 75.821 | 75.921 | 76.021 | 76.121 | 76.221 | 76.321 | 76.421 | 76.521 | 76.621 | 76.721 | 76.821 | 76.921 | 77.021 | 77.121 | 77.221 | 77.321 | 77.421 | 77.521 | 77.621 | 77.721 | 77.821 | 77.921 | 78.021 | 78.121 | 78.221 | 78.321 | 78.421 | 78.521 | 78.621 | 78.721 | 78.821 | 78.921 | 79.021 | 79.121 | 79.221 | 79.321 | 79.421 | 79.521 | 79.621 | 79.721 | 79.821 | 79.921 | 80.021 | 80.121 | 80.221 | 80.321 | 80.421 | 80.521 | 80.621 | 80.721 | 80.821 | 80.921 | 81.021 | 81.121 | 81.221 | 81.321 | 81.421 | 81.521 | 81.621 | 81.721 | 81.821 | 81.921 | 82.021 | 82.121 | 82.221 | 82.321 | 82.421 | 82.521 | 82.621 | 82.721 | 82.821 | 82.921 | 83.021 | 83.121 | 83.221 | 83.321 | 83.421 | 83.521 | 83.621 | 83.721 | 83.821 | 83.921 | 84.021 | 84.121 | 84.221 | 84.321 | 84.421 | 84.521 | 84.621 | 84.721 | 84.821 | 84.921 | 85.021 | 85.121 | 85.221 | 85.321 | 85.421 | 85.521 | 85.621 | 85.721 | 85.821 | 85.921 | 86.021 | 86.121 | 86.221 | 86.321 | 86.421 | 86.521 | 86.621 | 86.721 | 86.821 | 86.921 | 87.021 | 87.121 | 87.221 | 87.321 | 87.421 | 87.521 | 87.621 | 87.721 | 87.821 | 87.921 | 88.021 | 88.121 | 88.221 | 88.321 | 88.421 | 88.521 | 88.621 | 88.721 | 88.821 | 88.921 | 89.021 | 89.121 | 89.221 | 89.321 | 89.421 | 89.521 | 89.621 | 89.721 | 89.821 | 89.921 | 90.021 | 90.121 | 90.221 | 90.321 | 90.421 | 90.521 | 90.621 | 90.721 | 90.821 | 90.921 | 91.021 | 91.121 | 91.221 | 91.321 | 91.421 | 91.521 | 91.621 | 91.721 | 91.821 | 91.921 | 92.021 | 92.121 | 92.221 | 92.321 | 92.421 | 92.521 | 92.621 | 92.721 | 92.821 | 92.921 | 93.021 | 93.121 | 93.221 | 93.321 | 93.421 | 93.521 | 93.621 | 93.721 | 93.821 | 93.921 | 94.021 | 94.121 | 94.221 | 94.321 | 94.421 | 94.521 | 94.621 | 94.721 | 94.821 | 94.921 | 95.021 | 95.121 | 95.221 | 95.321 | 95.421 | 95.521 | 95.621 | 95.721 | 95.821 | 95.921 | 96.021 | 96.121 | 96.221 | 96.321 | 96.421 | |

NEW

| ITEM | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STAN. DEV. | S-CORR | -1 | 62 | -3 | 10K |
|------|------------------|-------------|-------------|-------------|-------------|--------------|-------|------------|--------|-------|-------|-------|-------------------------------------|
| 8.15 | 72 NUMBER 24 | 0.114 25 | 0.027 4 | 0.041 9 | 0.123 27 | 0.031 62 | 0.916 | 0.022 | 0.014 | 5.000 | 5.776 | 1.071 | TOTAL RESPONDENTS FOR ITEM 74= 194 |
| 8.16 | 93 NUMBER 2 | 0.256 56 | 0.043 10 | 0.081 20 | 0.077 17 | 0.233 52 | 2.014 | 0.072 | 1.370 | 0.176 | 0.002 | 0.191 | TOTAL RESPONDENTS FOR ITEM 23= 195 |
| 8.17 | 94 NUMBER 2 | 0.302 60 | 0.045 10 | 0.030 11 | 0.073 14 | 0.220 56 | 2.113 | -0.222 | 1.032 | 0.100 | 0.002 | 0.030 | TOTAL RESPONDENTS FOR ITEM 74= 195 |
| 8.18 | 95 NUMBER 2 | 0.119 25 | 0.018 4 | 0.064 14 | 0.135 23 | 0.330 72 | 1.689 | 0.027 | 0.100 | 5.044 | 0.002 | 2.110 | TOTAL RESPONDENTS FOR ITEM 75= 195 |
| 8.19 | 96 NUMBER 2 | 0.173 39 | 0.022 5 | 0.058 15 | 0.123 26 | 0.232 52 | 1.834 | 0.111 | 2.750 | 0.007 | 0.070 | 0.041 | TOTAL RESPONDENTS FOR ITEM 90= 192 |
| 8.20 | 97 NUMBER 3 | 0.307 57 | 0.027 6 | 0.040 10 | 0.068 15 | 0.235 52 | 2.125 | -0.201 | 1.201 | 4.233 | 0.550 | 0.034 | TOTAL RESPONDENTS FOR ITEM 77= 180 |
| 8.21 | 98 NUMBER 3 | 0.150 31 | 0.000 0 | 0.022 5 | 0.068 15 | 0.541 119 | 1.318 | -0.011 | 4.860 | 0.677 | 0.000 | 1.220 | TOTAL RESPONDENTS FOR ITEM 98= 194 |
| 8.22 | 99 NUMBER 3 | 0.173 39 | 0.022 5 | 0.027 5 | 0.145 30 | 0.467 102 | 1.931 | -0.091 | 0.620 | 5.480 | 0.597 | 2.012 | TOTAL RESPONDENTS FOR ITEM 79= 205 |
| 8.23 | 100 NUMBER 3 | 0.142 31 | 0.022 5 | 0.030 9 | 0.050 11 | 0.17 71 | 1.773 | 0.001 | 4.181 | 0.100 | 0.000 | 1.702 | TOTAL RESPONDENTS FOR ITEM 100= 200 |
| 8.24 | 101 NUMBER 11 | 0.193 40 | 0.027 6 | 0.013 3 | 0.045 10 | 0.449 98 | 1.928 | -0.213 | 0.775 | 5.390 | 0.971 | 2.196 | TOTAL RESPONDENTS FOR ITEM 101= 207 |
| 8.25 | 102 NUMBER 1 | 0.252 55 | 0.041 9 | 0.022 5 | 0.036 8 | 0.348 76 | 2.088 | -0.204 | 1.427 | 4.990 | 0.823 | 4.401 | TOTAL RESPONDENTS FOR ITEM 102= 204 |
| 8.26 | 103 NUMBER 20 | 0.380 83 | 0.022 5 | 0.036 8 | 0.013 3 | 0.302 66 | 2.269 | -0.182 | 1.096 | 4.500 | 0.750 | 4.650 | TOTAL RESPONDENTS FOR ITEM 103= 190 |
| 9.01 | 104 NUMBER 20 | 0.357 78 | 0.064 14 | 0.059 13 | 0.059 13 | 0.197 43 | 2.100 | -0.143 | 1.105 | 2.692 | 0.343 | 4.242 | TOTAL RESPONDENTS FOR ITEM 104= 189 |
| 9.02 | 105 NUMBER 24 | 0.110 25 | 0.027 6 | 0.041 9 | 0.119 26 | 0.298 65 | 1.656 | 0.198 | 3.826 | 4.992 | 0.750 | 1.920 | TOTAL RESPONDENTS FOR ITEM 105= 194 |
| 9.03 | 106 NUMBER 17 | 0.077 17 | 0.050 12 | 0.050 11 | 0.073 16 | 0.275 60 | 1.889 | -0.063 | 2.354 | 4.840 | 0.662 | 0.308 | TOTAL RESPONDENTS FOR ITEM 106= 201 |
| 9.04 | 107 NUMBER 21 | 0.096 69 | 0.059 13 | 0.045 10 | 0.087 19 | 0.220 48 | 2.060 | -0.168 | 1.213 | 3.842 | 0.667 | 4.253 | TOTAL RESPONDENTS FOR ITEM 107= 197 |
| 9.05 | 108 NUMBER 22 | 0.100 85 | 0.050 11 | 0.032 7 | 0.077 17 | 0.169 37 | 2.087 | -0.102 | 1.076 | 2.785 | 0.192 | 4.115 | TOTAL RESPONDENTS FOR ITEM 108= 196 |
| 9.06 | 109 NUMBER 22 | 0.100 56 | 0.041 9 | 0.036 8 | 0.091 20 | 0.270 59 | 2.048 | -0.077 | 1.375 | 4.615 | 0.667 | 4.294 | TOTAL RESPONDENTS FOR ITEM 109= 196 |

| ITEM | 1 | 2 | 3 | 4 | 5 | 6 | MEAN | STDEV | DEV | SD | WK | | |
|---------------------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------------------------------|-------|-------|-------|-------|-------|-------|
| 129 11.10 NUMBER 19 | 0.380 83 | 0.036 6 | 0.059 13 | 0.082 18 | 0.142 31 | 0.211 45 | 3.221 | 2.110 | 0.034 | 1.039 | 3.150 | 3.037 | 4.279 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 129= 195 | | | | | | |
| 129 11.11 NUMBER 15 | 0.440 95 | 0.045 10 | 0.068 15 | 0.082 18 | 0.091 20 | 0.184 41 | 2.895 | 2.072 | 0.021 | 1.020 | 1.039 | 3.050 | 4.029 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 129= 200 | | | | | | |
| 130 11.12 NUMBER 19 | 0.357 73 | 0.027 6 | 0.035 12 | 0.050 11 | 0.151 32 | 0.270 59 | 3.462 | 2.184 | 0.198 | 1.137 | 3.025 | 3.650 | 4.013 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 130= 199 | | | | | | |
| 131 11.13 NUMBER 20 | 0.197 43 | 0.014 4 | 0.022 5 | 0.077 17 | 0.224 49 | 0.366 80 | 4.338 | 1.951 | 0.20 | 3.000 | 5.112 | 3.884 | 4.881 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 131= 198 | | | | | | |
| 132 11.14 NUMBER 19 | 0.073 16 | 0.022 3 | 0.009 2 | 0.041 9 | 0.201 44 | 0.564 123 | 5.155 | 1.480 | 0.107 | 4.900 | 2.671 | 6.032 | 1.192 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 132= 199 | | | | | | |
| 133 11.15 NUMBER 24 | 0.275 60 | 0.013 3 | 0.038 15 | 0.055 12 | 0.192 42 | 0.284 62 | 3.819 | 2.094 | 0.209 | 1.308 | 4.660 | 5.717 | 4.409 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 133= 194 | | | | | | |
| 134 11.16 NUMBER 24 | 0.211 46 | 0.022 5 | 0.024 5 | 0.077 17 | 0.192 42 | 0.362 79 | 4.242 | 2.012 | 0.254 | 2.000 | 2.071 | 3.050 | 3.020 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 134= 194 | | | | | | |
| 135 11.17 NUMBER 24 | 0.178 39 | 0.018 4 | 0.034 14 | 0.073 15 | 0.192 42 | 0.362 79 | 4.314 | 1.926 | 0.114 | 2.892 | 5.071 | 5.880 | 2.990 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 135= 194 | | | | | | |
| 136 11.18 NUMBER 25 | 0.252 55 | 0.041 9 | 0.032 7 | 0.064 14 | 0.160 35 | 0.234 73 | 3.553 | 2.116 | 0.156 | 1.377 | 4.525 | 5.037 | 4.401 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 136= 193 | | | | | | |
| 137 12.01 NUMBER 24 | 0.114 25 | 0.009 2 | 0.041 9 | 0.041 9 | 0.165 35 | 0.518 113 | 4.896 | 1.720 | 0.037 | 4.597 | 5.641 | 6.070 | 1.470 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 137= 194 | | | | | | |
| 138 12.02 NUMBER 27 | 0.123 27 | 0.018 4 | 0.036 8 | 0.050 11 | 0.178 39 | 0.467 102 | 4.764 | 1.775 | 0.036 | 4.290 | 3.260 | 6.031 | 1.700 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 138= 191 | | | | | | |
| 139 12.03 NUMBER 24 | 0.096 21 | 0.018 4 | 0.059 13 | 0.045 10 | 0.192 42 | 0.477 104 | 4.855 | 1.659 | 0.058 | 4.511 | 5.557 | 6.030 | 1.521 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 139= 194 | | | | | | |
| 140 12.04 NUMBER 20 | 0.123 27 | 0.032 7 | 0.032 7 | 0.077 17 | 0.224 49 | 0.417 91 | 4.651 | 1.750 | 0.089 | 4.000 | 5.336 | 5.955 | 1.956 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 140= 198 | | | | | | |
| 141 12.05 NUMBER 20 | 0.073 16 | 0.013 3 | 0.041 9 | 0.068 15 | 0.243 53 | 0.467 102 | 4.979 | 1.483 | 0.029 | 4.622 | 5.529 | 6.014 | 1.392 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 141= 198 | | | | | | |
| 142 12.06 NUMBER 23 | 0.266 58 | 0.027 6 | 0.036 8 | 0.050 11 | 0.165 36 | 0.348 76 | 3.969 | 2.140 | 0.005 | 1.340 | 4.902 | 5.856 | 4.518 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 142= 195 | | | | | | |
| 143 12.07 NUMBER 23 | 0.064 14 | 0.004 1 | 0.036 8 | 0.105 23 | 0.247 54 | 0.435 95 | 4.984 | 1.401 | 0.157 | 4.550 | 5.053 | 5.986 | 1.435 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 143= 195 | | | | | | |
| 144 12.08 NUMBER 22 | 0.055 12 | 0.000 0 | 0.050 11 | 0.119 26 | 0.288 63 | 0.385 84 | 4.938 | 1.327 | 0.151 | 4.500 | 5.277 | 5.916 | 1.416 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 144= 196 | | | | | | |
| 145 12.09 NUMBER 21 | 0.100 22 | 0.004 1 | 0.039 13 | 0.110 24 | 0.270 59 | 0.357 78 | 4.680 | 1.584 | 0.047 | 4.052 | 5.152 | 5.868 | 1.816 |
| | | | | | | | TOTAL RESPONDENTS FOR ITEM 145= 197 | | | | | | |

A 7-10

| YEAR | STA | DEV | P-CO | Q1 | Q2 | Q3 | Q4 | Q5 | Q6 |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------------------------------------|
| 12.10 | 146 | 0.100 | 0.477 | 0.027 | 0.18 | 0.64 | 0.100 | 0.211 | 0.211 |
| | NUMBER | 21 | 104 | 5 | 4 | 14 | 22 | 45 | 45 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 165= 195 |
| 12.11 | 147 | 0.095 | 0.573 | 0.059 | 0.036 | 0.095 | 0.129 | 0.129 | 0.129 |
| | NUMBER | 21 | 125 | 11 | 13 | 8 | 12 | 28 | 28 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 147= 197 |
| 12.12 | 148 | 0.100 | 0.472 | 0.027 | 0.036 | 0.065 | 0.125 | 0.191 | 0.191 |
| | NUMBER | 21 | 103 | 6 | 8 | 10 | 25 | 43 | 43 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 148= 195 |
| 12.13 | 149 | 0.091 | 0.183 | 0.004 | 0.019 | 0.077 | 0.220 | 0.399 | 0.399 |
| | NUMBER | 21 | 41 | 1 | 4 | 17 | 48 | 87 | 87 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 149= 198 |
| 12.14 | 150 | 0.095 | 0.500 | 0.022 | 0.027 | 0.050 | 0.123 | 0.179 | 0.179 |
| | NUMBER | 21 | 139 | 5 | 6 | 11 | 27 | 39 | 39 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 150= 197 |
| 12/15 | 151 | 0.091 | 0.371 | 0.013 | 0.032 | 0.059 | 0.142 | 0.286 | 0.286 |
| | NUMBER | 21 | 81 | 3 | 7 | 13 | 31 | 63 | 63 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 151= 192 |
| 12.16 | 152 | 0.095 | 0.220 | 0.018 | 0.032 | 0.055 | 0.142 | 0.325 | 0.325 |
| | NUMBER | 21 | 48 | 4 | 7 | 12 | 31 | 71 | 71 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 152= 195 |
| 13.01 | 153 | 0.100 | 0.096 | 0.013 | 0.059 | 0.100 | 0.311 | 0.316 | 0.316 |
| | NUMBER | 21 | 21 | 3 | 13 | 22 | 62 | 64 | 64 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 153= 196 |
| 13.02 | 154 | 0.091 | 0.270 | 0.041 | 0.032 | 0.082 | 0.183 | 0.247 | 0.247 |
| | NUMBER | 21 | 59 | 9 | 18 | 18 | 40 | 54 | 54 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 154= 192 |
| 13.03 | 155 | 0.100 | 0.155 | 0.036 | 0.055 | 0.110 | 0.270 | 0.266 | 0.266 |
| | NUMBER | 21 | 34 | 8 | 12 | 24 | 59 | 58 | 58 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 155= 195 |
| 13.04 | 156 | 0.095 | 0.146 | 0.027 | 0.059 | 0.114 | 0.239 | 0.325 | 0.325 |
| | NUMBER | 21 | 32 | 6 | 13 | 25 | 52 | 71 | 71 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 156= 199 |
| 13.05 | 157 | 0.100 | 0.293 | 0.050 | 0.050 | 0.100 | 0.188 | 0.215 | 0.215 |
| | NUMBER | 21 | 64 | 11 | 11 | 22 | 41 | 47 | 47 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 157= 196 |
| 13.06 | 158 | 0.100 | 0.477 | 0.027 | 0.073 | 0.077 | 0.128 | 0.114 | 0.114 |
| | NUMBER | 21 | 104 | 6 | 15 | 17 | 28 | 25 | 25 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 158= 196 |
| 13.07 | 159 | 0.095 | 0.362 | 0.027 | 0.059 | 0.087 | 0.183 | 0.183 | 0.183 |
| | NUMBER | 21 | 79 | 6 | 13 | 19 | 40 | 40 | 40 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 159= 197 |
| 13.08 | 160 | 0.123 | 0.110 | 0.041 | 0.097 | 0.100 | 0.220 | 0.316 | 0.316 |
| | NUMBER | 27 | 24 | 9 | 19 | 22 | 48 | 69 | 69 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 160= 191 |
| 13.09 | 161 | 0.123 | 0.169 | 0.050 | 0.077 | 0.160 | 0.239 | 0.183 | 0.183 |
| | NUMBER | 27 | 37 | 11 | 17 | 32 | 51 | 40 | 40 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 161= 191 |
| 13.10 | 162 | 0.100 | 0.096 | 0.027 | 0.082 | 0.128 | 0.252 | 0.311 | 0.311 |
| | NUMBER | 22 | 21 | 6 | 18 | 28 | 55 | 68 | 68 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 162= 196 |
| 13.11 | 163 | 0.100 | 0.247 | 0.064 | 0.073 | 0.146 | 0.183 | 0.183 | 0.183 |
| | NUMBER | 22 | 54 | 14 | 16 | 32 | 40 | 40 | 40 |
| | | | | | | | | | TOTAL RESPONDENTS FOR ITEM 163= 196 |

| ITEM | 1 | 2 | 3 | 4 | 5 | MEAN | STAN DEV | D-COR | SS | SD | VAR |
|-------|-------------|------------|-------------|------------|------------|--------------------------------|----------|-------|-------|-------|-------|
| 14.17 | 0.59 107 | 0.22 7 | 0.59 107 | 0.41 10 | 0.11 24 | 2.069 | 0.190 | 1.429 | 1.429 | 1.429 | 2.069 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 177 | | | | | |
| 14.18 | 0.54 105 | 0.34 5 | 0.54 105 | 0.41 9 | 0.24 21 | 2.069 | 0.190 | 1.429 | 1.429 | 1.429 | 2.069 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 183 | | | | | |
| 14.19 | 0.44 101 | 0.36 6 | 0.44 101 | 0.59 13 | 0.22 22 | 2.069 | 0.190 | 1.429 | 1.429 | 1.429 | 2.069 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 184 | | | | | |
| 14.20 | 0.51 94 | 0.27 6 | 0.51 94 | 0.42 10 | 0.14 25 | 2.116 | 0.204 | 1.626 | 1.626 | 1.626 | 2.116 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 185 | | | | | |
| 14.21 | 0.49 99 | 0.27 6 | 0.49 99 | 0.45 10 | 0.20 21 | 2.223 | 0.223 | 1.943 | 1.943 | 1.943 | 2.223 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 186 | | | | | |
| 14.22 | 0.49 107 | 0.29 10 | 0.49 107 | 0.42 10 | 0.21 25 | 2.069 | 0.190 | 1.429 | 1.429 | 1.429 | 2.069 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 187 | | | | | |
| 14.23 | 0.47 103 | 0.27 6 | 0.47 103 | 0.41 9 | 0.11 24 | 2.122 | 0.204 | 1.626 | 1.626 | 1.626 | 2.122 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 188 | | | | | |
| 14.24 | 0.42 115 | 0.32 7 | 0.42 115 | 0.50 11 | 0.23 16 | 2.069 | 0.190 | 1.429 | 1.429 | 1.429 | 2.069 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 189 | | | | | |
| 14.25 | 0.41 92 | 0.32 7 | 0.41 92 | 0.59 12 | 0.11 25 | 2.105 | 0.224 | 1.924 | 1.924 | 1.924 | 2.105 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 190 | | | | | |
| 14.26 | 0.41 97 | 0.22 5 | 0.41 97 | 0.41 9 | 0.21 27 | 2.036 | 0.204 | 1.626 | 1.626 | 1.626 | 2.036 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 191 | | | | | |
| 14.27 | 0.45 93 | 0.22 5 | 0.45 93 | 0.41 9 | 0.21 27 | 2.217 | 0.204 | 1.626 | 1.626 | 1.626 | 2.217 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 192 | | | | | |
| 14.28 | 0.47 104 | 0.27 6 | 0.47 104 | 0.45 10 | 0.11 24 | 2.205 | 0.213 | 1.678 | 1.678 | 1.678 | 2.205 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 193 | | | | | |
| 14.29 | 0.47 104 | 0.27 6 | 0.47 104 | 0.45 10 | 0.11 24 | 2.122 | 0.188 | 0.966 | 1.432 | 1.432 | 2.122 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 194 | | | | | |
| 14.30 | 0.45 117 | 0.22 5 | 0.45 117 | 0.41 9 | 0.21 15 | 2.068 | 0.200 | 1.633 | 1.633 | 1.633 | 2.068 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 195 | | | | | |
| 14.31 | 0.45 124 | 0.27 6 | 0.45 124 | 0.41 9 | 0.21 16 | 2.032 | 0.219 | 0.893 | 1.286 | 1.286 | 2.032 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 196 | | | | | |
| 14.32 | 0.45 124 | 0.27 6 | 0.45 124 | 0.41 9 | 0.21 16 | 2.209 | 0.200 | 1.633 | 1.633 | 1.633 | 2.209 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 197 | | | | | |
| 14.33 | 0.45 137 | 0.27 6 | 0.45 137 | 0.41 9 | 0.21 15 | 2.121 | 0.121 | 0.859 | 1.218 | 1.218 | 2.121 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 198 | | | | | |
| 14.34 | 0.47 147 | 0.32 7 | 0.47 147 | 0.41 9 | 0.22 5 | 2.023 | 0.131 | 0.833 | 1.170 | 1.170 | 2.023 |
| | | | | | | TOTAL RESPONDENTS FOR ITEM 199 | | | | | |

AJD-14

TEST RELIABILITY

| TEST | RELIABILITY | TEST | RELIABILITY |
|-------------------|--------------------------|------|----------------|
| AVOCS : 217:30A-U | 217. 133029627.0000 | IS | 8434556.02343 |
| AVOCS : 217:30B | 218. 572732564.0000 | IS | 25-77274001465 |
| AVOCS : 217:30C | 43517. 353-077443.0000 | IS | 741597.02007 |
| AVOCS : 217:30D | -21001. -5723711300.0000 | IS | 260206.79047 |

RELIABILITY COEFFICIENT = 1.00000
 STANDARD ERROR OF MEASUREMENT = 2911.27002
 MEAN SCORE = 72830.764
 STANDARD DEVIATION = 41132.078

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Southern College of Optometry, Memphis, Tennessee
University of Alabama, Birmingham, Alabama

SUPPLEMENT

TO

FINAL REPORT

PROJECT NO. 11.009.151

TASK ANALYSIS

OPTOMETRIC ASSISTANT

OCTOBER, 1974

Marvin A. Schrader

110

CONTENTS

| | |
|--|-----|
| General | 106 |
| Average of Frequency Responses | |
| 1. Type of Optometric Practice | 108 |
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Task Analysis results end up as a series of numbers which are in themselves worth very little to the curriculum persons and instructors involved. In order that the numbers have value and the efforts of obtaining this data be justified, decision points must be set. Decision points are points that define parameters of categories. In this study, the categories decided upon were: 1) essential task; must be included at level indicated, 2) nonessential task; recommended for inclusion at level indicated, 3) task can be eliminated without being detrimental to the program; may be nice to know.

The decision points in this study were defined using the mean of the frequency as the criteria. Even though page 15 of the final report indicated that both frequency and proficiency would be utilized, it was decided that only frequency would be used in determining whether or not a task should be included. The proficiency mean would then only be used in studying the level needed by the students. The decision points were set as presented below. Following these is a listing of the tasks under each of the categories.

| Category | Decision Point(s) |
|---|-------------------|
| 1. Essential task; must be included | 3.00 and above |
| 2. Nonessential task; recommended for inclusion | 2.00-3.99 |
| 3. Task that can be eliminated | below 2.00 |

The following has been based on frequency data given on page 61 of the final report Task Analysis--Optometric Assistant, June, 1974.

**Essential Task
Must Be Included**

1.01--1.09
2.01--2.04
2.06, 2.07, 2.09,
3.04, 3.06, 3.07
3.09, 4.01--4.07
4.09--6.02
6.09--6.11
6.18, 7.01--8.10
8.12

**Essential Task
Must Be Included**

8.15, 8.18--8.25
9.02, 10.01--11.07
11.09, 11.13--12.09
12.13, 12.15--13.04
13.08--13.10
13.13, 14.08, 14.26
14.27, 14.32

Total = 125 Tasks

**Nonessential Tasks
Recommended for Inclusion**

2.05, 2.08, 3.01
3.08, 4.08, 6.12
6.15, 7.17, 7.19
8.11, 8.13, 8.14
8.16, 8.17, 8.26
9.01, 9.03--9.07

**Nonessential Tasks
Recommended for Inclusion**

11.08, 11.10--11.12
12.10, 12.12, 12.14
13.05, 13.07, 13.11
13.12, 14.01--14.07
14.09--14.13, 14.16--14.25
14.28--14.31, 14.34, 14.37

Total = 65 Tasks

**Nonessential Tasks--
Not Recommended for Inclusion**

3.02, 3.03
6.13, 6.14
6.16

**Nonessential Tasks--
Not Recommended for Inclusion**

12.11, 14.14
14.15, 14.2?
14.33--14.35

Total = 12 Tasks

The following pages containing tables of means are included so that a person might determine if there was a significant difference between the groups of respondents. In general, a difference greater than 0.4 is significant.

There are a number of tasks in which the responses from the different practice categories are significantly different. This indicates that a different set of tasks should be used if assistants were to be trained specifically for each type of practice. At the present time, this will not be feasible because of the small number of optometric practices in several of the categories. As these numbers grow, this decision will have to be reevaluated.

AVERAGE OF FREQUENCY RESPONSES

| <u>Item Number</u> | <u>Type of Optometric Practice</u> | | | <u>All</u> | <u>Jury</u> |
|--------------------|------------------------------------|--|-------------------------------|-------------------------------------|------------------------|
| | <u>General N=16</u> | <u>General & Contact N=143</u> | <u>Contact Lenses N=8</u> | <u>Optom- etrists N=173</u> | <u>Members N=7</u> |
| 1.01 | 5.29 | 5.96 | 6.00 | 4.64 | 5.43 |
| 1.02 | 6.00 | 5.46 | 4.38 | 4.04 | 5.29 |
| 1.03 | 4.14 | 4.99 | 4.75 | 3.95 | 5.14 |
| 1.04 | 4.29 | 3.93 | 4.63 | 3.23 | 4.33 |
| 1.05 | 3.43 | 4.63 | 5.71 | 3.55 | 5.00 |
| 1.06 | 5.43 | 5.70 | 6.00 | 4.09 | 5.86 |
| 1.07 | 5.43 | 5.64 | 5.86 | 4.08 | 6.00 |
| 1.08 | 5.36 | 5.70 | 5.75 | 4.08 | 6.00 |
| 1.09 | 4.29 | 4.50 | 4.00 | 3.39 | 5.86 |
| 2.01 | 5.71 | 5.86 | 6.00 | 4.15 | 6.00 |
| 2.02 | 5.71 | 5.59 | 5.88 | 3.97 | 5.29 |
| 2.03 | 4.36 | 4.92 | 5.75 | 3.69 | 5.86 |
| 2.04 | 3.86 | 4.36 | 3.13 | 3.20 | 4.43 |
| 2.05 | 3.00 | 2.52 | 1.88 | 2.07 | 3.71 |
| 2.06 | 4.00 | 3.96 | 2.88 | 3.08 | 4.57 |
| 2.07 | 4.71 | 4.82 | 5.00 | 4.29 | 5.14 |
| 2.08 | 2.79 | 3.13 | 1.88 | 2.83 | 3.86 |
| 2.09 | 3.29 | 3.78 | 3.25 | 2.96 | 4.43 |
| 3.01 | 4.00 | 2.87 | 3.50 | 2.17 | 3.57 |
| 3.02 | 1.71 | 1.75 | 1.38 | 1.77 | 2.86 |
| 3.03 | 1.93 | 1.82 | 1.88 | 1.67 | 2.33 |
| 3.04 | 5.36 | 5.20 | 5.88 | 4.21 | 6.00 |
| 3.05 | 3.57 | 3.93 | 2.38 | 2.98 | 3.57 |
| 3.06 | 5.07 | 5.42 | 4.75 | 3.83 | 5.57 |
| 3.07 | 4.07 | 5.011 | 5.00 | 3.61 | 6.00 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optometrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------|----------------|
| 3.08 | 2.86 | 3.33 | 2.63 | 2.57 | 3.43 |
| 3.09 | 4.64 | 4.80 | 5.38 | 3.59 | 5.86 |
| 4.01 | 5.43 | 5.98 | 6.00 | 5.72 | 6.00 |
| 4.02 | 5.29 | 4.52 | 6.00 | 4.32 | 5.86 |
| 4.03 | 5.14 | 4.73 | 5.00 | 4.54 | 5.86 |
| 4.04 | 4.57 | 5.05 | 5.75 | 4.78 | 5.43 |
| 4.05 | 3.93 | 4.17 | 5.13 | 3.82 | 4.57 |
| 4.06 | 3.85 | 3.78 | 4.25 | 3.81 | 4.29 |
| 4.07 | 4.28 | 4.40 | 5.25 | 4.03 | 3.43 |
| 4.08 | 2.79 | 2.71 | 3.75 | 2.78 | 3.86 |
| 4.09 | 4.36 | 4.53 | 5.25 | 4.38 | 4.17 |
| 4.10 | 4.07 | 4.41 | 4.75 | 4.54 | 4.29 |
| 4.11 | 3.93 | 3.42 | 4.88 | 3.55 | 4.29 |
| 4.12 | 4.08 | 3.97 | 4.38 | 4.03 | 3.71 |
| 4.13 | 4.36 | 4.27 | 5.50 | 4.18 | 5.29 |
| 5.01 | 5.21 | 5.79 | 6.00 | 5.45 | 6.00 |
| 5.02 | 3.54 | 3.78 | 4.13 | 3.63 | 3.14 |
| 5.03 | 4.43 | 5.28 | 5.38 | 5.05 | 5.00 |
| 5.04 | 5.64 | 5.95 | 6.00 | 5.60 | 6.00 |
| 5.05 | 4.86 | 3.87 | 4.13 | 3.69 | 4.86 |
| 5.06 | 5.36 | 5.60 | 5.75 | 5.25 | 5.00 |
| 5.07 | 5.54 | 5.45 | 5.86 | 5.18 | 4.29 |
| 6.01 | 5.50 | 5.40 | 5.38 | 5.07 | 5.71 |
| 6.02 | 5.14 | 5.18 | 4.00 | 4.88 | 5.14 |
| 6.03 | 2.71 | 2.60 | 3.50 | 2.43 | 3.29 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optometrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------|----------------|
| 6.04 | 3.21 | 2.80 | 2.38 | 2.66 | 3.57 |
| 6.05 | 2.77 | 2.67 | 3.00 | 2.53 | 2.83 |
| 6.06 | 3.57 | 2.92 | 2.63 | 2.78 | 3.29 |
| 6.07 | 2.64 | 2.62 | 2.50 | 2.58 | 2.71 |
| 6.08 | 2.08 | 2.29 | 2.25 | 2.21 | 3.14 |
| 6.09 | 3.79 | 3.70 | 2.88 | 3.15 | 4.00 |
| 6.10 | 3.57 | 4.13 | 4.00 | 4.00 | 4.71 |
| 6.11 | 3.36 | 3.85 | 3.50 | 3.52 | 4.29 |
| 6.12 | 3.17 | 2.76 | 3.13 | 2.69 | 3.86 |
| 6.13 | 2.14 | 1.51 | 1.25 | 1.45 | 1.67 |
| 6.14 | 2.38 | 2.33 | 1.25 | 1.87 | 1.80 |
| 6.15 | 3.43 | 3.66 | 3.63 | 2.70 | 3.83 |
| 6.16 | 1.54 | 1.34 | 1.75 | 1.33 | 1.71 |
| 6.17 | 1.54 | 1.13 | 1.14 | 2.33 | 1.14 |
| 6.18 | 3.43 | 3.05 | 2.13 | 3.20 | 2.83 |
| 6.19 | 3.92 | 2.51 | 2.75 | 2.77 | 3.43 |
| 7.01 | 4.86 | 5.49 | 5.88 | 4.08 | 5.86 |
| 7.02 | 5.46 | 5.19 | 6.00 | 4.02 | 5.29 |
| 7.03 | 5.00 | 4.98 | 6.00 | 4.88 | 4.71 |
| 7.04 | 4.43 | 5.08 | 4.75 | 4.83 | 5.57 |
| 7.05 | 4.92 | 5.29 | 6.00 | 5.60 | 5.29 |
| 7.06 | 3.46 | 4.14 | 4.38 | 4.76 | 4.43 |
| 7.07 | 3.54 | 4.04 | 4.88 | 4.39 | 4.13 |
| 7.08 | 3.21 | 4.17 | 4.50 | 4.17 | 4.00 |
| 7.09 | 3.21 | 4.20 | 4.63 | 4.41 | 4.29 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optometrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------|----------------|
| 7.10 | 2.79 | 3.79 | 4.14 | 4.57 | 3.00 |
| 7.11 | 2.57 | 2.56 | 3.14 | 3.90 | 2.71 |
| 8.01 | 4.86 | 5.01 | 6.00 | 5.24 | 4.14 |
| 8.02 | 5.43 | 5.75 | 6.00 | 5.40 | 6.00 |
| 8.03 | 5.00 | 4.90 | 4.75 | 5.21 | 4.14 |
| 8.04 | 5.38 | 5.70 | 6.00 | 5.74 | 5.29 |
| 8.05 | 4.86 | 5.38 | 6.00 | 4.98 | 4.71 |
| 8.06 | 5.31 | 5.38 | 6.00 | 4.99 | 5.14 |
| 8.07 | 4.93 | 4.93 | 5.13 | 4.04 | 4.57 |
| 8.08 | 5.00 | 4.57 | 4.75 | 4.14 | 4.43 |
| 8.09 | 3.64 | 3.32 | 3.38 | 3.90 | 3.86 |
| 8.10 | 3.29 | 3.39 | 3.50 | 3.29 | 3.14 |
| 8.11 | 2.15 | 1.82 | 2.13 | 2.53 | 2.29 |
| 8.12 | 3.69 | 3.87 | 4.00 | 3.46 | 3.71 |
| 8.13 | 2.69 | 3.29 | 4.00 | 2.85 | 2.57 |
| 8.14 | 2.93 | 3.09 | 3.75 | 2.51 | 2.29 |
| 8.15 | 3.29 | 3.27 | 3.50 | 3.96 | 3.14 |
| 8.16 | 2.64 | 2.53 | 2.43 | 2.78 | 1.86 |
| 8.17 | 2.29 | 1.93 | 1.86 | 3.14 | 2.00 |
| 8.18 | 2.79 | 3.19 | 2.57 | 3.72 | 2.57 |
| 8.19 | 2.86 | 3.06 | 3.48 | 3.04 | 2.43 |
| 8.20 | 2.62 | 2.57 | 1.43 | 3.32 | 2.00 |
| 8.21 | 4.79 | 4.36 | 5.13 | 4.94 | 3.14 |
| 8.22 | 4.00 | 3.47 | 3.50 | 4.11 | 4.17 |
| 8.23 | 4.86 | 4.08 | 4.65 | 4.30 | 3.71 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optometrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------|----------------|
| 8.24 | 4.14 | 3.70 | 4.75 | 4.05 | 2.71 |
| 8.25 | 3.36 | 3.18 | 2.00 | 3.75 | 3.14 |
| 8.26 | 2.50 | 2.01 | 1.88 | 2.72 | 2.86 |
| 9.01 | 1.64 | 1.53 | 1.38 | 2.70 | 1.57 |
| 9.02 | 3.93 | 3.97 | 3.88 | 3.40 | 3.00 |
| 9.03 | 2.71 | 2.36 | 1.88 | 3.19 | 1.43 |
| 9.04 | 1.93 | 1.60 | 1.38 | 2.63 | 2.14 |
| 9.05 | 1.79 | 1.90 | 1.63 | 2.64 | 3.29 |
| 9.06 | 2.17 | 1.70 | 2.25 | 2.60 | 1.86 |
| 9.07 | 1.83 | 1.72 | 1.63 | 2.94 | 2.17 |
| 10.01 | 4.86 | 4.48 | 3.38 | 4.98 | 5.17 |
| 10.02 | 4.77 | 4.02 | 4.00 | 4.02 | 5.29 |
| 10.03 | 4.71 | 4.30 | 2.50 | 4.72 | 4.71 |
| 10.04 | 5.21 | 4.94 | 4.38 | 5.28 | 5.29 |
| 10.05 | 3.43 | 3.61 | 3.88 | 3.57 | 4.29 |
| 10.06 | 6.00 | 5.69 | 5.63 | 5.61 | 5.86 |
| 10.07 | 2.71 | 3.15 | 2.63 | 3.92 | 3.57 |
| 10.08 | 5.57 | 5.06 | 4.50 | 5.21 | 4.86 |
| 11.01 | 2.71 | 2.58 | 3.00 | 3.53 | 4.29 |
| 11.02 | 5.14 | 5.44 | 5.50 | 4.38 | 6.00 |
| 11.03 | 2.79 | 4.00 | 3.38 | 3.55 | 4.14 |
| 11.04 | 4.07 | 4.27 | 4.50 | 3.91 | 4.86 |
| 11.05 | 3.86 | 4.51 | 4.88 | 3.93 | 5.14 |
| 11.06 | 4.64 | 5.02 | 5.38 | 4.21 | 5.43 |
| 11.07 | 4.50 | 4.88 | 5.38 | 3.87 | 5.43 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optometrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------|----------------|
| 11.08 | 2.29 | 2.72 | 3.25 | 2.86 | 3.14 |
| 11.09 | 2.31 | 3.98 | 4.25 | 3.96 | 4.29 |
| 11.10 | 1.57 | 2.27 | 2.00 | 2.70 | 3.00 |
| 11.11 | 2.29 | 2.29 | 2.88 | 2.50 | 2.00 |
| 11.12 | 2.43 | 3.34 | 4.75 | 2.71 | 3.43 |
| 11.13 | 3.21 | 4.43 | 5.13 | 3.52 | 4.14 |
| 11.14 | 5.69 | 5.70 | 6.00 | 4.98 | 6.00 |
| 11.15 | 3.46 | 3.67 | 3.63 | 2.98 | 3.14 |
| 11.16 | 4.31 | 4.69 | 5.50 | 3.62 | 5.43 |
| 11.17 | 2.85 | 4.11 | 4.88 | 3.58 | 4.71 |
| 11.18 | 2.58 | 3.83 | 4.88 | 3.32 | 4.43 |
| 12.01 | 3.23 | 4.81 | 5.50 | 5.04 | 5.29 |
| 12.02 | 3.15 | 4.55 | 4.50 | 4.82 | 5.00 |
| 12.03 | 4.08 | 4.89 | 5.88 | 4.92 | 5.29 |
| 12.04 | 3.77 | 4.66 | 5.00 | 4.54 | 4.57 |
| 12.05 | 3.75 | 4.72 | 5.50 | 4.88 | 4.29 |
| 12.06 | 2.42 | 3.29 | 4.75 | 3.42 | 4.00 |
| 12.07 | 4.42 | 5.05 | 5.50 | 4.56 | 5.29 |
| 12.08 | 4.09 | 5.01 | 5.38 | 4.62 | 4.71 |
| 12.09 | 4.15 | 4.42 | 4.50 | 4.28 | 3.83 |
| 12.10 | 1.92 | 1.60 | 3.00 | 2.79 | 3.29 |
| 12.11 | 1.85 | 1.33 | 2.88 | 1.97 | 1.00 |
| 12.12 | 1.92 | 1.78 | 1.63 | 2.87 | 1.29 |
| 12.13 | 2.33 | 3.53 | 4.00 | 4.21 | 4.71 |
| 12.14 | 2.31 | 1.54 | 3.25 | 2.96 | 2.71 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optometrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------|----------------|
| 12.15 | 2.21 | 2.52 | 3.75 | 3.51 | 3.86 |
| 12.16 | 3.61 | 3.03 | 5.00 | 4.05 | 4.00 |
| 13.01 | 4.08 | 3.76 | 4.63 | 4.79 | 4.86 |
| 13.02 | 2.08 | 2.12 | 3.88 | 3.55 | 3.57 |
| 13.03 | 3.23 | 3.38 | 3.86 | 3.81 | 3.86 |
| 13.04 | 3.43 | 3.75 | 5.37 | 3.71 | 3.71 |
| 13.05 | 2.07 | 2.06 | 4.63 | 2.91 | 2.86 |
| 13.06 | 1.92 | 1.74 | 3.75 | 2.13 | 3.50 |
| 13.07 | 2.50 | 1.83 | 3.75 | 2.91 | 1.50 |
| 13.08 | 3.85 | 3.82 | 5.63 | 3.71 | 4.29 |
| 13.09 | 2.77 | 2.73 | 3.00 | 3.01 | 3.67 |
| 13.10 | 3.23 | 3.22 | 3.50 | 3.43 | 3.71 |
| 13.11 | 2.69 | 2.59 | 2.88 | 2.79 | 3.71 |
| 13.12 | 2.08 | 2.71 | 3.88 | 2.60 | 4.00 |
| 13.13 | 4.31 | 3.72 | 4.13 | 3.55 | 3.57 |
| 14.01 | 2.54 | 2.40 | 3.00 | 3.06 | 4.33 |
| 14.02 | 2.62 | 2.56 | 2.75 | 2.97 | 3.83 |
| 14.03 | 2.62 | 1.84 | 1.50 | 3.02 | 2.50 |
| 14.04 | 2.21 | 1.42 | 1.50 | 2.49 | 2.33 |
| 14.05 | 1.86 | 1.56 | 1.50 | 2.84 | 3.67 |
| 14.06 | 2.08 | 1.78 | 2.13 | 2.77 | 3.86 |
| 14.07 | 1.77 | 1.26 | 1.38 | 2.34 | 3.00 |
| 14.08 | 3.38 | 3.19 | 3.88 | 3.14 | 4.57 |
| 14.09 | 1.31 | 1.53 | 1.50 | 2.15 | 3.14 |
| 14.10 | 1.77 | 1.53 | 1.50 | 2.91 | 3.43 |

| <u>Item Number</u> | <u>General</u> | <u>General & Contact</u> | <u>Contact Lenses</u> | <u>Optom- etrists</u> | <u>Members</u> |
|--------------------|----------------|------------------------------|-----------------------|---------------------------|----------------|
| 14.11 | 1.77 | 2.08 | 2.25 | 2.51 | 3.43 |
| 14.12 | 1.46 | 1.84 | 1.50 | 2.12 | 2.86 |
| 14.13 | 1.62 | 1.70 | 1.88 | 2.11 | 2.57 |
| 14.14 | 2.00 | 1.69 | 1.75 | 1.96 | 2.57 |
| 14.15 | 1.29 | 1.33 | 1.25 | 1.79 | 2.43 |
| 14.16 | 2.15 | 1.55 | 1.63 | 2.77 | 2.33 |
| 14.17 | 1.85 | 1.55 | 1.63 | 2.55 | 1.83 |
| 14.18 | 1.85 | 1.42 | 1.63 | 2.72 | 1.83 |
| 14.19 | 1.85 | 1.40 | 1.63 | 2.93 | 1.83 |
| 14.20 | 1.85 | 1.51 | 2.25 | 2.76 | 2.17 |
| 14.21 | 1.69 | 1.41 | 1.63 | 3.34 | 2.40 |
| 14.22 | 1.54 | 1.41 | 1.50 | 2.26 | 2.60 |
| 14.23 | 1.31 | 1.32 | 1.13 | 2.76 | 2.40 |
| 14.24 | 1.31 | 1.24 | 1.75 | 2.17 | 2.60 |
| 14.25 | 1.31 | 1.47 | 2.13 | 3.14 | 1.80 |
| 14.26 | 3.69 | 3.52 | 4.75 | 3.78 | 5.17 |
| 14.27 | 2.92 | 2.64 | 3.75 | 3.48 | 5.17 |
| 14.28 | 2.08 | 2.01 | 2.25 | 3.34 | 5.00 |
| 14.29 | 1.29 | 1.37 | 1.88 | 2.82 | 2.00 |
| 14.30 | 1.08 | 1.27 | 1.38 | 2.53 | 1.20 |
| 14.31 | 1.54 | 1.35 | 1.38 | 2.24 | 1.80 |
| 14.32 | 1.83 | 2.80 | 3.25 | 3.28 | 3.83 |
| 14.33 | 1.15 | 1.15 | 1.00 | 1.86 | 2.00 |
| 14.34 | 1.00 | 1.08 | 1.00 | 1.58 | 1.00 |
| 14.35 | 1.00 | 1.12 | 1.13 | 2.14 | 1.40 |
| 14.36 | 1.21 | 1.18 | 1.13 | 2.54 | 1.40 |
| 14.37 | 1.36 | 1.66 | 1.13 | 3.08 | 3.00 |

AVERAGE OF FREQUENCY RESPONSES

Number of Assistants

| <u>Item Number</u> | <u>0 N = 17</u> | <u>1 N = 73</u> | <u>2 - 3 N = 106</u> | <u>Over 3 N = 22</u> |
|--------------------|---------------------|---------------------|--------------------------|--------------------------|
| 1.01 | 6.00 | 5.90 | 5.89 | 5.95 |
| 1.02 | 6.00 | 5.08 | 5.53 | 5.95 |
| 1.03 | 5.15 | 4.68 | 5.04 | 5.10 |
| 1.04 | 5.08 | 2.93 | 4.33 | 5.05 |
| 1.05 | 5.15 | 4.28 | 4.59 | 4.79 |
| 1.06 | 5.71 | 5.74 | 5.73 | 5.40 |
| 1.07 | 5.07 | 5.63 | 5.76 | 5.75 |
| 1.08 | 5.57 | 5.72 | 5.73 | 5.50 |
| 1.09 | 4.07 | 4.47 | 4.57 | 4.11 |
| 2.01 | 5.79 | 5.81 | 5.90 | 5.80 |
| 2.02 | 4.86 | 5.56 | 5.71 | 5.60 |
| 2.03 | 4.29 | 4.67 | 5.20 | 5.05 |
| 2.04 | 4.43 | 4.53 | 3.96 | 4.90 |
| 2.05 | 2.71 | 2.49 | 2.50 | 2.70 |
| 2.06 | 5.00 | 3.92 | 4.03 | 3.00 |
| 2.07 | 5.14 | 5.01 | 4.68 | 4.74 |
| 2.08 | 4.07 | 2.93 | 3.01 | 3.58 |
| 2.09 | 4.29 | 3.55 | 3.79 | 3.95 |
| 3.01 | 3.71 | 2.56 | 3.24 | 3.35 |
| 3.02 | 2.00 | 1.76 | 1.81 | 1.90 |
| 3.03 | 2.43 | 1.63 | 1.85 | 2.50 |
| 3.04 | 6.00 | 4.42 | 5.39 | 5.35 |
| 3.05 | 3.85 | 3.69 | 3.97 | 4.15 |
| 3.06 | 5.36 | 5.51 | 5.20 | 5.00 |
| 3.07 | 5.43 | 4.76 | 4.96 | 5.35 |

| <u>Item No.</u> | -2- | | | |
|-----------------|----------|----------|--------------|---------------|
| | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
| 3.08 | 4.15 | 3.01 | 3.35 | 2.89 |
| 3.09 | 4.69 | 4.51 | 5.01 | 5.00 |
| 4.01 | 6.00 | 5.92 | 5.94 | 5.75 |
| 4.02 | 4.46 | 4.31 | 4.91 | 4.90 |
| 4.03 | 5.00 | 4.55 | 4.95 | 4.65 |
| 4.04 | 5.57 | 4.88 | 5.04 | 5.35 |
| 4.05 | 4.86 | 3.76 | 4.42 | 4.75 |
| 4.06 | 4.21 | 3.85 | 3.77 | 4.20 |
| 4.07 | 5.43 | 3.57 | 4.73 | 5.75 |
| 4.08 | 4.08 | 2.06 | 3.11 | 4.05 |
| 4.09 | 4.57 | 4.30 | 4.72 | 4.70 |
| 4.10 | 5.00 | 4.15 | 4.58 | 4.53 |
| 4.11 | 3.92 | 3.20 | 3.75 | 3.35 |
| 4.12 | 4.46 | 3.80 | 4.09 | 4.22 |
| 4.13 | 4.57 | 3.84 | 4.77 | 4.32 |
| 5.01 | 5.93 | 5.60 | 5.82 | 5.74 |
| 5.02 | 4.64 | 3.27 | 4.18 | 3.26 |
| 5.03 | 5.64 | 4.90 | 5.34 | 5.47 |
| 5.04 | 6.00 | 5.90 | 5.89 | 5.95 |
| 5.05 | 4.00 | 3.85 | 4.04 | 3.60 |
| 5.06 | 5.50 | 5.33 | 5.76 | 5.90 |
| 5.07 | 5.93 | 5.28 | 5.60 | 5.39 |
| 6.01 | 5.69 | 5.45 | 5.42 | 4.95 |
| 6.02 | 5.69 | 5.11 | 5.03 | 5.00 |
| 6.03 | 3.69 | 2.10 | 2.76 | 3.63 |

| <u>Item No.</u> | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
|-----------------|----------|----------|--------------|---------------|
| 6.04 | 3.91 | 2.69 | 2.75 | 3.12 |
| 6.05 | 3.08 | 2.08 | 2.95 | 3.47 |
| 6.06 | 2.92 | 2.70 | 3.07 | 3.06 |
| 6.07 | 2.71 | 2.36 | 2.78 | 2.71 |
| 6.08 | 2.71 | 2.04 | 2.43 | 2.00 |
| 6.09 | 4.43 | 3.14 | 3.76 | 4.65 |
| 6.10 | 3.79 | 3.89 | 4.14 | 4.50 |
| 6.11 | 3.92 | 3.53 | 4.01 | 3.72 |
| 6.12 | 3.62 | 2.28 | 3.05 | 2.32 |
| 6.13 | 1.50 | 1.58 | 1.54 | 1.84 |
| 6.14 | 2.58 | 2.30 | 2.39 | 2.16 |
| 6.15 | 3.00 | 3.61 | 3.64 | 4.16 |
| 6.16 | 1.27 | 1.21 | 1.58 | 1.44 |
| 6.17 | 1.27 | 1.10 | 1.30 | 1.58 |
| 6.18 | 3.18 | 2.72 | 3.30 | 3.88 |
| 6.19 | 3.55 | 2.15 | 2.90 | 3.47 |
| 7.01 | 6.00 | 5.38 | 5.48 | 5.11 |
| 7.02 | 6.00 | 5.26 | 5.21 | 4.78 |
| 7.03 | 6.00 | 5.00 | 5.08 | 4.94 |
| 7.04 | 5.77 | 5.19 | 4.88 | 4.61 |
| 7.05 | 6.00 | 5.24 | 5.35 | 4.89 |
| 7.06 | 4.08 | 4.30 | 4.08 | 3.61 |
| 7.07 | 4.36 | 3.89 | 4.15 | 4.06 |
| 7.08 | 4.58 | 3.99 | 4.08 | 4.12 |
| 7.09 | 4.83 | 4.03 | 4.07 | 4.12 |

| <u>Item No.</u> | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
|-----------------|----------|----------|--------------|---------------|
| 7.10 | 4.58 | 3.49 | 3.72 | 4.18 |
| 7.11 | 3.83 | 2.39 | 2.64 | 2.41 |
| 8.01 | 5.33 | 4.74 | 5.17 | 5.67 |
| 8.02 | 6.00 | 5.74 | 5.80 | 5.22 |
| 8.03 | 5.42 | 4.51 | 5.01 | 5.00 |
| 8.04 | 5.50 | 5.81 | 5.68 | 5.28 |
| 8.05 | 5.30 | 5.27 | 5.44 | 5.33 |
| 8.06 | 5.60 | 5.29 | 5.52 | 5.29 |
| 8.07 | 4.73 | 4.94 | 5.00 | 5.00 |
| 8.08 | 4.09 | 4.51 | 4.78 | 4.71 |
| 8.09 | 3.27 | 3.38 | 3.25 | 3.71 |
| 8.10 | 3.36 | 3.25 | 3.50 | 3.24 |
| 8.11 | 2.60 | 1.77 | 1.84 | 1.67 |
| 8.12 | 4.17 | 3.66 | 3.84 | 4.37 |
| 8.13 | 3.93 | 3.21 | 3.26 | 3.39 |
| 8.14 | 3.18 | 3.06 | 3.09 | 3.17 |
| 8.15 | 3.50 | 3.22 | 3.32 | 3.56 |
| 8.16 | 2.23 | 2.37 | 2.67 | 2.35 |
| 8.17 | 2.15 | 1.92 | 2.06 | 1.88 |
| 8.18 | 3.00 | 3.03 | 3.17 | 3.18 |
| 8.19 | 2.75 | 2.86 | 3.16 | 3.18 |
| 8.20 | 3.00 | 2.54 | 2.56 | 3.06 |
| 8.21 | 5.15 | 4.04 | 4.58 | 2.18 |
| 8.22 | 3.46 | 3.67 | 3.36 | 4.53 |
| 8.23 | 4.46 | 3.95 | 4.24 | 4.11 |

| <u>Item No.</u> | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
|-----------------|----------|----------|--------------|---------------|
| 8.24 | 4.15 | 3.70 | 3.60 | 3.94 |
| 8.25 | 3.46 | 3.36 | 2.86 | 3.83 |
| 8.26 | 2.50 | 2.03 | 2.03 | 2.94 |
| 9.01 | 2.50 | 1.46 | 1.45 | 1.63 |
| 9.02 | 4.50 | 3.62 | 3.82 | 5.00 |
| 9.03 | 2.79 | 2.10 | 2.34 | 3.47 |
| 9.04 | 2.36 | 1.57 | 1.61 | 1.58 |
| 9.05 | 2.38 | 1.86 | 1.79 | 2.29 |
| 9.06 | 2.23 | 1.66 | 1.79 | 1.72 |
| 9.07 | 2.15 | 1.61 | 1.74 | 2.00 |
| 10.01 | 5.29 | 4.48 | 4.32 | 4.26 |
| 10.02 | 5.21 | 4.01 | 4.00 | 4.16 |
| 10.03 | 5.29 | 4.01 | 4.16 | 4.40 |
| 10.04 | 5.50 | 4.95 | 4.86 | 4.55 |
| 10.05 | 4.07 | 3.81 | 3.58 | 2.70 |
| 10.06 | 5.57 | 5.74 | 5.68 | 5.37 |
| 10.07 | 3.64 | 2.75 | 3.24 | 3.53 |
| 10.08 | 5.29 | 4.79 | 5.08 | 5.67 |
| 11.01 | 2.64 | 2.89 | 2.37 | 4.63 |
| 11.02 | 5.43 | 5.30 | 5.32 | 5.95 |
| 11.03 | 4.21 | 3.59 | 3.88 | 4.47 |
| 11.04 | 4.64 | 4.15 | 4.10 | 5.00 |
| 11.05 | 4.43 | 4.24 | 4.65 | 4.95 |
| 11.06 | 5.07 | 4.86 | 4.88 | 5.58 |
| 11.07 | 4.50 | 4.73 | 4.79 | 5.58 |

| <u>Item No.</u> | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
|-----------------|----------|----------|--------------|---------------|
| 11.08 | 3.29 | 2.24 | 3.12 | 2.63 |
| 11.09 | 4.50 | 3.36 | 4.02 | 4.79 |
| 11.10 | 2.79 | 1.89 | 2.25 | 3.11 |
| 11.11 | 2.93 | 2.18 | 2.25 | 3.47 |
| 11.12 | 3.07 | 2.63 | 3.57 | 5.16 |
| 11.13 | 4.21 | 3.82 | 4.58 | 5.37 |
| 11.14 | 5.64 | 5.71 | 5.69 | 5.63 |
| 11.15 | 3.29 | 3.44 | 3.87 | 3.58 |
| 11.16 | 4.50 | 4.68 | 4.72 | 4.95 |
| 11.17 | 4.07 | 3.55 | 4.25 | 5.00 |
| 11.18 | 3.74 | 3.32 | 3.89 | 5.11 |
| 12.01 | 4.50 | 4.46 | 4.88 | 5.11 |
| 12.02 | 4.14 | 4.06 | 4.68 | 5.05 |
| 12.03 | 4.50 | 4.85 | 4.88 | 5.00 |
| 12.04 | 4.00 | 4.53 | 4.56 | 5.05 |
| 12.05 | 4.00 | 4.58 | 4.63 | 5.16 |
| 12.06 | 3.64 | 2.48 | 3.58 | 4.21 |
| 12.07 | 4.14 | 5.01 | 5.02 | 5.32 |
| 12.08 | 3.93 | 4.93 | 4.94 | 5.42 |
| 12.09 | 3.79 | 4.26 | 4.39 | 4.79 |
| 12.10 | 1.71 | 1.58 | 1.82 | 2.72 |
| 12.11 | 1.64 | 1.18 | 1.48 | 2.32 |
| 12.12 | 2.21 | 1.39 | 1.79 | 2.84 |
| 12.13 | 3.57 | 2.86 | 3.66 | 4.37 |
| 12.14 | 1.86 | 1.50 | 1.72 | 2.63 |

| <u>Item No.</u> | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
|-----------------|----------|----------|--------------|---------------|
| 12.15 | 2.21 | 2.40 | 2.49 | 3.35 |
| 12.16 | 4.45 | 2.69 | 3.30 | 3.69 |
| 13.01 | 4.79 | 3.71 | 3.79 | 3.78 |
| 13.02 | 3.00 | 2.17 | 2.34 | 2.67 |
| 13.03 | 3.57 | 3.29 | 3.36 | 3.70 |
| 13.04 | 3.71 | 3.58 | 3.97 | 3.85 |
| 13.05 | 2.86 | 2.13 | 2.34 | 2.63 |
| 13.06 | 2.79 | 1.77 | 2.04 | 2.06 |
| 13.07 | 3.07 | 1.84 | 2.18 | 1.82 |
| 13.08 | 3.50 | 3.75 | 4.07 | 3.95 |
| 13.09 | 3.43 | 2.68 | 2.81 | 3.26 |
| 13.10 | 3.64 | 3.11 | 3.34 | 3.55 |
| 13.11 | 2.36 | 2.73 | 2.48 | 3.00 |
| 13.12 | 2.93 | 2.21 | 2.96 | 4.11 |
| 13.13 | 3.57 | 3.52 | 3.96 | 4.00 |
| 14.01 | 3.86 | 2.06 | 2.76 | 3.15 |
| 14.02 | 3.57 | 2.16 | 2.90 | 3.15 |
| 14.03 | 2.86 | 1.71 | 2.15 | 2.11 |
| 14.04 | 3.00 | 1.52 | 1.51 | 1.58 |
| 14.05 | 3.31 | 1.64 | 1.70 | 1.84 |
| 14.06 | 3.07 | 1.46 | 2.19 | 2.00 |
| 14.07 | 2.00 | 1.41 | 1.37 | 1.42 |
| 14.08 | 3.64 | 2.51 | 3.77 | 4.32 |
| 14.09 | 2.46 | 1.68 | 1.56 | 1.84 |
| 14.10 | 2.23 | 1.64 | 1.69 | 1.58 |

| <u>Item No.</u> | <u>0</u> | <u>1</u> | <u>2 - 3</u> | <u>Over 3</u> |
|-----------------|----------|----------|--------------|---------------|
| 14.11 | 3.07 | 1.69 | 2.19 | 3.79 |
| 14.12 | 3.38 | 1.63 | 1.71 | 3.35 |
| 14.13 | 2.92 | 1.62 | 1.56 | 3.44 |
| 14.14 | 2.92 | 1.60 | 1.70 | 2.88 |
| 14.15 | 2.67 | 1.35 | 1.28 | 1.78 |
| 14.16 | 2.64 | 1.65 | 1.69 | 1.00 |
| 14.17 | 2.64 | 1.61 | 1.67 | 1.26 |
| 14.18 | 2.62 | 1.49 | 1.55 | 1.37 |
| 14.19 | 2.62 | 1.46 | 1.56 | 1.47 |
| 14.20 | 2.43 | 1.57 | 1.74 | 1.74 |
| 14.21 | 2.43 | 1.49 | 1.52 | 1.44 |
| 14.22 | 1.57 | 1.38 | 1.55 | 1.28 |
| 14.23 | 1.69 | 1.32 | 1.42 | 1.00 |
| 14.24 | 1.25 | 1.42 | 1.36 | 1.18 |
| 14.25 | 2.23 | 1.28 | 1.59 | 1.94 |
| 14.26 | 3.93 | 2.69 | 4.16 | 5.00 |
| 14.27 | 3.92 | 2.10 | 3.22 | 2.94 |
| 14.28 | 3.77 | 1.94 | 2.16 | 2.27 |
| 14.29 | 3.00 | 1.28 | 1.47 | 1.00 |
| 14.30 | 2.54 | 1.33 | 1.12 | 1.28 |
| 14.31 | 2.67 | 1.39 | 1.29 | 1.41 |
| 14.32 | 3.93 | 2.22 | 2.92 | 4.37 |
| 14.33 | 1.85 | 1.32 | 1.09 | 1.33 |
| 14.34 | 1.00 | 1.00 | 1.14 | 1.00 |
| 14.35 | 1.36 | 1.12 | 1.16 | 1.00 |
| 14.36 | 1.36 | 1.24 | 1.16 | 1.24 |
| 14.37 | 2.43 | 1.57 | 1.61 | 1.82 |