The Arlington Education and Employment Program (REEP)/Hotel Workplace Literacy Project served 230 functionally illiterate adults working in hotels and a real estate maintenance firm in Virginia. Job-related English and math, citizenship preparation, and work awareness instruction was provided. An evaluation found that: (1) the project effectively addressed the needs of employees with limited proficiency in English who were in great need of literacy training; (2) trainees' abilities in math were also very limited; (3) both quantitative and qualitative measures of employee performance indicated the project was successful; (4) the most positive project impact was on employee morale and overall performance; (5) the project partnership between the Chamber of Commerce, public schools, and hotels in Arlington, Virginia, was successful; and (6) most supervisors reported that productivity and efficiency increased and that safety improved. Reliable longitudinal data on employee turnover were not available. The project learning center was considered a model operation. (The document contains 22 figures.) (CML)
EVALUATION REPORT

REEP/HOTEL WORKPLACE LITERACY PROJECT

1988-1990 GRANT PERIOD

ARLINGTON EDUCATION AND EMPLOYMENT PROGRAM (REEP)
ARLINGTON PUBLIC SCHOOLS
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ARLINGTON, VA 22209

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PREFACE

The Arlington Education and Employment Program (REEP) of Arlington (Virginia) Public Schools conducted a workplace literacy partnership project from October 1, 1988 through March 31, 1990 under a grant from the U.S. Department of Education (CDFA 84-198).

Under terms of the grant, the project evaluation activities include both (1) a summary report prepared by project staff on the activities and accomplishments of the project and (2) an evaluation conducted by a person other than project staff, i.e., an outside evaluator. This report summarizes the findings of the outside evaluator for the 18-month grant period.

The evaluation was conducted to address four standards which match U.S. Department of Education requirements for evaluations of grantee activities and achievements:

1. Has the literacy project addressed the goals of the National Workplace Literacy Partnerships Grant Program of the U.S. Department of Education?

2. Has the literacy project followed the program design and planned operations, as set forth in the funding proposal?

3. Has the literacy project been effective in moving toward achievement of the objectives set forth in the funding proposal?

4. Has the literacy project been effective in addressing the needs of the partners of the project: the limited English-speaking employees who need literacy training, the hotels, the Arlington Chamber of Commerce, Arlington Public Schools, and REEP?

The evaluation design calls for both formative and summative evaluation activities, with some emphasis placed on the collection of objective, quantitative data. The evaluation is rigorous because it examines in detail the extent to which the objectives and specific outcomes related to each objective were addressed and achieved.

The evaluator visited the project periodically throughout the 18-month grant period and attended some advisory committee meetings. A mid-grant evaluation was conducted in February, 1989 in accordance with the terms of the grant application. As a result of recommendations, a data file (using D-Base III) was
developed to document the characteristics of the trainees, the extent of their participation, and the effects of training on them. Assessment rating forms also were developed to address the extent to which outcomes identified by the U.S. Department of Education have been achieved. The data file and rating forms provide the objective, quantitative information by which the project has been evaluated. In April and May, 1990, the evaluator met individually with REEP staff and hotel supervisors to discuss progress of the project in achieving the grant objectives.

The evaluator wishes to thank project administrators, staff, and department supervisors at the hotels who generously provided their cooperation, time, and assistance. The discussions conducted were candid, productive, and confidential. Their reports, along with trainee data base and other documents provided by the literacy project, comprise the basis for the findings and recommendations set forth in this report.

The project staff members interviewed were Ms. Inaam Mansoor, director of REEP; Ms. Elaine Squeri, project coordinator; Ms. Kenwyn Schaffner, learning center coordinator; and Ms. Molly Kirby and Ms. Carol Van Duzer, instructors. At the participating hotels the following supervisors were interviewed: Ms. Veronica Garces and Mr. Ken Jamrose, Days Hotel; Ms. Lori Burke, Embassy Suites; Mr. Paul Hunter, Executive Inn; Ms. Tori Lynn and Mr. Mak Kazzi, Hyatt Arlington; Mr. Arthur Harrington, Ms. Mary Jo Gunther, Ms. Teri Zinnermon, Mr. Sami Zeitoun, and Mr. Manuel Noronha, Hyatt Regency; Ms. Nell Berry, Quality Hotel; and Ms. Pat Hamilton, Stouffers Concourse.

Following the presentation of the evaluation findings for each objective and related outcomes, recommendations sometimes are provided. While the evaluator assumes that the recommended actions are appropriate, the literacy project staff and the partners of the project may propose alternative actions that may be even more effective.

It should be noted that although some objectives and specific outcomes were not achieved as planned, the REEP/Hotel Workplace Literacy Project is exemplary. The members of the partnership, including the trainees, have worked hard to ensure its success. The findings of this evaluation provide a chronicle of the successes of the REEP/Hotel Workplace Literacy project, and the recommendations are intended to make a great project even better.
SECTION I. INTRODUCTION

NATIONAL WORKPLACE LITERACY PROGRAM

Federal funding for the workplace literacy program was initially authorized under the Continuing Appropriations for Fiscal Year 1988 (Public Law 100-202). The current range of literacy programs, including the National Workplace Literacy Program, is authorized by the Adult Education Act and the Augustus P. Hawkins--Robert T. Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-97) and the Stewart B. McKinney Homeless Assistance Amendments Act of 1988 (P.L. 100-628). Federal regulations provide the following description of the purpose of the National Workplace Literacy Program:

[It] provides assistance for demonstration projects that teach literacy skills needed in the workplace through exemplary education partnerships between business, industry, or labor organizations and educational organizations. (Federal Register, Part 432, Vol. 54, No. 159, p. 34418)

LEEP/HOTEL WORKPLACE LITERACY PROJECT

The REEP/Hotel Workplace Literacy Project served 230 functionally illiterate adults currently working in seven partnership hotels, two hotel sites, and a maintenance division of a real estate firm in Arlington County. The grant period was October 1, 1988 through March 31, 1990, with training starting in January, 1989.

The project was conducted by a partnership comprised of the Arlington Chamber of Commerce (ACOC), Arlington Hotel Committee of ACOC, Arlington Public Schools, Arlington Education and Employment Program (REEP), seven partnership hotels in Arlington County, and the employees at the partnership hotels.

The Arlington Chamber of Commerce assisted by providing initial project coordination, marketing the project with the hotel/motel industry, providing publicity, and advocating institutionalization of the concept for industries with similar needs in the county.

Arlington Public Schools provided the resource infrastructure to support project operations, such as supervision, financial operations, curriculum materials, equipment, and Wilson School--the central point of project operations.
REEP conducted the literacy audits of employees and their jobs and developed the job-related curricula. Literacy training—such as English-as-a-second language (ESL) instruction, math-related instruction, worker awareness, and citizenship preparation—were provided by REEP instructional staff both on-site at the participating hotels and at the Learning Center at Wilson School.

The seven partnership hotels referred employees to the project for training and provided space, equipment, technical assistance, and paid release or bonuses to the participating hotels. In addition, three sites—two hotels and the building maintenance division of a real estate developer—participated in the project.

The limited English proficiency (LEP) employees contributed to the project by devoting energies and their own time to the project—time in addition to that which was paid for by their employers or for which they received bonuses.

REEP

REEP has conducted ESL and other training for LEP adults since 1976. REEP has access to and provided fully experienced instructors and aides who have taught LEP adults in a variety of settings, including on-site instruction. The Project Director, Ms. Inaam Mansoor, has been with REEP for 14 years and has been the director for the past 8 years.

REEP has gained national recognition for its activities in developing and implementing ESL curricula, providing other employment-related training for LEP adults, and providing workplace literacy training.

The administrative offices of REEP are located at the Wilson School at 1601 Wilson Boulevard. The Learning Center also is located there. The school is only four blocks from the Rosslyn Metrorail stop.

PROJECT GOALS AND OBJECTIVES

The basic goal of the project was to assist functionally illiterate adults working in the partnership hotels become functionally literate. For the project, functional literacy is defined generally as "the ability to apply a set of skills to a set of general knowledge areas which are related to success in adult life" [Adult Performance Level (APL) Functional Competency Model, University of Texas]. More specifically, the literacy training was designed to help the LEP employees become more literate in English so that they could perform their jobs better and perform adequately in an environment where English is the dominant language.
The specific objectives of the REEP/Hotel Literacy Project were:

1. To develop instructional materials for literacy training of functionally illiterate employees working in the hotel/motel industry in Arlington (Virginia) County.

2. To develop computer-assisted self-instruction modules for use in the workplace Learning Center.

3. To recruit functionally illiterate persons employed in the hotel/motel industry in Arlington County.

4. To screen potential trainees to identify their eligibility, functional literacy levels, and likelihood of completing the training.

5. To select 400 functionally illiterate employees (from participating hotels/motels) who are likely to benefit from and complete the training.

6. To provide job-related ESL (speaking, understanding, reading, and writing) to all trainees.

7. To provide job-related math instruction (arithmetic, measurement, time estimation, etc.) to all trainees.

8. To provide consumer awareness, problem-solving, and citizenship training to all trainees.

9. To provide work awareness and education and job/career counseling for all trainees.

10. To provide follow-up counseling/assistance to trainees after they have completed training.

11. To make recommendations to hotel/motel managers concerning reading levels and other factors which make it difficult for workers to understand materials and directions.

12. To recommend to the Chamber of Commerce other workplace literacy partnership projects.

TRAINING CHARACTERISTICS

The design of the REEP/Hotel Workplace Literacy Project demonstrated a successful process for planning, delivering, and evaluating on-site literacy and basic skills training for employees of seven partnership hotels and for employees of three sites recruited after the project was started. Individualized training was provided at the Wilson School Learning Center.
On-site training, the mode preferred by most of the hotels, included job-related ESL, job-related math, citizenship preparation, and general work awareness for the participating trainees. The training curricula and instructional materials were based on the findings of the individual assessments and literacy audits conducted at the hotels. Learning progress in specific skill areas was assessed by instructors, supervisors, and trainee self-assessments.

The planned emphasis on consumer awareness and problem-solving was not fully implemented because the trainees needed very basic training in ESL and math (numeracy). Educational and job/career counseling was provided on an individual, as needed basis rather than for all trainees. Finally, there was no need to arrange for support services because the training was conducted in conjunction with their jobs; thus, additional arrangements for services such as child care were not needed.

Most of the 26 on-site courses provided 60 hours of instruction conducted over a period of 12 to 15 weeks. Originally, the plan was to provide about 10 hours of instruction per week for courses of 4 to 8 weeks for 280 employees. However, that plan was reduced by half to about 4-5 hours a week because the hotels could not function properly with such a heavy reduction in personnel available for duty. Also, the original plan was to enroll completely new groups of students for each course. However, because the functional levels of the employees were so low, a decision was made to permit the same trainees to continue to receive training during second and, sometimes, third courses.

Average attendance at the courses was 83%.

For one of the hotels, a course for five employees was conducted at Wilson School, but that approach was dropped.

As planned, 89 employees from the participating hotels used the Learning Center to supplement the on-site courses conducted for them. However, only 15 employees completed 60 or more hours in self-paced, individualized instruction. The training design also included provisions for "one-day" or short-term training, but this component was not activated.

CHARACTERISTICS OF TRAINEES' JOBS

The participating employees worked at entry level jobs, such as housekeeping, food and beverage services, and miscellaneous maintenance work. Almost all of the participating employees had great difficulty using English, including basic skills in speaking and understanding English.
A total of 230 employees received training in the workplace literacy courses. Employee participation in the project was somewhat evenly distributed among the partnership hotels, ranging from a high of 15.2% to a low of 10% (Figure 1). The three sites recruited later accounted for 36 trainees, 15.6% of the total. Four out of five (81%) of the trainees worked in the housekeeping department, and 15% worked in the food/beverage department (Figure 2). Figure 3 gives a detailed listing of the types of work performed by the trainees.

The hourly wages paid to the participating employees was evenly distributed across a range of $4.50 to $6 or slightly more per hour (Figure 4). Slightly more employees were paid at the $5.50-$5.99 rate than at the other rate ranges.

CHARACTERISTICS OF THE TRAINEES

The overwhelming majority (83.1%) of the participating employees are of Hispanic origin or descent, and 14.3% are of Asian origin or descent. The majority of the trainees (59.7%) are from El Salvador (Figure 5).

Nearly one-third (32.6%) of the employees have been in the U.S. for 3 years or less (Figure 6), and slightly more than one-third (33.5%) have been in the U.S. for 8 or more years.

Two out of five (40.7%) of the trainees are under 30 years of age, and a similar portion (38.2%) are in the 30-39 years old age bracket (Figure 7). Over half (52.4%) of the trainees have completed 6 or fewer years of education (Figure 8). Only 22.2% have completed 12 years of education or the equivalent of high school.

Over three-fourths (76.1%) of the trainees are female, and almost two-thirds (61.9%) are married (Figures 9 and 10). The percent married is about the same for both females (62.6%) and males (59.6%) (Figure 11). Almost half (45.1%) of the trainees reported one or two dependent children, and 29% reported having three or four dependent children (Figure 12). Only one in 10 (10.4%) reported they had no dependent children.
PERCENT TRAINEES FROM HOTELS
Percent of All Trainees (N=230)

Days Hotel: 12.1%
Embassy Suites: 10%
Executive Inn: 13.4%
Holiday Inn Crowne Plz: 6.6%
Hyatt Arlington: 11.7%
Hyatt Regency: 15.2%
Imperial: 6.5%
Quality Inn: 11.3%
Stouffer's Concourse: 10.5%
C. E. Smith: 3.5%

HOTEL DEPARTMENT OF TRAINEES
Percent of All Trainees (N=230)

- Food/Beverage: 15%
- Housekeeping: 81%
- Maintenance: 2%
- Other: 2%
### TYPE OF JOB AT HOTEL

Percent of All Trainees (N=230)

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housekeeper</td>
<td>73.3%</td>
</tr>
<tr>
<td>&quot;Houseman&quot;</td>
<td>1.3%</td>
</tr>
<tr>
<td>Laundry</td>
<td>3.3%</td>
</tr>
<tr>
<td>Supervisor</td>
<td>0.9%</td>
</tr>
<tr>
<td>Chef</td>
<td>0.4%</td>
</tr>
<tr>
<td>Cook</td>
<td>2.6%</td>
</tr>
<tr>
<td>Kitchen Help</td>
<td>1.7%</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>3%</td>
</tr>
<tr>
<td>Waiter, Waitress</td>
<td>2.2%</td>
</tr>
<tr>
<td>Busser</td>
<td>3.9%</td>
</tr>
<tr>
<td>Banquet</td>
<td>0.9%</td>
</tr>
<tr>
<td>Maintenance</td>
<td>0.9%</td>
</tr>
<tr>
<td>Custodian</td>
<td>2.6%</td>
</tr>
<tr>
<td>Driver</td>
<td>0.9%</td>
</tr>
<tr>
<td>Other</td>
<td>0.4%</td>
</tr>
</tbody>
</table>

#### CURRENT HOURLY WAGE

Percent of Trainees Reporting (N=198)

<table>
<thead>
<tr>
<th>Wage Range</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; $4.50</td>
<td>1.5%</td>
</tr>
<tr>
<td>$4.50-$4.99</td>
<td>13.1%</td>
</tr>
<tr>
<td>$5.00-$5.49</td>
<td>15.6%</td>
</tr>
<tr>
<td>$5.50-$5.99</td>
<td>18.7%</td>
</tr>
<tr>
<td>$6.00+</td>
<td>16.6%</td>
</tr>
</tbody>
</table>
COUNTRY OF ORIGIN
Percent of All Trainees (N=230)

- El Salvador 69.7%
- Central America 9.2%
- SE Asia, Pacific Is. 12.0%
- South America 8.3%
- Caribbean 2.6%
- No Response 4.3%
- Other 4.0%

YEARS IN THE U.S.
Percent of Trainees Reporting (N=206)

- 2-3 Yrs. 14.6%
- 4-6 Yrs. 18.0%
- 6-7 Yrs. 18.1%
- 8-9 Yrs. 18.0%
- 10 or More 15.6%
- 1 or Under 18.0%
**AGE**

Percent of All Trainees (N=230)

- 25-29: 24.7%
- 20-24: 13.9%
- 30-34: 22.1%
- >35: 10.9%
- <20: 2.1%
- 45-49: 4.8%
- 40-44: 8.3%
- 35-39: 16.1%

**YEARS OF EDUCATION COMPLETED**

Percent of Trainees Reporting (N=212)

- <4 Yrs.: 21.7%
- 4-6 Years: 30.7%
- 7-9 Years: 20.8%
- 10-11 Years: 4.7%
- 12+ Yrs.: 22.2%

**REEP/HOTEL WORKPLACE LITERACY PROGRAM**

Figure 7

Figure 8
SEX
Percent of All Trainees (N=230)

- Female 76.1%
- Male 23.9%

MARRITAL STATUS
Percent of Trainees Reporting (N=215)

- Married 61.9%
- Single 38.1%
**MARITAL STATUS BY SEX**
Percent of Trainees Reporting (N=215)

- Female, Married: 82.6%
- Female, Single: 37.4%
- Male, Married: 59.6%
- Female, Single: 40.4%

**NUMBER OF DEPENDENT CHILDREN**
Percent of Trainees Reporting (N=215)

- None: 10.4%
- One: 15.6%
- Two: 26.5%
- Three: 14.5%
- Four: 14.5%
- Five: 8.1%
- Six: 4%
- Seven: 1.2%
SECTION II. FINDINGS AND RECOMMENDATIONS

KEY FINDINGS

The key findings of the evaluation of the REEP/Hotel Workplace Literacy Project are as follows:

1. The project effectively addressed the needs of LEP adults who were in great need of literacy training. Most of the 230 employees selected (from the 448 pretested) for on-site courses scored in the lowest quartile of the English language tests administered during the screening process. The English language proficiencies were so low that the original plan of allowing trainees to enroll in only one course had to be abandoned. Some trainees attended as many as three courses, and other trainees attended courses and used the Learning Center for many hours of individualized instruction.

2. Trainee abilities in math were also very limited. Over half of the participating employees failed to score 40 points (of 100) on a very simple arithmetic test. Because the trainees had such limited capabilities, the math instruction had to be concentrated on teaching elementary numeracy (use of cardinal numbers for tasks such as simple counting).

3. The project served LEP adults who had limited capabilities of helping themselves in an urban, commercial environment where English is the dominant language. One-third have been in the U.S. for three or fewer years. Only one-fourth have completed at least high school, and slightly more than half of the trainees have six or fewer years of education.

4. Both quantitative measurements of trainee performances and the qualitative judgments of supervisors indicate that the project has been successful in addressing its primary objectives. The measurable gains in general English language proficiency are relatively small, but appropriate for the number of hours of instruction completed. (If validated posttests related to specific instructional content were available, higher levels of gains probably would have been identified.) Another means of measuring achievement, instructor ratings of trainees' performances for specific competencies, clearly indicate that the trainees achieved a majority of the learning objectives for the courses. The most positive impacts were on employee morale and overall employee performance, indicating the project has been effective in progressing toward the national program goals and full achievement of nearly all of its 12 objectives.
5. The planned partnership between education and business to serve the literacy needs of hotel employees was been highly successful, with very few changes occurring in the overall design and planned operations. Each of the partners has praised the involvement of the other partners. In-kind contributions by members of the partnership greatly exceeded the federal minimum of contribution of 30%. One indication of success is the fact that all of the seven original hotel partners are returning and seven new hotel partners will be participating in a second hotel workplace literacy project.

6. Supervisors of the hotel employees enthusiastically and fully supported the training even though it meant that they had to adjust their regular operational procedures to accommodate employee attendance at the courses. Problems that did arise were solved by rescheduling at times more convenient to the hotel schedule for work. All of the supervisors interviewed for the evaluation wanted to continue participation in the project.

7. While there is a wide range of opinions about "who benefits most" from the training (The trainees, guests, supervisors, the hotel, etc.?), there was unanimous agreement that the morale of the employees improved greatly. The higher levels in morale were accompanied at all hotels by noticeable changes in the trainees' self-confidence and willingness to communicate in English. Some hotels reported declines in the number of complaints by guests about hotel employees not being helpful and not being able to communicate in English.

8. Most supervisors reported that productivity/efficiency increased and that safety improved as a result of the literacy training. However, for this evaluation report there is no practical means of quantifying precisely the actual increase or improvement among all the hotels for employees participating in the project as compared with their productivity before enrolled in the project. Reporting productivity gains would require hotels to keep records or allow an outside evaluator to measure activities such as the number of rooms cleaned per day per housekeeper, number of complaints by guests per employee, the number of accidents per month per employee, or the amount of breakage or spoilage per month per employee.

9. Supervisors tended to report that productivity has increased because communication has increased, employees are more likely to understand "why" tasks must be performed in a certain way, the supervisors and employees can understand each other better, and guests and employees can understand each other better. The supervisors also measured productivity gains in terms of less time being required to provide directions/explanations, problems being identified quickly rather than being allowed to continue and become more serious, and employees being more likely to take the initiative in avoiding or resolving a problem.
10. There are no reliable, longitudinal data available on employee turnover in the housekeeping and food/beverage departments of the partnership hotels. Data compiled on trainees by the REEP staff show that the job retention rate of employees participating in the project was 84%. The few supervisors who reported turnover problems in the past few years indicated that their turnover rates had declined.

11. The Learning Center at Wilson School is rapidly becoming a model operation within a model project. The center has a wide range of instructional materials, software, and hardware by which the hotel employees (with a minimum of assistance) can teach themselves. Curriculum materials will be prepared, based on the REEP/Hotel Workplace Project experiences. To make maximum use of the Learning Center capabilities, the room should be enlarged and outreach activities should be expanded greatly to increase the number of persons using the center and its materials.

12. Successful project procedures have been well documented. A guide for a workplace literacy program has been prepared and will be pilot tested on the joint Arlington County/City of Alexandria project. Instructional materials will be developed from comprehensive, coordinated curricula. A videotape on the project purposes and operation has been prepared, and has already been shown on the Arlington Community Television (public access, channel 33) of the local cable television network. This documentation is essential to encourage expansion of workplace literacy projects, including the institutionalization of the training.

ORGANIZATION AND PROCEDURE

This section reports on the progress made in achieving each of the project objectives and planned outcomes set forth in the funding application. The objective or outcome is stated, and then the findings are presented. Some recommendations, with explanatory comments, are made for improving project operations.

FINDINGS, RECOMMENDATIONS, AND COMMENTS

Objective #1. To develop instructional materials for literacy training of functionally illiterate employees working in the hotel/motel industry in Arlington (Virginia) County.

Findings:

Planned Outcome #1.1 - Employee and employer statements of literacy skills needed and held; and Planned Outcome 1.3 - Job, task analysis of literacy and other skills required.

Project staff (including the project coordinator) successfully conducted literacy audits at the participating
hotels. The basic purpose of the audits was to identify the job tasks and the English language vocabulary and structures associated with performing the tasks. The audits required collection of data and analysis of the following:

- Samples of written materials and forms
- Observations of performances of jobs
- Recordings of dialogues and conversation while on the job
- Interviews with supervisors
- Interviews with employees.

This information was analyzed to identify job competencies and the language functions related to these competencies. The key language functions identified were:

- Interact with guests
- Understand directions from supervisors
- Avoid costly mistakes while performing the work
- Ask questions for clarification
- Notify supervisors about an emergency at work or at home
- Speaking with management without needing translators.

The results of the analysis were given to supervisors and other key hotel staff for review and assessment of the importance of each for performance of the job. On the basis of the literacy audit findings, instructional materials were developed for on-site instruction and for use in the Learning Center.

Supervisors at the hotels reported that the literacy training was effective because it was practical and work-related. However, one supervisor felt more time could have been devoted by the instructor to identify needs which the supervisor felt should have been addressed during the training.

Planned Outcome #1.2 - Ratings, evaluation of the appropriateness of current (hotel) materials for the functionally illiterate.

Neither REEP staff nor hotel supervisors reported much activity or demand for evaluating the appropriateness of current materials used by the employees at the hotels during their work. Usually, the amount of written materials is small and the materials are used repeatedly.

Planned Outcome #1.3 - (See Planned Outcome #1.1 above).

Planned Outcome #1.4 - Instruction curricula for individualized lab and other courses.

There were no instructional materials already available for providing the literacy training the employees needed; use of materials that were not linked to the literacy audit findings and the specific job activities would have been inappropriate.
As a result, REEP staff prepared comprehensive, coordinated curricula for Housekeeping and Food and Beverage Department employees for the on-site ESL literacy courses. A pool of 12 units for specific housekeeping and 13 food/beverage job tasks were prepared. The curricula are designed for instruction at three proficiency levels, and have vocabulary, basic skills, and cultural components. Resources also are identified for instructors.

The REEP workplace literacy curricula have a special customizing feature which permits selection of any of the units available. The classroom instructor works with the hotel supervisor to set the course content which the supervisor believes is most important for the employees. Six to eight units may be selected for a course.

Additional materials for hospitality workplace tasks have been developed for the Learning Center. Some materials are directly applicable for teaching workplace literacy tasks at the entry level, and other materials are appropriate for use in preparing employees for job up-grading. Also, the Comprehensive Competency Program (CCP) obtained from U.S. Basics during the middle of the grant period has some units which are related to the workplace curricula (see the discussion for Objective 2).

For hotel employees too advanced for the on-site hotel courses and the CCP curriculum, a special skill-based curriculum was developed for use at the Learning Center, using textbooks, audio tapes, and a wide range of software.

REEP staff also reviewed commercially available materials at the Center of Applied Linguistics and at the Bilingual Education Service and Curriculum Center. These materials were annotated and linked to the curricula as potential resources. A file of teacher-made materials also has been established.

Planned Outcome #1.5 - Develop how-to-do-it guide (handbook) on how to set up and conduct a project.

One of the products of this and several other objectives was preparation of the manual Perspectives in Organizing a Workplace Literacy Program. The guide for educators and business persons has been prepared and will be tested/applied during the 1990-1992 grant period. Portions of the guide were used to provide an orientation to partners in the 1990-1992 Arlington-Alexandria Workplace Literacy Partnership project. The handbook will be distributed throughout the Educational Resources Information Clearinghouse (ERIC).

Recommendation No. 1 for Objective 1. Effort should be devoted to examining hotel materials for employees, and recommending changes which make the materials easier to read and understand.
Comments. Because the focus should be on the materials used by housekeeping and food/beverage staff, the amount of materials to be examined should be relatively small. A thorough review of the readability and formatting of the materials may lead to revisions that will significantly improve hotel operations. Because the hotels participating in the workplace literacy project are members of national chains, the impact of the recommended changes could be widespread.

Recommendation No. 2 for Objective 1. Top priority should be devoted to developing a comprehensive and coordinated set of teaching materials for housekeeping and some of the food/beverage job tasks.

Comments. The findings and experiences of the REEP/Hotel Workplace Literacy Project should continue to be documented, refined, and distributed for use. There is no question that the need to train LEP employees in hotels will continue. This is true of the Washington, DC area as well as other metropolitan areas with tourist attractions. Because many of the tasks are the same throughout the industry and because hotel operational policies/procedures frequently implemented on a national basis, a well-developed set of instructional materials will be very useful for other literacy training programs throughout the nation. To complete the job, the model curricula for housekeeping and food/beverage need to be complemented by lesson plans, specific worksheets, and instructional manipulatives.

Objective #2. To develop computer-assisted self-instruction modules for use in the workplace Learning Center.

Findings:

The Learning Center has been in operation since April 17, 1989. In July, 1989, the Learning Center was closed for two weeks for the installation of new systems and software, and for the training of staff. Since that time, the Learning Center has continued to make substantial progress in designing and making available a variety of instructional materials. The center is open in the evening and weekends, thereby demonstrating its complete commitment to meeting the needs of LEP adults.

Planned Outcome #2.1 - Short computer-assisted lessons which can be completed by trainees with a minimum of outside help.

The findings of the literacy audits and the resulting instructional plans were to be incorporated into the materials developed for the Learning Center. Trainees could then use these materials, either reinforcing classroom instruction, progressing beyond classroom instruction, or upgrading their own skills (even though they had not been selected to attend a course).

REEP has been highly successful in upgrading the Learning Center capabilities. Initially, the upgrading process moved
slowly as various systems and procedures were investigated. As a result, the linkages between the classroom courses and the Learning Center have been limited. This is also a result of the limited amount of time instructors have to devote to preparing for and teaching classes, and the amount of time the Learning Center personnel have had for upgrading center operations. Substantial progress has been made since July 1989, thereby establishing the center as a model learning lab.

Workplace literacy materials which have been developed for use at the Learning Center include:

1. Identification of linkages between CCP and the workplace literacy curricula, such as personal identification, following simple instructions, and reading a schedule.

2. Interactive pronunciation lessons, based on hotel situations and information usually requested/provided.

3. Customized software programs to meet specific learning objectives, such as reporting repairs, reporting work progress, and reading a form.

4. Units for reinforcing reading and writing skills, using PC word processing software capabilities.

Planned Outcome #2.2 - Sets of lessons on floppy disks which can be used on Apple IIGS PCs.

It was expected that basic instructional modules could be developed by a programmer and specific modules could be easily generated for use on Apple IIGS PCs. By the time work on the computer-assisted lessons was to have begun, other self-instructional packages/systems for LEP learners were available. In addition, these new systems offered authoring capabilities which were much less expensive and much more efficient than the planned approach of using a computer programmer to design (from "scratch") the modules.

The Learning Center has benefited greatly by obtaining the CCP system, made available by U.S. Basics through a learning partnership between the UPS Foundation and U.S. Basics. CCP was adopted because of its framework for delivering self-accessing basic and life skills ESL instruction. It also provides linkage and authoring systems which REEP staff can use to develop their own computer-assisted lessons. A set of six pronunciation lessons for hotel employees has been created with the CCP authoring system. Initial attempts have been somewhat successful in recording the lessons on interactive audio.

Other computer software was purchased to supplement the CCP materials. Apple II-Es and software were purchased to permit REEP staff to develop customized lessons, such as a unit on reporting room repairs.
Recommendation No. 1 for Objective 2. REEP should continue to give top priority to examining and testing self-instructional systems for LEP adults. These systems should have authoring capabilities for developing self-instructional modules quickly and efficiently, and at a low cost.

Comments. REEP should continue to work with the authoring system made available at a low cost through the U.S. Basics system. Although the authoring system of U.S. Basics has not yet been perfected, it appears to be in the best interests of REEP to continue the cooperative effort. Should success be achieved shortly, REEP will benefit greatly from a capability to produce locally the needed self-instructional materials.

Recommendation No. 2 for Objective 2. REEP should take an active role in linking the course instructors with the Learning Center staff.

Comments. Linkages between the courses may be achieved by having the Learning Center staff take the initiative in doing the following:

1. Demonstrate on-site the available materials for the course instructors (and the trainees). This would help encourage more trainees to use the center.

2. Work with course instructors in developing instructional materials for on-site courses and for use in the center.

Objective #3. To recruit functionally illiterate persons employed in the hotel/motel industry in Arlington County.

Findings:

Planned Outcome #3.1 - At least 400 functionally illiterate employees selected by hotel managers.

Recruitment campaigns were launched from the top down. Supervisors were involved early in the planning process, and their needs, concerns, and suggestions for scheduling and recruitment were taken into account. Written materials were disseminated about the courses and the Learning Center. At hotel departmental meetings, posters were displayed showing trainees at the Learning Center.

A total of 448 employees were tested, thereby exceeding the objective to recruit at least 400 functionally illiterate employees selected by the partnership hotels.

Supervisors were given the responsibility for initial recruitment of the employees for the literacy project. This approach was necessary because (1) they were most familiar with the English language needs of their employees, and (2) they had
to develop a plan which provided equal opportunities for all employees in their departments to participate.

Usually, supervisors announced and explained the project to all employees. All employees were told they could have an opportunity to participate. However, testing of the English language skills was required. This strategy worked three ways: (1) employees who overestimated their English proficiencies could be found by an outsider to be in need of training, (2) employees who underestimated their proficiencies could be told that they had good capabilities and did not need training, and (3) employees who had fears about volunteering to participate could be convinced by an outsider that participation was in their 'best interests.

Employees with English proficiencies too high for the courses were referred to the Learning Center and to other ESL programs in the county.

Planned Outcome #3.2 - Strengthen working relationships with the hotel/motel service, training, and personnel managers.

The strategy of combining initial selection by the supervisors with testing by REEP staff appears to have worked well. Supervisors reported that there were a few initial complaints because some employees were selected for the first course and some were not. However, as the project continued these concerns were forgotten. At some hotels the employees did not continue their complaints because they were told they may be selected for the next course. They also were told that they could use the Learning Center at Wilson School to improve their English language proficiencies.

When the decision was made to extend training for employees enrolled in the first course to the second course, there were some complaints. However, these complaints did not cause serious problems. All supervisors interviewed agreed that additional instruction was necessary for the employees selected for the first course.

In hindsight, the project design should have been more accommodating. For example, the project should have been designed to give the first course trainees more than 60 hours of instruction. However, no one expected that the literacy skills of the employees would be so low.
Objective #4. To screen potential trainees to identify their eligibility, functional literacy levels, and likelihood of completing the training.

Findings:

Planned Outcome #4.1 - Applicants rated in terms of eligibility, functional literacy, aptitudes, etc.

Employees in the participating departments of the hotels were tested by REEP staff. Each eligible employee was tested for English speaking and understanding proficiencies, writing proficiencies, and math/arithmetic skills.

Initially, the Bilingual Vocational Oral Proficiency Test (BVOPT) was used to test English speaking and understanding. It soon became clear that the BVOPT required too much staff time for administration. Thus, trials were conducted with the Basic English Skills Test (BEST). After discussing the problems with the outside evaluator, it was decided that the BEST test would be more appropriate than the BVOPT.

Planned Outcome #4.2 - Applicants rated in terms of intent to participate in and complete training.

Because supervisors made participation in the literacy project optional for their employees, there did not appear to be a need for REEP project staff to rate the applicants in terms of intent to participate in and complete training. Since the employees "volunteered" for the ESL training and their motivation seemed high, there was no need to question their desire/intent to do so.

However, it appears that some trainees may have been "volunteered" more by their supervisors than by themselves, largely because the supervisors thought these employees needed the training. In retrospect, dropouts rates might have been reduced and attendance might have been increased if it had been feasible to measure the employees "extent of desire to participate." But there does not appear to a means of doing this without offending the employees and/or their supervisors.

Finally, most of the 20 trainees who did not complete the training dropped out for reasons which were not likely to be identified during the screening process. Examples of such reasons include medical condition/hospitalization, return to the home country, and loss of employment at the hotel. Only two trainees dropped out of training because of frustration with the literacy training.
Objective #5. To select 400 functionally illiterate employees (from participating hotels/motels) who are likely to benefit from and complete the training.

Findings:

As the trainees progressed through the first course, it became clear to REEP staff, hotel supervisors, and the trainees themselves that 60 hours of instruction would not be enough to prepare adequately the LEP employees for working in an English language environment. In response to the need, the project formally requested of the U.S. Department of Education a change in how the number of trainees served would be calculated. With the approval of the Department, the project changed the objective from requiring 400 persons to requiring 400 training slots.

Planned Outcome #5.1 - About 80 trainees will be selected for training in the individual lab component.

Recruitment for participation at the Learning Center was conducted early and throughout the project. Written materials were distributed, and posters were displayed at hotel departmental meetings, showing trainees at the Learning Center. Recruitment also was done through class visits which included orientation tours of the center. All of the hotels also arranged transportation for the Learning Center tours by employees and their supervisors.

A total of 89 trainees from the partnership hotels used the Learning Center for individualized instruction, thereby surpassing the objective of serving 80 trainees. Seven additional employees from the three sites used the Learning Center. Fifty-eight of the 89 trainees also were enrolled in the on-site courses, and 31 were enrolled in the Learning Center only. Employees who used only the Learning Center did so because the on-site courses were not appropriate for their needs.

It was expected that the average time at the center would be 60 hours per trainee; however, only 15 of the trainees completed at least 60 hours and another 22 completed over 30 hours.

Some of the shortfall in individual trainee use of the Learning Center may be attributed to starting full operation of the center on April 17, 1989, about three months after the on-site courses had started. However, the center was open for all of the remaining grant period except two weeks in July when the Learning Center was upgraded.

Perhaps the four most important reasons for the lower use rate of the center are:

1. There was no additional incentive overall to use the Learning Center. Three hotels gave its employees a bonus for using the center. Of the 15 employees at these hotels who used the center, seven were attending training at the same time, three...
were trainees who had completed one of the training courses, and five were employees who had not attended a course. Because at least one-fourth of the trainees have a second job, the lack of a financial incentive may have limited use of the center.

2. The cost and time spent going to and returning from the Learning Center may have been outweighed by other needs of the trainees. The center is located four blocks from the Rosslyn Metrorail stop, and thus is relatively convenient for the employees of all but one of the hotels. However, the hotel located only two blocks from the center had the highest participation rate. Another hotel which periodically transported employees to the center also reported high participation rates.

3. Publicity about the Learning Center may not have been adequate. While REEP instructors and supervisors did inform trainees about the center, it appears that a concentrated campaign was not devoted to encouraging use of the center.

4. Trainees volunteered to use the Learning Center. They were not selected by the hotels or REEP staff for participation.

Planned Outcome #5.2 - About 280 trainees selected for training in the on-site component.

Selection of the trainees was done by the hotel supervisor and other management personnel, along with the REEP project coordinator. The plan was to recruit 15 employees for each course, but that goal was not achieved because:

1. Reluctance of supervisors/management to take too many employees "off the line" at one time.

2. Need to organize classes of trainees with similar levels of proficiencies and needs.

As a result, class sizes ranged from 8 to 14 trainees.

A total of 298 training slots were made available during five cycles of courses. A total of 26 courses were offered. The original seven participating hotels used 262 slots to train 194 employees. Three additional sites (two hotels, one maintenance division of a real estate developer) were recruited later during the grant period, and these sites used 36 slots to train 36 persons.

Technically, the objective of providing 280 training slots for courses conducted on-site was not achieved; only 262 slots were used by the original partnership hotels. Practically, the objective was achieved because additional sites were recruited for the second and third cycles of training. The recruitment effort was made when it became clear that need for ESL by low level LEPs at the original partnership hotels would not be as high as estimated in the funding application.
Planned Outcome #5.3 - About 40 trainees selected for training in the "one-day" or short-term component.

A solid demand for "one-day" or short-term training never arose. During the grant period, the hotels did not request any short-term training needs. However, one hotel supervisor told the outside evaluator after the grant period that a short-term course in on-the-job jargon would have been helpful for all employees -- not just for those already enrolled in the course.

Limited REEP staff time--particularly for those already planning and teaching the on-site courses--probably made it unrealistic to plan and provide short-term training. Also, more direct involvement by supervisors could have facilitated identification of the need for special training which could be provided by the REEP staff.

Recommendation No. 1 for Objective #5. Continue to use slots--rather than persons--for planning the overall amount of training to be provided by the project.

Comments. It not desirable to hold a project strictly accountable for serving a specific number of persons--no more, no less. To do this would require methods which clearly are not practical because of the resources required and other restraints involved.

Estimates of specific amounts of effort to be provided by a grantee should be considered "good-faith" estimates, particularly for a first-year grant. What is important is whether the project has delivered essentially what it has promised to deliver. Using this guideline, the REEP/Hotel Workplace Literacy Project has provided an effort greater than what it proposed.

Recommendation No. 2 for Objective 5. Focused effort should be devoted to identifying and providing "one-day" or short-term training.

Comments. The on-site training courses are designed to serve the employees who have the lowest levels of English language proficiencies. There are other LEP employees who need additional ESL instruction but who do not qualify for the on-site training. Some of these employees could benefit greatly by going to the Learning Center. However, they are not fully aware of what they could study/learn at the center or there other responsibilities may not permit them to do so.

One way of meeting one-time needs and publicizing the Learning Center would be for center staff to conduct the short-term training. By definition, short-term training is limited in scope and needs limited developmental, ongoing instructional guidance. This is an appropriate description of the basic purpose of the center and its instructional lessons/modules.
Objective #6. To provide job-related ESL (speaking, understanding, reading, and writing) to all trainees.

Findings:

Planned Outcome #6.1 - Trainees become functionally literate, particularly in terms of materials and tasks related to their jobs.

The primary thrust of the training was to provide job-related ESL instruction to the LEP employees selected from the participating hotels. Initial testing of the employees showed that their proficiencies in English were very low—even lower than expected. Because the employees in greatest need of literacy training were selected, the overall English language proficiencies levels of the trainees were extremely low.

Most of the trainees scored in the lower quartile for the BVOPT and BEST pretest (Figure 13). [Seven trainees were tested using the Structure Tests of English Language (STEL).]

Primary emphasis of the ESL instruction was on oral language skills related to job performance. Most trainees received the primary portion of their instruction through courses taught on-site at the hotels. Usually, these courses were offered two hours a day during two days of the week. Thus, a 60-hour course would be conducted in about 12-15 weeks. Because of the low levels of English proficiency, many students enrolled in two or more courses (as previously discussed).

There is a wide range in the number of ESL instruction hours completed by the trainees, with less than one-tenth completing fewer than 30 hours but about one-fifth completing more than 90 hours (Figure 14). Over one-fourth (27.7%) of the trainees completed the equivalent of about one course, and over one-third (40.3%) completed the equivalent of about two courses. Figure 14 provides more details on the categories of the number of hours of instruction completed and the percent of all trainees who completed that many hours. Both on-site course instruction and Learning Center hours are included.

The gains in English language proficiency were quite modest, with two-thirds (65.5%) of the trainees gaining less than 20 points (as standardized on a 100-point scale to accommodate reporting of BVOPT, BEST, and STEL scores) (Figure 15). However, calculating the percent of gain from pretest to posttest showed that over one-third (37.4%) of the trainees had at least a 100% gain or higher, thereby doubling, tripling, etc. their pretest scores (Figure 16). Phenomenal progress was possible for some trainees because they had extremely low scores on the pretest.

The modest gains were expected because a relatively few hours of instruction was provided, as planned. It has been documented by the Mainstream English Language Training Project...
ENGLISH PROFICIENCY AT PROJECT ENTRY
Standardized Scores (100-pt. Scale)

<table>
<thead>
<tr>
<th>Organization</th>
<th>Mean Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>BVOPT (N=81)</td>
<td>24.4</td>
</tr>
<tr>
<td>BEST (N=140)</td>
<td>31.1</td>
</tr>
<tr>
<td>STEL (N=7)</td>
<td>54.9</td>
</tr>
</tbody>
</table>

NUMBER OF HOURS OF ESL INSTRUCTION
Percent of Trainees Reporting (N=220)
Includes Courses & Learning Center

<table>
<thead>
<tr>
<th>Hours of ESL Instruction</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15</td>
<td>0.5%</td>
</tr>
<tr>
<td>15-29</td>
<td>7.7%</td>
</tr>
<tr>
<td>30-44</td>
<td>20%</td>
</tr>
<tr>
<td>45-69</td>
<td>27.7%</td>
</tr>
<tr>
<td>60-74</td>
<td>13.3%</td>
</tr>
<tr>
<td>75-89</td>
<td>6.1%</td>
</tr>
<tr>
<td>80-104</td>
<td>6.8%</td>
</tr>
<tr>
<td>105-119</td>
<td>6.4%</td>
</tr>
<tr>
<td>120 or more</td>
<td>8.2%</td>
</tr>
</tbody>
</table>
Study (conducted for the U.S. Office of Refugee Resettlement) that at least 105-125 contact hours of ESL instruction is required to move a student up one proficiency level. Only 14.4% of the trainees completed 105 or more hours of instruction.

Planned Outcome #6.2 - Trainees can read and write in English materials related to their jobs.

Generally, the reading and writing requirements of the hotel employees enrolled in the workplace literacy project are minimal. They must be able to read directions and instructions related to the materials they work with, and they must be able to read notes or brief instructions from their supervisors. The requirements for writing skills are even more limited. Notes to supervisors on needed supplies or problems comprise the bulk of the writing needs.

An informal pre-test of writing skills was administered to the trainees at the time the literacy needs were being assessed. Only about one out of six (15.2%) could produce a reasonable or extensive amount of written materials in English (Figure 17). About half (49.7%) could not write at all in English, and over one-third (35%) knew only the English alphabet or had "bare bones" skills that allowed production of only a small amount of comprehensible writing.

**PRE-TEST WRITING RESULTS**

Percent Trainees at Each Level (N=165)

<table>
<thead>
<tr>
<th>Level</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None at All</td>
<td>49.7%</td>
</tr>
<tr>
<td>Alphabet Only</td>
<td>19.4%</td>
</tr>
<tr>
<td>&quot;Bare Bones&quot;</td>
<td>15.6%</td>
</tr>
<tr>
<td>Reasonable Amount</td>
<td>7.3%</td>
</tr>
<tr>
<td>Extensive Amount</td>
<td>7.9%</td>
</tr>
</tbody>
</table>
Planned Outcome 6.3 - Trainees can better understand and do their jobs.

Overall, the supervisors were pleased with the progress of the employees, and gave high ratings of improvement. The supervisors noted improvements for about three-fourths of the trainees, providing ratings on several dimensions related directly to the goals of the national program and the objectives of the project: speaking English, understanding English, initiative at work, quality of work, and productivity at work.

It should be noted that some supervisors pointed out that although the progress was encouraging and in some cases very impressive, the actual gain was small and the employees still needed substantial improvement.

"Erlinda has definitely improved! She tries real hard to speak to me herself rather than get help!"

The supervisors also pointed out that most of the employees were already working at high productivity levels and thus improvement could be minimal at best.

"Francisco has always been an exemplary employee. This is the reason for moderate improvement. He performs his tasks already well and efficiently. English classes have helped round his skills."

Improvement in the overall morale of the employees was the change most often identified by the supervisors. All of the supervisors interviewed reported that the higher level of morale among the employees led to small but very important improvements in other dimensions of their work performance.

"Javier's biggest improvement seems to be the consistency of his work and improved relations with those he works with and for. The discussions we used to have regarding problems he was having have dropped greatly, in large part I think to his improvement with English and a more team-oriented approach."

"I think this program is doing them a world of good! When I see them the next day I always ask how school was, and they always "lite" up talking about it! It definitely has given them more confidence in at least trying to speak!"

The supervisors rated the employees on their improvements in five general areas of performance and on 15 specific aspects of job performance. The results show that employees improved greatly (at least a moderate or major change) in all five general areas of performance (Figure 16).

The most noticeable areas of improvement were Initiative at Work (84.1%) and Understanding English (83.5%). Improvement in
SUPERVISORS' GENERAL RATINGS OF TRAINEES
% with Major-Moderate Change (N=126)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initiative at Work</td>
<td>84.1%</td>
</tr>
<tr>
<td>Understanding English</td>
<td>83.8%</td>
</tr>
<tr>
<td>Productivity at Work</td>
<td>78.2%</td>
</tr>
<tr>
<td>Speaking English</td>
<td>72.3%</td>
</tr>
<tr>
<td>Quality of Work</td>
<td>69.8%</td>
</tr>
</tbody>
</table>

FIGURE 18

SUPERVISORS' RATINGS OF COMMUNICATION
% Greatly-Moderately Improved (N=128)

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand Oral Instructions</td>
<td>79%</td>
</tr>
<tr>
<td>Speak in English to You</td>
<td>71.1%</td>
</tr>
<tr>
<td>Understand Written Instructions</td>
<td>63%</td>
</tr>
<tr>
<td>Communicate without Translation</td>
<td>62%</td>
</tr>
<tr>
<td>Speak in English to Co-workers</td>
<td>44.6%</td>
</tr>
<tr>
<td>Understand Numbers, Measurements</td>
<td>69.6%</td>
</tr>
</tbody>
</table>

FIGURE 19
Productivity at Work (78.2%) and Speaking English (72.3%) were at levels slightly below the highest level. The relatively low level of improvement in the Quality of Work (69.8%) can be attributed to the fact that many of the employees were already performing very well, as discussed above.

The first set of specific job performance dimensions assessed by supervisors is related to basic communication skills and behaviors, such as the employees' use of English and willingness to communicate (Figure 19 on page 30). The most noticeable improvement was in the employees' abilities to Understand Oral Instructions: nearly four out of five employees (79%) were rated by supervisors as having improved greatly or moderately. Also, almost three out of four (71.1%) had shown improvement in being able to Speak English to You (the supervisor).

Almost two-thirds of the employees also demonstrated improvement in being able to Understand Written Instructions (63%) and Communicate without Translation (62%). Less than half (44.6%) showed improvement in being able to Speak in English to Co-workers.

It should be noted that in places where co-workers speak the same non-English language, it is more convenient and efficient to use that language rather than English. Enforcing use of only English would be counterproductive for the hotels.

Figure 19 also reports the supervisors' rating of employees' job-related math skills. Over two-thirds (69.6%) of the students were rated as having greatly or moderately improved in being able to Understand Numbers, Measurements.

General communication behaviors comprised a second set of job performance dimensions assessed by the supervisors (Figure 20). Nearly four out of five (78.1) improved greatly or moderately in being able to Get Along and Work Well with Co-workers. This finding reflects the supervisors' own statements about the vast improvement in morale as a result of employees attending the workplace literacy courses.

Significant improvement also was reported in the employees' willingness to Report Problems - Repairs, Changes (77%) and to Ask for Help When Needed (74.6%). About two-thirds (67.5) of the employees were rated as having improved in their willingness to Report Planned Absences, Reasons for absences.

The third set of job dimensions addresses employee work performance more directly. Generally, the ratings show that almost three-fourths of the employees showed great or moderate improvement in the job performance areas assessed (Figure 21). Positive findings concerning job performance are crucial to the workplace literacy project. While learning English, math, and other skills are important, the bottom line for hotel supervisors and managers must be improved job performance. Slightly more
SUPERVISORS' RATING OF BEHAVIORS
% Greatly-Moderately Improved (N=128)

Get Along and Work: 78.1%
Well with Co-workers: 77%
Report Problems - Repairs, Changes: 73.6%
Ask for Help When Needed: 67.8%
Report Planned Absences, Reasons: 0%

SUPERVISORS' RATINGS OF JOB PERFORMANCE
% Greatly-Moderately Improved (N=128)

Take Interest in Job and Pride in Work: 75%
Perform High Quality Work: 72.9%
Work Productively, Efficiently: 72.7%
Follow Safety Rules, Safe Practices: 72%
Take Initiative: 68.8%
employees are reported to have improved in the dimension Take Interest in Job and Pride in Work (75%) and slightly fewer employees improved in the dimension Take Initiative (68.8%). Overall, the work performance ratings indicate the positive influence the training had on the trainees' job performances.

Objective #7. To provide job-related math instruction (arithmetic, measurements, time estimations, etc.) to all trainees.

Findings: It was expected that math-related instruction would be an important part of the instructional time. After testing and working with the trainees, REEP staff confirmed that:

1. The math skills of the trainees so were low that only numeracy (the basic understanding and application of cardinal numbers) skills could be taught. In addition, the English language skills were so low that ESL clearly was the overwhelming, number one priority.

2. The amount of "math" needed on the job was very minimal, and related more to numeracy skills than to arithmetic, measurements, time estimations, etc.

Upon entry into the REEP/Hotel Workplace Literacy Project, trainees were given a math test. The test measured six basic functions: recognize the appropriate sequence of numbers, recognize the relationship between numbers and the "number" of things (such as pictures or symbols), add, subtract, multiply, divide, and solve a word problem. Figure 22 shows there are two distinct groups: (1) those who have very weak math skills - 40.3% of the trainees who failed to score 30 or more points, and (2) those who have quite high math skills - 22.7% of the trainees score 80 or more points.

Work materials and tasks were used as a basis for conducting instruction in numeracy. For example, trainees had to count their materials, such as towels, glasses, plates, bags, etc.

While this instruction was considered a success by both REEP staff and supervisors, there was no formal attempt to assess learning achievement in numeracy skills. Supervisors rated the job performances of the employees enrolled in the workplace literacy project. The findings for the three outcomes identified below have been discussed earlier under Objective 6, Outcome #3.

Planned Outcome #7.1 - Trainees become functionally proficient, particularly in terms of materials and tasks related to their jobs.
Planned Outcome #7.2 - Trainees can perform math-related activities related to their jobs.
Planned Outcome #7.3 - Trainees can better understand and do their jobs.
Objective 8. To provide consumer awareness, problem-solving, and citizenship training to all trainees.

Findings:

**Planned Outcome #8.1** - Trainees become more functional through application of English and math skills to real life consumer concerns and problems.

Course curricula were based primarily on job-related needs for using English and math skills. Specific learning materials also included content/information useful in situations outside the job, such as consumer needs and concerns. Instructors did develop lists of problem-solving activities for each job skill unit. However, consumer skills did not comprise a separate, isolated section of the overall course curricula.

Assessments of the supervisors reported under the findings for Objective 6 indicate that the employees were making progress in applying what they had learned in the courses. REEP staff also reported similar findings. However, quantitative data on the increased use and better application of English and math skills for consumer concerns and problems were not collected.
Planned Outcome #8.2 - Trainees start plans and preparation for citizenship.

A total of 25 employees participating in the workplace literacy project began training to qualify for amnesty and to become U.S. citizens. Of these, 23 (92%) completed the amnesty training requirements.

Objective 9. To provide work awareness and job/career counseling for all trainees.

Findings:

Planned Outcome #9.1 - Trainees better understand work requirements and expectations in the U.S.

As discussed under Objective 6, supervisors reported that a large majority (almost three-fourths) of trainees have shown improvement in various dimensions of their work performance (see Figure 18). The improvements in each of the performance dimensions indicate that the trainees have a better understanding of their work. The supervisors reported that the number of problems or misunderstandings have been reduced because the employees can understand instructions and directions better. Also, the employees are better able to report and describe problems to supervisors. This is important because minor problems are solved before they progress to the level of major problems.

Planned Outcome #9.2 - Trainees better understand what jobs are available and how to qualify for them.

There have been promotions and salary increases as a result of the improved performances by the employees attending the workplace literacy courses. However, there was no concerted emphasis placed by REEP staff on teaching about career ladders. This objective was not implemented as planned because:

1. At this point in their work careers, the career ladder is not complex. There are those who do the work, and those who are the immediate supervisors of those who do the work.

2. The English proficiencies of the trainees were so low that almost total emphasis has to be placed in teaching job-related ESL and, to some extent, job-related math (numeracy).

3. After having conducted the literacy audits and worked with hotel supervisors, REEP staff realized that it would not be appropriate to offer career counseling. Such an activity could be interpreted as interfering with the internal operations of the hotels, particularly the administrative affairs of supervisors.
Objective 10. To provide follow-up counseling/assistance to trainees after they have completed training.

Findings:

Planned Outcome #10.1 - Status of former trainees assessed at specified intervals by collecting information from employees and employers.

Data have been collected on the retention status of the employees who attended the workplace literacy courses. Of the 230 employees who enrolled in the training, 84% are still employed with the hotels.

There are no complete data on whether retention of employees working in these service areas of the hotels has improved. Of those hotels which have had high turnover rates in the recent past, the supervisors reported that retention has improved.

Planned Outcome #10.2 - Counseling provided to former trainees and their employers, as needed.

There has been very limited project activity to address this outcome. First, career counseling has not been emphasized because of the reasons given in the discussion for Objective 9. Second, many of the trainees attended more than one course. By the time they had completed training, the project was over.

Planned Outcome #10.3 - Training curriculum assessed and changes, as needed, are identified.

The burdensome--but necessary--dual roles of curriculum development and teaching made it difficult for REEP staff to develop a comprehensive materials package to accompany and coordinate their curricula. Within the time available, it was considered a major accomplishment for teachers to have developed instructional lessons and worksheets related to the job activities.

One benefit of the piece-by-piece lesson plan approach for materials development is that the lessons were prepared to teach now the job-related English and numeracy skills that the trainees needed the most.

Plans are underway to develop a comprehensive, coordinated materials package, based on the experiences of the 1988-1990 REEP/Hotel Workplace Literacy Project. The completed package will be designed to enable supervisors to select the course content from the menu of learning objectives available. This design also has great capacity for absorbing changes in and additions to the learning materials.
Objective 11. To make recommendations to hotel/motel managers concerning reading levels and other factors which make it difficult for workers to understand materials and directions.

Findings:

Planned Outcome #11.1 - List of recommendations for development of written materials for workers.

The experiences in conducting the 1988-1990 project were refined, and instructors are preparing written materials for the 1990-1992 Arlington-Alexandria Workplace Literacy Partnership project.

Planned Outcome #11.2 - List of recommended behaviors for improving manager/worker relationships and job performance.

As part of the literacy audit process, REEP staff met with the supervisors to select the learning objectives for the courses. Staff also met with the supervisors at the mid-term point and the end of the course to discuss further the course objectives. The supervisors also rated the participating employees on five general behaviors and 15 specific behaviors related to the overall objectives.

Despite these repeated contacts, supervisors rarely mentioned course content during interviews with the outside evaluator. Although all the supervisors interviewed noted the improvements by employees who had attended the training and praised quality of instruction provided by REEP staff, only a few indicated they had in-depth knowledge of what was being taught and how it was being taught. Thus, the involvement of the supervisors in the training courses appears to have been deficient in some way.

Recommendation No. 1 for Objective 11. REEP should consider providing training for supervisors of LEP employees as a separate instructional module of workplace literacy projects.

Comments. Supervisors, particularly relatively new ones, would benefit from training on how to communicate effectively with LEP employees.

Another approach may accomplish the same goal. Supervisors should be encouraged to actively participate in the instruction. One supervisor who did this noted two benefits:

1. He came to know the employees on a more personal basis, and thus he could communicate better with them.

2. His attendance and participation in the training reinforced for employees the importance of the training and how it would benefit themselves and the hotel.
Objective 12. To recommend to the Chamber of Commerce other workplace literacy partnership projects.

Findings:

Planned Outcome #12.1A - Formative and summative evaluation of the current project.

A mid-term project evaluation was conducted, and recommendations were made. The evaluator has met several times with the project advisory committee as well as REEP staff. This report is the formative and summative evaluation of the project.

Planned Outcome #12.1B - Preparation of "how-to-do it" guide for developing workplace literacy projects and functional partnerships.

A videotape was developed to describe the REEP/Hotel Workplace Literacy Project. It is an excellent description of the purposes, objectives, and operations of the project, prepared in a thoroughly professional manner. Now that release on the copyrighted music has been obtained, the videotape should be given widespread use.

As discussed briefly under Objective 1, Outcome #5, the guide--"Perspectives in Organizing a Workplace Literacy Program"--has been prepared and will be field tested.

The guide tells the educational and the business perspectives of what should be done, from taking the initiative to get started to describing how each can best contribute to the partnership. Specific action steps are suggested for each major activity. In the appendices, samples are provided of curriculum materials and other materials to be used in administration of the project.

Planned Outcome #12.2 - Reports on other industries which need literacy training for their employees.

During project operations, REEP staff met with and developed the maintenance division of Charles E. Smith as a project site. Eight employees were trained under this site arrangement. Two hotels also were recruited as sites later during the grant period, and 28 persons from these sites were trained.

Staff also met with the Alexandria Chamber of Commerce, the Alexandria Hotel Association, Alexandria City Public Schools, and the Alexandria City Council. As a result, the 1990-1992 Arlington-Alexandria Workplace Literacy Partnership project was planned and, eventually, funded.
Planned Outcome #12.3 - Recommendations for how to conduct future projects for specific industries in the county, and recommendations of institutionalizing workplace literacy projects.

The guide "Perspectives in Organizing a Workplace Literacy Program" contains recommendations for organizing and conducting similar workplace literacy projects.

Action on institutionalizing workplace literacy projects has centered on the recruitment of industries which would be willing to pay almost the entire cost of the operation.

Recommendation for Objective 12: To institutionalize workplace literacy training, consider using the contract services approach now being used by the Adult, Vocational, and Career Education Division of Arlington Public Schools.

Comments: Arlington Public Schools offers extensive job skills training on a per course or per person fee basis. Private industry and federal agencies (such as the Department of the Army) purchase extensive amounts of training provided through the school system. Training can be purchased for nominal fees for skills such as word processing, spreadsheet operations, general PC operations and DOS commands, editing, public speaking, conducting briefings, and general secretarial/clerical duties. The training is often conducted for only a day or two, or may last several weeks. The training often is tailored to meet the specific needs of a business or organization.

Arlington Public Schools is a logical provider of the training because:

1. It is a public agency serving its taxpayers and residents. As a public agency, it has an obligation to facilitate programs that meet the needs of the taxpayers and residents.

2. It has the expertise to develop curricula and provide instruction. It is the leader in public education, and has an obligation to become a partner with its constituencies to work jointly to support innovative and effective programs.

3. It has extensive contacts with well qualified instructors who would like to work on a part-time basis. Through its education personnel network, it can facilitate provision targeted training on a quick turn-around, short-term basis.

4. It has the administrative offices, policies, procedures, and support operations already in place for conducting such programs. With the necessary mechanisms already in place, it has an obligation to make them available at a reasonable fee to improve the quality of life in the county.
With appropriate use of the Arlington Public Schools resources and mechanisms, it seems likely that the businesses and industries in the county could purchase workplace literacy training on a relative low cost basis. As a result, the workplace literacy program can become institutionalized throughout the county.