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ABSTRACT

The Massachusetts Workplace Literacy Consortium was funded through a 3-year National Workplace Literacy Program grant. During the second grant year, the consortium operated 25 program sites that were almost evenly divided between health care and manufacturing. The following were the primary reasons programs were started: reduce error and waste (76%), accommodate change in work organization or process (76%), and make greater use of employees who are nonnative speakers of English (68%). Two outside evaluators were hired to evaluate the programs during their second year. The evaluation focused on the following: extent to which the consortium goals were being met; level of implementation of the Massachusetts Indicators of Quality for Workplace Literacy Programs and the indicators' relationship to learner outcomes, workplace outcomes, and program partnership; relationship between instructional methodologies and worker and workplace outcomes; and ways programs could improve. The evaluation documented some learning gains, particularly in English, math, problem solving, and reasoning. (Twenty-five tables are included. Appendixes constituting approximately 50% of this document contain the following: indicators of quality; Indicators PLUS protocol for program coordinators; quality indicators' results; self-score sheet; cost figures; Department of Education data collection forms; plan of operation; and revised guidelines for curriculum documents.) (MN)

Working Toward Quality

Evaluation Report for the Massachusetts Workplace Literacy Consortium

National Workplace Literacy Program
Wave 6, Year 2
Award #: V 198A40054-96

Submitted to the
Massachusetts Department of Education

by

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Working Toward Quality

Executive Summary

The Massachusetts Workplace Literacy Consortium (the Consortium) was funded for three years from November 1, 1994 to October 31, 1997 through the National Workplace Literacy Program (NWLP). The Consortium is administered through the Adult and Community Learning Services Cluster (ACLS) of the Massachusetts Department of Education by ACLS/Consortium staff. This report summarizes the evaluation activities conducted in the second grant year and presents their results. Quantitative data are reported on Period 3 only, the six months from November 1, 1996 to April 30, 1997. The report uses four evaluation objectives as a framework for reporting results and assessing the Consortium's strengths and challenges. Before presenting conclusions for each objective, we present a summary of descriptive findings.

There are 25 program sites almost evenly divided between health care and manufacturing; one is higher education. Eleven sites are small businesses (less than 250); three are medium (250-500); nine are large. Slightly less than half are unionized. The three primary reasons for starting a program are to: reduce error and waste (76%); accommodate a change in work organization or process (76%); and make greater use of employees who are (ESOL) English Speakers of Other Languages (68%). Seven sites (28%) offer complete paid release time as an incentive and 17 (68%) offer partial paid release time. The students are mostly white middle aged adults (just over 40 years of age). Over 80% are born outside the US, with a slight majority being female. The students generally have less than a high school education but more than elementary school. They have enjoyed stable employment for an average of eight years.

The overall average cost per site is $35,939, of which $14,908 is from the NWLP grant and the remainder is from company cash contributions (largely, if not exclusively, paid release time for instruction) and in-kind contributions of the education or business partners or both. The programs cost about $875 per student during Period 3, including $348 of public funds and $527 of non-public funds. The cost per student contact hour is about $14.23, with a little less than half that from the NWLP funds and over half from the company's cash and other in-kind contributions.

There were 138 courses offered during Period 3 across all sites, with an average of between five and six per site. The range was wide. One site offered only one course; most sites offered from two to eight courses; and two offered significantly larger numbers, 16 and 31 courses. The numbers of students in each class averaged a little over nine, with a fairly narrow distribution around that figure. The courses also varied quite a bit in length, with an average of over 65 hours per course; the distribution was quite even within the extremes of 24 to 120 hours.

The primary types of content taught are ESOL, mostly at the intermediate level, followed by the beginner level. A substantial amount, 16 percent, of pre-GED preparation is also taught. The most predominant emphasis within the courses is communications, in 38 percent of the courses. This is followed by reading and writing combined, then reading, writing and literacy each as separately reported emphases. Placement and assessment tools used most frequently are student interviews, portfolios, Individual Education Plans (IEPs), and "other" methods. Courses with primary emphasis on reading, math, or reading and math are offered in substantially greater proportion at manufacturing than at health sites. Courses with primary emphasis on writing, communications, or reading and writing have a substantially higher proportion offered in health than in manufacturing sites.

Results indicate some learning gains, particularly in writing English, and also in speaking, understanding and reading English, using math, and solving problems and using reasoning. The gains in English usage stand to reason since most of the courses addressed those content areas. The problem-solving and reasoning gains look as strong as the English gains, even though there

are no programs that reported course focus in that area. Perhaps problem solving and reasoning gains are component parts of gains in writing, speaking, understanding and reading.

Evaluation Objectives and Conclusions:

Objective #1. Determine if the goals of the Consortium are being met

Overall the Consortium is meeting its goals:

- The Consortium is serving the population it intended to serve. The Consortium has met its goal to serve 1,200 workers per year.

- Workers have achieved noticeable learning gains. It is a key finding of this evaluation that workers made noticeable learning gains in Period 3 alone. Workers were given a scale on which to rate their pre instruction status and their post instruction status on seven skills areas. Gains were particularly noted in writing English, but also to a fair degree in speaking, understanding and reading English, using math, and solving problems and using reasoning. A sum of gains of 0.66 signifies that, overall, workers rated themselves higher at the end of Period 3 instruction on the seven skills areas than at the beginning. A 0.66 gain represents a 22% gain of the scale's range. Thus the Consortium has made progress toward its goal of improving the literacy skills of workers. (The number of workers for whom there are data on learning gains is from 158 to 181 out of the total 1,294 workers reported to have been served during Period 3.)

  A series of questions also asked workers for reports on whether other outcomes occurred. As with the self-ratings in the skill areas referenced above, these data are reported by a small proportion of the employees served during the period. Nonetheless, ninety-five percent of the respondents indicated that they learned what they wanted to, which speaks well for participant satisfaction with instruction and suggests the achievement of learning gains as well.

- Some positive impact on the workplace has been achieved. Business partners and site personnel from 18 of 20 sites reporting state that there has been some positive impact of worker participation in a program on the workplace. The main areas of improvement are employee communications, participation in team work and work processes, and reduced scrap and rework. Fifteen of the 20 respondents (75 percent) cited improved communication as a workplace outcome, consistent with the Consortium's ESOL demography, its primary course emphases and the types of services most often offered.

- The Consortium is making wise use of federal dollars. The Consortium is using NWLP monies in the way that they were intended: to seed workplace education programs that have the potential for continuation beyond federal funding and to leverage monies and services from companies that support these important programs.

- Local Planning and Evaluation Teams (PETs) are functioning as planned and may still benefit from further technical assistance. Overall, local PETs are functioning as planned -- as a hub of program activity and the embodiment of partnership at the local level. In Year 3 they might benefit from additional technical assistance and support from the Consortium Planning and Evaluation Team (CPET).

- The CPET has ably guided the Consortium through a complex plan of service delivery to 25 programs but would benefit from implementing a formal planning and evaluation process to guide it through a final year. The CPET has served the Consortium well, largely in a monitoring role. ACLS/Consortium staff might now encourage CPET members to think more proactively about what they can accomplish in Year 3 through facilitating a formal planning and evaluation

process. The Consortium's Year 3 emphasis on institutionalization suggests a need for additional focus on local evaluation activities and how they might serve institutionalization.

- The Consortium has explored three types of distance learning opportunities and the results of their use are unclear at this time. The Consortium experienced "media initiation by fire" and emerged with reasonable products and significant learnings about how to proceed with future media projects. Actual results for students and programs are unclear at this time. It is clear, however, that it is not as easy to produce quality education products using telecommunications and computer media as it might seem. Multimedia learning will likely continue to grow rapidly as a field, and it is worthwhile for the Consortium to consider continuing production and dissemination of its own media products. Sufficient expertise, time and resources, however, need to be allocated to create worthwhile products and to evaluate their effects.

- ACLS/Consortium staff learned that there must be a congruence between a new technology, instructional content and the readiness of teachers and students to work with new technology. There was agreement among Coordinators and ACLS/Consortium staff that activities in all three media projects were somewhat premature and would have benefited from more development time. As noted below, at the end of Year 2, the Curriculum Working Group (CWG) is ready to share some of the materials and formats that it has been compiling. It took two years for the group to identify all the dimensions of its task and come to agreement about how to execute that task -- documentation and dissemination of workplace curricula. Had the group been pressured to produce documentation in Year 1, it is unlikely that its format and content would be as rich as they are now.

- The CWG is building the capacity of the Consortium at the same time that it is producing and disseminating valuable documentation of curricula. The CWG's written products will likely be enormously useful to various audiences. The process the CWG used to document the curricula is also a product which may have many applications and a wide audience. The Massachusetts Department of Education and the Consortium and would be well-served if staff time were allocated to help with dissemination.

- CPET members have been pursuing continuation of their programs but the level of business and union commitment to continue programs (as of May 1996) falls short of the Consortium standard. It would be advantageous for Coordinators to discuss and plan for program continuation more actively than before. ACLS/Consortium staff might troubleshoot any problems that Coordinators have with discussing or planning continuation by including the topic on CPET meeting agendas for the next several months.

Objective #2: Determine the level of implementation of the Massachusetts Indicators of Quality for Workplace Literacy Programs and the relationship of the Indicators to learner outcomes, workplace outcomes and the program partnership

- With modification the Quality Indicators can be useful for further research and evaluation. A central focus of the Consortium's Year 2 Evaluation was testing the assumption that there is a relationship between the presence of Quality Indicators and positive outcomes at the learner, workplace, and partnership levels. The Quality Indicators intuitively have benefits when used as a guide for program development. The effort to test their validity by developing a scoring method for them and correlating those scores with outcomes is a useful research focus that we pursued this year but without a clear conclusion. There were several reasons for this: (1) The level of inference in the scoring process used by the evaluators is higher than some audiences are comfortable with. Efforts to create a scoring system based on performance standards for the Quality Indicators is underway and may eventually lead to better opportunities to study the relationship between them and outcomes.

(2) Available outcome data was scant at best. Testing the relationship between Quality Indicators and outcomes relies as much on good outcome data as it does on a satisfactory scoring system for the Quality Indicators. Scant outcome data, a by-product of the unexpected dearth of data from the National Workplace Literacy Information System (NWLIS), as well as limited anecdotal reporting from local sites, hampered analysis of the Quality Indicators as much as any difficulty in the Quality Indicator scoring process.

Continued work on the relationship between Quality Indicators and outcomes will likely prove useful to many audiences. Refined performance standards for the Quality Indicators can serve multiple purposes, including guiding programs in their development, possibly through a self-scoring process. Improved documentation of outcomes will also serve many audiences, among them local PETs who can use this information to argue for program continuation. The resources and time needed to continue the proper study of the relationship between Quality Indicators and outcomes, however, are at this time quite extensive. The DOE may be well served to continue this work internally with evaluator support and turn the focus of the Consortium evaluation onto questions of more immediate concern and impact, including how PETS are functioning.

- The level of implementation of the Quality Indicators as scored in Year 2 is quite high. Given the limitations just stated, sites and partners have implemented the Quality Indicators at a very high level. The average ratings on 18 of the 25 Indicators (72 percent) were above 5 on a 6-point scale (with 6 as the highest level of implementation). The strongest areas were Staff, Curriculum, and Administration; the weakest was Assessment, Evaluation and Outcomes. Additionally, the level of Quality Indicator implementation was substantially higher for health sites than for manufacturing sites on 64 percent (16 of 25) of the Indicators, a result that is possibly explained by the fact that the partnerships generally work with either manufacturing sites or health sector sites exclusively. Since many activities covered in the Quality Indicators are mostly in the control of the education partner common to a number of business partners, then the extent to which the educational partner implements the Indicators will be reflected in the Quality Indicator scores of each of its constituent sites. It may be that those education partners with health sector business partners are more effective in implementing the Indicators. On the other hand, manufacturing companies may present more difficult barriers to implementing the "ideal" factors included in the Indicators, somewhat beyond the control of the educational partners, and these may be reflected in their systematically lower Quality Indicator ratings.

- The relationship between Quality Indicator Implementation to Worker, Workplace, and Partnership Outcomes is not clear at this time. Correlations between self-reported learning gains and sites' Quality Indicator ratings were generally low.

Objective #3: Determine the relationship between instructional methodologies and worker and workplace outcomes

The initial emphasis in this objective was on the relationship of instructional characteristics to outcomes. We have added the relationship of business characteristics to outcomes. Conclusions are offered to stimulate further thinking about possible research and evaluation questions rather than as answers.

- The gains in English usage areas may be related to some instructional and business characteristics. The clearest information about learner outcomes is on the four areas of English usage: reading, understanding, speaking and writing. The speaking and writing English outcomes were always more pronounced than reading and understanding. They were also pronounced when we examined their relationship to business and instructional characteristics. English usage gains were related to course length, with the mid-length courses (54-76 hours) showing the highest gains, the lengthiest courses (78-120 hours) showing the next highest gains, and the shortest courses (24-52 hours) showing the smallest gains. This suggests that short

courses are not advised for a predominantly ESOL population. The medium-sized businesses had higher gains than the smaller and larger businesses, with the latter two alternating on amount of gain across different outcome areas.

Objective #4. Develop recommendations for project improvement

Improve Consortium Function

ACLS/Consortium staff should:

- Support the CPET to become a more formally reflective governing body that is better prepared to promote institutionalization of programs in the Consortium.
- Determine which programs are likely to continue, and assess what information and support other programs need to enhance the likelihood that they will also continue.
- Support more evaluation activities in local PETs.
- Consider organizing several state-wide sharings that focus on PET and CPET development.
- Support the CWG to explore how student outcome data can be expressed in a uniformly quantitative way across programs.
- Investigate whether the Consortium has leveraged more matching funds from businesses than other federally-funded programs.
- Develop a dissemination plan for CWG materials; allocate staff time for dissemination; and use Consortium materials to promote program continuation.

Improve Evaluation Activities

Evaluators should:

- Work with ACLS/Consortium staff to establish performance standards for Quality Indicators and develop new scoring process for Quality Indicators.
- Use evaluation results as an agenda for discussion among ACLS/Consortium staff, CPET members and local staff and PETs to prioritize interest areas and develop hypotheses for testing with stronger data.
- Encourage the CPET to discuss evaluation results in CPET meetings and consider how results might inform program improvement .
- Gather more substantive data on how PETs are functioning than the Indicators PLUS protocol allowed in Year 2.
- Support the CPET and local PETs to systematically assess both workplace and partnership outcomes.

I. Introduction

The Massachusetts Workplace Literacy Consortium.

The Massachusetts Workplace Literacy Consortium (the Consortium) was funded for three years from November 1, 1994 to October 31, 1997 through the National Workplace Literacy Program (NWLP). The Consortium is composed of seven partnerships among business, labor and education that provided workplace education services at 26 businesses throughout the Commonwealth during its second year of operation.[1] It is an association of small manufacturing companies, health care organizations, educational institutions and unions that intends to provide adult education services to approximately twelve hundred workers over the three year grant period for the purpose of upgrading work-related literacy skills.

The partnerships are:

Education Partner	Business Partners
Jewish Vocational Services	C&K Components, Servolift/Eastern Corporation, Beth Israel Hospital and Children's Hospital, Fuller Mental Health Center, and Massachusetts General Hospital
Quinsigamond Community College	Jewish Healthcare Services, Beaumont at the Willows Nursing And Rehabilitation Center, and the Bolton Manor Nursing Home
Worker Education Program/SEIU	Metro West Medical Center, Jewish Memorial Hospital, Boston City Hospital/Boston University Medical Center, Jordan Hospital, St. John of God Hospital, and the Harvard Street Neighborhood Health Center
Bristol Community College/Attleboro Workplace Education Collaborative	Robbins Company, Stern Leach, Jostens, Inc., Swank, Mason Box, and Helix Technology
Labor Education Center at the University of Massachusetts, Dartmouth	International Dryer Corporation and Lightolier Corporation
Labor Management Workplace Education Program at the University of Massachusetts, Amherst	University of Massachusetts, Amherst and Smith and Wesson Corporation
Literacy Volunteers Network	Holyoke Card and Paper Company and the Sealed Air Corporation

[1] In January 1997 the number of participating programs is 25.

The Consortium is administered through the Adult and Community Learning Services Cluster (ACLS) of the Massachusetts Department of Education. Through ACLS, the Consortium receives the support necessary to develop, implement, evaluate and institutionalize its programs. It is the intention that the Consortium will continue to build a strong infrastructure of support for workplace education within the Commonwealth beyond NWLP funding.

The governance structure of the Consortium is democratic. It is composed of the program Coordinators from each of the seven learning provider agencies which deliver services to the 25 sites, ACLS staff, and representatives from the System for Adult Education Support (SABES), the state's professional development agency for adult educators. This governance structure, called the Consortium Planning and Evaluation Team (CPET), meets regularly to review and address the issues attendant to providing education services in the workplace and to evaluate their own activities as a Consortium. The CPET receives guidance and advice from a twenty-four member advisory council, the Massachusetts Workplace Education Coordinating Council. The complex structure of the Consortium, its educational scope, and capacity to include large and small businesses from different sectors of the economy represent ten years of learning within the Massachusetts Department of Education about how to best provide workplace literacy services to employed workers.

Review of the Consortium evaluation plan and its four objectives.

The National Workplace Literacy Program requires that an independent external evaluation of all its projects be conducted. In November 1995 the external evaluators for the Consortium submitted an evaluation plan to the Secretary of Education, U.S. Department of Education, on behalf of the Massachusetts Department of Education, Massachusetts Workplace Education Program. The plan was subsequently approved and guided the evaluators in the second grant year. The evaluation plan is structured by four main objectives:

1. Determine if the goals of the Consortium are being met.
2. Determine the level of implementation of the Massachusetts Indicators of Quality for Workplace Literacy Programs and the relationship of the Indicators to learner outcomes, workplace outcomes and the program partnership.
3. Determine the relationship between instructional methodologies and worker and workplace outcomes.
4. Develop recommendations for project improvement.

This report summarizes the evaluation activities conducted in the second grant year and presents their results. Quantitative data are reported on Period 3 only, the six months from November 1, 1996 to April 30, 1997. It uses the four evaluation objectives as a framework through which the Consortium's accomplishments and challenges can be assessed.

II. Methodology

The evaluation plan was designed around one central data collection effort, supplemented by several smaller efforts, that would simultaneously gather information on the extent to which Consortium goals were being met (Evaluation Objective #1) and on the extent of the presence of the Indicators of Quality for Workplace Education Programs (Evaluation Objective #2).

The Indicators PLUS protocol

The central data collection effort was structured around a protocol called the "Indicators PLUS." "Indicators PLUS" derives its name from the "Indicators of Quality" which are quality standards established for six basic components of workplace education programs. The six components are: Partnership and Planning; Curriculum; Assessment, Evaluation and Outcomes; Support Services, Staff; and Administration. An example of an indicator within the component "Partnership and Planning" is: "There is a comprehensive plan for the program that is developed by all key stakeholders and reviewed regularly by them." (See Appendix A for a list of the Indicators and Appendix B for the Indicators PLUS protocol.)

The central protocol is called "Indicators PLUS" because extra questions were added to the basic indicators protocol to cover all the areas needed for the goals evaluation. These extra questions focus on computer assisted instruction; distance learning; how the Consortium and Consortium Planning and Evaluation Team function as an association of programs; the economic and organizational context in which the business functions; productivity outcomes; and measures of ROI. Triangulation of data on partnership, curriculum and outcomes is attained by asking business partners, union representatives, teachers and workers to complete a shorter version of the Indicators PLUS protocol.

The Quality Indicators were initially generated by adult educators, workers, and business and union representatives involved in previous funding cycles of the Massachusetts Workplace Literacy Program. They were then operationalized by the external evaluators in the first year of the Consortium. A significant amount of effort went into defining the Indicators. There has been a working assumption among programs in the Consortium and in prior NWLP-funded programs in Massachusetts that the Indicators describe the conditions that are necessary for a program to deliver

effective services. That assumption, however, has never been empirically tested. The Consortium evaluation gives us the opportunity to test this assumption by examining whether the presence or absence of the Indicators is correlated with desired outcomes at three levels: (1) workers' educational gains; (2) productivity gains or improvements in quality of services and (3) the quality of the business-union/education partnership.

The Site Visit Process

In the winter of 1996, the external evaluators administered the Indicators PLUS protocol in seven sites and provided support to Program Coordinators to collect data on their own in the remaining sites. As a rule, site visits were conducted over the course of one day. With one exception, representatives of all key stakeholder groups were interviewed in all the sites. These stakeholders include the Project Coordinator, business representatives, union representatives when a union is a partner, teachers, and a sampling of workers enrolled in the program. In a few cases it was not possible to interview everyone in person or on one day and the evaluators either made a second trip to a program site or conducted interviews by phone. The evaluators spent more time with the Project Coordinator -- an average of two and a half hours -- than with other stakeholders completing the Indicators PLUS protocol and the scoring sheet. Interviews with other program representatives lasted from approximately 30 to 90 minutes.

The Scoring Process

During the interview with the Program Coordinator, the evaluators asked the Program Coordinators to score each Indicator on a 6-point Lickert-type scale. The evaluators discussed the scores with the Coordinators and also scored the Indicators themselves without letting the Coordinator know that external score. During this process, the evaluators and the Coordinators familiarized themselves with the scoring process and the evaluators began to develop a sense of where their scores might differ from the Coordinators' scores. The Coordinators' scores are for internal, formative use only. They provide a baseline against which Coordinators can monitor progress on each Indicator from Year 2 to Year 3.

After the site visits were concluded and Coordinators had gained some familiarity with the protocols, Coordinators completed the Indicators PLUS and self-scores for all other sites. Other site and business/union personnel completed supplementary protocols. Once the additional protocols and self-scores were completed and mailed to the external evaluators, the external evaluators read them and scored them independently. The evaluators then met and compared scores for each Indicator on each protocol. When there was a discrepancy of one point or less, the rule was to assign an average of the evaluators' ratings as the final score. When there was a

discrepancy of more than one point, the rule was to discuss the difference, defend the score and reach agreement on the appropriate score to assign. The result of this process was the set of "final ratings" used for all analyses of the Quality Indicators in this report, shown for each site (unnamed) in Appendix C and averaged across all sites in Table 16. The evaluators' initial ratings correlated at 0.83 using Spearman's rho[2], indicating a high and statistically significant level of interrater reliability. More detailed descriptive information about the properties of the Quality Indicators are also included in Appendix C.

We chose a 6-point Lickert-type scale because it: (1) enables statistical analysis with the outcome variables; (2) captures change well; and (3) is simple and familiar enough for local program staff to use. Through our pilots in Year 1 we learned that program staff were, in fact, able to discern the distinctions between the points. See Appendix D for the Self-Scoring Sheet.

Assessment of strengths and weaknesses of the data collection and scoring processes

The site visits provided us with a grounded sense of what was happening in seven sites, each representing one of the seven Consortium partnerships. This proved to be an effective way to prepare us to score protocols from other sites within the partnerships. In Year 3 ACLS/ Consortium staff is planning to facilitate a process to develop performance criteria for each Indicator. Performance criteria for each Indicator may simplify the scoring process; they will leave less to the interpretation of evaluators and make clearer to program staff exactly what criteria are associated with a particular score.

Program Coordinators were given disks on which to complete their protocols. We anticipated that collecting data on disks would expedite the data gathering process but it became, instead, a technological burden in some cases. It is not easy to translate across different word processing programs and different versions of the same programs. A return to paper in Year 3 is likely the best solution, except for those few for whom the computer transfer worked well.

Additional Data

The Year 2 evaluation plan relied extensively on the use of quantitative data gathered through the National Workplace Literacy Information System (NWLIS). On account of funding recissions and other complications in the data base system, NWLIS data were not available to us. As a result, ACLS/Consortium staff developed a data base for the evaluators. See Appendix F for DOE data collection forms. This data base took what was usable from NWLIS and supplemented

[2] P<.000 on N=510.

NWLIS with new data when possible for Period 3 only, the period between November 1, 1995 to April 30, 1996. This composite data base for a six month period in the middle of the grant cycle offers ample descriptive data about program characteristics but little data on outcomes. We performed our analyses on these data knowing that as many questions might be raised as answered by them, setting the stage for richer data collection and analysis in Year 3.[3] This heuristic evaluation function is consistent with program evaluation theory elaborated by Michael Patton and others[4]. Inconclusive results in Year 2 can inform the evaluation agenda for the subsequent year with questions that are based in analysis.

We also used the following data sources to enrich our understanding of whether and how the Consortium goals are being met:

- NWLIS summary data for Period 3
- CPET minutes
- Interviews with DOE staff
- Documentation of the Curriculum Working Group
- Distance learning documentation
- Original grant proposal submitted by the Massachusetts Department of Education to the National Workplace Literacy Program

Status of data collection and data availability.

Although there were 26 sites in the Consortium for most of Period 3, data for two sites are incomplete. Jordan Hospital left the Consortium before the evaluators prepared their Quality Indicator scores. As a result, there are no Quality Indicator scores or analyses available for Jordan Hospital, although other descriptive data are available and are reported as appropriate. Conversely, Stern Leach has Quality Indicator and Quality Indicator PLUS data reported for it, but has no descriptive data in the DOE data base.

In order to preserve confidentiality, programs are not identified by name in any analyses.

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[3] For the first three reporting periods of the NWLP grants, all NWLP grantees were mandated to report to Mathematica Policy Research (MPR) using the NWLIS data system . NWLIS was developed by MPR specifically for the NWLP. NWLIS was designed to report data that was aggregated by partnership and not by individual site. Errors in the NWLIS system made some of the aggregated data unreliable. Although sites were not required to keep paper copies of NWLIS data input forms, most were able to refer to their records and provide sufficient data for this evaluation report. Missing data in Period 3 is, therefore, a reflection of the problematic NWLIS system and does not imply that Coordinators were remiss in keeping accurate records.

[4] Patton, Michael Quinn. Utilization-Focused Evaluation. Sage Publications, Beverly Hills, CA, 1977.

III. Results

The Consortium's evaluation objectives provide a framework for reporting results. This section of the report is structured according to those objectives, with emphasis on the evaluation questions that emanate from each objective.

Evaluation Objective #1: Determine if the Goals of the Consortium are Being Met.

In this section of the report we review the five Consortium goals and assess the extent to which they are met. We list each goal and its indicators, identify the evaluation questions we seek to answer, present results, and offer conclusions about the extent of Indicator achievement.

➔Goal #1: Enhance the productivity and quality of services at 27 businesses across the Commonwealth by improving the literacy skills of over 1,200 employees annually.

Indicators:

- a minimum of 1,200 employees are served annually
- employees' literacy skills are improved
- employers' productivity and/or quality of services are improved as a result of employees' improved literacy skills

➔Evaluation questions:

• How many employees are being served? • Who are they? • What types of businesses/industries do employees work in? • What types of programs are they enrolled in? • What types of instruction are they receiving?

This section serves as a baseline set of descriptive information about the businesses and industries in which the programs take place, characteristics of the programs, and the participating employees and their literacy gains for Period 3 of the grant cycle. Subsequent sections of this report will address the relationship between program characteristics and outcomes for the same period. Descriptive information provides the background that enhances the reader's understanding of the analyses of relationships between program characteristics and outcomes. This presentation is intended to provide an overall analytic description of the Consortium rather than a statement about individual sites or partnerships.

The Students

During this period, 1,294 students[5] were reported to have been served by 25 sites, for an average of just under 52 per site. The majority of sites (17) served between 5 and 50 students. An additional five sites served between 51 and 75 students. The two remaining sites served 163 and 270 students.

A summary of selected demographic characteristics of the students served is shown in Table 1. These results are based on the reports of 517 students (of the 1,294 students) from 23 sites who reported any information to the DOE on a Learner Form. As the data in the table indicate, the average age of students is almost 42, though they range from 18 to 71 years old. A slight majority are female. The majority are not native to the United States, with over 80 percent born outside the U.S. Racially, the most numerous group is classified as White, with about one-fourth Other, presumably of Spanish speaking (since the same number that reported Other also reported themselves as being of Spanish descent in the next question on the form). Substantial numbers of Asians and African-Americans are also represented. English is reported to be spoken in about one-third (32 percent) of students' homes. The median level of schooling outside the U.S. is 10 years. For those born in the U.S., the median years of schooling in the U.S. is 12 or more; for those born outside the U.S., the median is 10 years in other countries and less than five in the U.S. The students have averaged over eight years in their present jobs, however, suggesting general work stability of this group.

In summary, the most significant features of these students with respect to their workplace educations may be that they are largely middle-aged adults, with less than a high school education, for whom English is not their primary language, and for whom U.S. culture is not their native one.

Participating Businesses and Industries

The types of businesses and industries represented in the Consortium, along with key characteristics, are summarized in Table 2. The slight majority are health care organizations, including hospitals, nursing homes, and mental health centers. Almost half are manufacturing companies. One is a university program for support staff such as maintenance, clerical, and food service workers. Of the 23 sites reporting the number of employees at their worksites, almost half are quite small with fewer than 250 employees, several have between 250 and 500 employees, and

[5] This is a sum of the numbers of students shown in each course reported on DOE's course form. It is likely a duplicated count but is the best source available in this dataset for estimating the number of participants.

Table 1. Demographic Characteristics of Employees Served

Characteristic		Number Reporting	Percent*	Mean	S.D.	Min	Max
Age		457		41.9	10.83	18	71
Born in U.S.	- Y	89	19				
	- N	379	81				
Gender	- M	227	46				
	- F	267	54				
Race	- White	201	43				
	- African-Am	60	13				
	- Asian	88	19				
	- Native Am	3	1				
	- Other	112	24				
Spanish descent	- Y	112	24				
	- N	353	76				
English spoken at home	-Y	141	32				
	- N	303	68				
# years at present workplace		381		8.1	6.32	0	28
				Median			
# years' U.S. schooling**		384		9		none	12 or more
# years' other schooling**		404		10		none	12 or more

* These percents are of the total numbers responding to each particular question to the immediate left. The total pool of respondents is a maximum of 517 from whom Learner Forms were received.
** Medians are reported for the schooling variables since the response categories on the data forms were in year spans up through 8 years, then in single years above 8. The figure for the # years' U.S. schooling is the median for those who have some schooling in the U.S., removing those who had no U.S. schooling from the distribution.

a substantial proportion (39 percent) have over 500. The median number of employees at these companies is 280. Furthermore, almost half the companies, 46 percent, are at least partly unionized, with slightly over half having no union membership.

In summary, a significant feature of the participating businesses is that they represent almost equally the manufacturing and health service sectors and are small, medium and large in size. That almost half of the participating businesses are small indicates that the Consortium is serving the small business sector that it intended to serve without sacrificing delivery of service to larger manufacturing or health sector companies.

Table 2. Characteristics of Participating Businesses/Industries

Characteristic	Number	Percent of Total
Industry Type - Education (University support staff)	1	4
- Health Care	13	52
- Manufacturing	11	44
Business Size - Small (<250)	11	48
- Medium (250 - 500)	3	13
- Large (>500)	9	39
Percent of workers in union at site: - > 50%	9	38
- < 50%	2	8
- none	13	52
Reasons for starting program:		
- reduce error and waste	19	76
- change in work organization or processes	19	76
- make greater use of ESOL employees	17	68
- workers requested	9	36
- labor agreement	8	32
Incentives offered to workers:		
- partial paid release time	17	68
- award ceremony on completion	17	68
- award certificate on completion	15	60
- complete paid release time	7	28

Reasons for Starting Program

We next considered the reasons the businesses had for instituting their workplace education programs and the incentives offered to workers to participate in them, using the data from Table 2. Overall, over three-fourths of the businesses started the programs to help reduce errors and waste and to help with changes in the work organization or processes. Most often the changes referred to include cross-functional training, working in teams, or participation in total quality management-type activities. Over two-thirds of the businesses also indicated that they want to make greater use

of their ESOL employees, consistent with the demographic characteristics of the students described above.

One striking reason for instituting a workplace education program, though mentioned by only a little over a third of the sites, is that workers requested the training program. It is likely that this refers to training requested by workers through a union or required by a union contract. Examination of the nine companies for which this was stated as a reason for starting a program reveals that six were companies with greater than 50 percent unionization and two more were from those with less than 50 percent unionized; only one was from a non-union business. The question of how workers in unionized vs. non-unionized workplaces make their interest in education known to management might be worth pursuing. Unions provide a structure for workers to make their education needs known. Are workers in non-unionized workplaces given comparable opportunities to request education? What do those opportunities look like? If those opportunities do not exist, and the need for training is stated by management more often than by workers, does this dynamic affect workers' participation in training?

Companies' reasons for starting the programs vary somewhat by type of industry. The differences in each reason for the manufacturing and health industries are shown in Table 3. Reducing error and waste was more predominant among the manufacturing businesses, cited by all 11 of those as a reason for the program, though only by about half the health businesses. The other three reasons were more frequently cited by the health businesses: labor agreement requirements, worker requests, and "other" for which the respondents wrote in some variation of job security. This last item, job security, seems noteworthy because of its predominance in the health businesses. Perhaps it is such a significantly higher concern there because of the uncertainty that has arisen in the health sector from recent and proposed federal, state, and private health care reforms, including the more publicized areas of Medicaid, Medicare, and managed care.

Incentives

The incentives generally offered to workers to participate in programs are fairly standard: partial paid release time from work for instructional time and an award ceremony and certificate upon completion are offered by about two-thirds of the businesses (68 percent). Seven companies (28 percent) offer complete paid release time from work. These are strong incentives for worker participation and they also bear upon the in-kind contributions which the companies make to their programs, which are described below as being quite high in many sites. The incentives offered to workers were compared across industry types and across business size, again resulting in no

Table 3. Reasons for Starting the Program by Business/Industry Type

Reason for starting	Type of Industry*	
	Health	Manufacturing
reduce error and waste	7 of 13	11 of 11
change in work organization or processes	8 of 13	10 of 11
attract new workers	0 of 13	1 of 11
health and safety requirements	0 of 13	1 of 11
labor agreement	6 of 7	1 of 3
changes in workforce	0 of 13	1 of 11
workers requested	7 of 13	1 of 11
make greater use of ESOL employees	7 of 13	9 of 11
other	5 of 13	0 of 11

*The one university program was not included in this analysis. Since it was only one program in the Education category and it checked all the reasons in its response, it did not contribute to the comparison across either industry types or reasons for starting a program.

patterns of differences. There is a relationship between partial paid release time and learning gains that is elaborated in Table 10.

Instructional Characteristics

General characteristics of instruction in the Consortium programs are shown in Table 4 where the data indicates there were 138 courses offered during Period 3 across all sites, with an average of between five and six per site. The range was wide, however. One site offered only one; most sites offered from two to eight courses; and two offered significantly larger numbers, 16 and 31 courses. The numbers of workers in each class averaged a little over nine, with a fairly narrow distribution around that figure. The courses also varied quite a bit in length, with an average of over 65 hours per course, and the distribution quite even within the extremes of 24 to 180 hours.[6]

Additional characteristics of the course structure are that 116, or 88 percent, of the courses allow open entry, indicating the clear modal method for student access. Also, 57 percent are offered during the workday (not during lunch), with another 25 percent offered immediately before

[6] We suspect that the five courses that reported higher than 120 hours in length are reporting errors. Therefore, we have used the range of 24 - 120 in all tables to follow.

Table 4. Descriptive Statistics for Selected Course Characteristics

Characteristic	Mean/Site	S.D.	Min	Max
# courses offered (Total = 138)	5.52	6.12	1	31
# students enrolled in each class	9.51	3.8	2	19
# hours/course	65.6	28.6	24	180

or after work (usually partly during the workday and partly before or after). Additionally, four percent (six courses) are offered at lunch, and 13 percent (18 courses) are offered at "Other" unspecified times.

From NWLIS summary data for Period 3, we learn that 55 percent of students completed the courses in which they were enrolled. Seventeen percent dropped their courses and 25 percent have the status of "incomplete: needs skills/hours." Twelve percent of those who did report a reason, report that family or health reasons (not including child care) prevented them from completing their courses.

Other characteristics pertain more to the content of the instruction, and these are shown in Table 5. The primary types of content taught are ESOL, mostly at the intermediate level (45 percent), followed by the beginner level (24 percent). A substantial amount, 16 percent, of pre-GED preparation is also taught. The most predominant emphasis within the courses is communications, in 38 percent of the courses. This is followed by reading and writing combined, then reading, writing and literacy each as separately reported emphases. The emphasis on communication is consistent with the ESOL course focus.

DOE's Course Data form asked respondents to indicate which instructional methods they used in each course from a list that included: small groups, teacher-led, computer-assisted learning, individualized, audio or visual aids, materials from the workplace, and other. Virtually all options were indicated for all courses, so results are not reported in the table.

The vast majority of the courses, 89 percent, are reported to be developed uniquely for this program. Placement and assessment tools used most frequently are student interviews, portfolios, IEPs, and "other" methods. There is a distinctive lack of emphasis on use of tests, job-competency assessments, or supervisor ratings. Since the majority of the students are of limited English backgrounds and most of the instruction is in ESOL communications, student interviews make sense as a predominant and probably effective placement and assessment method.

Table 5. Frequencies of Instructional Characteristics (of 138 Courses)

Characteristic	Frequency	% of Total
Type of service		
- intermediate ESOL	62	45
- beginner ESOL	33	24
- pre-GED	22	16
- GED	8	6
- advanced ESOL	7	5
- ABE	5	4
- pre-literacy	1	1
Primary emphasis of course		
- communications	52	38
- reading and writing	26	19
- writing	16	12
- literacy	12	9
- reading	12	9
- other	10	7
- reading and math	5	4
- math	4	3
- team building	1	1
Most of curriculum uniquely designed for this course	116	89
Placement Tools Used		
- student interviews	113	82
- other	63	46
- IEPs	36	26
- portfolios	17	12
- standardized tests	11	8
- job-related competency tests	10	7
- supervisor ratings	6	4
Assessment tools used: - other	83	60
- portfolios	70	51
- IEPs	45	33
- student interviews	42	30
- job-related competency tests	20	15
- standardized tests	9	7
- supervisor ratings	6	4

Instructional Characteristics by Industry Type

Some instructional characteristics differ by industry type, most strongly class sizes and primary course emphases. The manufacturing sites' courses are more often larger (56 percent are in the large, 10 - 19 students, category) than are the health sites' courses (46 percent). Courses with primary emphasis on reading, math, or reading and math are offered in substantially greater proportion at manufacturing than at health sites. Courses with primary emphasis on writing, communications or reading and writing are offered in substantially greater proportion at health than at manufacturing sites.

Number of hours the course is offered was also found to vary somewhat by industry type, though not to the high degree of the prior two comparisons. The data for this relationship are shown in Table 6. Note that the education site has the highest average number of hours in their courses; the manufacturing sites have a slightly lower number of hours; and the health sites have the shortest courses.

Table 6. Mean Course Length in Hours by Industry Type

	Industry Type		
	Education	Health	Manufacturing
Mean	66.2	60.8	64.3
S.D.	35.4	19.5	24.8
N	5	99	32

The final comparison for instructional characteristic by industry type is that of type of service. The findings indicate a slight tendency for more GED services in manufacturing than in health sites and more Beginning ESOL services in health than in manufacturing. The results for all types of services are shown in Table 7.

Administrative and Instructional Staff

There are seven Project Directors who average 13 hours of work per week on the Consortium. There are six Assistant or Associate Project Directors who average slightly more -- 15 hours -- of work per week. There were 53 instructors in the Consortium during Period 3. The 31 instructors for whom there is data on work hours worked an average of 13 hours per week. In addition, there were five instructors' aides who averaged seven hours of work per week and 15 volunteers who contributed a total of 560 hours, an average of 37.3 hours per volunteer. Volunteers functioned as "instructors' aides" and "tutors."

Table 7. Type of Service by Industry Type

Type of Service	Industry Type*		
	Education	Health	Manufacturing
Pre-literacy			3% (1)
ABE		3% (3)	6% (2)
Pre-GED	60% (3)	15% (15)	12% (4)
GED		3% (3)	15% (5)
Beginning ESOL		28% (28)	15% (5)
Intermediate ESOL	40% (2)	47% (46)	41% (14)
Advanced ESOL		4% (4)	9% (3)

* Cells show the percent of classes in each industry type with the numbers of students in the categories to the left. Numbers of courses represented are shown in parentheses.

Of the 39 instructors for whom there is gender data, 33 (85 percent) are women. Thirty-eight of the 53 (72 percent) are white; only two are African-American; two are Asian. None is described as Hispanic. Eleven are described as "other." Of the 31 instructors for whom there is data on educational attainment, 14 (45 percent) have a Master's Degree but not a Ph.D.; and eight (26 percent) have some graduate credits. That means that 22 of the 31 (71 percent) have some graduate training. Seven have a four-year college degree only; one has some college, but not a degree, and one has a two-year college degree. The tasks routinely assigned to instructors included: teaching learning sessions; recruiting students; assessing students; collecting data for project evaluation; conducting job task analysis; designing/adapting curricula; developing learner-developed educational plans; counseling employees on their educational development; working with worksite supervisors; promoting workplace education at the worksite; and "other."

These data confirm that Consortium instructional staff are predominantly white women with some graduate training who are called upon to perform many job responsibilities that exceed any definition of traditional teaching. The data underscore the need for staff orientation and training, which both local and ACLS/Consortium staff provide.

➔Evaluation questions, Goal #1, continued

• What are employees' literacy gains? • What improvements in productivity and/or quality of services do employers realize as a result of employees' literacy gains? • What do programs cost? • Is ROI important to companies and unions?

Learner Outcomes

Learner outcomes were assessed for this evaluation, first, by having the students rate themselves at the start of a course and at the end of it in seven skill areas, shown in the left column of Table 8. We computed the difference between their start and end ratings as the gain score in each skill area. The validity of these ratings and gains will vary by course, for some skill areas match the course objectives better than others. Also, ratings were provided by from 158 to 181 students on the various skill areas out of the total 1,294 students reported to have been served during Period 3. Thus, there are limitations to the generalizability of these data to all students served during the period. Given those limitations, however, the overall gain ratings are shown in Table 8.

Table 8. Mean Rating "Gains" in Seven Skill Areas

Skill Area	Mean Gain*	S.D.	Minimum	Maximum	Number of Students
Writing English	0.16	0.73	-2	3	175
Speaking English	0.11	0.67	-2	2	176
Solving problems/reasoning	0.11	0.64	-2	2	158
Understanding English	0.1	0.66	-2	2	176
Reading English	0.09	0.61	-2	2	181
Using math	0.09	0.75	-3	2	162
Working as part of a team	0	0.66	-3	2	170
Sum of gains**	0.66	2.95	-12	13	181

* Based on pre-post self-ratings on a 4-point scale: (1) poor, (2) fair, (3) good, (4) excellent.
** The gains for each individual were summed over the seven skill areas. Those gains were then averaged for this and subsequent tables showing sums of gains.

The results indicate some gains, particularly in writing English, but also to a fair degree in speaking, understanding and reading English, using math, and solving problems and using reasoning. The gains in English usage stand to reason since most of the courses addressed those

content areas, as described above. Moreover, working as part of a team was an area reported to be addressed by only one site, and thus the lack of gain there makes sense. The problem-solving and reasoning gains look as strong as the English gains, even though there are no programs that reported course focus in that area. Perhaps either the 10 courses reported as "other" addressed this content area or problem solving and reasoning gains are experienced as component parts of other gains. The positive sum of gains is shown at about 0.66.

The sum of gains of 0.66 signifies that, overall, workers rated themselves higher at the end of Period 3 instruction on the seven skills areas than at the beginning. Workers were given a scale on which to rate their pre instruction status and their post instruction status. The scale for each of the seven areas is as follows: 1 = poor; 2 = fair; 3 = good; 4 = excellent. Thus the 0.66 gain represents a 22% gain of the scale's range. It is a key finding of this evaluation that workers made noticeable learning gains in Period 3 alone. This means that the Consortium has made progress toward its goal of improving the literacy skills of workers.

A second means of assessing learner outcomes was from a series of questions on the same learner assessment form that asked for reports on whether each of several other outcomes occurred for workers. These other outcomes and the frequencies with which they were reported to have occurred are shown in Table 9 for outcome areas in which 16 percent or more responded. As with the self-ratings in the skill areas above, these data are reported by a small proportion of the employees served during the period. Nonetheless, ninety-five percent of the respondents indicated that they learned what they wanted to, which speaks well for participant satisfaction with the courses.

Table 9. Self-Reports of Other Outcomes

Outcome	Frequency	N Responding	% of Total
Learned what wanted to	197	208	95
More responsibility added to job	94	207	45
Changed educational or career goals	86	210	41
Received a pay raise	48	203	24
Received award, bonus, or other recognition	32	200	16

Release Time and Learning Gains

We examined whether the type of paid release time offered to workers to participate in the program made a difference in their learning gains. Specifically, we compared complete and partial

paid release time sites. The results, shown in Table 10, indicate that the sites with partial paid release time had higher gains in the sum and in all outcome areas except problem solving than the gains in sites with complete paid release time. The sites with complete paid release time included five manufacturing, one education, and one health businesses. Those with partial paid release time included 10 health and five manufacturing.

Table 10. Mean Learning Gains by Amount of Paid Release Time

Outcome Area	Paid Release Time	
	Complete (N=105)	Partial (N=209)
Reading English	0.05	0.14
Understanding English	0.03	0.18
Speaking English	0.05	0.25
Writing English	0.14	0.28
Teamwork	-0.07	0.09
Math	0.02	0.13
Problem solving	0.01	-0.04
Sum of gains	.023	1.03

Workplace Outcomes

The primary source of workplace outcome information is from site personnel's responses to open-ended questions on the Indicators PLUS Protocol, and the teacher, business partner, and/or union protocols, either through interviews in the sites we visited or through written responses. From those written or oral responses, the evaluators content analyzed and summarized the major categories of workplace outcomes, then tallied their occurrence at each site. The categories and their frequencies of occurrence are shown in Table 11. The types of information included in each category are:

- ***Improved communication***, including more reading of work orders, less need for interpreting and workers ask more questions about the status of the department and of sales
- ***Improved involvement in teams and work processes***, including making suggestions and explaining to others what's needed to do a job
- ***Less scrap and rework***; fewer problems with quality; fewer errors due to misunderstanding; and more material control accuracy; improved quality of service
- ***Improved self-confidence***
- ***Improved safety***, in one case resulting in lowered insurance premiums for the company

- ***Improved participation***, including less absenteeism & turnover; higher rates on -- and more participation in -- performance reviews, and reports of praise from supervisors
- ***More involvement in the union***, including writing grievances
- ***Program created an environment that is supportive of training and institutionalizing the program***
- ***Workers are promoted***
- ***No visible results***

Table 11. Frequencies of Workplace Outcomes

Outcome Category	Number of Sites Reporting	Percent of Sites*
Improved communications	15	75
Improved participation	7	35
Less scrap & rework	6	30
Improved self-confidence	4	20
Improved safety	4	20
More union involvement	3	27**
Improved teamwork/work process involvement	2	10

* Out of the 20 who reported any outcome information.
** Out of the 11 who reported that at least some employees were union members

Note from Table 11 that improved communications was the most predominant outcome in the workplace, consistent with the primary course emphases and types of services most often offered. Reports of improved communication may have been even more numerous had we asked respondents if improved communications was a visible workplace outcome. As noted, we asked open-ended outcomes questions. When answering an open-ended question about workplace outcomes, respondents might emphasize a point that is salient at the time and overlook something that would be noted if prompted.

Reports of improved participation in teams and work processes and reduced scrap and waste were the two next most frequently reported outcomes. These outcomes are consistent with the two most frequently given reasons for starting the program which were reducing error and waste and changes in the work organization or process.

Looking at the workplace outcomes from the perspective of sites, the 20 that reported any outcomes reported them in anywhere from one to four of the categories. More specifically, five

sites reported outcomes in only one category, nine sites in two categories, and three sites each reported them in three and four categories. This means that the majority (17 of the 20) report multiple workplace outcomes.

Cost by Site

Actual cost data were not available by site. Thus, we used the budgeted figures for each partnership and pro-rated the budget for one-half of Year 2 among the sites within each partnership according to the numbers of students served to derive the estimated budget per site. We then used that estimated amount for each site to calculate the cost per student and cost per student contact hour based on the actual reported numbers of students served and numbers of student contact hours.

The overall cost data for all sites are shown in Table 12. The mean cost per site is $35,939 of which $14,908 is from the NWLP grant and the remainder is from company cash contributions (largely, if not exclusively, paid release time for instruction) and in-kind contributions of the education or business partners or both. The vast majority of those non-public funds are from company cash contributions. The programs cost about $875 per student during Period 3, including $348 of public funds and $527 of non-public funds. The cost per student contact hour is about $14.23, with less than half that from the NWLP funds and over half from the company cash and other in-kind contributions.

When we compare the costs by business/industry type, shown in Table 13, the overall result is that the health sites have considerably larger budgets than the manufacturing projects, but also have lower costs per student and per student hour for their non-public and their total funds.

The manufacturing sites use considerably less NWLP funds and a slightly lower proportion of cash contributions per student and per student contact hour than do the health sites. This result may be reflective of the higher wages earned by the students in the manufacturing sites compared to the health sites, thus making the manufacturing sites' relative cash contributions much higher, all other things being assumed equal.[7]

[7] From the data reported by individuals, the average hourly earnings of 176 health care workers is $6.98 while that of 102 manufacturing workers is $7.33. This tends to support the hypothesis. The data were reported for less than half the participants who reported individual data and about 21% of the participants' served, however, so they do not seem representative enough to warrant any conclusive statement about the hypothesis.

Table 12. Estimated Costs Across All Sites (in dollars)

	NWLP Funds	In-kind & cash match	Total
PER SITE			
Mean	**14,908**	**21,031**	**35,939**
minimum	1,882	1,003	2,885
maximum	41,498	111,497	144,424
PER STUDENT			
Mean	**348**	**527**	**875**
minimum	133	116	249
maximum	630	1,807	2,340
PER STUDENT CONTACT HOUR			
Mean	**5.81**	**8.42**	**14.23**
minimum	2.97	2.74	5.89
maximum	14.80	23.63	30.61

Table 13. Mean Estimated Costs Per Site for Business/Industry Types

	Business/Industry Type	
	Health	Manufacturing
NWLP funds		
budget	19,986	7,268
cost/student	392	284
cost/student contact hour	5.85	5.65
Non-public funds		
budget	18,703	12,778
cost/student	415	432
cost/student contact hour	6.36	8.10
Total funds		
budget	38,689	22,827
cost/student	808	841
cost/student contact hour	12.21	15.12

We also explored the cost data across small, medium and large businesses, similar to the analysis in Table 13. The trend was that the monies budgeted, both from public and non-public funds, were greater for the larger companies and that the costs per student and per student contact hour were lower for the larger companies. This result, however, may be largely a function of the way in which the partnership funds were allocated to sites, as described earlier. That is, the larger companies generally had more students and thus were "assigned" a larger prorated share of the partnership budget. Since they had more students, dividing their budgets by their larger numbers of students and contact hours gave them lower costs per student and per contact hour. Since the logic for the analysis is essentially circular, we did not present the table of results or discuss it any further.

After attempting to analyze cost data and derive some conclusions about them, it is clear that the data herein are inadequate. Insofar as cost considerations are important to state or partnership policy decisions, better cost data are needed if there is to be any possibility of evaluation or analysis informing those decisions. As a result we recommend that the DOE set up and implement a system for reporting budgeted and actual cost data by site.

Is ROI Important?

We investigated whether formal Return on Investment (ROI) measures are in place in any Consortium programs and are considered of value. There is a working assumption that business partners are interested in measurable outcomes, and in ROI measures in particular. Good ROI measures enable Human Resource Managers and other trainers and educators to use evidence and not just intuition to argue that worker education benefits the workplace. Demonstrating ROI has been considered a key element of program continuation. If real financial benefit to the company can be demonstrated, then the company might be more likely to support its own program after federal funding is finished. This working assumption does not hold true among Consortium businesses to the extent expected.

As noted in Table 14, nine out of 22 business partner respondents expressed an interest in ROI. Six business partners reported that ROI is not important. Seven business partners, those shown in Table 18 with missing data, failed to answer questions about ROI, even when they completed other parts of the protocol, possibly signifying lack of interest in ROI. This makes a total of 13 business partners who either answered directly that ROI does not interest them or about whom we might infer the same, representing more than half of the programs.

Table 14. ROI by Type of Industry

Opinion of ROI	Type of Industry		
	Education	Health Care	Manufacturing
Want ROI	1 (4.5)*	4 (18)	4 (18)
Don't want ROI		3 (14)	3 (14)
Missing Data		4 (18)	3 (14)

* Twenty-two respondents completed protocols in which questions on ROI appeared. Cells show the numbers and, in parentheses, percent of response of the total 22.

The explanations that business partners gave for not having an interest in ROI range from vehement to casual. Vehement explanations include: "Fabricating ROI formulas is a wasted effort.... Fortunately, our management sees the benefits of operating a [workplace education] program and does not require hard data," and "Autocratic management systems need piles of data. But businesses don't support programs like this if they didn't expect ROI. We 'know' that this program is a success. We don't want to take the time to collect data on what we know is working."

Reasons given for why ROI is important include: "[ROI] is very important because it's hard to convince upper management of the benefits without hard data." "We want some data to support the program after federal funding." "We would like to have fourth level Kirkpatrick information in place but this is not available for other programs either." [ROI] is important but we've explained it in intangibles. We need hard data." One respondent said that his program has not been able to calculate ROI because of "lack of objective measurements." He suggested the following data collection method: "At the end of each [instructional] period, there should be short written statement of the employee's commitment, areas of improvement, and areas needing improvement -- a report card."

There is only one company that has in place what we might call an ROI formula. This company collects scrap and rework data every day and then calculates it weekly and monthly. Scrap and rework continue to be reduced, and the value of the reduction is attributed to worker participation in an education program. Only one other site has real plans to have an ROI measure in place in the future. Less scrap and rework; fewer problems with quality; fewer errors due to misunderstanding; and more material control accuracy -- these are potentially the most easily measured workplace outcomes that can be turned into an ROI measure. While some companies

and organizations may not have systems that track scrap, rework or errors with ease, insofar as they interested in ROI, it seems worth the effort for Program Coordinators to assess what data companies are already collecting and determine if those data might be used to document workplace outcomes for the program and to calculate ROI.

It is likely that some employers will continue to value rigorous ROI measures and others will not. In workplace education programs in other states, we have noted a striking correlation between disinterest in ROI and implementation of quality management. The more participatory the management style, the less interested managers are in traditional ROI. These managers trust that more education of the right kind -- that workers help to define -- will result in workers developing the skills they need to do their jobs better. These "generic workplace benefits" that result from improving workers' education levels are supported by findings from the National Employer Survey. "Recent research using household surveys of workers suggests that there is an eight percent return to workers (in the form of higher wages) for each additional year of schooling. The EQW-NES documents that increases in the average education of an establishment's workforce has the same payoff for employers in the form of increased productivity."[8]

In Year 3, it may be useful to characterize Consortium businesses as high productivity or traditional and analyze the relationship between this characterization and business leaders' opinion about ROI. We might discover that traditional ROI measures are not what's needed to persuade management in the high productivity workplace that workplace education programs are worth the investment in them.

➔ Conclusions: Goal #1.

- The Consortium is serving the population it intended to serve. The Consortium is serving a primarily intermediate ESOL population, mostly white middle-aged adults, a slight majority being female, with over 80% born outside the US, who have less than a high school but more than an elementary education and who have enjoyed stable employment for an average of eight years. These are likely the people who will carry the burden of implementing organizational change at the floor level in both the manufacturing and service industries, as they are skilled enough and experienced enough to do so. The Consortium has met its goal to serve 1,200 workers per year. It has served 1,294 (duplicated count) in Period 3 alone.

[8] "The Other Shoe: Education's Contribution to the Productivity of Establishments, A Second Round of Findings from the EQW National Employer Survey. Philadelphia, PA: National Center on the Educational Quality of the Workforce, undated, page 2.

- Workers have achieved noticeable learning gains. A key finding of this evaluation is that workers achieved noticeable learning gains in Period 3. Analysis of learner self ratings in seven skill areas at the start and end of a course indicates that workers have achieved gains particularly in writing English, but also to a fair degree in speaking, understanding and reading English, using math, and solving problems and using reasoning. A sum of gains of 0.66 signifies that, overall, workers rated themselves higher at the end of Period 3 instruction on the seven skills areas than at the beginning. A 0.66 gain represents a 22% gain of the scale's range. A series of questions also asked workers for reports on whether other outcomes occurred. As with the self-ratings in the skill areas referenced above, these data are reported by a small proportion of the workers served during the period. Nonetheless, ninety-five percent of the respondents indicated that they learned what they wanted to, which speaks well for workers' satisfaction with instruction and suggests the achievement of learning gains as well. Thus we conclude that the Consortium has made progress toward its goal of improving the literacy skills of workers.

- Some positive impact on the workplace has been achieved. Business partners and site personnel from 17 of 20 sites reporting state that there has been some positive impact of worker participation in a program on the workplace. They state that the main areas of improvement are employee communications, participation in team work and work processes, and reduced scrap and rework. Fifteen of the 20 respondents (75 percent) cited improved communication as a workplace outcome, consistent with the Consortium's ESOL demography, its primary course emphases and the types of services most often offered. Seven of the 20 respondents (35 percent) reported improved participation in team work and work processes, and six (30 percent) reported reduced scrap and rework. It is likely that improvements in communication and participation translate into improvement in productivity and/or quality of services. Reduction in scrap and rework -- even in small quantity -- usually translates directly into improved productivity. We conclude that the Consortium has made some progress toward its goal of improving productivity and/or quality of services for participating businesses.

- The Consortium is making wise use of federal dollars. The overall mean cost of a program per site is $35,939, of which $14,908 is from the NWLP grant and the remainder is from company cash contributions and in-kind contributions of the education or business partners or both. The programs cost about $875 per student during Period 3, including $348 of public funds and $527 of non-public funds. The cost per student contact hour is about $14.23, with less than half that from the NWLP funds and over half from the company cash

and other in-kind contributions. We conclude from this cost analysis that the Consortium is using National Workplace Literacy Program monies in the way that they were intended -- to seed workplace education programs that have the potential for continuation beyond federal funding and to leverage monies and services from companies that support these important programs. We would like to see figures that compare use of NWLP funds and matches in other NWLP-funded programs. Perhaps Massachusetts sets a standard for leveraging corporate dollars and for stretching federal ones.

➔Goal #2: Build the capacities of individual partnerships to implement responsive workplace literacy programs using a Consortium support model.

Indicators:

- Local PETs are established
- Local PETs receive training and technical assistance in order to function according to Consortium standards
- Consortium meets regularly, identifies key issues which PETs are dealing with, and develops -- and makes available -- appropriate interventions/ supports
- Consortium evaluates its activities.
- Program staff participate in distance learning opportunities (mini-course and Picture-Tel) and benefits from such participation

➔Evaluation questions:

• Have all programs established a PET? • Who comprises the membership of the local PETs? • How often do PETs meet? • What work are PETs undertaking? • What are the PETs key accomplishments/challenges? • Are PET members receiving the training and technical assistance they need to meet their challenges? • Is the Consortium meeting regularly, identifying key issues which PETs are dealing with, and developing -- and making available -- appropriate interventions/supports? • Has the Consortium established a process for evaluating its own work? What is that process and how is it proceeding?

<u>The Consortium Support Model</u>

In the Massachusetts Workplace Literacy Consortium, the term "Consortium" refers to the collection of partnerships and programs that deliver workplace education services. The Consortium support model is one in which representatives of the seven participating partnerships meet regularly with ACLS/Consortium staff to oversee the operation of the Consortium and

determine how to provide support to local sites. Hypothetically, the governance structure of the Consortium mirrors the governance structure of programs at the site level; and hypothetically, PETs and the CPET are democratic environments in which multiple perspectives about program purpose and implementation can be voiced, and resolution -- in the form of a functioning program -- can be achieved. At both the Consortium and site levels, representatives of stakeholder groups are charged to plan and evaluate their programs.

At the site level, Planning and Evaluation Teams (PETs) are usually composed of business and union representatives, workers, teachers, and the site Coordinator, while the Consortium Planning and Evaluation Team (CPET) is composed of project Coordinators, ACLS/Consortium staff and the System for Adult Education Support (SABES) representatives. The practice of governance through local PETs varies from site to site depending on factors such as extent of participation of workers and supervisors, management style of the company, union involvement, degree of commitment to education, etc. Despite these differences, some consistency of governance process is achieved within each of the seven partnerships through participation of partnership Coordinators in the local PETs. For example, the coordinator of five programs supported through the SEIU facilitates PET meetings at each site and insures that a similar governance process is followed. In the text that follows, we first address how local PETs are functioning. Then we address how the CPET is functioning.

Unless otherwise stated, data for these sections of the report were taken from:

- The Indicators PLUS protocols completed by Site Coordinators, and other related protocols completed by teachers and business and union representatives
- Interviews with ACLS/Consortium staff
- CPET minutes
- The text of the original proposal submitted by the Massachusetts Department of Education to the National Workplace Literacy Program.

How Local PETs are Functioning

All sites have established a PET. Twenty-one of 25 PETs (84 percent) are composed of representatives from all stakeholder groups -- workers, teachers, union when a union is a partner, and company management. Most of the PETs include supervisors. PETs tended to meet once a month in Year 1 but frequency of meetings decreased in Year 2. PETs appear to be functioning as intended -- as a hub where representative stakeholders plan, implement and evaluate their program's activities.

Nonetheless, PETs experience challenges, especially with harnessing full stakeholder representation. Challenges include:

- Four PETs do not have full stakeholder representation. Of those four, three are missing company managers.
  - In one case, the manager left and was not replaced. Management's preoccupation with intensive restructuring of this workplace cast doubt on the viability of the partnership, although the program continues without management representation.
  - In the second case, the manager was laid off and not replaced. This created a sense of deep uncertainty about the program's future and affected the extent to which supervisors saw themselves as partners in the program. Responsibility for the program was shifted to the participating union, and the program continues under union auspices.
  - In the third case, the manager was on maternity leave until recently and, during her absence, the team did not meet regularly. The situation at this site was further complicated by not including supervisors in the goal setting process at the beginning of the program. Their initial lack of buy-in affected the extent to which PET members saw themselves as "partners."
- Of the four PETs that do not have full representation, one reported lack of regular worker representation. This site recruited two workers, one of whom soon left the job. The remaining worker representative became ill. The worker who left was eventually replaced, but this person also became ill and did not come to meetings regularly.
- Two PETs reported problems with supervisor support but offered no explanation.

Reports of problems with harnessing full stakeholder representation are so few that it could be argued they point to the success of the PET structure rather than to its shortcomings. It is, however, clear that the process does not work equally well in all programs. Although only one site reported a problem with worker representation, we understand from anecdotal reports from Coordinators and teaching staff that other programs have integrated workers into PET meetings with some difficulty, especially workers whose native language is not English. Similarly, we understand that full supervisor support has not been forthcoming in all programs.

ACLS/Consortium staff suggest that, while PETs generally serve programs well by offering a model of collaborative work in the workplace, they could work better. For example, they could become more of a venue for expanding the domain of workplace education from skills acquisition to application of skills -- the place where linkages between what happens in class and what happens in the work process are made. ACLS/Consortium staff also suggest that teacher and worker participation in PETs could be improved. Staff indicate that teachers are sometimes conflicted about how to participate fully in a PET. If teachers feel that they are advocates for

students, and workers do not feel they can freely communicate their opinions about program purpose or operations without reprisal from management, then teachers might prefer to remain silent rather than voice a similar opinion. For example, workers -- and teachers by association -- might be reluctant to discuss how a "communication problem" among workers is really a "listening problem" among supervisors. It can take time and skill to coax these issues out into a group in a form that it can manage, even in organizations that employ quality management processes.

The data do not indicate how widespread the reluctance of workers and teachers to speak up in a PET about potentially risky issues is, but reports of this dynamic are not new. It has been noted at other times in the six years since the Massachusetts Workplace Education Initiative required its programs to establish PETs as governing bodies. Although it is not formally documented in the Consortium's second year beyond Consortium staff's oral reports, this brief focus on the problem allows us to suggest that PETs might benefit from further training. Through the Consortium, old problems might translate into an opportunity to explore and advance PET functions. Now that PETs have established themselves in a fundamental way as a program hub, it might serve the Consortium to address current PET issues in a statewide meeting. Training that focused on establishing a PET and on planning and evaluation activities was provided by Coordinators in Years 1 and 2. In Year 3, in addition to addressing the dynamics of teacher and worker participation in PETs, training might also address the extent of worker representation in PETs, dealing with conflicting agendas among stakeholders, modeling participatory management process in a PET, and moving PETs forward on a post-federal funding trajectory.

The Consortium PET as Governing Body

The CPET is a ten-member group composed of the Consortium's Coordinator and Assistant Coordinator, Coordinators from the seven participating partnerships, and a representative of the System for Adult Basic Education Support (SABES). In order to assess how the CPET is functioning, it is necessary to review the services and supports that the Consortium structure was intended to provide to individual programs and the products it was intended to produce.

Theoretically, the Consortium structure strengthens the ability of each partnership and each site to address and meet their needs. It enables a degree of effectiveness and impact of services that is greater than if the partnerships tackled issues independently. This is especially the case with small businesses whose more limited resources typically restrict them from sponsoring programs with the same level of benefits and services enjoyed by larger companies. Specific services and supports that the Consortium offers include: training, technical expertise, capacity building, and institutional support. The products that the Consortium is producing are numerous. They include

workplace education curricula that are both industry-specific and generic to the workplace; staff development training videos for local and national distribution; computer-assisted learning programs for the health care industry; and documentation of the uses of video-conferencing as an instructional aide. These products become resources to participating programs. The process of creating them itself builds capacity for service delivery.

Ideally, the CPET governs the Consortium. Our data collection to date enables us to review the CPET governance process to some extent. However, we are not able to answer fully as yet the question that underlies the Consortium's and CPET's purpose: has the collaboration of service providers and companies in a Consortium structure, and the presence of the CPET itself, enabled programs to deliver a scope and quality of services that they could not have delivered individually?

Review of CPET minutes for the twenty month period between March 1995 and November 1996 confirms that the CPET meets for four hours once a month. While local issues are addressed in program updates, Consortium-related management issues dominate the agenda, especially:

- The function of the CPET
- The range and limits of its authority to govern
- How funds will be distributed and spent
- Use of distance learning opportunities
- Evaluation and data collection at the site and CPET levels
- Institutionalization
- Reporting requirements

These issues are central to the Consortium's mission. They are complex and demanding and parallel the main program items in the Consortium's Plan of Operation. (See Appendix G for the Consortium's Plan of Operation.) Coordinators' protocols and staff interviews suggest that the CPET's content agenda was so complex and demanding that it absorbed the CPET's attention, leaving little time to reflect systematically on its creative potential as a governing body.

When it first convened, the CPET had only the mandate from the original grant proposal to guide its way -- that it provide for the Consortium as a whole what PETs provide for local programs: a stakeholder-based process for planning and evaluating all aspects of program delivery. PETs, however, received training and support from Coordinators to implement a formal planning and evaluation process. The CPET did not receive comparable training for its own planning and evaluation process. Faced with myriad reporting requirements and having to comply

with the many facets of the Plan of Operation, it is likely that receiving training for its own planning and evaluation process (separate from training provided to support Coordinators work with local PETs) seemed more burdensome than liberating. Although the CPET has evaluated its meetings and some of its programs, it has not given itself the opportunity to step temporarily outside of the grant framework and employ a formal planning and evaluation process to reflect anew on its goals and possible activities. This has resulted in less proactive programming and decision making than might have been expected at the start of the grant cycle.

When ACLS/Consortium staff reflected on what they would have done differently in the first eighteen months of the grant period, there was agreement on the following:

(1) Establish a process that allows the CPET to gain an identity of its own, into which new members could be welcomed

(2) Clarify questions about the extent of the authority and autonomy of the CPET. Is it really a governing body with decision-making powers? What is its relationship to the ACLS?

(3) Develop a workplan that would have translated the Plan of Operation into a "digestible" plan

(4) Hold longer CPET meetings, especially in the very beginning

A well-orchestrated planning and evaluation process in the CPET would have helped CPET members to accomplish the items listed above. Perhaps the time is ripe to introduce a planning and evaluation process to guide CPET members' decisions about what they want to accomplish between now and the end of the grant period, and beyond. The CPET has agreement that its three goals are: (1) compliance; (2) capacity building; and (3 institutionalization. Having reached this agreement, perhaps plans can be made to insure that the goals are met.

➔Evaluation questions, Goal #2, continued

• Which program staff have participated in distance learning opportunities and how have they benefited from such participation?

Distance Learning: Opportunity and Challenge

In the Consortium, "distance learning" refers to any one of three telecommunications or computer technologies through which workplace education-related instruction may be delivered potentially to large audiences at a distance from the point of origin. Distance learning is one of the ways that the Consortium is disseminating its learnings and can thus be understood as part of the achievement of the Consortium's' Goal #5: Produce and disseminate information on exemplary

workplace partnerships, delivery models, curricula, and industry-specific literacy materials. However, we discuss distance learning in Goal #2 because it is also a way in which the Consortium has built the capacity of individual partnerships to implement responsive workplace literacy programs. The three "distance learning" technologies are: (1) televised mini-courses for adult educators, aired nationally; (2) Lexicon, customized computer-assisted learning programs; and (3) Picture-Tel, two-way video conferencing.

Televised mini-courses

The mini-courses were offered in two consecutive autumns: September-October 1995 and September-October 1996. In the autumn of 1995, ACLS/Consortium staff produced seven hour-long video segments that were advertised nationally and delivered via satellite. The segments were: Laying the Groundwork; Program Design; Planning and Evaluation; Approaches to Workplace Curriculum Development; Curriculum in Action; Creative Materials Development; and Future Directions. In the autumn of 1996, ACLS/Consortium staff produced three hour-and-a-quarter video segments that were advertised nationally and delivered via satellite. The segments were: Assessment and Evaluation; Innovative Teaching Practices; Prioritizing Worker Involvement. The mini-course (the singular verb "mini-course" refers to the collection of courses offered in any year) provides a summary of good workplace education practices developed over the ten years that the Massachusetts Workplace Education Program has been in operation. It was developed by the Consortium's Assistant Director to meet the needs of workplace educators in Massachusetts in a traditional live-teaching format. Response to the course was very favorable and it seemed an easy step to make the course available nationally through video.

Experience in adult education, however, does not necessarily translate into success with the video medium. The 1995 segments are competent and convey much useful information. They were nonetheless produced under duress, with limited production support from the production company hired to assist, and the strain that students suffered is often visible. A "best of" tape -- one tape that collects the best of six hours into one hour of broadcast -- will be compiled and will likely be of great value as a training tool for workplace educators.

ACLS/Consortium staff lacked experience with TV. Coupled with limited professional production assistance, and the pressure to create a product when the Consortium was barely a year old, this made the experience difficult. In 1996, another three segments were produced that benefited from the prior year's learnings. ACLS/Consortium staff had a clearer idea of what they wanted to convey (disseminate work of the Consortium), who the audience was, and how to make fuller use of the medium, including call-ins, graphics and images. The segments were increased in

length to one-and-a-quarter hours, making it more worthwhile for viewers in the western states to drive great distances to a down-link site. While there are frustrations built into the distance learning format -- you cannot know how many people you are reaching or what their reactions are unless you set up a system for gathering this information -- written evaluations suggest that the experiences of Massachusetts workplace educators were well-received by workplace educators in other parts of the U.S.

Lexicon : Computer-assisted Instruction

The Consortium hired a computer consultant to create six units of computer-assisted instruction with a focus on basic literacy skills in the health care industry. The consultant completed five instructional units for the whole Consortium. The units are: (1) Introduction to Workplace Education Programs; (2) Back Safety; (3) HIV/AIDS; (4) Performance Evaluation; (5) Team Work.

Considerable effort was put into the Lexicon project during Years 1 and 2. One of the accomplishments was learning about the kind of computer-assisted instruction that works for Consortium teachers and students. Coordinators' protocols and interviews with ACLS/Consortium staff suggest that the Lexicon project was challenging in several ways and needs to be adapted to the following concerns:

• First, each partnership was granted only one MAC computer on which to deliver Lexicon's computer-assisted instruction. Demonstrating the utility of computers in the classroom with limited access to computers is impractical.

• Second, secured facilities were not available at all the sites and teachers or Coordinators had to transport computer equipment.

• Third, the software was designed at an English literacy level that was too high for most of the students.

These difficulties may have been worked out had Coordinators and teachers been formally supported to gather together and discuss how the Lexicon system might best serve their students. As described below, in Year 2 teachers were paid to gather and discuss how they might use Picture-Tel in ways other than those the original grant suggested. Teachers then took ownership of the project and became invested in the creative use of the technology. A group of teachers may have continued discussing creative approaches to Lexicon suggesting that all computers be installed

in one program where security is not an issue, and that intensive computer-assisted learning opportunities be provided and tested in that program. Even such a strategy would have had to be well-timed. ACLS/Consortium staff stressed that in Year 1, program staff did not perceive a need for exploring computer-assisted instruction. They were more concerned with basic issues like "whether students were coming to class or not."

Lexicon was not presented, however, as an opportunity for teachers' to explore the uses of computer-assisted technology. Rather, it was presented as an essentially non-negotiable component of the Consortium, something that had enjoyed success in other programs and that would benefit the Consortium. This made the process of producing a "fit" between Lexicon and the Consortium difficult.

Picture-Tel: Two-way Video Conferencing

Picture Tel is a trade name for two-way video conferencing. The company is the Massachusetts Corporation for Educational Telecommunications (MCET). The original idea for Picture-Tel use was for a teacher to broadcast instruction from a studio to a class. In Massachusetts, on the east coast, as opposed to the west where large distances often separate teachers and students, ACLS/Consortium staff suggested that students already have adequate access to teachers but could benefit from greater access to each other across sites. A group of teachers was invited to visit MCET offices and to explore how Picture-Tel might be used more creatively to link students across sites. Circumstances supported creative activity: teachers were paid to attend the meeting at MCET and MCET representatives were highly motivated to work with the teachers. They did not want the technology to appear to fail. Picture-Tel is now used in the Consortium to provide workers with opportunities to talk to each other across sites and to collaborate on learning projects.

This approach to using Picture-Tel involves instructors and workers more thoroughly in the design and implementation of a learning opportunity than did the original concept. In this approach two teachers collaborate on a lesson plan. Two classes each consider a different aspect of a single issue. Through Picture-Tel, they "meet" and contribute to each other's understanding of the issue. For example, two teachers from different sites might plan an "inquiry map" project on health and safety. Members of each class choose their own questions to lead the inquiry map but then collaborate on the creation of the map with their partner site. A collaboration like this might last for three sessions.

Although instructors discovered a creative use of the Picture-Tel technology, technical problems still make use difficult. It is difficult to install the monitor units and to schedule multiple

classes in two sites within the time period allotted. Installation is a "technological nightmare" in some areas of the Commonwealth involving transfer problems between analog and digital signals. Nonetheless, at the time evaluation data were collected on the Consortium's distance learning component, four program pairs planned to use Picture-Tel.

ACLS/Consortium staff suggest that the mini-course, Lexicon and two-way video conferencing may have found a more comfortable place in the Consortium's array of services had all programs been allowed to develop to a point where staff felt they needed, or, at least, could use the technologies creatively. Early demands for use of technology by ACLS/Consortium staff set a tense tone with the sites. Implementation could have waited until Year 2, when most sites were more ready to explore something new. Creative use of Picture-Tel did come forward in Year 2, delayed from the original start-date by downsizing and staff turnover at MCET.

➔ Conclusions: Goal #2

- PETS are functioning as planned but may benefit from further technical assistance. Overall, local PETs are functioning as planned -- as the embodiment of partnership at the local level. However, in Year 3 they might benefit from additional technical assistance and support from the CPET. With the exception of a few companies where worker involvement genuinely permeates work organization, conflicts of interest among stakeholders will likely appear. Issues like worker participation in PETs, the role of teachers as worker advocates, and the PETs role in establishing opportunities for application of skills at work might be addressed in state-wide forums or regionally and advance the function of PETs considerably.

- The CPET has ably guided the Consortium through a complex plan of service delivery to 25 programs and may now benefit from implementing a formal planning and evaluation process to guide it through a final year. The CPET has served the Consortium well, largely in a monitoring role. ACLS/Consortium staff might now encourage CPET members to think more proactively about what they can accomplish in Year 3 through facilitating a formal planning and evaluation process. The Consortium's Year 3 emphasis on institutionalization suggests a need for additional focus on local evaluation activities and how they might serve institutionalization.

- The Consortium explored three types of distance learning opportunities and the results of their use are still unclear. The Consortium experienced something like "media initiation by fire" and emerged with reasonable products and significant learnings about how to proceed with future media projects. Actual results for students and programs are unclear at this time. It is

clear, however, that it is not as easy as it might seem to produce quality education products using telecommunications and computer media. Experienced educators need experienced media and computer experts to translate good practice into good pictures. While there is no doubt that more and more educational products for adults will be produced on video and for computers, and it is therefore worthwhile for the Consortium to consider continuing production and dissemination, sufficient expertise, time and resources need to be allocated to make the development process and products worthwhile.

- ACLS/Consortium staff learned that there must be a congruence between the technology, instructional content and the readiness of teachers and students to work with the technology. There was agreement among Coordinators and ACLS/Consortium staff that activities in all three media projects were premature and would have benefited from more development time. As noted below, at the end of Year 2, the Curriculum Working Group is ready to share some of the materials and formats that it has been compiling over a two year period. It took two years for the group to identify all the dimensions of its task and come to agreement about how to execute that task -- documentation and dissemination of workplace curricula. Had the group been pressured to produce documentation in Year 1, it is unlikely that its format and content would be as rich as they are now.

➔Goal #3: Promote the institutionalization of workplace literacy programs at the twenty-seven businesses involved in the Consortium.

Indicators:

- Consortium supports discussion and planning for institutionalization through trainings and other means
- Availability through the Consortium of models of institutionalization developed in formerly funded programs to guide current efforts

➔Evaluation questions:

• What trainings or other supports has the Consortium provided to guide the institutionalization process, including models of institutionalization developed in formerly funded programs to guide current efforts? • Which programs will continue beyond federal funding?

As the Consortium entered the second quarter of Year 2, CPET members became more acutely aware of the need to address if and how programs will continue beyond federal funding. ACLS/Consortium staff convened a panel on institutionalization at the February 1996 CPET

meeting, and that panel set the tone for how CPET members would address institutionalization from that point on. Corporate Executives whose companies institutionalized their programs after federal funding was cut in earlier funding rounds of the National Workplace Literacy Program joined ACLS/Consortium staff on a panel that described how their companies made the decision to continue their programs. CPET members clarified the current status of institutionalization in their organizations and identified barriers and questions to be addressed both in their local programs and at the DOE.

The panel discussion helped CPET members to understand that greater program visibility might help to insure continued funding. Hearing advice on how to get good public relations for your program -- for example, becoming involved with Picture-Tel or presenting at a Network conference -- from committed business people rather than from other program personnel helped CPET members to place institutionalization and dissemination higher on their agendas. It also helped to make CPET members feel that they were up to the job. Apparently, some CPET members sometimes find conversations about institutionalization with company representatives self-promoting -- more like looking to sell a service than meet a need. ACLS/Consortium staff might continue to coach CPET members on this point.

Institutionalization becomes a more-meaningful issue as programs face shutdown. Evaluation also takes on greater meaning because some companies might want evidence of program accomplishments before committing to continued funding. A central message of the evaluation process which CPET members supported in their local PETs, is: consider what evidence you will need to persuade all your stakeholder audiences about the value of your program. It is doubtful that the urgency of that message was conveyed in the first program year, but the CPET can be supported to convey that urgency to local PETs at the start of Year 3 and to translate urgency into actual evaluation activity.

How many Consortium programs are likely to continue beyond federal funding? The numbers in Table 15 were calculated in April 1996. Eight programs (32 percent) said they would continue, three of them on a smaller scale. Eight said they didn't know if they would continue. Two said they would not. There is missing data for seven programs. The standard that the Consortium set for institutionalization is that 80% of currently funded programs would continue to deliver some form of education service. The Consortium must work to insure a reasonable rate of institutionalization using this standard.

Table 15. Continuation by Type of Industry

Program will Continue	Type of Industry		
	Education	Health Care	Manufacturing
Yes	1 (4)*	1 (4)	3 (12)
Yes, but on smaller scale		1 (4)	2 (8)
No		1 (4)	1 (4)
Don't know		5 (20)	3 (12)
Missing Data		3 (12)	4 (16)

*Twenty-five respondents completed protocols in which questions on Continuation appeared. Cells show the numbers and, in parentheses percent of response of the total 25.

➡Conclusion: Goal #3

• CPET members have been pursuing continuation of their programs but the level of commitment to continue programs (as of May 1996) falls short of the Consortium standard. Coordinators should discuss and plan for program continuation more actively. ACLS/Consortium staff might troubleshoot any problems that Coordinators have with discussing or planning continuation by including the topic on CPET meeting agendas for the next several months.

➡Goal #4: Strengthen the Consortium effort through the use of an independent, external evaluation of the Consortium and its individual partnerships.

This report stands as evidence of the scope of work that the evaluators have accomplished in Year 2 of the Consortium. Some of our reflections on the evaluation process are included in the Methodology section of this report. We are confident that the process of collecting data during site visits, soliciting self-score data from Coordinators, participating in CPET meetings, advising on methods of gathering valid outcome data by site, and sharing evaluation results have strengthened the Consortium effort.

➔Goal #5: Produce and disseminate information on exemplary workplace partnerships, delivery models, curricula, and industry-specific literacy materials.

Indicators:

- Consortium oversees the systematic development of local program materials on exemplary workplace partnerships, delivery models, curricula, and industry-specific literacy materials.
- There is a process or guidelines available to local staff to help them document their curricula and other activities.
- Consortium collaborates with SABES to produce/disseminate materials.

➔Evaluation Questions

• Is the Consortium overseeing the systematic development of local program materials on exemplary workplace partnerships, delivery models, curricula, and industry-specific literacy materials? • Is there a process or guidelines available to local staff to help them document their curricula and other activities? • How is the Consortium overseeing this effort? • What materials will be produced? • By whom? • What is the dissemination strategy? • Who is intended to use the materials inside and outside of the Consortium? • Is the Consortium collaborating with SABES on this goal? • In what ways? • To what end?

<u>The Curriculum Working Group</u> (CWG)

Unless otherwise stated, data for this section of the report were taken from:

- the Indicators PLUS protocols completed by Site Coordinators, and other related protocols completed by teachers and business and union representatives
- interviews with ACLS/Consortium staff
- documentation of CWG meetings
- materials produced by the CWG
- the text of the original proposal submitted by the Massachusetts Department of Education to the National Workplace Literacy Program.

The CWG is overseeing the systematic development of local program materials on exemplary workplace partnerships, delivery models, curricula, and industry-specific literacy materials. Its members have established the process and guidelines for local staff to document their curricula in ways that will maximize its usefulness to other workplace educators. The work of this group may well account for the overall high ratings which both Program Coordinators and the evaluators gave to curriculum-related Quality Indicators. It is certainly a group where

imaginative work abounds and where the mission of the Consortium is continually reinterpreted and advanced. It is also a group whose efforts will make the Consortium's accomplishments accessible to large audiences.

The CWG is composed of nine people, at least one from each partnership, with a second member from a primarily health care partnership and from the higher education partnership. Members were chosen by their willingness to attend the group and do the work. DOE/ACLS decided to compensate CWG members for one day a month for time spent on the task. This did not fully compensate the members for all their time on the project.

Early in 1996 the CWG decided to form subcommittees in order to facilitate review of curriculum documents by industry. The subcommittee are health care, manufacturing and education. The CWG meets each month, alternating between the full group and subcommittees.

Charge

The CWG is charged to read all site-based curriculum documents from Year 1 and Year 2 and write two synthesis documents. Thus, the group is extrapolating major curriculum topics and issues from a vast source of curriculum materials -- there were 138 courses offered in Period 3 alone. One document will focus on issues by industry; another will identify more universal issues. The group finds it difficult sometimes to distinguish between what is an industry issue and what is a universal issue. Much useful discussion in the group revolves around where an issue belongs.

The CWG is interested in understanding how a teacher thinks about what she is teaching and how she makes decisions about what to teach, not just in surface documentation. Consequently, curriculum documentation is considered to be 'data' and the charge of the CWG is to interpret the data -- to make thematic sense of it, and present it in a format that is useful to workplace educators. The CWG designed a format for curriculum documentation by teachers that would keep paper work to a minimum and make the group members' job of interpretation somewhat easier. There are six topic headings, including: description of teaching context; description of curriculum development process; challenges/things you would do differently; a sample of teaching activities; list of topics covered in the cycle; and a resource list of published materials that were useful. See Appendix H: Revised Guidelines for Curriculum Documents.

Teachers are not required to use the suggested documentation format. However, CWG members found that those who followed the guidelines gave the group the most valuable information. This was a validation of the guidelines that affirmed the documentation process as a

whole. The process has served a staff development function as well. Teacher/CWG members have become leaders at local sites.

Status of Work

At the time this evaluation report was written, the CWG plan of work was as follows. In December 1996, CWG members trade feedback on a draft document with Year 1 examples. By mid-February 1997, draft documents with Year 2 examples are disseminated. By mid-April, the final narrative is circulated for comment.

CWG members seek specific examples of issues that are important to an industry. For example, programs in health care settings need to address the effects of hospital mergers on work, patient care, cost of care and so on. If such an example is not forthcoming from teacher documentation, then the CWG will put out a call for the example. This means that the teachers are doing significantly more than just compiling sites' work. They are pulling together data, analyzing it, presenting it and bridging back to the Consortium with it. CWG members note that "the absence of data is a presence." They want to address the question: Why are some topics emphasized and others not? They are confident that thinking in these terms will insure a much more interesting and useful document.

The Consortium is also using CWG products as a bridge to other teaching issues. For example, group members are compiling one page summaries like "promising practices" in which the "cream of the curriculum crop" is passed on to all teachers in the Consortium. This builds the capacity of the Consortium in a substantial way.

Process, Product and Dissemination

The Assistant Coordinator of the Consortium organized a set of activities that stimulated members to discuss what a curriculum is; how they could structure curriculum documentation (their data) in such a way that would allow comparison, analysis and drawing conclusions; and what you would you want to know from teachers before you, if you were a new teacher coming into the Consortium. The CWG brainstormed guidelines and brought them back to the teaching staff who, in turn, gave them feedback.

CWG written products are likely to be enormously useful to workplace educator audiences within and without the Consortium. It could also be said that the process that the CWG used to develop its products is also a product -- something that can guide curriculum documentation in other workplace education programs and other education venues, adult or otherwise. The CWG

wants to connect its work to the curriculum frameworks that are being revisited for adult education and that need workplace references.

The CWG will send information to educators and others on local and national workplace education mailing lists and present its findings on MCET shows. It will continue to identify its audiences and insure that its materials are disseminated appropriately. The dissemination effort might be quite large. Proper dissemination will probably require a support staff person or at least dedicated time of a staff person who understands the dissemination task.

➔Conclusion: Goal #5

• The CWG is building the capacity of the Consortium at the same time that it is producing and disseminating valuable documentation of curricula. The CWG's written products will likely be enormously useful to various audiences. The process the CWG used to document the curricula is also a product which may have many applications and a wide audience. ACLS, the DOE and the Consortium would be well-served if staff time were allocated to help with dissemination.

Evaluation Objective #2: Determine the level of implementation of the Indicators of Quality and the relationship of the Indicators to learner outcomes, workplace outcomes, and partnership outcomes

Overall Level of Implementation of the Quality Indicators

We have determined the Quality Indicators' levels of implementation for the 25 sites that provided us with completed Indicators PLUS protocols. As described earlier, the evaluators each independently rated each site on each Indicator using the completed protocols as the information base; we then compared our ratings. Refer to the Methodology section of this report for a more detailed description of how the Indicators were scored.

The mean ratings for each Indicator, shown in Table 16, are generally high, with 18 of the 25 Indicators analyzed[9] being above 5 on the scale of "1" (not implemented) to "6" (fully implemented). These ratings are consistent with our impressions from the sample of seven sites

[9] We did not analyze the three Indicators in category 4, Supplementary Services, since only five sites reported offering any. We are not certain of the meaning of Supplementary Services for those who did and did not report them. Some may offer the services informally and thus did not report them. Given both the small number reporting and the questionable meaning of the Indicators and associated protocol questions, reports of data in this category would be misleading.

Table 16. Summary Statistics of Quality Indicator Ratings Across All Sites

Indicator	Mean	Std Dev	Minimum	Maximum	N
A	4.46	1.61	2	6	25
B	5.47	0.53	4.5	6	25
C	5.31	0.75	3	6	25
D	5.3	0.91	3	6	25
E	5.05	1.38	1	6	23
I. Partnership and Planning Mean	5.13	0.8	2.9	6	25
A	5.51	0.66	4	6	25
B	5.55	0.48	4.75	6	25
C	5.35	0.77	3.5	6	25
D	5.79	0.37	4.75	6	25
E	4.73	1.12	1	6	25
F	5.64	0.74	3.75	6	25
G	5.2	1.11	3.5	6	25
II. Curriculum Mean	5.4	0.43	4.29	5.96	25
A	5.6	1.02	1	6	25
B	3.94	0.93	1.5	5.5	25
C	3.51	1.07	1	4.75	25
D	4.34	1.28	1	6	25
E	4.59	1.38	1	6	25
F	4.29	1.32	1	6	24
III. Assessment, Evaluation and Outcomes Mean	4.39	0.86	1.83	5.29	25
A	5.56	0.45	5	6	25
B	5.42	0.63	3.5	6	25
C	5.51	0.46	4.75	6	23
V. Staff Mean	5.48	0.47	4.25	6	25
A	5.24	0.56	4.25	6	21
B	5.15	0.87	3	6	24
C	5.34	0.95	2.5	6	25
D	5.47	0.75	3	6	24
VI. Administration Mean	5.33	0.61	3.88	6	25
GRAND MEAN	5.1	0.54	4.06	5.71	25

we visited where implementation of the Indicators was quite high. The high scores are also not surprising since site personnel in these projects tend to be well-experienced with workplace education, with the DOE's evolving mode of conducting such projects, and many of the people and participating projects were involved either directly or indirectly in the development of the Indicators.

Across the six major content areas of the Indicators, the means for category 5, Staff, are consistently the highest. Very close to Staff in high quality ratings are the categories of Curriculum and of Administration. These ratings suggest that the quality of the staff and the support activities for them, the quality of the curriculum development process and its products, and the administrative features of policies and resources for program support, program coordination activities and personnel, and the incentives for worker participation are particular strengths within the Consortium.

Category 3, Assessment, Evaluation and Outcomes, is notably weak. At the time these data were collected, few sites had collected, developed, or implemented the assessment and evaluation procedures necessary to conduct a sound program evaluation. Programs usually had in place good individual student assessments, which were used informally for formative instructional purposes, but those data were not in a form that could be synthesized to make evaluative statements about program outcomes. In some cases the data existed in appropriate form, but had not been analyzed at the class or program levels.

By Business Context Characteristics

A partnership or site implements the features covered in the Quality Indicators in the context of the business that is part of the partnership. It is not unreasonable to expect that some of those companies' characteristics might influence the degree to which some of the Indicators can be implemented. We therefore examined the relationships between levels of Quality Indicators' implementation and business type, size, and percent of unionized employees involved in the business. Since the numbers in each breakdown category of the business variables are fairly small and the Quality Indicator data are far from normally distributed, we tested the differences across subgroups with non-parametric statistics for each. The median ratings for each Indicator by business type are shown in Table 17.

Note that there is a pattern of lower medians for the manufacturing sites than for the health sites. Among those are a substantial number of differences between the business types, on 16 of the 25 Indicators. This is a striking result and one which raises the question of how to account for

Table 17. Median Ratings for Quality Indicators by Business Type

Indicator	Business Type	
	Health (N=12)	Manufacturing (N=11)
1a	5.75	2
1b	6	5
1c	6	5
1d	5.88	5.5
1e	5.5	5.5
Partnership & Planning Total	5.88	5.5
2a	5.75	6
2b	6	5
2c	5.5	6
2d	6	6
2e	5.25	4.5
2f	6	6
2g	6	3.5
Curriculum Total	6	6
3a	6	5.5
3b	4.63	3.5
3c	4.38	3.25
3d	5	3
3e	5.5	3
3f	5	4
Evaluation Total	5	3.13
5a	6	5
5b	5.88	5
5c	5.88	5
Staff Total	5.88	5
6a	5.25	5
6b	5.75	5
6c	6	5
6d	5.88	5.75
Administration Total	5.82	5
Grand Total	5.88	5

the differences. One possibility is a partnership effect. That is, the partnerships work with either manufacturing sites or health sector sites exclusively (except for one partnership that has four health sites and one manufacturing site). Since a lot of the activities covered in the Quality Indicators are mostly in the control of the education partner common to a number of business partners, then the extent to which the educational partner implements the Indicators will be reflected in the Quality Indicator scores of each of its constituent sites. Thus, it may be that those education partners with health sector business partners are more effective in implementing the Indicators. On the other hand, manufacturing companies may present more difficult barriers to implementing the "ideal" factors included in the Indicators, somewhat beyond the control of the educational partners, and these may be reflected in their systematically lower Quality Indicator ratings. If the latter hypothesis is true, then further study may be useful to discern what those greater difficulties are.

We explored the differences in Quality Indicator ratings according to business size and percent of union membership at the company and found only minor differences.

Relationship of Learner Outcomes to Quality Indicators

One of the central assumptions underlying the Quality Indicators is that their implementation is related to workers' learning outcomes. The first opportunity to test that assumption lies with the Period 3 data, in which we correlated the Indicator ratings with the gains on each of the seven learner outcome areas defined on the Learner Form, with the site as the unit of analysis. Because of the generally low correlations and the size of the correlation matrix (31x7), we do not present them in a table. The correlations were very low and the number of significant correlations did not exceed what we would expect by chance alone.

We know that in Period 3 instructors used the following assessment procedures: group or one-on-one interviews in 68 classes (87 percent); "other" in 45 classes (58 percent); portfolio assessment in 37 classes (47 percent); individual learning or educational plan in three classes (38 percent); and learner work examples in 29 classes (37 percent). Standardized tests were used in only four classes (5 percent). Customized, job-related skills competency tests were used in only three classes (4 percent). This means that assessment procedures are varied and -- to the best of our knowledge -- no systematic attempt has been made to devise a scoring procedure that would enable instructors to translate an interview or portfolio assessment into a numeric representation of a learning gain. We are aware that this is an issue not only in workplace education but in all of adult education. If there are to be quantitative evaluations of programs that examine relationships between learner outcomes and other variables, then outcome data need to be put in meaningful quantitative form. This is an issue that the Curriculum Working Group might examine.

Relationship of Quality Indicators to Workplace Outcomes

The other central assumption about the Quality Indicators is that they are related to workplace outcomes. We examined that assumption with the self-reported workplace outcomes in the three outcome categories for which more than five sites reported the outcome, namely, improved communications, less scrap and rework, and improved participation. We then compared the mean Quality Indicator ratings for the sites with and without each outcome. There were no differences in Quality Indicator ratings for sites that reported improved communications and those that did not report them as workplace outcomes of the project. There are differences on four of the indicators between those sites with and without reports of reduced scrap and rework. Those sites that did report reduced scrap and rework had lower Quality Indicator means. Those that did not report it had higher Quality Indicator means. There was also one difference for the improved participation outcome, that on the Indicator for evaluation data used for program and policy decisions. The other Quality Indicator means showed no pattern of favoring any outcome's presence or absence.

We also created a variable that was the number of categories on which the site reported some positive outcome. As described earlier, these values ranged from one to four, and we compared the means of the sites with one, two, three, and four outcomes. There was no pattern of differences across the sites.

Relationship of Quality Indicators to Partnership Outcomes

In Period 3, commitment to continue a program after federal funding ceases is considered a partnership outcome. While there may be reasons that a partnership does not continue after federal funding ceases that are not related to the quality of the partnership *per se* (partners may have enjoyed a successful collaboration but the program may not continue), continuation is nonetheless a key partnership outcome that the Consortium has promoted.

We explored the extent to which the sites' reports of their intentions and plans to continue the program after Federal funding ended was related to their Quality Indicator ratings. Sites' responses to open-ended questions on the Indicators PLUS Protocol were content-analyzed and classified as: "No, do not plan to continue"; "Don't know"; "Yes, plan to continue on a smaller scale"; "Yes." The median Quality Indicator ratings for sites within each category are shown in Table 18. There is a pattern in the results, namely that the sites that responded "Yes, but on a smaller scale" had lower median ratings than the other three continuation groups on Quality Indicator categories 1 (Partnership and Planning), 3 (Assessment, Evaluation and Outcomes), 5 (Staff), and 6 (Administration). The other continuation groups seem to vary in how they rank on

Table 18. Median Quality Indicator Ratings by Continuation Status

Quality Indicator	Will the program continue? No (N=2)	Don't know (N=7)	Yes, smaller scale (N=3)	Yes (N=5)
1A	5.75	5.5	2	4.75
1B	5.38	6	5	6
1C	5.5	5.5	5	5
1D	5.75	6	5	5.5
1E	5	5.25	6	5.25
1. Planning & Partnership Mean	5.58	5.65	4.6	5.5
2A	4.75	5.5	6	6
2B	5.63	6	5	6
2C	4.5	5.5	6	6
2D	5.13	6	6	6
2E	4	5	4.5	5
2F	5	6	6	6
2G	3.75	6	3.5	6
2. Curriculum Mean	4.68	5.57	5.29	5.57
3A	5.5	6	5.5	5.5
3B	4.25	5	3.5	4
3C	3.63	4.5	3	4
3D	3.88	5	3	5
3E	5.63	5.5	3	5
3F	4.5	4.75	4	4.88
3. Evaluation Mean	4.56	5.13	3.75	4.83
5A	5.63	5.75	5	6
5B	5.63	6	5	5.5
5C	5.38	5.75	5	5.5
5. Staff Mean	5.54	5.83	5	5.67
6A	5	5	5	5.25
6B	5.25	5.88	5	5.25
6C	5.75	6	5	6
6D	5.5	6	4.5	6
6. Administration Mean	5.5	5.81	4.83	5.56
GRAND MEAN	5.05	5.52	4.65	5.49

Quality Indicator ratings from one category to another. While this leads us to no clear conclusions, perhaps more refined data on this question will yield a better answer.

➔Conclusions: Evaluation Objective #2.

• The level of implementation of the Quality Indicators as scored in Year 2 is quite high. The sites and partners have implemented the Quality Indicators at a very high level. The average ratings on 18 of the 25 Indicators (72 percent) were above 5 on a 6-point scale (with 6 as the highest level of implementation). The strongest areas were Staff, Curriculum, and Administration; the weakest was Assessment, Evaluation and Outcomes. Additionally, the level of Quality Indicator implementation was significantly higher for health sites than for manufacturing sites on 64 percent (16 of 25) of the Indicators, a result that is possibly explained as a partnership effect. Alternately, if manufacturing companies present more difficult barriers to implementing the "ideal" factors included in the Indicators, then further study would be required to discern what those greater difficulties are.

• The relationship between Quality Indicator Implementation to Worker, Workplace, and Partnership Outcomes is not clear at this time. A central focus of the Consortium's Year 2 Evaluation was testing the assumption that there is a relationship between the presence of Quality Indicators and positive outcomes at the learner, workplace, and partnership levels. We did not find a strong relationship. Correlations between self-reported learning gains and sites' Quality Indicator ratings were generally low and there were few differences between sites' Quality Indicator ratings for those that did and did not report workplace outcomes. Those few correlations that were high did not seem to fit any logical pattern or explanation.

• With modification the Quality Indicators can be useful for further research and evaluation. The Quality Indicators have undisputed benefits when used as a guide for program development. The effort to test their validity by developing a scoring method for them and correlating those scores with outcomes is potentially a useful research focus, one that we pursued this year but without a clear conclusion. There were several reasons for this:

(1) Efforts to create a scoring system based on performance standards for the Quality Indicators is underway and may eventually lead to better opportunities to study the relationship between them and outcomes.

(2) The outcome data with which we worked was scant at best. Testing the relationship between Quality Indicators and outcomes relies as much on good outcome data as it does on a satisfactory scoring system for the Quality Indicators. Scant outcome data, a by-product of the

unexpected dearth of NWLIS data, as well as limited anecdotal reporting from local sites, hampered our analysis of the Quality Indicators as much as any difficulty in the Quality Indicator scoring process.

Continued work on the relationship between Quality Indicators and outcomes will likely prove useful to many audiences. Refined performance standards for the Quality Indicators can serve multiple purposes, including guiding programs in their development, possibly through a self-scoring process. Improved documentation of outcomes will also serve many audiences, among them local PETs who can use this information to argue for program continuation. The resources and time needed to continue the proper study of the relationship between Quality Indicators and outcomes, however, are at this time quite extensive. The DOE may be well served to continue this work internally with evaluator support and turn the focus of the Consortium evaluation onto questions of more immediate concern and impact, including, as mentioned, how PETS are functioning and the benefits of the Consortium structure.

Evaluation Objective #3: Determine the relationship between instructional methodologies and worker and workplace outcomes.

Learning Gains and Instructional Characteristics

We examined the relationships between workers' self-reported gains in seven learning areas and the following instructional characteristics: number of students in the course, number of course hours, type of service, and primary course emphasis. These are the instructional characteristics on which the programs varied and over which they might have some control. We examined the four characteristics in relation to the gain scores for all students who reported for those courses. Though these appear to be the best data available to examine these relationships, there are some limitations which qualify the results and which therefore bear mentioning. Of the 138 courses reported offered by the Consortium during Period 3, only 56 had at least some individual students report their pre- and post- scores from which we could calculate the gains. Thus, these results are based on about 41 percent of the total courses offered. As noted before, of the 534 students reported to have been served during the period, only 156 - 181 have gain scores for the individual analyses conducted. Given these limitations, the findings are as follows.

Course Length

Table 19 presents the seven content areas and the sum of their scores. For course length, there is a pattern that the average gains in three of the seven content areas (three of the four

Table 19. Mean Gain Scores by Course Length

Gain in (N = # students with scores)	Length of Course*		
	24-52 Hours (N=44 courses)	54-76 Hours (N=44 courses)	78-120 Hours (N=46 courses)
Reading English (N=179)	0.03	0.13	0.15
Understanding English (N=174)	0.02	0.28	0.13
Speaking English (N=174)	-0.01	0.41	0.13
Writing English (N=173)	0.03	0.43	0.21
Working as a Team (N=168)	-0.03	0.03	0.04
Using Math (N=160)	0.13	-0.06	0.09
Solving Problems/Reasoning (N=156)	0.18	-0.03	0.11
Sum of Gains	0.33	1.22	0.86

* The courses were simply divided into the three most equal thirds possible for this analysis.

English-related ones) and the sums were highest for the mid-length courses, those between 54 and 76 hours. Moreover, two of the differences, in speaking and writing English, were especially pronounced. In the same three content areas, the longest courses, between 78-120 hours, had the next highest gains and the shortest courses had the lowest gains. The remaining English-related area, Reading English, had the highest gains for the longest courses and the next highest for the mid-length courses, though nearly the same as each other. This pattern did not hold for the math or problem-solving outcome areas, where the shortest courses had the highest gains. Even though the apparent relationship between course length and student self-reported outcomes is not linear, we explored the correlations between course length and each of the seven gain measures. All correlations were very low, between +.19 and -.07, likely reflecting the non-linear relationship between the variables. This finding suggests that short courses are least effective for at least a substantial proportion of the students served in the Consortium and in courses for limited-English proficient adult workers in ESOL courses.

Number of Students in a Course

We next examined whether number of students in the course was related to the gains. The range of student numbers in courses was fairly narrow, from two through 19, with 50 percent of the courses having nine or fewer students and the other half having from 10 to 19 students. Therefore we split the entire sample into those two groups and compared the gain scores in the same manner as above. The results are shown in Table 20. There appears to be no relationship

Table 20. Mean Gain Scores by Number of Students in Course

	Number of Students in Course*	
Gain in (N= # students with scores)	2 - 9 (N=67 courses)	10 - 19 (N=67 courses)
Reading English (N=181)	0	0.14
Understanding English (N=176)	0.11	0.1
Speaking English (N=176)	0.06	0.13
Writing English (N=175)	0.08	0.2
Working as a Team (N=170)	0	0
Using Math (N=162)	0.04	0.11
Solving Problems/Reasoning (N=158)	0.21	0.07
Sum of Gains	0.49	0.78

*The courses were simply divided into the two most equal halves possible for this analysis. No differences between these two groups were statistically significant.

between the number of students in the course and their self-reported gains. Three of the differences favor the smaller groups, three the larger groups, and one has no difference. The differences, moreover, are generally small. The overall sum of gains is slightly higher for the larger classes, but not high enough to suggest a strong difference between the groups.

Type of Service Offered

The type of service offered might be expected to be closely related to student gains that match the services. For example, we would expect English gains to result from ESOL services more than from other types of services. This expectation is tested with the data in Table 21. The data show that all four English-related gains and problem-solving gains were the largest for those

in Beginning and Intermediate ESOL classes.[10] Math was the strongest gain area for the pre-GED classes. All English-related areas and teamwork showed the weakest gains in pre-GED courses. The clear pattern of English classes showing higher gains for ESOL classes tends to suggest validity of the measures, for this is to some degree the result we expect. The pre-GED courses' generally weak gains may be attributable to their relative emphasis on math and not

Table 21. Mean Gain Scores by Type of Service

	Type of Service				
Gain in (N= # students with scores)	ABE	Pre-GED	GED	Beg. ESOL	Int. ESOL
Reading English (N=181)	0	-0.02	0	0.15	0.13
Understanding English (N=176)	0	-0.1	0	0.08	0.29
Speaking English (N=176)	0	-0.2	0	0.18	0.3
Writing English (N=175)	0	-0.1	0	0.22	0.34
Working as a Team (N=170)	0	-0.02	0	0	0.02
Using Math (N=162)	0	0.15	0	0.13	0.02
Solving Problems/Reasoning (N=158)	0	0.1	-0.17	0.33	0
Sum of Gains	0	-0.03	-.16	1.08	1.13

English usage compared to the ESOL classes, a feature that could be investigated in the future for a more conclusive result.

Primary Course Emphasis

We also investigated the relationship of the primary emphasis of the course to the gains. Primary course emphasis overlaps somewhat with type of service, but some courses with the same service (e.g., ESOL) emphasize reading while others emphasize writing or communications (assumed to be oral because of the way it is listed on the DOE Course Data Form). Using the same format as above, the results are shown in Table 22. Courses with their primary emphasis on Reading demonstrate the highest gains on the sum of gains and in all the English-related areas, even those of speaking and understanding English. Curiously, the courses designated by the respondents as having a primary emphasis on Communications do not make good gains, even in the oral communications areas of speaking and understanding. Those courses with emphasis on

[10] This result provides some, though far from thorough, evidence of the content validity of the learner self-report scores.

both Reading and Math show all negative "gains" in the English-related areas and in Working as a Team, but show positive gains in Math and Problem-solving, albeit not strong gains in the latter. The clearest pattern in the results, that of the Reading emphasis courses, suggests that an emphasis on Reading is the most efficacious means of improving all English-related communications skills, whether written or oral. Given the limitations of the data, however, as described earlier, this finding warrants further inquiry rather than any implications for practice at this time.

Table 22. Mean Gain Scores by Course Emphasis

Gain in (N= # students with scores)	Course Emphasis					
	Literacy	Reading	Reading & Math	Writing	Comm's	Other
Reading English (N=181)	0.09	0.21	-0.05	0.19	-0.11	0.19
Understanding English (N=176)	0.08	0.35	-0.14	0.05	0.07	0.19
Speaking English (N=176)	0.13	0.5	-0.18	0	0.04	0.11
Writing English (N=175)	0.18	0.58	-0.14	0.19	-0.04	0.15
Working as a Team (N=170)	-0.06	0	-0.05	0.25	-0.04	0
Using Math (N=162)	0.16	-0.13	0.14	0.28	0	0.04
Solving Problems/Reasoning (N=158)	0.26	0	0.05	0.11	0	0.12
Sum of Gains	.77	1.10	-.40	1.06	-.08	0.81

Relationship of Instructional Characteristics to Workplace Outcomes

Crosstabulations of type of service and primary course emphasis on the sites' self-reported workplace outcomes, using the same categories as in Table 10, Frequencies of Workplace Outcomes, showed no discernible relationships. Comparing the mean number of course hours, however, between those sites reporting outcomes in the three most frequently reported categories and those not reporting any in those categories yielded the results shown in Table 23. Those sites that reported outcomes in reduced scrap and rework and in improved participation had courses with significantly fewer hours' length than those who did not report those areas as outcomes. Those that reported improved communications outcomes had courses slightly longer than those who did not report outcomes in this category, but the difference was not significant.

Table 23. Mean Course Hours by Workplace Outcomes Reported

Outcome Category	Reported as Outcome	
	Yes	No
Improved communications	67.1	64.9
Reduced scrap & rework	52.6	74.9
Improved participation	58.4	77.9

Relationship of Business Characteristics to Worker Outcomes

We explored the hypotheses that different business characteristics might be related to workers' gains, using the key business characteristics and the self-reported workers' gains analyzed earlier.

Type of Business or Industry

Types of businesses or industries and the gain scores for students in each are shown in Table 24. The means use the learner as the unit of analysis; that is, they are computed from all 158-181 individual scores depending on the gain area. The results show a trend of manufacturing sites attaining higher gains on the sum of gain scores and in the English usage areas, with health sites next, and the university site with the least gains. Those differences are most pronounced for two areas: speaking and writing English. This is similar to what occurred when looking at the relationship between learning gains and instructional characteristics (mid-length courses, intermediate ESOL, and course emphasis). When instructional characteristics made a difference in learning gains, it was most often in speaking and writing English.

Table 24. Mean Gain Scores by Type of Business/Industry

Gain in (N)	Business Type		
	Education (N=1)	Health (N=6)	Manufacturing (N=6)
Reading English (181)	0.04	0.08	0.18
Understanding English (176)	-0.02	0.12	0.23
Speaking English (176)	-0.05	0.11	0.32
Writing English (175)	0.02	0.14	0.37
Working as a Team (170)	0.04	-0.03	0
Using Math (162)	0.11	0.15	-0.05
Solving Problems/Reasoning (158)	0.13	0.19	-0.03
Sum of Gains	0.26	0.75	1.06

Size of Business

Considering size of the business, results are shown in Table 25. For the English usage areas, the medium-sized businesses have the largest gain scores. There is no clear pattern for the ordering of the large or small businesses or for the other outcome areas. The sums of gain scores, however, show an ordering that medium sized businesses have the highest average sums, the large businesses second, and the small business lowest.

Table 25. Mean Gain Scores by Size of Business

Gain in (N)	Business Size		
	Small (<250)	Medium (251-500)	Large (>500)
Reading English (181)	0.08	0.18	0.07
Understanding English (176)	0.13	0.18	0.07
Speaking English (176)	0	0.29	0.07
Writing English (175)	0.09	0.41	0.08
Working as a Team (170)	-0.1	-0.25	0.08
Using Math (162)	-0.05	-0.06	0.09
Solving Problems/Reasoning (158)	0.11	-0.14	0.06
Sum of Gains	0.27	0.66	0.52

➔Conclusions: Evaluation Objective #3.

The initial emphasis in this objective was on the relationship of instructional characteristics to outcomes. We added the relationship of business characteristics to outcomes under this objective. Conclusions are offered to stimulate further thinking about possible research and evaluation questions rather than on answers .

• The gains in English usage areas may be related to some instructional and business characteristics. The clearest information about learner outcomes is on the four areas of English usage: reading, understanding, speaking and writing. The speaking and writing English outcomes were always more pronounced than reading and understanding. They were also pronounced when we examined their relationship to business and instructional characteristics.

English usage gains were related to course length, with the mid-length courses (54-76 hours) showing the highest gains, the lengthiest courses (78-120 hours) showing the next highest gains, and the shortest courses (24-52 hours) showing the smallest gains. This suggests that short courses are not advised for a predominantly ESOL population. Courses with the primary emphasis on reading had the highest gains in all four English usage areas. Beginning and intermediate ESOL courses also had the highest gains among the various course content areas queried. There was no relationship of gains to class size. Other outcome areas (math, teamwork, and problem-solving/reasoning) were not clearly related to instructional characteristics.

Among the business characteristics, all three examined were related to gains in the English usage outcome areas, and showed no pattern in relation to the other outcome areas. The medium-sized businesses had higher gains than the smaller and larger businesses, with the latter two alternating on amount of gain across different outcome areas.

Evaluation Objective #4: Develop recommendations for project improvement.

The following recommendations are divided into two categories: Improve Consortium Function and Improve Evaluation Activities

Improve Consortium Function

ACLS/Consortium staff should:

- Support the CPET to become a more formally reflective governing body that is prepared to promote institutionalization of programs in the Consortium. In Year 3 of the Consortium, the CPET can become more programmatically proactive and less managerial. ACLS/Consortium staff should introduce an evaluation process to guide CPET members' decisions about what they want to accomplish between now and the end of the grant period and after. Specifically, CPET evaluation activities can enable institutionalization of programs beyond the federal funding period.

- Determine which programs are likely to continue and assess what information and support other programs need to enhance the likelihood that they will also continue. With a promise from only a third of the programs to continue at this time, actions need to be taken to insure greater continuation rates. This may mean providing support to Coordinators who shrink from "promoting" their programs. In addition, it might be useful to review the seven program expansion and continuation plans in the original grant proposal.

- Support more evaluation activities in local PETs. A central message of the evaluation process which CPET members supported in their local PETs is: consider what evidence you will need to persuade all your stakeholder audiences about the value of your program. It is doubtful that the urgency of that message is conveyed in the first year or two but the CPET can be supported to convey that urgency to local PETs at the start of Year 3 and to translate urgency into actual evaluation activity.

- Consider organizing several state-wide sharings that focus on PET and CPET development. Topics might include: extent of worker participation on PETs; the teacher as student advocate; and other issues that might be too difficult for the PET to handle alone. For example, workers

might be reluctant to speak up about how organizational structures impede full participation in a program. The time seems ripe for supporting PETs and the CPET to grow into the next developmental stage.

- Support the CWG to explore how student outcome data can be expressed in a uniformly quantitative way across programs. Any evaluation that examines the relationships between student outcomes and other variables must rely on outcome data that are quantified uniformly across programs. Quantifying student outcomes poses a challenge for adult educators who, like many in the Consortium, prefer authentic assessment to standardized tests. The CWG may offer unique insights into - if not solutions to -- that challenge in the workplace setting.

- Investigate whether the Consortium has leveraged more matching company funds than other federally-funded programs. If the Consortium sets a standard for cash matches and stretching federal dollars, then it should be aware of this and use the information to promote itself.

- Develop a dissemination plan for CWG materials; allocate staff time for dissemination; and use Consortium materials to promote program continuation.

Improve Evaluation Activities

Evaluators should:

- Work with ACLS/Consortium staff to establish performance standards for Quality Indicators and develop new scoring process for Quality Indicators.

- Use evaluation results as an agenda for discussion among ACLS/Consortium staff, CPET members and local staff and PETs to prioritize interest areas, and develop hypotheses for testing with stronger data.

- Encourage the CPET to discuss evaluation results in CPET meetings and consider how results might inform program improvement .

- Gather more substantive data on how PETs are functioning than the Indicators PLUS protocol allowed in Year 2.

- Support the CPET and local PETs to systematically assess both workplace and partnership outcomes. This includes supporting Coordinators to determine if data that companies already collect might be used to document workplace outcomes and to calculate ROI.

References

"The Other Shoe: Education's Contribution to the Productivity of Establishments, A Second Round of Findings from the EQW National Employer Survey. Philadelphia, PA: National Center on the Educational Quality of the Workforce, undated, page 2.

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APPENDIX A

Indicators of Quality

INDICATORS OF QUALITY
FOR WORKPLACE EDUCATION PROGRAMS

Massachusetts Workplace Literacy Consortium
July 1995

1. PARTNERSHIP AND PLANNING

a. There is a partnership among key stakeholder groups (educators, workers, unions, management and supervisors, volunteers, others as appropriate) whose representatives meet regularly, are formally organized (for example, in a "team,") and employ shared governance of the program.

b. Partners each contribute to defining program goals, have common expectations about program activities, and contribute their special resources to the program, including time, money, materials, space, general knowledge and special expertise.

c. There is a comprehensive plan for the program that is developed by all key stakeholders and reviewed regularly by them.

d. There is knowledge and support of the program and involvement in its planning and governance by upper management, team leaders or supervisors, and union leadership.

e. In business-driven programs, the program is integrated into the company's long term plan for organizational development. In labor-driven programs, the program is integrated into the union's long term plan.

2. CURRICULUM

a. There is a process for continually assessing learning needs and developing and improving curriculum to meet those needs.

b. There is a curriculum which is customized (contextualized) to the needs of program stakeholders, including: workers, instructional staff, management, labor, and others, as appropriate.

c. Needs assessment, goals, objectives, learning activities, instructional activities, evaluation and a feedback mechanism are written or otherwise explicit or easily inferred for each unit within the curriculum.

d. The curriculum incorporates principles of adult learning in an adult learning environment and uses adult-oriented materials. For example, the curriculum:

1. employs reinforcement and multiple formats
2. is contextualized to the life experiences and workplace needs of learners
3. accommodates individual differences in student learning rates and styles

e. Workers are given opportunities to practice and demonstrate abilities they are developing in classes.

f. There is a system for documenting the curriculum and a format for dissemination. For example, the curriculum is:
1. written or videotaped
2. comprehensive, i.e. covers all major content areas required to meet program goals)
3. described in sufficient detail to guide potential users or adapters

g. Instruction takes place in a physically supportive environment (e.g., well lighted and ventilated; minimal noise; comfortable seats and writing surfaces)

3. ASSESSMENT, EVALUATION AND OUTCOMES

a. There are clearly articulated goals for the program which may evolve over time.

b. There is a procedure in place to assess anticipated and unanticipated progress over time in three areas:
1. the progress of participants (which may include sub-categories; for example: the progress of participants as adult learners, workers, and community members
2. the impact of the program on the workplace
3. the quality of the partnership

c. There is evidence of a broad base of results, including impact on learners, the workplace, and the program partnership. The results demonstrate whether anticipated goals were achieved and also adequately describe unanticipated outcomes.

d. There is a rationale for the types of data collected.

e. Data are reliable, rapidly accessible, updated regularly, and protect the rights of individuals.

f. Data are used for program development, policy decisions, and for internal and external communications.

4. SERVICES

a. There are supplementary learner services provided which are appropriate for the needs of the program's population, including educational counseling, childcare, and transportation.

b. Learners are aware of the availability of supplementary services and there is no stigma or threat associated with their use.

c. Staff support use of supplementary services and integrate their use into daily program operations.

5. STAFF

a. Staff are competent to teach adults in job-related workplace settings. Competence derives from training, experience or personal characteristics.

b. Staff are oriented to the workplace and are provided with ongoing opportunities for training and development. Training is provided in areas typically associated with education (for example, assessment or curriculum development) and in areas associated with the expanded roles of workplace educators (for example, group facilitation or characteristics of high performance work teams)

c. Staff demonstrate application of skills and ideas learned through training in their instruction and administrative activities.

d. Salaries are competitive. Staff are compensated for all program-related activities in addition to teaching, including: orientation to the workplace; curriculum development and class preparation; special reporting and record keeping; and assessment and evaluation.

6. ADMINISTRATION

a. Policies and resources are in place which support program activities both on a daily basis and for the long term.

b. There is a process in place or a person designated to administer or coordinate the work of the partnership. Examples of administering or coordinating the work of the partnership include: convening and facilitating meetings; translating goals into action plans; facilitating communication among partners; ensuring that issues are brought to closure.

c. Policies and incentives are in place which reduce barriers to employee participation and promote attendance and retention

APPENDIX B

Indicators PLUS Protocol for Program Coordinators

Massachusetts Workplace Literacy Consortium Evaluation

Survey for Program Coordinators
October 1995

As you know, the Massachusetts Workplace Literacy Consortium is entering its second year of operation. In this second year, and again in the third, external evaluators will ask you to answer a series of questions about your program. We have already reviewed the Year 2 evaluation process and its implementation with you in person. The following summary of instructions is intended to guide you through the final phases of answering your survey questions.

• We ask that you answer the following questions as completely as you can either by yourself or with input from your PET. As you know, other partners are also being asked to answer selected questions from this survey. For your information, those questions are coded with letters that indicate which partner will answer which questions. The code is: B = Business Partner; U = Union Partner; T = Teacher; E = Employee.

• You have a choice to complete the survey on disk or on paper. We encourage you to complete it on disk for two reasons. First, it will be easier for us to read; second, we can return it to you next year for an easy update, rather than give you a long, blank form again. If you chosse to complete the survey by hand and need more space than what is provided, please use additional paper.

• Please follow the instructions on the attached scoring sheet for determining your "self-rating" on each of the quality indicators contained in the survey.

• Call Laura Sperazi at (617) 527-6081if you have any questions.

Name & Program _____ Date _____

1. PARTNERSHIP AND PLANNING

a. Indicator

There is a partnership among key stakeholder groups (educators, workers, unions, management and supervisors, volunteers, others as appropriate) whose representatives meet regularly, are formally organized (for example, in a "team,") and employ shared governance of the program.

Questions to answer

(1) Who are the key stakeholders in your program?

(2) Do representatives of those stakeholder groups meet regularly? Yes__No__

(3) If yes:
(a) Are they formally organized, as in a team?

(b) Do they participate in the governance of the program?

(c) Do they consider themselves "partners" in the program?

(4) If no:
-- What have been the difficulties, if any, in meeting regularly? Or did the team decide not to meet regularly?

b. Indicator

Partners each contribute to defining program goals, have common expectations about program activities, and contribute their special resources to the program, including time, money, materials, space, general knowledge and special expertise.

Questions to answer

(1) What are partners' expectations about program activities? Are there common or different expectations about program activities? (B, U)

(2) What was the process used to define program goals? (B, U)

(3) What resources do each of the partners contribute?

c. Indicator

There is a comprehensive plan for the program that is developed by all key stakeholders and reviewed regularly by them. (A plan is a working set of ideas about what the program intends to accomplish and how it will accomplish it.)

Questions to answer

(1) Is there a plan for the program? Yes __No__

(2) If yes, is it written or otherwise explicit?

(3) Which stakeholders participated in the development of the plan?

(4) Is there a process in place for regular review of the plan by all stakeholders? Is the process implemented?

d. Indicator

There is knowledge and support of the program and involvement in its planning and governance by upper management, team leaders or supervisors, and union leadership.

Questions to answer

(1) Is there a process in place (beyond the PET)) which keeps upper management, team leaders or supervisors, and union leadership informed and involved in program planning and governance? Yes__No__ (B, U)

(2) If yes, what is that process and how does it work? (B, U)

(3) If no, why is there no such process in place? (B, U)

e. Indicator

In business-driven programs, the program is integrated into the company's long term plan for organizational development. In labor-driven programs, the program is integrated into the union's long term plan.

Questions to answer

(1) Does the sponsoring company or union have a long-term plan for organizational development? Yes__No__ (B, U)

(2) If yes:

(a) What are the key elements of the long-term plan? (B, U)

(b) How does the workplace education program fit into that plan? Is there an explicit or implicit "fit" between the two? (B, U)

(3) If no:

(a) Is there an identification of need for such a plan? (B, U)

(b) Why is there no such plan? (B, U)

2. CURRICULUM

a. Indicator

There is a process for continually assessing learning needs and using the results to develop and improve the curriculum.

Questions to answer

(1) What are the formal and informal assessment procedures you use with workers in your program? If workers identify themselves as learning disabled, what assessments do you use?

(2) Who conducts the assessments?

(3) How frequently are assessments of learning needs conducted?

(4) Is there a process you use to incorporate what you are learning from your assessments into developing and improving the curriculum? Yes__No__

(5) If yes:

(a) What is that process? Who is responsible for implementing it, in what time frame, with what results?

(6) If no:

(a) Are there plans to put such a process in place?

b. Indicator

There is a curriculum which is customized (contextualized) to the needs of program stakeholders, including: workers, instructional staff, management, labor, and others, as appropriate.

Questions to answer

(1) How are you developing your curriculum? (For example: Are you adapting it from an off-the -shelf curriculum or from another program's curriculum? Are you developing it from scratch?) (T)

(2) Which stakeholders (workers, instructional staff, management, labor, or others) is your curriculum most responsive to? (B, U, T)

(a) Are you incorporating workplace-relevant materials into your curriculum? Union relevant materials? Materials relevant to the personal lives of workers? (B, U, T)

c. Indicator

Needs assessment, goals, objectives, learning activities, instructional activities, evaluation and a feedback mechanism are written or otherwise explicit or easily inferred for each unit within the curriculum.

Questions to answer

(1) Are the following items written or otherwise easily inferred for each unit within the curriculum:

-- needs assessment
-- goals
-- objectives
-- learning activities
-- instructional activities
-- evaluation
-- feedback

d. Indicator

The curriculum incorporates principles of adult learning in an adult learning environment and uses adult-oriented materials. For example, the curriculum:

- employs reinforcement and multiple formats
- is contextualized to the life experiences and workplace needs of learners
- accommodates individual differences in student learning rates and styles
- accommodates learners' disabilities

Question to answer

(1) What are the principles of adult learning that are incorporated into your program's operations? (T)

e. Indicator

Workers are given opportunities to practice and demonstrate skills and abilities they are developing in classes.

Questions to answer

(1) Are there opportunities for workers to apply new skills and abilities which were gained in classes at work?
Yes__No__ (B, U, E, T)

(2) Please give examples of workers either being given or not being given opportunities to apply new skills and abilities which were gained in classes at work. (B, U, E, T)

(3) Does anyone monitor if and to what extent workers apply new skills and abilities which were gained in classes at work? Yes__No__

(a) If yes, who is that person and how does s/he do it?

f. Indicator

There is a system for documenting the curriculum and a format for dissemination. For example, the curriculum is:

- written or videoptaped
- comprehensive, i.e. covers all major content areas required to meet program goals)
- described in sufficient detail to guide potential users or adapters

Questions to answer

(1) Is there a process in place for documenting the curriculum?

(2) Is the curriculum being documented? By whom? In what time frame?

(3) Are you taking any special steps to ensure that others can use or adapt your materials? Yes__No__

(4) If yes, please describe them.

g. Indicator

Instruction takes place in a physically supportive environment that accomodates the ADA. (for example, it is well lighted and ventilated; has minimal noise; comfortable seats and writing surfaces, wheelchair access, etc.)

Questions to answer

(1) Where are classes held?

(2) Is the classroom space quiet? Is the classroom space well-lighted and ventilated? Are the seats comfortable? Are there blackboards, flip charts, other necessary materials?

3. ASSESSMENT, EVALUATION AND OUTCOMES

a. Indicator

There are clearly articulated goals for the program which may evolve over time.

Questions to answer

(1) Is there a formal written statement of your goals? Yes__No__

(2) If no, why isn't there a formal statement?

(3) If yes,

(a) Please attach your goal statement to the last page of this survey.

(b) Have your goals changed over time? If they have changed, please describe how they have changed.

b. Indicator

There is a procedure in place to assess anticipated and unanticipated progress over time in three areas:

1. the progress of participants (which may include sub-categories; for example: the progress of participants as adult learners, workers, and community members
2. the impact of the program on the workplace
3. the quality of the partnership

Questions to answer

(1) Do you have procedures in place to assess anticipated and unanticipated progress over time in the three areas named above? Yes__No__

(2) If yes:

(a) What procedure(s) do you have in place to assess anticipated and unanticipated progress over time for participants, the workplace, and the program? Describe these procedures in detail for each area. Please attach samples of your data collection protocols -- for example, questionnaires, focus group questions -- to the end of the survey.

• program participants

- the workplace

- the program partnership

(b) Who developed these procedures? (PET, others?)

(c) Who implements these procedures? (PET, teachers, workers, others?)

(d) How frequently are these procedures implemented?

(3) If no:

(a) Do you plan to put these procedures into place?

(b) Why aren't these procedures in place?

c. Indicator

There is evidence of a broad base of results, including impact on learners, the workplace, and the program partnership. The results demonstrate whether anticipated goals were achieved and also adequately describe unanticipated outcomes.

Questions to answer

(1) What evidence is there of anticipated results on:

(a) workers, including but not limited to: changes in job status or performance, retention, absenteeism, personal improvement. (B, U, T)

(b) the workplace, including but not limited to: quality of goods and services, improved safety, lower insurance premiums, reduction of waste, movement toward desired organizational change

(c) the program partnership (B, U, T)

(2) Is there any evidence of unanticipated results on:

(a) workers (B, U, T)

(b) the workplace (B, U, T)

(c) the program partnership (B, U, T)

(3) In what form is the evidence presented? (Written, oral, videotaped, anecdotal, other?)

d. Indicator

There is a rationale for the types of data collected.

Questions to answer

(1) Do the data you are collecting allow you to answer confidently that you are/are not achieving your goals? (B, U)

(2) Is there any other purpose (i.e., besides determining if you are meeting your goals) for the types of data that you are collecting for:

(a) learners? (B, U)

(b) the workplace? (B, U)

(c) the partnership? (B, U)

e. Indicator

Data are reliable, rapidly accessible, updated regularly, and protect the rights of individuals (privacy and confidentiality of records).

Questions to answer

(1) What steps did the PET or others take to insure reliability of data?

(2) Where are the data stored? Who has access to them? How easily can someone access them?

(3) What is the procedure for updating the data? How frequently is data updated? By whom?
(4) Is confidentiality of data a concern in your program? How has your program evaluation dealt with confidentiality of data? Who has access to your data and under what circumstances?

f. Indicator

Data are used for program development, policy decisions, and for internal and external communications.

Questions to answer

(1) Is there a procedure in place that supports the use of data for program development, policy decisions and/or internal and external communications? Yes__No__

(2) If yes, please describe the procedure.

(3) Have any specific data actually been used to to inform program development? Yes__No__

• If yes, please give at least one example?

4. **SUPPLEMENTARY SERVICES:** We understand that all programs do not provide supplementary services . However, we are interested in learning about those who do. Please answer as many of the following questions as apply to your program.

a. Indicator

Supplementary learner services are provided which are appropriate for the needs of the program's population, including educational counseling, childcare, transportation, and accommodations for LD learners.

Questions to answer

(1) Do you provide supplementary services? Yes__No__

(2) If yes:
(a) Please describe them in detail: educational counseling, transportation, childcare, accommodations for LD learners, etc.)

(b) How did the need for such services emerge?

(3) If no:
(a) Were supplementary services included in your original proposal for the program? Yes__No__

(b) If yes, please explain why your program does not offer those services now.

b. Indicator

Learners are aware of the availability of supplementary services and there is no stigma or threat associated with their use.

Questions to answer

(1) Are learners aware of the availability of these services?

(2) How are learners informed about the availability of these services?

(3) Are the services well-utilized? Yes__No__

(4) If yes:
(a) Why do you think the services are well utilized?

(5) If no:

(a) Why do you think the services are not well-utilized?

c. Indicator

Staff support use of supplementary services and integrate their use into daily program operations.

Questions to answer

(1) Do staff support the use of supplementary services? Yes__No__

(2) If yes:

(a) How do staff support the use of these services?

(3) If no:

(a) Why don't staff support the use of these services?

(b) Is there a plan for staff to support the use of these services?

5. STAFF

a. Indicator

Staff are competent to teach adults in job-related workplace settings. Competence derives from training, experience or personal characteristics.

Questions to answer

(1) Who are your instructional staff? (Number, age, gender, race, etc.)

(2) What are the qualifications of your staff?

(3) Who hired your staff ?

(4) What criteria did they use for hiring staff?

b. Indicator

Staff are oriented to the workplace and are provided with ongoing opportunities for training and development. Training is provided in areas typically associated with education (for example, assessment or curriculum development) and in areas associated with the expanded roles of workplace educators (for example, group facilitation or characteristics of high performance work teams)

Questions to answer

(1) Is there an orientation for staff? (Please describe it)

(2) Are ongoing training and development opportunities made available to staff? Yes__No__ (T)

(3) If yes, please describe these training opportunities with emphasis on content areas, duration of training and staff evaluation of training. (T)

c. Indicator

Salaries are competitive. Staff are compensated for all program-related activities in addition to teaching, including: orientation to the workplace; curriculum development and class preparation; special reporting and record keeping; and assessment and evaluation.

Questions to answer

(1) What are staff paid? (hourly, weekly, benefits, if any)

(2) Are orientation activities, curriculum development, prep time, reporting and record keeping, assessment and evaluation compensated?

(3) If yes:

(a) At what rate are these activities compensated?

(4) If no:

(a) Why are staff not compensated for these activities?

(b) Is there a plan to compensate these activities in the near future?

6. ADMINISTRATION

a. Indicator

Policies are in place which support program activities both on a daily basis and for the long term.

b. Indicator

Policies are in place which support program activities both on a daily basis and for the long term.

Questions to answer

(1) How does your program fit into the organization's (business and or union) goals? (B, U)

(2) Do program policies support program activities on a daily basis? In the long term?

(3) Are program resources sufficient to support program activities on a daily basis? In the long term?

(4) If no:

(a) Why are program resources insufficient?

(b) Is there a plan to increase resources?

c. Indicator

There is a process in place or a person designated to administer or coordinate the work of the partnership. Examples of administering or coordinating the work of the partnership include: convening and facilitating meetings; translating goals into action plans; facilitating communication among partners; ensuring that issues are brought to closure.

Questions to answer

(1) What are the main administrative and coordinating functions needed for effective program operations?

(2) Are all these functions performed well in your program? Yes__No__

(3) If no,

(a) Which specicifc functions are performed well?

(b) How might these functions be improved?

d. Indicator

Policies and incentives are in place which reduce barriers to employee participation and promote attendance and retention

Questions to answer

(1) Are policies in place which reduce barriers to employee participation and promote attendance and retention? (B, U, E)

(2) If yes:
(a) What are those policies? (B, U, E)

(2) How are these policies and incentives made known to workers? (B, U, E)

(3) If no:
(a) Why are there no such policies and incentives in place? (B, U)

(b) Is there a plan to establish these policies and incentives ? (B, U)

We are also interested in your ideas about how the Consortium is working as a governing body, about how computer assisted learning fits into your instructional delivery system, and about your participation in the mini-course. Please briefly answer the following questions:

Computer Assisted Learning

1. Are you using computer assisted instruction in your program? Yes__No__

2. If no, why are you not using it? (For example, no interest, no resources, etc.)

3. If yes, please describe the type of computer assisted instruction you are using and the extent to which you use it.
   a. how many computers do you have?

   b. where are they located?

   c. how many students use them and for how long (on average)?

   d. what is the content of your programs?

   e. do you consider computer assisted instruction to be central to your instructional delivery system, or a support?

   f. anything else you would like to tell us about the type and/or extent of us of computer-assisted learning.

2. What are your expectations for how computer assisted learning might enhance your program?

3. What is your overall assessment of how well computer assisted meets your expectations for it?

4. If you worked with Mike Hillinger in Year 1 of the Project: what were your expectations for how Lexicon might enhance your program?

3. What is your overall assessment of how well Lexicon met your expectations for it? Please take your time to describe the benefits of and problems with this system.

4. Did you participate in the mini-course? Yes__No__
If yes:
- how many sessions did you participate in?
- in your own words, how would you rate the mini-course overall?
- how would you improve it?

Consortium

As you know, the Massachusetts Workplace Literacy Consortium is an association of 26 workplace education programs which are funded through the National Workplace Literacy Program. The programs are coordinated by 7 learning providers throughout the State with administrative support from Adult and Community Learning Services in the Department of Education, the funding conduit for federal dollars. The Consortium has a Planning and Evaluation Team which is composed of program coordinators and members of the DOE staff. We are interested in your ideas about how the Consortium is functioning.

1. To what extent do local program staff understand that they are part of an association of 26 programs with shared goals and objectives?

2. What were/are your expectations for how the Consortium Planning and Evaluation Team should function?

3. Have those expectations been met? Yes__No__
   a. If yes, how?

   b. If no, why not?

4. Do you have any ideas about how the Consortium and the Consortium PET might be strengthened?

Please answer the following three questions as completely as you can. If you want to repeat information you gave us in other parts of the survey, that is fine.

I. What are your program goals? (You may attach a goal statement here or write in your goals.)

II. For each goal stated above, what method(s) of data collection are you using?

III. For each goal stated above, what are your outcomes?

APPENDIX C

Quality Indicators' Results: Analysis of Similarities and Differences between Evaluators' and Coordinators' Scores of the Quality Indicators

Quality Indicators' Results

Introduction

The following presents the basic descriptive statistics about ratings of sites on the Quality Indicators. Two sets of ratings are presented: ratings by the evaluators and self-ratings by the sites (generally by the site Coordinator). The evaluators' ratings are labeled throughout as the Final Ratings, for those are the ratings used in subsequent analyses.

The major purpose of the evaluators' Final ratings is to serve analytic ends. That is, the scoring was done to have some quantitative measure of the extent to which sites implemented the 28 characteristics the Consortium hypothesized were important for good quality workplace education programs. That hypothesis is to be tested by examining the relationship between the sites' implementation of those characteristics and their outcomes for workers and the workplace. As a result, individual sites' scores are not reported by name. Moreover, the Quality Indicator scores were never intended, as part of the external evaluation, to be used for individual site monitoring and the evaluators promised sites anonymity in this regard to promote as complete and honest responses as possible.

The major purpose for the sites' self-ratings was for their internal formative evaluation purposes. That is, the self-ratings on the Quality Indicators were intended as a tool for self-examination of program progress and implementation. The evaluators collected that information from sites only as a tool to learn more about the instrument and the scoring process. We wanted to compare our ratings to the self-ratings in order to assess the extent to which the sets were comparable. We expect that each site's self-rating will reflect bias, though not necessarily in the direction of sites inflating their scores to look good. In fact, we thought some sites' scores reflected a negative bias, possibly to emphasize particularly difficult problems or frustrations they were facing in one or more components, overlooking the successes they had in those same component areas. We suspect that the more prominent biases had more to do with the fact that many of the Quality Indicators are written in broad terms and allow differences of interpretation. Because of the formative nature of the self-ratings, they are not reported here for general distribution.

Final Ratings

Sites' Final Ratings on the Quality Indicators, both by site and descriptive statistics across all sites, are shown in Table C1. The mean Final ratings across sites are also shown graphically in Figure C1 to allow visual identification of highlights and patterns. Note from the table that reasonably complete ratings were possible for 25 of the 26 sites, with incomplete data shown as "-9." The site with all missing data did not complete the necessary Quality Indicator Protocols to enable the evaluators to score it. Where only a few "-9"s appear for a site, generally the indicators involved did not apply to the site. On a few occasions, the indicator seemed to apply but the relevant questions on the Protocols were not completed by the sites. Mean ratings for each Indicator across all sites are shown in Figure C2 and in Table 11 of the main text.

Self-Ratings

Parallel to the presentation for the Final Ratings above, sites' Self-Ratings on the Quality Indicators, both by site and descriptive statistics across all sites, are shown in Table C3. The self-ratings also paralleled those by the evaluators in content. That is, the Staffing category (5), was generally the highest rated by the projects and by the evaluators. Those in Administration (category 6) and Curriculum (category 2) were very nearly as highly rated as staff, again the same as for the ratings by the evaluators presented in the main body text. Finally, those of Assessment, Evaluation and Outcomes (category 3) were rated lowest by the project personnel, as they were by the external evaluators.

Differences between Final and Self-Ratings

The differences between the Final and Self-Ratings are shown for each indicator in Table C4. Overall, the ratings the evaluators did were fairly similar to those done by the sites, with an average difference of 0.21 (on the scale of 1 through 6) higher ratings by the sites than by the evaluators. Moreover, those differences were fairly evenly distributed across all the indicators and sites. Thirty-nine percent of the ratings were exactly the same for the sites and the evaluators. Fifty percent were within a range of plus or minus 1. Eleven percent exceeded 1.

Considering the indicators as the focal point, sites rated themselves on average higher than the evaluators did on 18 of the 25 indicators. The average difference between the evaluators' and the self-ratings, however, exceeded 1 for only one indicator, namely 1a (*partnership among key stakeholder groups)* -- and that difference was so large because of the large differences between the evaluators' ratings and the self-ratings from all 5 sites of one partner. Of the seven indicators on which the evaluators' average ratings were higher than the average self-ratings, only two of those are considered substantially higher, about 3/4 of a point. These are 1e (*program integrated into company's or union's long-term plan*) and 6d (*policies and incentives in place to promote participation*).

We conclude that the Quality Indicators instrument is reasonably valid as a program level measure, in that there is a high degree of concurrence between the evaluators' and the self-ratings by site personnel. It is probably not valid or reliable enough, however, for judgments about any individual site projects without other information.

Table C4. Differences between Self-Ratings and Final Ratings

Indicator	1a	1b	1c	1d	1e		
Number of Differences	12/18	11/18	8/18	13/18	7/10		
Average Difference	1.57[1]	0.11	-0.31	-0.38	-0.82		
Indicator	**2a**	**2b**	**2c**	**2d**	**2e**	**2f**	**2g**
Number of Differences	6/18	5/18	11/18	4/18	13/18	5/18	10/18
Average Difference	0.25	0.25	0.39	0	0.1	0	0.13
Indicator	**3a**	**3b**	**3c**	**3d**	**3e**	**3f**	
Number of Differences	8/18	15/17	13/14	15/17	14/17	10/16	
Average Difference	-0.31	0.52	0.63	0.73	0.39	0.05	
Indicator	**5a**	**5b**	**5c**				
Number of Differences	12/16	11/16	7/16				
Average Difference	0.52	0.11	0.29				
Indicator	**6a**	**6b**	**6c**	**6d**			
Number of Differences	10/17	11/17	10/17	13/16			
Average Difference	0.28	1	0.53	-0.79			

[1] Positive differences indicate that the projects' self-ratings were higher than the evaluators' ratings; negative differences indicate that the projects' self-ratings were lower than the evaluators'.

Table C1. Final Ratings on Quality Indicators -- Part 1

PROJECT	IND1a	IND1b	IND1c	IND1d	IND1e	IND1 MEAN	IND2a	IND2b	IND2c	IND2d	IND2e	IND2f	IND2g	IND2 MEAN
A	3.5	4.5	4.5	4	5	4.30	5	5.5	6	5.75	5	5.5	5	5.39
B	6	6	5	6	4.5	5.50	5.5	6	6	5.5	4	6	6	5.57
C	5.5	6	5.5	6	6	5.80	5.75	4.75	6	6	4.75	5.75	6	5.57
D	5.5	4.75	5	5.5	5	5.15	4	5.25	3.5	4.75	5	4	3.5	4.29
E	4.75	6	6	5.5	5.25	5.50	6	6	5.5	6	5.5	5.5	6	5.79
F	6	6	4.75	6	3.5	5.25	6	6	5.5	6	6	5	6	5.79
G	4.75	6	6	6	5.5	5.65	5	6	5	6	5	6	6	5.57
H	2	5	5	5	6	4.60	6	5	6	6	4.5	6	3.5	5.29
I	2	5	5	5	6	4.60	6	5	6	6	4.5	6	3.5	5.29
J	2	5	5	6	5	4.60	6	5	6	6	5	6	3.5	5.36
K	2	5	4.5	5.5	4.75	4.35	5.75	5.5	6	5.75	4.75	6	3.5	5.32
L	2	5	5	3.5	1	3.30	6	5	6	6	1	6	3.5	4.79
M	2	5	3	3	1.5	2.90	6	5	6	6	3.5	6	3.5	5.14
N	6	6	6	5.5	5.75	5.85	6	6	5.75	6	6	6	6	5.96
O	6	6	6	6	6	6.00	6	6	5.5	6	5.25	6	6	5.82
P	4	5.5	6	5.5	6	5.40	6	6	5.25	6	5.75	6	5.75	5.82
Q	4	6	6	5.5	6	5.50	6	6	5.5	6	5.75	6	5	5.75
R	4.5	5	6	6	6	5.50	6	6	6	6	5	6	6	5.86
S	6	6	6	6	-9	6.00	5.5	6	5.5	5.5	3	6	4	5.07
T	-9	-9	-9	-9	-9	-9.00	-9	-9	-9	-9	-9	-9	-9	-9.00
U	5.5	5	5	4	5	4.90	4.25	5	4.25	5.75	4	3.75	6	4.71
V	6	6	6	6	5.5	5.90	5.5	6	5.5	5	5.75	6	6	5.68
W	5.5	5	5	4	5	4.90	4.25	5	4.25	5.75	4	3.75	6	4.71
X	6	6	6	5.75	-9	5.94	5.5	6	5.5	5	5.25	6	6	5.61
Y	5.5	5.5	4.25	5.5	5.5	5.25	4.5	5.25	4	6	4.5	6	6	5.18
Z	2	5	5.5	6	6	4.90	5.5	5.5	4	6	5.5	6	6	5.50
Mean	4.46	5.47	5.31	5.3	5.05	5.13	5.51	5.55	5.35	5.79	4.73	5.64	5.2	5.40
Std Dev	1.61	0.53	0.75	0.91	1.38	0.80	0.66	0.48	0.77	0.37	1.12	0.74	1.11	0.43
Minimum	2	4.5	3	3	1		4	4.75	3.5	4.75	1	3.75	3.5	
Maximum	6	6	6	6	6		6	6	6	6	6	6	6	
N	25	25	25	25	23	25	25	25	25	25	25	25	25	25

Table C1. Final Ratings on Quality Indicators -- Part 2

PROJECT	IND3a	IND3b	IND3c	IND3d	IND3e	IND3f	IND3 MEAN
A	1	3	3	5	5.5	5.25	3.79
B	5.5	5.25	4.25	6	5.5	4.5	5.17
C	6	4	4.25	5	5.5	5.5	5.04
D	5	3.5	2.75	2.25	5.5	4	3.83
E	6	5	4.5	5.5	5	0	4.33
F	6	5.5	4.75	5	6	4	5.21
G	6	5	4.5	5.5	5	4.75	5.13
H	5.5	3.5	4	3	3	3.5	3.75
I	5.5	3.5	4	3	3	3.5	3.75
J	5.5	3.5	4	3	3	4	3.83
K	6	3.5	3	3	3	5	3.92
L	5.5	3.5	1	3	3	4	3.33
M	5.5	3.5	2.5	3	3	4	3.58
N	6	4	4	4.75	5	5.25	4.83
O	6	3.75	4.25	5	5.75	6	5.13
P	6	3.25	3.25	5	5.75	1	4.04
Q	6	3.25	3	5	5.25	6	4.75
R	6	3.5	3.75	4.75	5.75	6	4.96
S	6	5	4.5	5.5	5.75	5	5.29
T	-9	-9	-9	-9	-9	-9	-9.00
U	6	4.25	2.5	4	3.25	3.5	3.92
V	6	5	4.5	5.5	5.75	5	5.29
W	6	4.25	2.5	4	3.25	3.5	3.92
X	6	5	4.5	5.5	5.75	5	5.29
Y	5.5	1.5	1	1	1	1	1.83
Z	6	3	3	5	5	4.5	4.42
Mean	5.6	3.94	3.51	4.34	4.59	4.29	4.39
Std Dev	1.02	0.93	1.07	1.28	1.38	1.32	0.86
Minimum	1	1.5	1	1	1	1	
Maximum	6	5.5	4.75	6	6	6	
N	25	25	25	25	25	24	25

Table C1. Final Ratings on Quality Indicators -- Part 3

PROJECT	IND5a	IND5b	IND5c	IND5 MEAN	IND6a	IND6b	IND6c	IND6d	IND6 MEAN	GRAND MEAN
A	6	5.25	5	5.42	5.25	5.25	6	6	5.63	4.83
B	6	6	5.5	5.83	6	6	6	6	6.00	5.56
C	6	6	6	6.00	0	0	6	6	3.00	5.13
D	5.25	5.25	4.75	5.08	5	4.5	5.5	5	5.00	4.56
E	6	5.75	5.5	5.75	5	5	5.5	5	5.13	5.27
F	5.75	5.75	5	5.50	5.75	5.75	5.75	6	5.81	5.51
G	5.5	6	5.5	5.67	5	6	6	6	5.75	5.52
H	5	4.5	5	4.83	5	4.5	5	0	4.83	4.46
I	5	4.5	5	4.83	5	5	4	6	5.00	4.68
J	5	5	5	5.00	5	5	4	5.5	4.88	4.72
K	5	4.5	5	4.83	4.75	5	4	6	4.94	4.67
L	5	5	5	5.00	5	5	4	3	4.25	4.08
M	5	5	5	5.00	5	5	4	6	5.00	4.28
N	6	5.5	5.5	5.67	5.25	5.25	6	5.75	5.56	5.57
O	6	5.5	6	5.83	6	5.75	6	4.5	5.56	5.65
P	5	5.5	6	5.50	5.75	5.75	6	6	5.88	5.28
Q	6	5.5	6	5.83	6	6	6	6	6.00	5.51
R	5	5.5	6	5.50	5.75	5.75	6	4.5	5.50	5.47
S	6	6	6	6.00	-9	6	6	6	6.00	4.37
T	-9	-9	-9	-9.00	-9	-9	-9	-9	-9.00	-9.00
U	5.75	6	5.75	5.83	4.25	4.5	5.5	5	4.81	4.71
V	6	6	6	6.00	-9	6	6	6	6.00	5.12
W	5.75	6	5.75	5.83	4.25	4.5	5.5	5	4.81	4.71
X	6	6	6	6.00	-9	6	6	6	2.25	4.51
Y	5	3.5	0	2.83	4.5	3	2.5	5.5	3.88	3.90
Z	5.5	5	-9	5.25	6	3	5	5	4.75	4.40
Mean	5.56	5.42	5.51	5.48	5.24	5.15	5.34	5.47	5.33	5.09
Std Dev	0.45	0.63	0.46	0.47	0.56	0.87	0.95	0.75	0.61	0.54
Minimum	5	3.5	4.75		4.25	3	2.5	3		
Maximum	6	6	6		6	6	6	6		
N	25	25	23	25	21	24	25	24	25	25

Figure C1. Grand Means of QI Ratings for Each Site

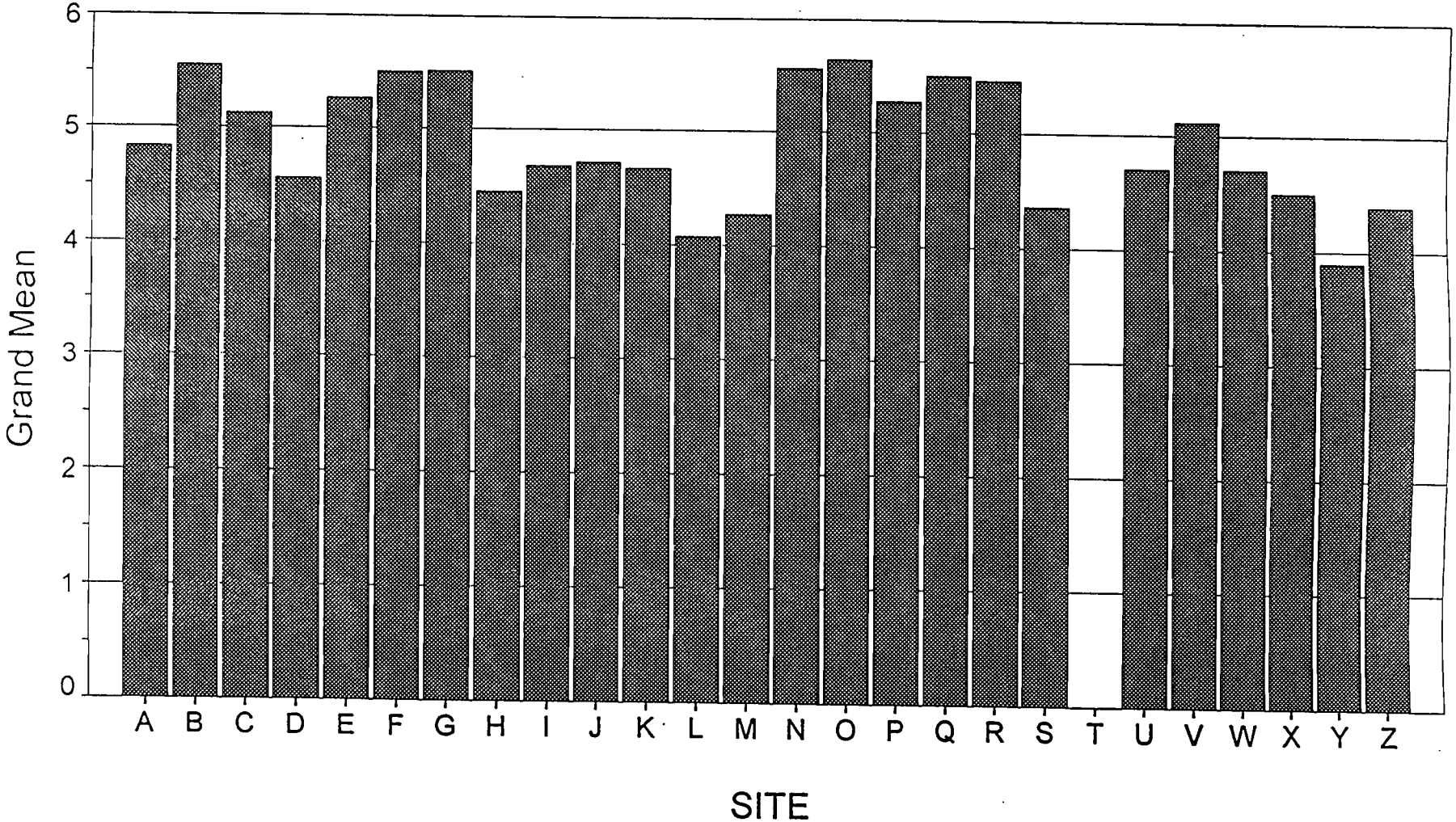


Figure C2. Mean Final Ratings for Each Quality Indicator

(Across All Sites)

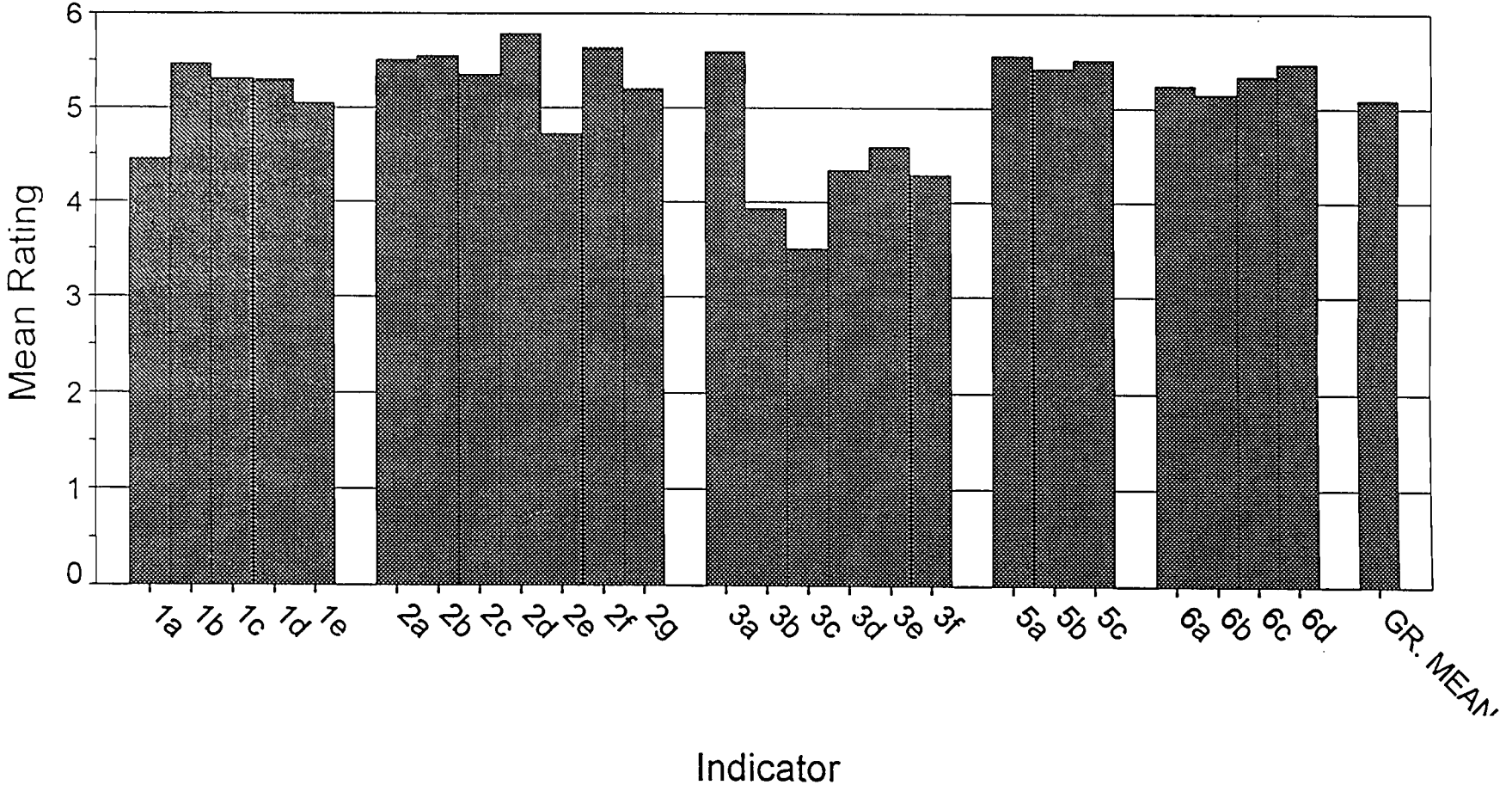


Table C3. Sites' Self-Ratings on Quality Indicators

PROJECT	IND1a	IND1b	IND1c	IND1d	IND1e	IND2a	IND2b	IND2c	IND2d	IND2e	IND2f	IND2g	IND3a	IND3b	IND3c	IND3d	IND3e	IND3f	IND5a	IND5b	IND5c	IND6a	IND6b	IND6c	IND6d
A																									
B	6	6	5	6	5	5	6	6	6	4	6	6	6	5.5	4	6	5	4		5					
C	5	5	4	5	4	5	6	5	5	4	5	5	5	5	4	4	5	4	5	5	5	5	5	5	5
D	5	5	3	5	5	4	5	4	5	5	4	3	5	3	3	3	4	4	5	5	5	5	4	5	5
E	6	6	6	6		6	6	5	6	6	6	6	6	5		6	5	5	6	6	6	6	6	6	6
F	3	3	4	3		6	6	5	6	6	6	6	6	4		6	4	3	6	6	6	3	6	6	4
G	6	6	6	6		6	6	5	6	6	6	6	6	5		6	5	5	6	6	6	6	6	6	5
H																									
I	6	6	5	5		6	5	6	6	4	6	4	5	4	3	4	5	4	6	5	5	5	5	5	4
J	6	6	5	5		6	5	6	6	4	6	4	5	4	3	4	5	4	6	5	5	5	5	5	4
K	6	6	5	5		6	5	6	6	4	6	4	5	4	3	4	5	4	6	5	5	5	5	5	4
L	6	6	5	5		6	5	6	6	4	6	4	5	4	3	4	5	4	6	5	5	5	5	5	4
M	6	6	5	5		6	5	6	6	4	6	4	5	4	3	4	5	4	6	5	5	5	5	5	4
N	6	6	6	5	5	6	6	5	6	6	6	5	6	5	5	5	5	5	6	6	6	6	6	6	5
O	6	6	6	6	6	6	6	6	6	6	6	6	6	5	6	6	6	6	6	6	6	6	6	6	5
P	5	5	5	4	5	6	5	6	6	5	6	6	6	4	5	6	5	5	6	6	6	5	6	6	5
Q	5	6	6	6	5	6	6	6	6	6	6	6	6	5	6	6	5	6	6	6	6	6	6	6	6
R	5	5	5	5	5	6	6	6	6	6	6	6	6	5	5	5	6	6	6	6	6	6	6	6	5
S																									
T																									
U																									
V																									
W	6	5	5	4	5	4	5	5	6	4	4	6	6	4	2	4	3	3	6	6	6	4	5	5	5
X																									
Y	5	5	5	6	5	6	6	6	6	5	6	6	6	3								4	4	5	6
Z	5	6	5	4	5	6	6	6	6	4	5	6	6		4	6	6	5	6		6	5	5	5	
Mean	5.47	5.53	5.05	5.05	5.00	5.68	5.58	5.58	5.89	4.89	5.68	5.21	5.63	4.36	3.93	4.94	4.94	4.50	5.88	5.53	5.59	5.11	5.33	5.44	4.82
Std Dev	0.77	0.77	0.78	0.85	0.45	0.67	0.51	0.61	0.32	0.94	0.67	1.03	0.50	0.72	1.22	1.06	0.73	0.92	0.33	0.51	0.51	0.83	0.69	0.51	0.73
Minimum	3	3	3	3	4	4	5	4	5	4	4	3	5	3	2	3	3	3	5	5	5	3	4	5	4
Maximum	6	6	6	6	6	6	6	6	6	6	6	6	6	5.5	6	6	6	6	6	6	6	6	6	6	6
N	19	19	19	19	11	19	19	19	19	19	19	19	19	18	15	18	18	18	17	17	17	18	18	18	17

APPENDIX D

Self-Score Sheet

Indicators of Quality
for Workplace Education Programs

Massachusetts Workplace Education Consortium
October 27, 1995
Self-Rating Form

Education Provider: _____ **Business Partner:** _____

Date Completed: _____

Instructions: *Complete this form after you have gone through the entire interview protocol on the Quality Indicators. While undergoing that process you will have given thorough thought about the extent to which you've completed activities that are part of each Quality Indicator and perhaps even the quality of your project's performance in those activities. On this form you are asked to consider each Indicator again, but as a whole, and give an overall rating to your program's performance on the Indicator by circling the most appropriate number for each, on the scale from 1 to 6, with a 1 being "Poor" performance and a 6 being "Excellent" performance. The rating scale for each Quality Indicator is in the box to its immediate right.*

When assigning the ratings, consider the two dimensions of extent of implementation and of quality of implementation of the Indicator, insofar as they apply. As an example, you might rate your project's performance on Quality Indicator 3.a. below (clearly articulated goals for the program) according to criteria such as the following:

1 - haven't even thought about explicitly stating goals
2 - have thought about goals but none stated yet
3 - start at goal statements; unorganized and vague; reflect narrow range of outcomes
4 - some goal statements; fairly organized, clear, and representative of more than one stakeholder
5 - several statements; seem to reflect interests of all stakeholders; organized well; stated clearly
6 - several goals statements; based on input of all stakeholder groups and ratified by them afterwards; stated clearly; cover broad range of types of outcomes

1. PARTNERSHIP AND PLANNING

a. There is a partnership among key stakeholder groups (educators, workers, unions, management and supervisors, volunteers, others as appropriate) whose representatives meet regularly, are formally organized (for example, in a "team,") and employ shared governance of the program.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

b. Partners each contribute to defining program goals, have common expectations about program activities, and contribute their special resources to the program, including time, money, materials, space, general knowledge and special expertise.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

c. There is a comprehensive plan for the program that is developed by all key stakeholders and reviewed regularly by them.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

d. There is knowledge and support of the program and involvement in its planning and governance by upper management, team leaders or supervisors, and union leadership.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

e. In business-driven programs, the program is integrated into the company's long term plan for organizational development. In labor-driven programs, the program is integrated into the union's long term plan.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

2. CURRICULUM

a. There is a process for continually assessing learning needs and developing and improving curriculum to meet those needs.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

b. There is a curriculum which is customized (contextualized) to the needs of program stakeholders, including: workers, instructional staff, management, labor, and others, as appropriate.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

c. Needs assessment, goals, objectives, learning activities, instructional activities, evaluation and a feedback mechanism are written or otherwise explicit or easily inferred for each unit within the curriculum.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

d. The curriculum incorporates principles of adult learning in an adult learning environment and uses adult-oriented materials. For example, the curriculum:

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

1. employs reinforcement and multiple formats
2. is contextualized to the life experiences and workplace needs of learners
3. accommodates individual differences in learners' learning rates and styles
4. accommodates learner disabilities

e. Workers are given opportunities to practice and demonstrate abilities they are developing in classes.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

f. There is a system for documenting the curriculum and a format for dissemination. For example, the curriculum is:

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

1. written or videoptaped
2. comprehensive, i.e. covers all major content areas required to meet program goals)
3. described in sufficient detail to guide potential users or adapters

g. Instruction takes place in a physically supportive environment (e.g., well lighted and ventilated; minimal noise; comfortable seats and writing surfaces) and accommodates the ADA.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

3. ASSESSMENT, EVALUATION AND OUTCOMES

a. There are clearly articulated goals for the program which may evolve over time.

How would you rate your program's performance on this indicator?

Poor 1 2 3 4 5 6 Excellent

b. There is a procedure in place to assess anticipated and unanticipated progress over time in three areas:

1. the progress of participants (which may include sub-categories; for example: the progress of participants as adult learners, workers, and community members
2. the impact of the program on the workplace
3. the quality of the partnership

How would you rate your program's performance on this indicator?

Poor 1 2 3 4 5 6 Excellent

c. There is evidence of a broad base of results, including impact on learners, the workplace, and the program partnership. The results demonstrate whether anticipated goals were achieved and also adequately describe unanticipated outcomes.

How would you rate your program's performance on this indicator?

Poor 1 2 3 4 5 6 Excellent

d. There is a rationale for the types of data collected.

How would you rate your program's performance on this indicator?

Poor 1 2 3 4 5 6 Excellent

e. Data are reliable, rapidly accessible, updated regularly, and protect the rights of individuals (i.e., privacy and confidentiality of records).

How would you rate your program's performance on this indicator?

Poor 1 2 3 4 5 6 Excellent

f. Data are used for program development, policy decisions, and for internal and external communications.

How would you rate your program's performance on this indicator?

Poor 1 2 3 4 5 6 Excellent

4. SUPPLEMENTARY SERVICES

a. There are supplementary learner services provided which are appropriate for the needs of the program's population, including educational counseling, childcare, transportation, and accommodations for LD learners.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

b. Learners are aware of the availability of supplementary services and there is no stigma or threat associated with their use.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

c. Staff support use of supplementary services and integrate their use into daily program operations.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

5. STAFF

a. Staff are competent to teach adults in job-related workplace settings. Competence derives from training, experience or personal characteristics.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

b. Staff are oriented to the workplace and are provided with ongoing opportunities for training and development. Training is provided in areas typically associated with education (for example, assessment or curriculum development) and in areas associated with the expanded roles of workplace educators (for example, group facilitation or characteristics of high performance work teams).

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

c. Staff demonstrate application of skills and ideas learned through training in their instruction and administrative activities.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

teaching, including: orientation to the workplace; curriculum development and class preparation; special reporting and record keeping; and assessment and evaluation.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

6. ADMINISTRATION

a. Policies are in place which support program activities both on a daily basis and for the long term.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

b. Resources are in place which support program activities both on a daily basis and for the long term.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

c. There is a process in place or a person designated to administer or coordinate the work of the partnership. Examples of administering or coordinating the work of the partnership include: convening and facilitating meetings; translating goals into action plans; facilitating communication among partners; ensuring that issues are brought to closure.

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

d. Policies and incentives are in place which reduce barriers to employee participation and promote attendance and retention

How would you rate your program's performance on this indicator?
Poor 1 2 3 4 5 6 Excellent

APPENDIX E: Cost Figures

Figure E1. NWLP Funds per Site

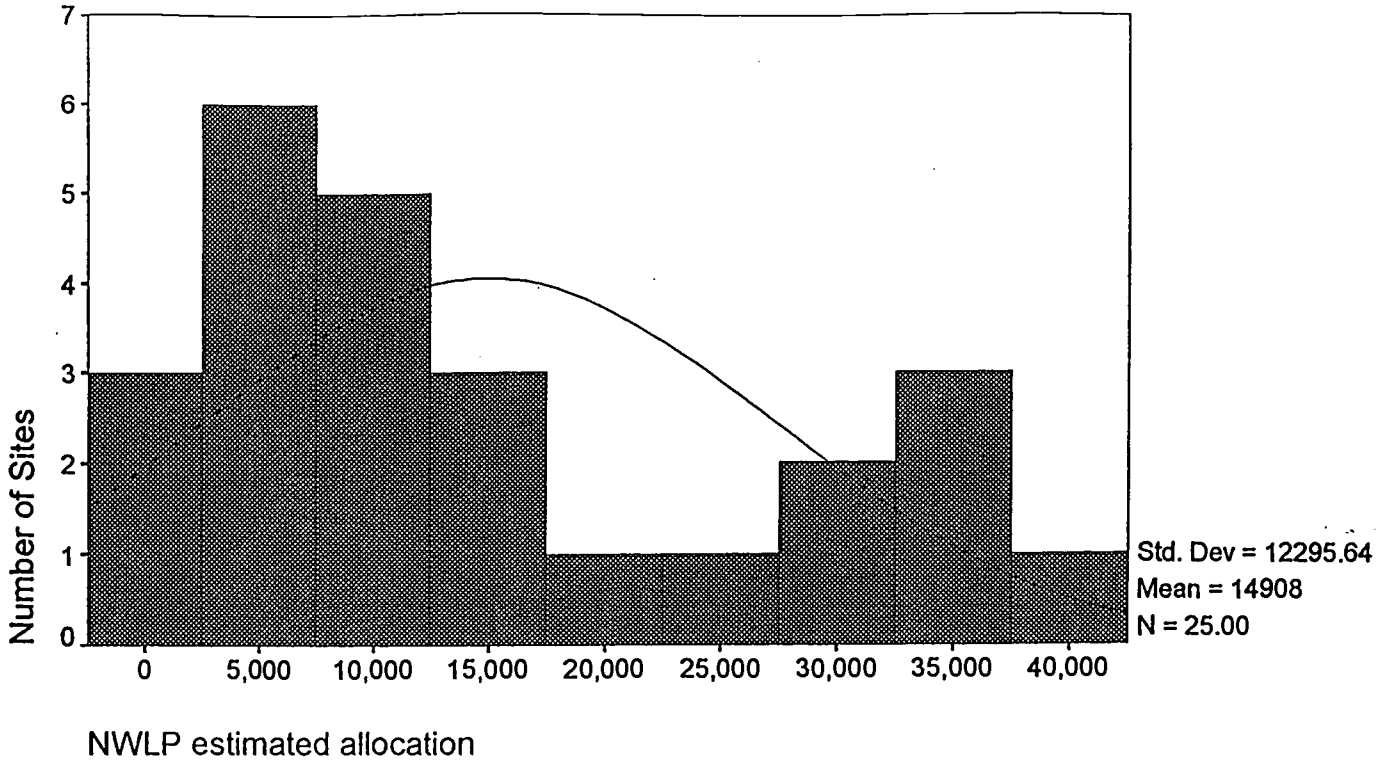
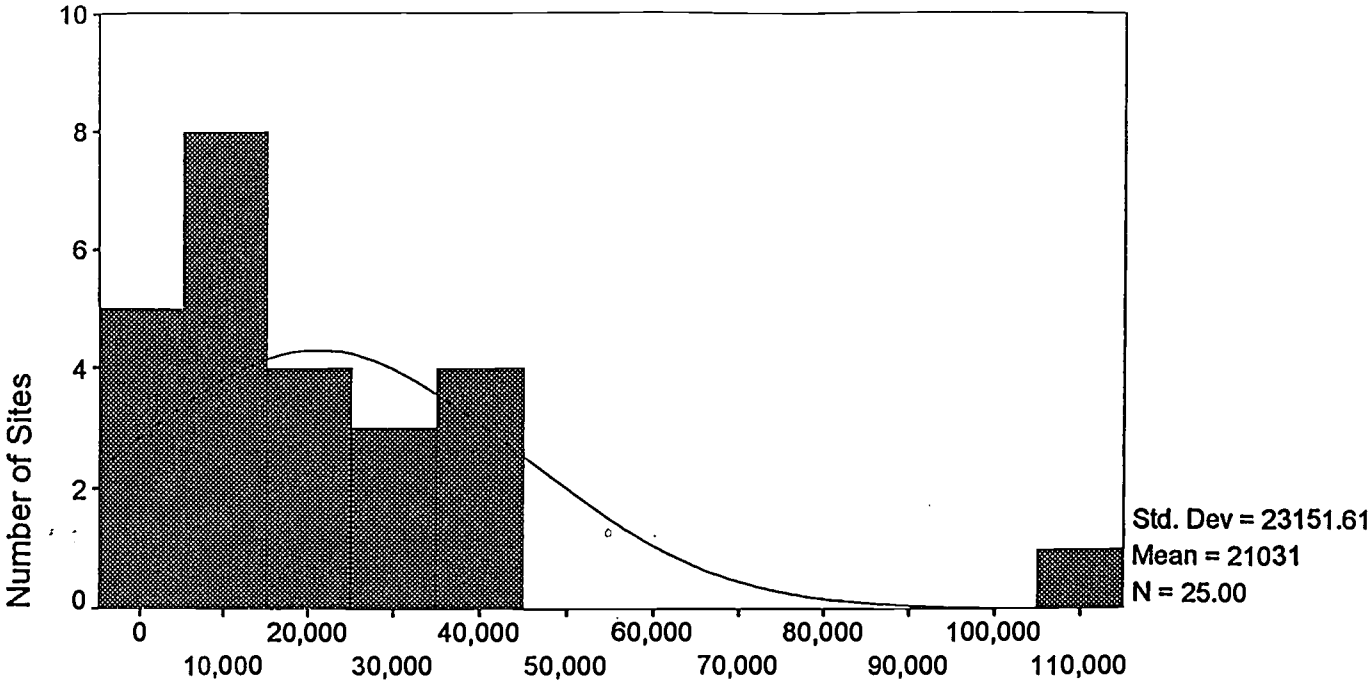


Figure E2. Non-Public Funds per Site



Cash match & in-kind

Figure E3. Total Funds per Site

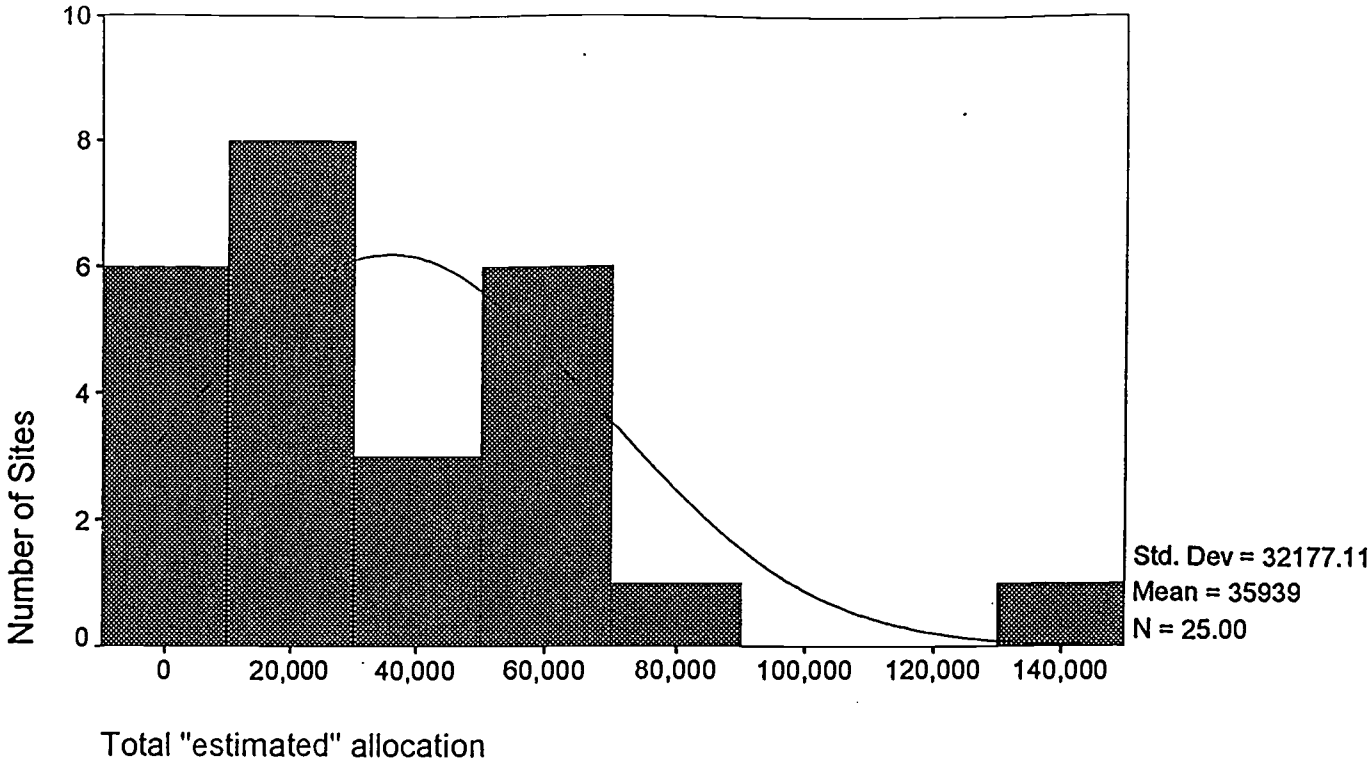
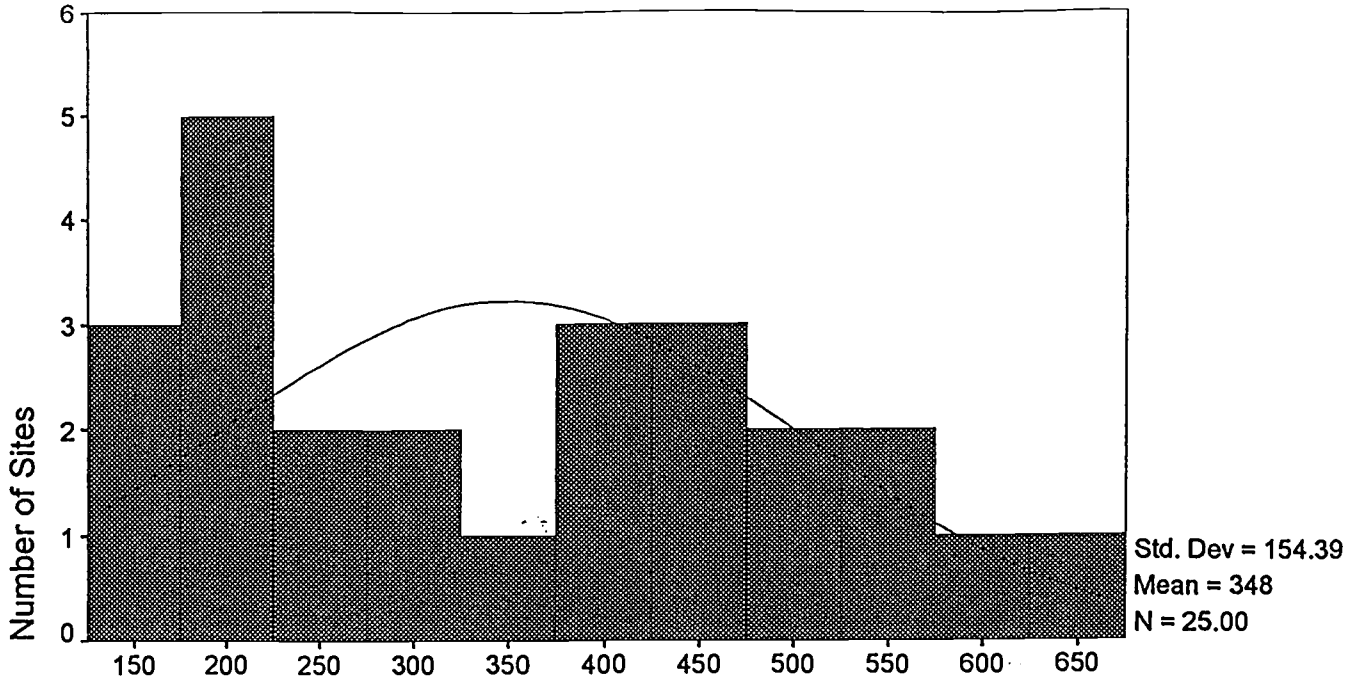


Figure E4. NWLP Funds per Student



Public funds cost/student

Figure E5. Non-Public Funds Cost per Student

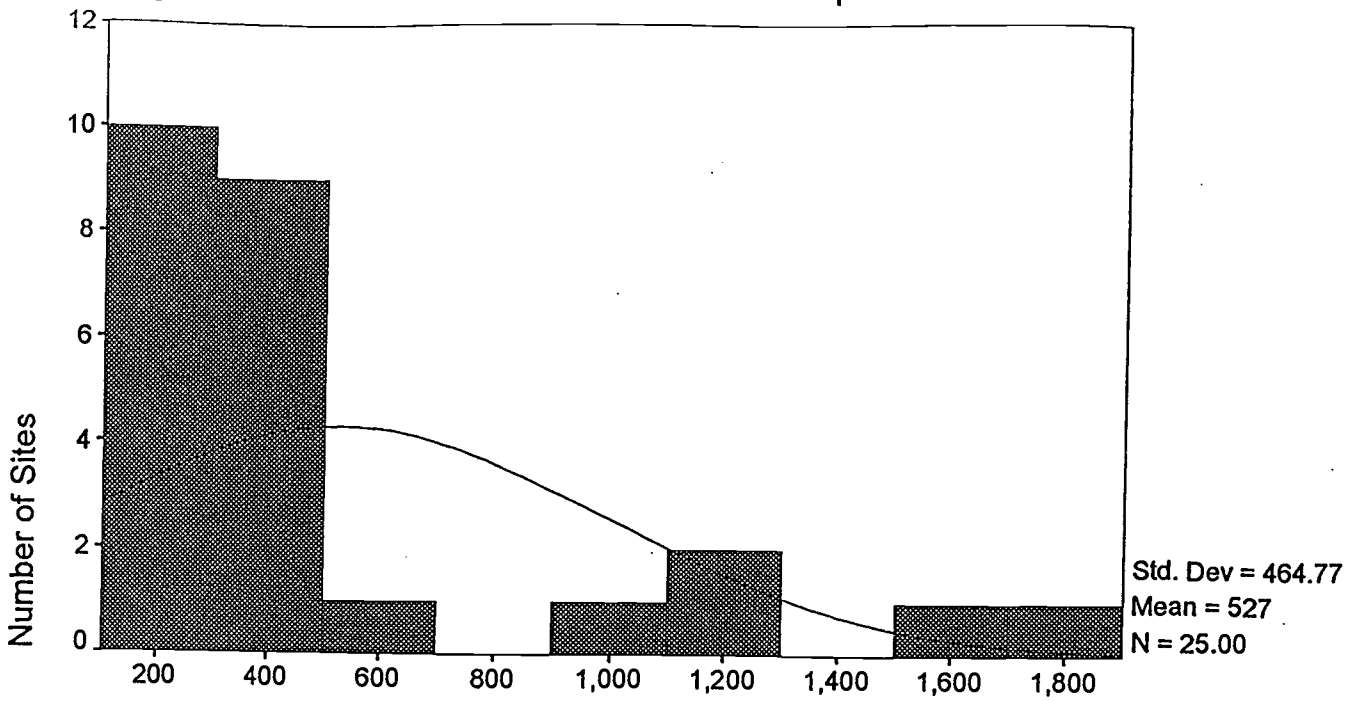


Figure E6. Total Cost per Student

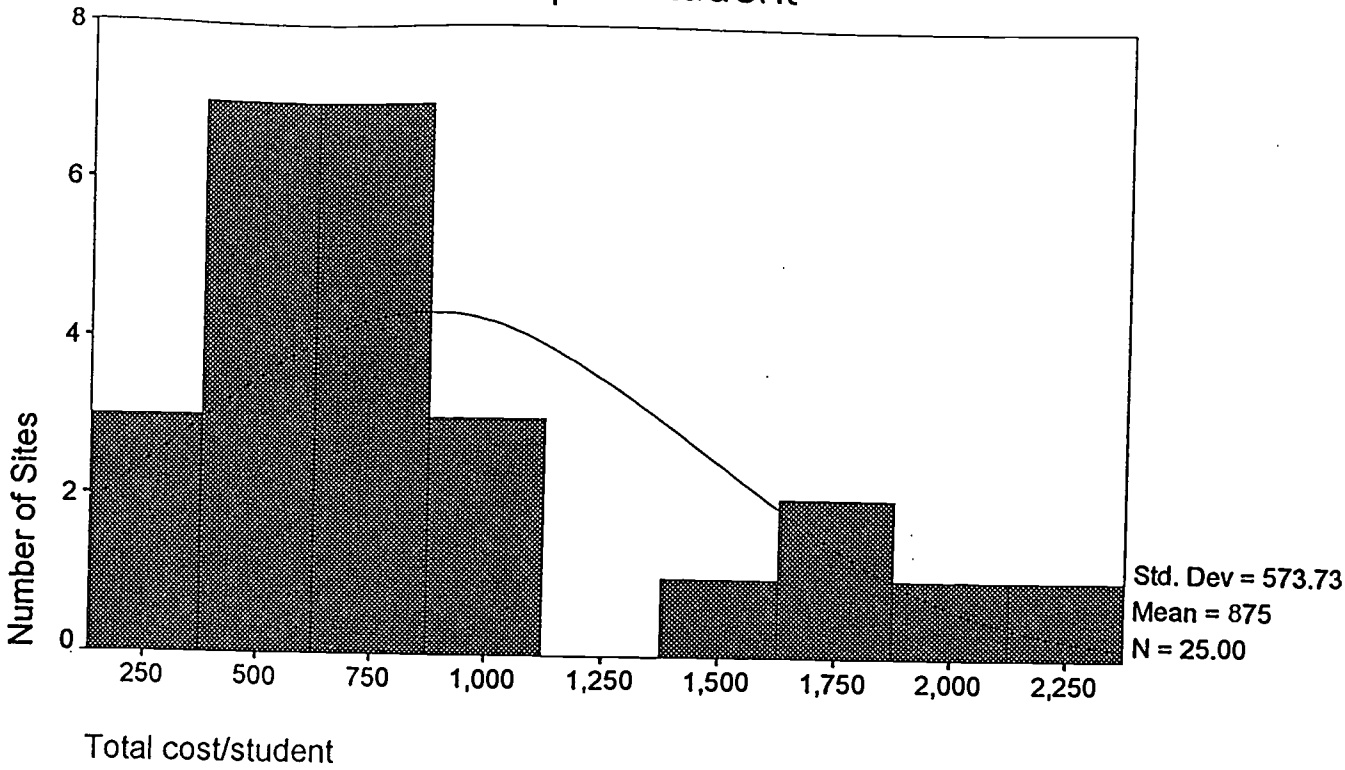


Figure E7. NWLP Funds per Student Contact Hour

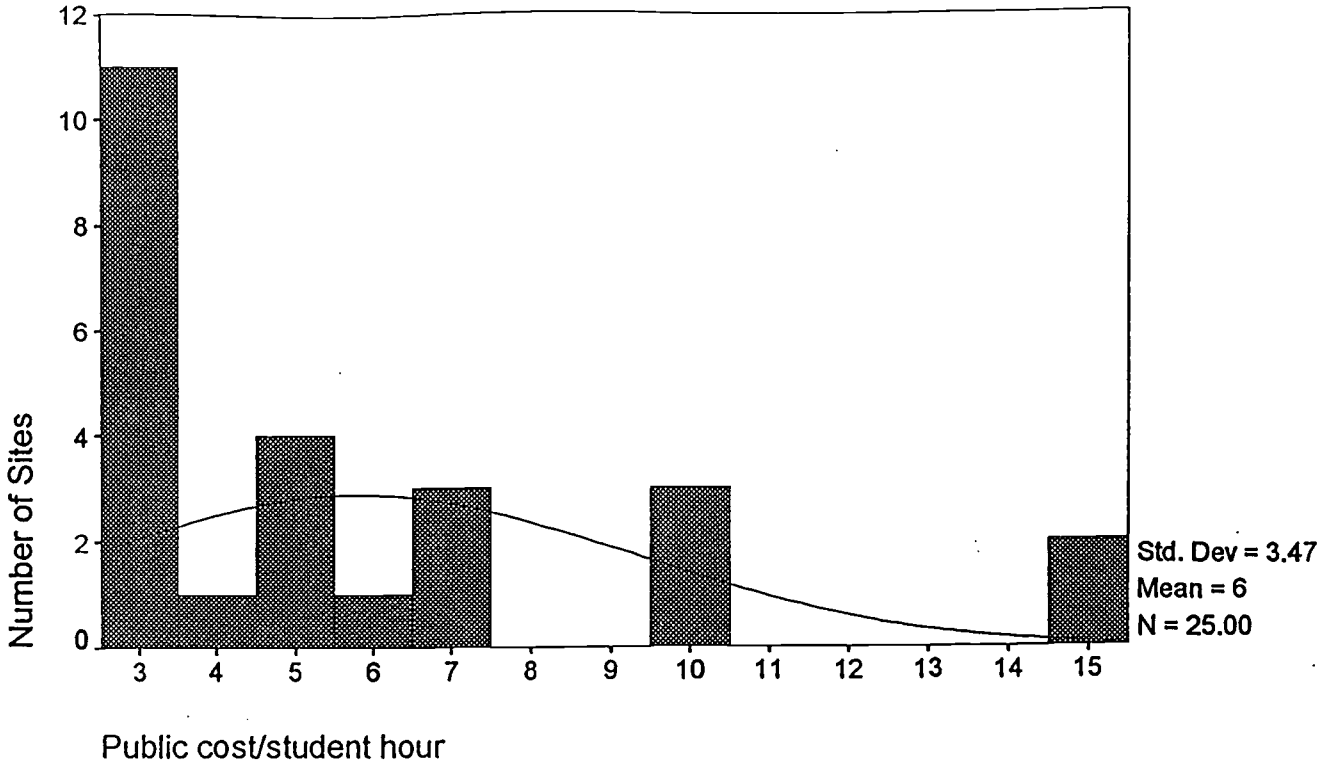


Figure E8. Non-Public Funds Cost per Student Contact Hour

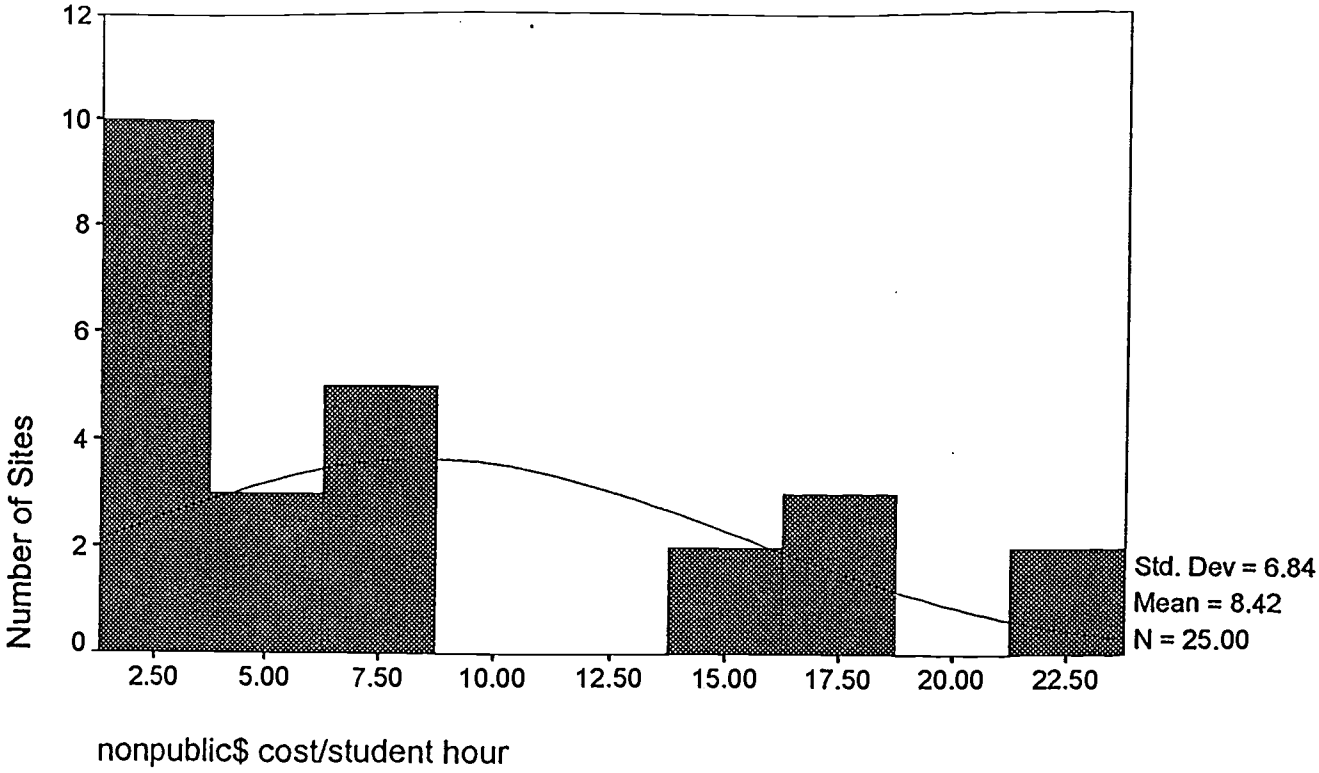
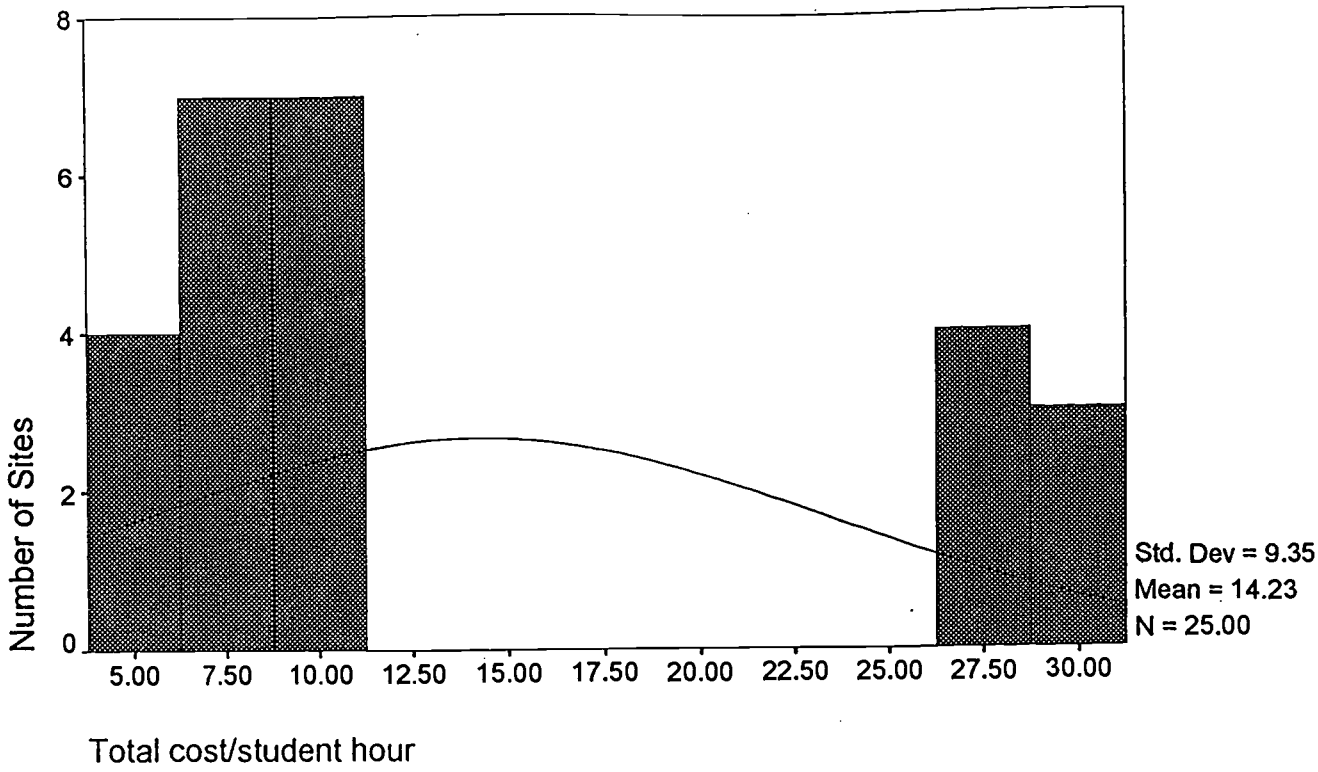


Figure E9. Total Cost per Student Contact Hour



APPENDIX F: DOE Data Collection Forms

The Commonwealth of Massachusetts
Department of Education

350 Main Street, Malden, Massachusetts 02148-5023

Telephone: (617) 388-3300
TTY: N.E.T. Relay 1-800-439-2370

MEMORANDUM

TO: MWLC Coordinators
FROM: Andy Nash and Olivia Steele, MWLC
DATE: November 27, 1996
RE: Final forms to replace NWLIS for year 3

Enclosed, you'll find the final drafts of the forms that replace NWLIS data collection forms for year 3 (periods 5 and 6). We've tried to incorporate the feedback you've given us, although a couple of changes are yet to be done. We haven't yet finished the Spanish forms, nor have we provided enlarged-type student forms. These will come soon.

Here's a summary of what's here and how the forms have changed:

1) Student Enrollment Form

Most changes were clarifications of confusing questions on prior forms. The other significant change is that, rather than asking people to rate their pre-course skills, we have asked them to rate their comfort level (#14). This will provide us with more accurate data.

2) Student Self-Assessment Form

People are now asked to rate their progress rather than rating their post-course skills.

3) Course Data Form

Several new items seek to clarify the confusion about courses and students that overlap the periods. Other items were simplified.

4) Site Data Form

The site form refers to the partnership at each company. Several questions on this form were made clearer. Under #21, the idea is that we document the relative participation of each partner at the site and skipping the other columns. Under #11, we don't need the name of the teacher, but just some way to distinguish them for this chart.

5) Data Collection Tools

This is the list of methods/tools that you will use to fill out Column A of the two Outcomes Forms.

6) Outcome Data Form (by Course and by Site)

As we mentioned, this master list of goals came from many sources. If an item was not a goal for this course, just put an "N" in Column A and go on down the list. If there are unanticipated course outcomes that are not on our list, just add them at the end.

That's it for now.

Student Self-Assessment Form

1. Site Code _____ 2. Course ID_____ 3. Attendance (hrs) _____

4. Name a. Last_____ b. First _____

5. Since this course began, have you:

   a. Changed your educational or career goals ..... (Y / N)

   b. Switched from part-time to full-time ..... (Y / N)

   c. Started a new job at another company ..... (Y / N)

   d. Been laid off ..... (Y / N)

   e. Left your job for any other reason ..... (Y / N)

   f. Achieved some of your personal goals ..... (Y / N)

6. Please use the following scale for your answers. Put the number that best describes your progress
   1) Not yet improving
   2) Better than when I started
   3) Medium progress
   4) Improved a lot
   5) Excellent progress

   a. ____ Reading English

   b. ____ Understanding English

   c. ____ Speaking English

   d. ____ Writing in English

   e. ____ Working as part of a team

   f. ____ Using math

   g. ____ Identifying problems at work and knowing what to do about them

   h. ____ Your confidence to speak or try new things

   I. ____ Communicating clearly or effectively

Student Enrollment Form

1. Site Code _____ 2. Course ID_____

3. Name a. Last_____ b. First _____

4. Age ____ 5. Born in U.S. (Y / N) 6. Sex (M / F) 7. Hispanic (Y / N)

8. Race (a) White (b) Afr.Amer./Black (c) Asian/Pac.Isl. (d) Nat.Amer./Alaska Native (e) Other

9. Speak English at home (Y / N)

10. Years Formal School USA (1) None (2) 1-5 (3) 6-8 (4) 9-11 (5) 12 or more

11. Years Formal School Other (1) None (2) 1-5 (3) 6-8 (4) 9-11 (5) 12 or more

12. Years Adult Ed USA (Include Workplace Ed) (1) None (2) 1 (3) 2 (4) 3 (5) 4 or more

13. Union Member (Y / N)

14. How do you feel about (Check those that apply):

1) Very difficult for me
2) I do this a little but I need a lot of help
3) I can usually do this with some help
4) I can do this well but sometimes need a little help
5) Easy for me

a. ____ reading English

b. ____ understanding English

c. ____ speaking English

d. ____ writing in English

e. ____ working as part of a team

f. ____ using math

g. ____ identifying problems at work and knowing what to do about them

h. ____ your confidence to speak or try new things

i. ____ communicating clearly or effectively

15. Job Title _____

16. Earn on this job a. Per hour ___.____ b. Per year ____.____

17. Benefits
a. Paid vacation (Y / N)
b. Paid sick leave (Y / N)
c. Paid holidays (Y / N)
d. Health insurance (Y / N)

18. How long on this job a. Years_____ b. Months _____

19. Need to do following on job:

a. Read instructions ..... (Y / N)

b. Receive spoken instructions in English ..... (Y / N)

c. Speak English ..... (Y / N)

d. Work as part of a team ..... (Y / N)

e. Write in English ..... (Y / N)

f. Use Math ..... (Y / N)

g. Solve problems ..... (Y / N)

20. How many jobs:

a. Full time _____ b. Part time _____

Course Data: Please fill out a form for each course at the site.

1. Name of site: _____

1.a. Course start date:_____ 1.b. Course end date_____

2. Course identifier (phase, site, emphasis, level): _____

3. Total course/contact hours: _____

4. Planned number of students: _____

5. a. # of new students: _____ b. # continuing from another course _____

6. Instruction offered (one or more):
   - a. During workday (not lunch) Y / N
   - b. At lunch Y / N
   - c. Before or after workday Y / N
   - d. Weekends Y / N

7. Enrollment is open entry Y / N

8. Instructional format used frequently or always (one or more):
   - a. Small groups Y / N
   - b. Teacher-led Y / N
   - c. Student-led Y / N
   - d. Individualized Y / N
   - e. Other (please specify) _____

9. Type of service (only one):
   - a. Pre-literacy Y / N
   - b. ABE Y / N
   - c. Pre-ASE Y / N
   - d. ASE Y / N
   - e. ESOL Literacy Y / N
   - f. Beginner ESOL Y / N
   - g. Intermediate ESOL Y / N
   - h. Advanced ESOL Y / N

10. Service delivery model (one):
   - a. Tutoring one-on-one Y / N
   - b. Classroom-based teaching Y / N
   - c. Computer-assisted instruction (CAI) Y / N
   - d. Tutoring + CAI Y / N
   - e. Classroom-based + CAI Y / N
   - f. Other (please specify) _____

11. Percentage of curriculum that is customized uniquely for this course: _____ %

12. Percentage of teaching materials that come from this actual workplace: _____ %

13. Placement tools (one or more):
   - a. Standardized tests Y / N
   - b. Supervisor ratings Y / N
   - c. Student interviews Y / N
   - d. Job-related competency tests Y / N
   - e. Portfolios Y / N
   - f. IEPs Y / N
   - g. Other (please specify) _____

Site Data: Please fill out a form for EACH SITE at which you provide services.

1. Name of site: _____
2. Partnership: _____
3. Industry (H = health care, M = manufacturing, E = education): _____
4. # of instructors: _____
5. # of teacher aides: _____
6. # of counselors: _____
7. # of tutors: _____
8. # of people who volunteer their time: _____
9. # of hours contributed by volunteers: _____

10. # of instructors who are:
    a. White, non-Hispanic _____
    b. Black (African-American), non-Hispanic _____
    c. Hispanic _____
    d. Asian/Pacific Islander _____
    e. American Indian or Alaskan _____
    f. Other _____

11. Please fill out chart below with number of instructors in each category:

Teacher	Taught ESOL to youth	Taught ESOL to adults	Taught ABE	Taught in workplace
a.				
b.				
c.				

12. a. Did program serve students with learning disabilities? Y / N
    b. If yes, was special instruction provided? Y / N

13. a. Did program serve students with physical disabilities? Y / N
    b. If yes, did physical learning environment meet ADA standards? Y / N

14. Amount of NWLP funds for Period 5 $_____
15. Total non-NWLP cash match $_____
16. Total non-NWLP in-kind match $_____
17. # of employees at site _____
18. % of class participants who were required to participate: _____

19. % of workers in a union at this site:
    a. 50% + Y / N
    b. 50% - Y / N
    c. 0 Y / N
    d. Don't know Y / N

20. Check the types of partner that are in the partnership (all that apply):
    a. Community/technical college _____
    b. CBO _____
    c. University _____
    d. PIC (REB) _____
    e. Union _____
    f. Large business _____
    g. Small business _____
    h. Labor/mgmt non-profit _____

21. Please fill out the chart below for the partners at this site (skip the rest) .

	College	CBO	Univ	REB	Union	Small biz	Large biz	Labor/ mgmt
a. Attend PETs regularly								
b. Provide or pay for transportation								
c. Provide or pay for childcare								
d. Refer students to outside ed programs								
e. Provide students with ed counseling								
f. Conduct literacy job task analyses								
g. Assess students' literacy abilities								

22. Reasons for starting program (all that apply):
    a. Reduce error and waste Y / N
    b. Change in work organization or processes Y / N
    c. Attract new workers Y / N
    d. Health and safety requirements Y / N
    e. Labor agreement Y / N
    f. Changes in available workforce Y / N
    g. Workers requested Y / N
    h. Improve communication with ESOL employees Y / N
    i. Other Y / N

23. Incentives to workers (all that apply):

a. Partial paid release	Y / N
b. Complete paid release	Y / N
c. Cash bonus on completion	Y / N
d. Award ceremony on completion	Y / N
e. Award certificate on completion	Y / N
f. Overtime pay	Y / N
g. Other	Y / N

24. If there is partial paid release time, what is the percentage? _____%

25. On the basis of the IEP, how many students at this site have exited the program because they've accomplished their educational goals? _____

NWLP Wave VI--Period 5- Data Collection Tools

Methods/Tools to Collect Information
Please refer to these, by number, in the accompanying course and site outcomes forms

1. contextualized pre-, during, and post-tests
2. program records
3. company and/or union records
4. self-assessment by participants based on skills list
5. self-assessment by participants based on student and class goals
6. teacher observation
7. teacher and participant analysis of Individual Education Plans
8. minutes of Planning and Evaluation Teams
9. focus groups
10. Consortium's Plan of Operations at Consortium Advisory Council and P.E.T.meetings
11. internal evaluation and semi-annual performance reports
12. supervisor and/or steward survey
13. performances at completion ceremonies
14. demonstration of competencies/simulations
15. portfolios
16. anecdotes
17. video documentation
18. other (please specify) _____

NWLP Wave VI--Period 5--Outcome Data (by Course)

01. Partnership: _____ 02. Course ID: _____ 03. Total # in class: _____

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools used (by #)	C) # who've shown improvement	D) Comments: Please describe what your data collection has revealed that is not captured in the "# who've shown improvement."
<u>Participant Outcomes</u> 04. skill level in: a) general communication				
b) English				
c) reading				
d) writing				
e) basic math				
f) problem-solving				
g) analytical/critical thinking				
05. classroom learning is used on the job: a) general communication				
b) English				

NWLP Wave VI--Period 5--Outcome Data (by Course)

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools used (by #)	C) # who've shown improvement	D) Comments: Please describe what your data collection has revealed that is not captured in the "# who've shown improvement."
c) reading				
d) writing				
e) basic math				
f) problem-solving				
g) analytical/critical thinking				
06. self-confidence				
07. comfort in communicating with: a) patients or customers				
b) co-workers				
c) supervisors				
08. improve job performance				
09. understand the goals and purpose of the union				
10. leadership in union and labor/management committees				

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools used (by #)	C) # who've shown improvement	D) Comments: Please describe what your data collection has revealed that is not captured in the "# who've shown improvement."
11. understand the workplace and how it works, including worker rights and responsibilities				
12. knowledge of and ability to advocate for one's rights				
13. stay in program to continue working toward their goals				
14. advance to higher level class				
15. offer/accept advanced training opportunity				
16. receive award, bonus or other recognition				
17. receive GED				
<u>Effects of Learning on Job Status</u> 18. job responsibilities expand				

NWLP Wave VI--Period 5--Outcome Data (by Course)

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools used (by #)	C) # who've shown improvement	D) Comments: Please describe what your data collection has revealed that is not captured in the "# who've shown improvement."
19. receive pay raise				
20. job promotion or desired transfer secured				
<u>Transfer of Learning Beyond the Workplace</u> 21. learning transferred to the home				
22. learning transferred to the community				
23. other (please specify)				

NWLP Wave VI--Period 5 -- Outcome Data (by Site)

01. Partnership: _____ 02. Site code: _____ 03. Total # in class: _____

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools Used (by #)	B) Comments: Please describe what your data collection has revealed. Please note whether the data refers to education program participants or the entire workforce.
Effects of Learning on the Workplace 04. improved safety			
05. improved workforce retention			
06. improved morale and work satisfaction			
07. improved ability to work efficiently with co-workers			
08. improved workforce attendance			
09. increased incorporation of worker input and participation			
10. workplace is moving toward desired organizational change			
11. reduced waste/scrap			

NWLP Wave VI--Period 5 -- Outcome Data (by Site)

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools Used (by #)	B) Comments: Please describe what your data collection has revealed. Please note whether the data refers to education program participants or the entire workforce.
12. increased efficiency (e.g. reduced cycle time)			
13. reduced use of translators			
14. increased appreciation for diversity			
15. increased involvement in teams			
16. improved quality of goods or services			
17. other productivity gains (please specify)			
Partnership and Consortium Outcomes 18. project is integrated into organization's long-range planning			
19. project is institutionalized (i.e., resources for continuation are allocated)			

NWLP Wave VI--Period 5 -- Outcome Data (by Site)

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools Used (by #)	B) Comments: Please describe what your data collection has revealed. Please note whether the data refers to education program participants or the entire workforce.
20. services and/or partnership are changed (expanded, changed focus, etc.)			
21. materials and resources as described in the Consortium goals are developed and disseminated			
22. approach to programming is replicated in other areas of organization			
23. capacity of local partnerships to plan, implement, evaluate, institutionalize, and replicate programs is built			
Unanticipated Outcomes			
24. Please specify			

NWLP Wave VI--Period 5 -- Outcome Data (by Site)

Potential Outcomes	A) A goal for this class? (Y/N)	B) Tools Used (by #)	B) Comments: Please describe what your data collection has revealed. Please note whether the data refers to education program participants or the entire workforce.
25. Please specify			

APPENDIX G: Plan of Operation

PLAN OF OPERATION

An outline of major program activities
conducted to achieve the Consortium's determined goals and objectives,
the responsible parties for achieving those objectives,
and the anticipated time line for completing them.

Goal I: Enhance the productivity and quality of services at 27 businesses across the Commonwealth by improving the literacy skills of over 1200 employees annually.

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME		
			YR 1	YR 2	YR 3
1. To develop mechanisms for common governance at each partnership site and establish among Consortium partnership members a timeline for program implementation and an agreed-upon framework of tasks.	1.1 Upon notice of award, convene a one hour consortium-wide meeting with partnership coordinators to reinforce Consortium goals and implementation procedures.	Consortium Advisory Council and Consortium coordinator	month one		
	1.2 Establish and convene at each service site Planning and Evaluation Teams (P.E.T.s) that involve management, labor, educational staff and employees.	partnership coordinator	month one, afterwards meeting monthly		
	1.3 Hold a Consortium-wide day and half (ten hour) orientation meeting for all partnerships. Conduct sessions to orient all partnership teams to the project, its goals, and implementation guidelines. Include special workshops to address such matters as P.E.T. development, organizational needs assessment methods, long range planning for institutionalization, site-specific curriculum development and Consortium-wide curriculum frameworks development.	Consortium coordinator and assistant coordinator and SABES	month one		
	1.4 Conduct team building exercises with the active involvement of all P.E.T. members at each partnership worksite.	partnership coordinator	month two		
	1.5 Conduct an organizational needs assessment to identify issues that must be addressed within the worksite and to determine specifically where literacy training activities will help resolve these company needs.	P.E.T.	month two-three		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME		
			YR 1	YR 2	YR 3
1. (continued)	1.6 Agree upon and formalize common goals, standards of program quality, implementation strategies and anticipated outcomes in a formal document produced by each P.E.T. Identify base line data available or needed for internal formative and summative evaluation. Determine data gathering instruments to be used to evaluate the project.	partnership coordinator and P.E.T.	month three-six		
	1.7 Finalize the implementation plan and student learning arrangements at each site.	P.E.T.s	month three, afterwards each cycle		
	1.8 Modify and/or refine partner expectations and program implementation strategies as part of formative evaluation activities conducted by the P.E.T.	P.E.T.s	ongoing, revisited each cycle		
2. To generate shared commitment and involvement from all parties at each of the Consortium's 27 sites.	2.1 Announce the program to all company staff and conduct orientation sessions for upper management, involved supervisors, and all company workers to at each site. Work with union representatives in recruitment activities at union sites.	P.E.T.s	month three-four		
	2.2 Disseminate program information to specifically recruit workers for the team-based program development process.	P.E.T.s	month three, then ongoing with emphasis each cycle start		
	2.3 Provide program updates to management and supervisory staff during regularly scheduled staff meetings.	partnership coordinators and P.E.T.s	ongoing, at regularly scheduled company staff meetings		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME		
			YR 1	YR 2	YR 3
3. To attract the full participation of at least 1,200 employees in need of literacy services overall and the number specified in the "Service Profiles: Part I" (pp 73-75) at each worksite.	3.1 Develop and implement multiple recruitment strategies to target needy worker populations at each site utilizing the resources of the businesses and/or the relevant union partners.	P.E.T.s	month three, then ongoing with emphasis prior to each cycle start		
	3.2 Implement necessary counseling and support services to address barriers to employee participation. Identify and prepare class facilities for use. Address additional organizational barriers to full employee participation in the organizational needs assessment.	P.E.T.s	month three, services ongoing		
	3.3 Define and clarify for the participants' benefit the link between the project, the company's pre-existing employee training programs, the union agenda for training, and the promotional streams available to employees. Negotiate convenient instructional schedules and promote release time incentives.	P.E.T.s and local project staff	month three		
4. To develop a curriculum that tailors instruction to the specific needs of the workplace and workers at each site and to the literacy skills that will impact positively on workers' job performance and enhance their chances of advancement, as specified in Attachment II, "Individual Partnership Literacy Requirements and Skills Taught."	4.1 Conduct a literacy analysis of job and work processes (as part of the overall organizational needs assessment) at each site. Recognizing that each partner represents a different perspective, involve each (management/supervisory staff, workers and union representatives) in the identification of literacy skills required in the workplace.	P.E.T.s and local project staff	months two-three, revisited if new job requirements arise		
	4.2 Collect relevant work-related materials from all partners for incorporation in the curriculum.	P.E.T.s and local project staff	months one-four, then ongoing		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME		
			YR 1	YR 2	YR 3
4. (continued)	4.3 Conduct pre-, post-, and ongoing assessments of student skills to guide curriculum development.	project staff	beginning month four, then ongoing		
	4.4 Develop individual educational plans with each learner during teacher/student conferences to identify priority learner needs.	project staff and program participants	month four, then reviewed at least each cycle		
	4.5 Develop a site-specific curriculum for each course offered at each site.	project staff and program participants	beginning month four, modifications ongoing		
	4.6 Develop relevant instructional materials before each course begins.	project staff and program participants	month five, and continuing throughout project		
	4.7 Make curriculum adaptations based on student input and the results of evaluation activities conducted by the P.E.T.	project staff	ongoing, coinciding with cycle ends and evaluation reviews		
5. To provide quality workplace literacy services to 1,274 students per year using diverse instructional approaches and support measures. (See individual partnership services detailed in the "Service Profile Charts: Part II," pp 76-77)	5.1 Deliver a total of 9,949 hours of instruction per instructional year; 5,065 hours of workplace specific ESL, 3,884 hours of basic skills, and 1,000 hours of GED at 23 sites to over 1,200 employees at 27 businesses.	Consortium P.E.T., partnership P.E.T.s and partnership coordinators	starting month six at the latest, ongoing according to partnership schedule (see Service Profile Chart)		
	5.2 Provide a minimum of 5,000 student hours of educational counseling support services each year under the arrangements specified in the Service Profile Chart.	Consortium P.E.T., partnership P.E.T.s and partnership coordinators	beginning with learner's initial assessment, then ongoing		
	5.3 Complement the instruction of students with 7,520 student hours of additional volunteer tutoring (at 6 partnerships).	P.E.T.s at relevant partnerships	beginning with learner enrollment, then ongoing		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME		
			YR 1	YR 2	YR 3
5. (continued)	5.4 Initiate a program of one-on-one coaching to support the learning of approximately 45 students at 3 small business sites utilizing Commonwealth Literacy Campaign technical support.	P.E.T.s at relevant partnerships	developed months 1-6, services beginning month 6 and continuing through grant period		
	5.5 Implement programs of computer-assisted instruction will be implemented at 6 sites.	P.E.T.s at relevant partnerships	beginning month six, then ongoing		
	5.6 Supplement computer-assisted instruction at 5 sites with a 6 module instructional package focusing on basic literacy skills in the health fields utilizing the support of Lexicon. Deliver through Mass LearnNet accounts.	Consortium P.E.T., Consortium coordinator and Lexicon	developed		
				disseminated	
	5.7 Supplement instruction at 7 sites with a Consortium/MCET-developed workplace literacy instruction series deliveried via PictureTel tele-conferencing. Target literacy skills in health care, manufacturing, and service-related jobs in these shows.	Consortium P.E.T., Consortium coordinator and MCET	developed		
				disseminated	
6. To effectively monitor and assess learners' literacy skills improvements and evaluate the success of the program, the partnership, and the impact on the workplace according to the specific criteria established by each P.E.T.	6.1 Collect baseline data at each site regarding project participants, the partnership, and critical workplace factors identified in the organizational needs assessment to measure progress in regards to the established goals and objectives.	P.E.T.s	month three-six		
	6.2 Produce a baseline internal evaluation report to distribute to company management, team representatives, other partnership coordinators, and the Consortium coordinator and assistant coordinator.	P.E.T.s	month five-six		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTY	TIME FRAME		
			YR 1	YR 2	YR 3
6. (continued)	6.3 Review individual student progress with learners considering learners' achievement of goals in their Individual Education Plans and additional measures of progress established at each site. Measure progress using various methods: students' self evaluations, records of competencies attained, comparisons of any pre- and post testings, and learners' work portfolios.	project staff and program participants (reviewed by the P.E.T.)	beginning month four, reviewed at least each instructional cycle		
	6.4 Conduct formative and summative internal self-evaluations at each worksite to judge the quality of the training program, the success of the partnership and the impact upon the workplace. Base this internal evaluation on the standards of quality established by the P.E.T. during initial months of startup. Evaluate using different methods: a review of overall student progress, a thorough survey of all relevant parties (management/supervisors, union representatives, patients, worker etc) and others activities noted in the Section F. Evaluation Plan.	P.E.T.s	data collection beginning month four, then evaluation reviews each cycle, written reports produced each year		

GOAL II: Build the capacities of individual partnerships to implement responsive workplace literacy programs using a Consortium support model.

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
1. To establish Consortium-wide mechanisms for support and sharing of resources and effective operational models through bi-monthly meetings of the Advisory Council and monthly P.E.T. meetings.	1.1 Establish the Consortium Advisory Council and hold regular meetings among its diverse membership.	Mass. DOE	month one, afterwards meeting every two months		
	1.2 Recruit, select and orient Consortium staff and local partnership coordinators.	Mass. DOE and Consortium Advisory Council	month one		
	1.3 Establish the Consortium Planning and Evaluation Team (Consortium P.E.T.) and hold regular meetings. Include the Consortium coordinator, assistant coordinator and partnership coordinators. (Responsiblities are noted in detail in the Consortium P.E.T. Roles Chart)	Consortium Advisory Council and Consortium coordinator	month two, afterwards meeting monthly		
	1.4 Identify ongoing Consortium needs for staff training, P.E.T. development and support, program institutionalization, and curriculum development. Identify available resources within all Consortium partnerships to respond to these needs.	Consortium coordinator, assistant coordinator and Consortium P.E.T. members	month six, then reviewed monthly		
	1.5 Set an agenda for addressing the needs within the consortium using available State and partnership expertise.	Consortium Advisory Council and Consortium P.E.T.	month six, then reviewed each six months		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
2. To develop the abilities of educational staff in each partnership to provide customized, learner-centered workplace literacy instruction.	2.1 Assist local partnerships in recruitment and selection of qualified direct service staff.	Consortium coordinator/ assistant coordinator	month one	again as needed	
	2.2 Conduct the field-tested Massachusetts Workplace Literacy 20 hour mini-course for teaching staff within the Consortium. Include training topics on student assessment and evaluation, curriculum and materials development, and working in a business culture.	Consortium and SABES staff (Consortium staff = Consortium coordinator/ assistant coordinator)	month two	repeated yearly for new staff	
	2.3 Conduct partnership-developed orientations at each partnership site for all newly hired staff (15 hour minimum). Include a tour and introduction to the particular worksite, an overview of the learning provider's workplace education approach, and an introduction to the role of the P.E.T.	partnership coordinators and P.E.T.s	month two-three	repeated for all new staff	
	2.4 Produce and deliver a 16 hour liver interactive satellite of the mini-course (II.2.2) to new staff and make accessible to viewers in 48 states.	Consortium, SABES and MCET staff	month one-six developed, delivered during remaining contract period		
	2.5 Hold additional staff training sessions to respond to consortium analysis of partnership needs and use both state agency and Consortium member partnership expertise. (II.1.4-II.1.5)	Consortium and SABES staff	month six, repeated quarterly		
	2.6 Share partnership-produced materials, training documents, and staff experiences during 2 hour teacher sharing sessions held at 5 regional sites.	Consortium and SABES staff	month four, repeated every eight weeks		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
3. To support and enhance the function of individual partnership Plannning and Evaluation Teams in implementing, monitoring and evaluating their programs.	3.1 Provide up to 40 hours per year of technical assistance to each individual partnership at their request, drawing upon the skills of the Consortium coordinator and assistant coordinator, relevant state educational staff, and expert Consortium partnership staff.	Consortium staff and partnership coordinators	40 hours of technical assistance per partnership		
	3.2 Hold a P.E.T. development session as part of the ten hour Consortium-wide orientation for all partnerships. Include training sessions on conducting organizational needs assessments and on developing project goals, objectives, and quality indicators (I.1.3) to aid teams in their internal evaluation activities.	Consortium and SABES staff	month one		
	3.3 Hold a mid-contract conference training session to address issues of relevance to the P.E.T.s include such topics as team dynamics, partnership development, program implementation, monitoring and evaluation.	Consortium Advisory Council, Consortium P.E.T., and Consortium and SABES staff		mid-year	
	3.4 Oversee partnership activities in conjunction with State fiscal and monitoring staff.	Consortium staff	ongoing		
4. To share Consortium expertise in building workable curriculum frameworks and methods of documentation for the specific products listed in 4.1 to 4.5.	4.1 Hold an initial state-facilitated training/work session on curriculum development as part of the ten hour Consortium-wide orientation for all partnerships (I.1.3).	Consortium and SABES staff	month one		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
	4.2 Convene a curriculum working group of the Consortium P.E.T. to establish curriculum guidelines, to support curriculum development at individual sites, and to develop a broader framework for curricula linked to particular industries (ie. curriculum frameworks).	Consortium staff and curriculum focus group	beginning month two, meeting monthly thereafter		
	4.3 Disseminate information on curriculum resources and malerials via the Massachusetts Corporation for Educational Telecommunications LearnNet computer bulletin board service and the SABES resource centers.	Consortium staff, SABES and MCET	ongoing		
	4.4 Develop and pilot a 6 module computer-assisted instructional package dealing with the basic skills needed by entry level workers in the health field using the input of the curriculum working group. Modify the instructional package created by the Consortium-contracted, experienced developer of computer-assisted instruction programs based on initial test runs.	Consortium P.E.T. and staff, contracted CAI consultant and MCET	developed		
				disseminated	
	4.5 Develop and deliver a series of seven PictureTel video-conferencing programs to partnerships as part of a collaborative effort of the Massachusetts Corporation for Educational Telecommunications and the Consortium curriculum working group and individual partnerships. Orient teachers to the medium in program one, and target literacy skills in health care, manufacturing and service-related jobs in the remaining six.	Consortium P.E.T. and staff, contracted consultant and MCET	developed		
				disseminated	

GOAL III: Promote the institutionalization of workplace literacy programs at the 27 businesses involved in the Consortium.

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
1. To maintain and expand the business financial commitment ($1.7 million/year), involvement and participation during the 3 year grant.	1.1 Hold regular P.E.T. meetings involving participation of the business partner(s) to insure the instructional system responds to the needs in the workplace.	partnership coordinators	month two, then monthly		
	1.2 Identify quantifiable measures of impact and cost-benefits to include in cummulative evaluation processes.	partnership coordinators and P.E.T.s	month three, then reassessed yearly		
	1.3 Design instructional programs to link up effectively with pre-established company training programs and/or anticipated future training needs.	P.E.T.s	month three, then reassessed yearly		
2. To orient nine local partnerships to the NWLP goals and to identify possible scenarios for institutionalization.	2.1 Organize a Consortium-wide session on institutionalization for business, labor, education and learner representatives as part of the ten hour orientation for all partnerships (I.1.3) Involve previous NWLP grant recipients who successfully institutionalized their programs and offer case studies of individual partnerships that have used a regionally-based, industry-specific or other collaborative models to overcome barriers to institutionalization. Promote the use of an organizational needs assessment to fit literacy programs into the bigger picture of a company stategic plan.	Consortium and SABES staff	month one		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
3. To provide technical assistance to each small and medium-sized Consortium business partners per year so that they achieve their institutionalization goals.	3.1 Convene regular meetings of the institutionalization focus group of the Consortium Advisory Council to develop scenarios/support models that will help small businesses in the Consortium to institutionalize and that will take into account the relevant needs, available resources and identified barriers.	Consortium Advisory Council and Consortium staff	month two, afterwards meeting every two months		
	3.2 Provide on-site assistance to each partnership P.E.T. to help them conduct an organizational needs assessment and develop a workplan and time table to integrate their literacy program into the company's workforce training and budgetary strategies. Provide such assistance as part of the 40 hours of technical assistance provided each year to each site (II.3.1).	Consortium staff, institutionalization focus group, partnership coordinators	40 hours of technical assistance per partnership, including quarterly checks on progress		
4. To inform the development of a policy framework for institutionalization of Consortium programs.	4.1 Research the different successful scenarios used by previous NWL program recipients to institutionalize their programs.	Consortium P.E.T. and staff, and institutionalization focus group	ongoing		
	4.2 Document and dissemminate the critical program elements and cost analyses studies by the institutionalization focus group (III.3.1 and III.4.1) to all Consortium members.	Consortium staff	yearly, based on internal and external evaluation reports		
	4.3 Provide information on NWL programs to policy makers are currently researching the appropriateness of employer tax credits for small businesses.	Consortium staff	ongoing		

GOAL IV: Strengthen the Consortium effort through the use of an independent, external evaluation of the Consortium and its individual partnerships.

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
1. To supplement the internal evaluation mechanisms of each partnership with a comprehensive external evaluation of the entire Consortium effort and all its partnerships.	1.1 Select external evaluators through a competitive process to perform a comprehensive external evaluation of the individual partnerships, the Consortium, and individual Consortium project efforts.	Mass. DOE, Consortium Advisory Council, and Consortium staff	month one		
	1.2 Refine the evaluation plan through a collaboration among the contracted evaluators and Consortium representatives, and include both process and outcome evaluations.	Consortium staff	month one-six		
	1.3 Submit a proposed project evaluation design for the entire project period to the US DOE Secretary.	Consortium coordinator and external evaluators	prior to end of year 1		
	1.4 Share interim and final evaluation reports produced by the external evaluators with individual Consortium partnerships.	Consortium staff and external evaluators	following each report		
	1.5 Submit a summary of evaluation activities to the US DOE Secretary and the Program Effectiveness Panel.	Consortium coordinator and external evaluators			prior to end of year 3
2. To reinforce the development of the Consortium's workplace literacy services through the provision of yearly structured external feedback.	2.1 Carefully review external evaluation reports. Revise, as necessary, individual P.E.T. goals, activities and operating procedures to respond to issues raised in the evaluation reports.	P.E.T.s and Consortium staff	following each yearly report		
	2.2 Review external evaluation reports for additional commentary. Identify "best practices" among partnerships.	Consortium Advisory Council	following each yearly report		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
2. (continued)	2.3 Share external evaluation reports for all sites at a mid-project conference of all Consortium partnership members. Discuss revised activity plans suggested by the Consortium P.E.T.	Consortium Advisory Council, Consortium P.E.T. and staff, and SABES		mid-year	

GOAL V: Produce and disseminate information on exemplary workplace partnerships, delivery models, curricula, and industry-specific literacy materials.

Please note: A detailed explanation of the dissemination methods to be used and the specific audiences with which Consortium materials and practices will be shared is included in the Section H. Demonstration.

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
1. To document the workplace literacy curriculum used in each partnership (or developed for use among partnerships) and disseminate these replicable industry-specific materials and curriculum frameworks to ERIC, State Literacy Resource Centers, and other appropriate dissemination networks.	1.1 Document the curriculum in use at each partnership site utilizing the support network established in II.4.	P.E.T.s and program staff	ongoing, final document at contract close		
	1.2 Produce video instructional programs targetting the needs of Consortium employees working in the health, manufacturing and service fields (II.4.5).	Consortium P.E.T. and staff, and MCET	developed		
				delivered	
	1.3 Develop and pilot a 6 module computer-assisted instruction package (II.4.4).	Consortium P.E.T. and staff, Lexicon and MCET	developed		
				disseminated	
	1.4 Televise via satellite the 16 hour Consortium-sponsored teacher mini-course (8-two hour shows) for practioners in workplace literacy (II.2.4).	Consortium P.E.T. and staff, and MCET		developed and delivered	
	1.5 Consolidate the curricula produced at partnership sites into a common curriculum framework document.	Consortium PET and staff, and curriculum focus group		documented and disseminated	
	1.6 Document the technical assistance provided by the Commonwealth Literacy Campaign (I.5.4) and reproduce and distribute training materials created.	Consortium staff and CLC		documented and disseminated	

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
1. (continued)	1.7 Document and distribute materials resulting from the initial day and a half orientation training conducted in month one of the project (I.1.3) and the individual partnership-developed worksite orientations for education staff conducted in month two/three (II.2.3) for reference and use by other workplace programs.	Consortium staff and Partnership educational staff	year one		
	1.8 Document and disseminate material resulting from the mid-conference training sessions on Planning and Evaluation Team dynamics, partnership development, and program monitoring and evaluation (II.3.3) for use by other workplace programs.	Consortium staff		end of year 2	
	1.9 Reproduce and distribute all other exemplary Consortium-produced materials.	Consortium staff	throughout grant period		
	1.10 Collect all relevant Consortium-produced educational materials and curricula for inclusion in the System for Adult Basic Education Support (SABES) resource bank/library and the New England Literacy Resource Center (NELRC).	SABES and NELRC	throughout grant period		
	1.11 Review and distribute exemplary curriculum materials collected as part of the Consortium teacher sharing sessions (II.2.6.).	Consortium P.E.T. and staff, and Consortium Advisory Council	month four. repeated every eight weeks		

OBJECTIVES	ACTIVITIES	RESPONSIBLE PARTNERS	TIME FRAME		
			YR 1	YR 2	YR 3
2. To identify and document exemplary practices, methods and program partnership models (taking advantage of exemplary practices identified during internal and external evaluation activities and regular Consortium meetings).	2.1 Produce interim and final reports of all project activities (including the internal evaluation study results) and submit for review by Consortium staff and the Consortium Advisory Council.	P.E.T.s	yearly		
	2.2 Produce and disseminate external evaluation reports that review the individual partnerships, the Consortium, and support project activites (MCET, CLC, SABES, Lexicon CAI curriculum development) to the appropriate parties.	External evaluators	yearly, (two interim and one final report)		
	2.3 Analyze evaluation results and identify program and partnership models that achieve clear positive outcomes and that exemplify "best practices".	Consortium Advisory Council, Consortium P.E.T. and staff	yearly, based on internal and external evaluation reports		
	2.4 Produce and share a preliminary analysis at a meeting of all Consortium representatives.	Consortium staff		mid-year	
	2.5 Produce and disseminate a final document summarizing the analysis of internal and external evaluations incorporating Consortium representative input at the mid-contract conference. Summarize findings in a simple flyer for easy distribution.	External evaluators			end of year
	2.6 Produce and submit for publication articles summarizing several of the promising elements of the Consortium project. Include topics on the Consortium approach to the needs of small businesses, the active roles of learner participants in PETs, and the development of an assessment tool kit for partnerships. Submit proposals for workshop presentation and state and national conferences in similar topic areas.	Consortium staff		mid-year	end of year

APPENDIX H: Revised Guidelines for Curriculum Documents

Revised Guidelines for Curriculum Documents

Curriculum Working Group
Massachusetts Workplace Literacy Consortium

For each curriculum document, please include:

- A description of your teaching context (workplace, class level, size, ESL or ABE, etc.)

- A description of your curriculum development process:
  - how you have elicited and incorporated student input and needs
  - how you have elicited and incorporated input and needs of other stakeholders
  - how you have elicited and incorporated workplace topics and materials
  - methods you used to assess student progress and effectiveness of your teaching

- An example of a challenge you learned from; what you would do differently

- A sample "chunk" of your teaching activities. So that other teachers can get a sense of your class, please describe:

  - how the topic was chosen
  - teaching/class goals
  - list of skills addressed
  - time frame
  - processes and activities used
  - original materials used (please attach)
  - assessment tools used, if any (please attach)
  - examples of homework, if any (please attach)
  - reflections on the lesson
  - how your teaching approach is reflected in the lesson(s)

- A list of topics covered in your cycle

- A resource list of published materials (texts, photos, etc.) you found helpful

The Curriculum Working Group is made up of teacher representatives from each of the seven Consortium partnerships around the state.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
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