CLASSROOMS in the WORKPLACE

Workplace Literacy Programs in Small and Medium-Sized Firms

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An Introduction to Workplace Literacy Programs

A remarkable phenomenon is occurring in a small number of workplaces across America. It is possible to walk into these firms and find, on premises, classrooms—complete with chalkboards, audiovisual equipment, textbooks, and reference libraries. Furthermore, if you happen to visit one of these classrooms during an instructional period, you are likely to observe a class in reading, writing, or arithmetic. In many of these companies, you would be able to find at least one individual working toward his or her high school diploma or preparing for the General Educational Development (GED) examination. Is this phenomenon like a pebble dropping into the ocean, creating a small ripple that will quickly dissipate? Or is it the beginning of a wave that will gather energy and create an impact that will be widely felt?

This monograph does not predict what the answer to these questions will be, but it does present a systematic, baseline picture of workplace literacy programs. A key emphasis of the monograph is on programs in small and medium-sized business (fewer than 500 employees). The monograph is an outgrowth of a study of workplace literacy initiatives in such places as Michigan, but much of the material is of a general nature (coming from national databases or from prior literature) and applies to firms of any size and to all workers.

Economists classify the job training given to employed individuals as being either specific or general in nature. Specific training imparts skills and knowledge, which economists refer to as human capital, that would not be transferable outside of the worker's current firm. Learning a firm's system for storing inventory or watching a co-worker operate a piece of equipment that is part of a firm's production process are examples of specific training. General training, on the other hand, comprises human capital that is transferable to other firms and jobs. For example, taking a formal course in computer spreadsheet software or blueprint reading are forms of general training.[1] The workplace literacy

programs examined in this monograph are a type of general training. That is, they impart knowledge and skills that are transferable across jobs. The Upjohn Institute study in Michigan defined workplace literacy programs as:

> programs that provide training—separate from regular job activities—in one or more of the following: reading and writing English, mathematics, speaking and understanding English, problem solving, and interpersonal skills. Such a program may take place at the work site, somewhere else, or a combination of both.

The subjects listed in the definition are broad and can be taught at a great many levels of complexity and sophistication. And indeed, the levels of instruction taking place in the workplace vary widely across firms. It might be useful, then, to distinguish between workplace education and workplace literacy. Workplace education is a broader category that includes workplace literacy. It might be defined as programs provided to employed individuals that offer training, separate from job duties, in academic subjects. In site visits to firms, Upjohn Institute project staff observed programs offering instruction in calculus, thermodynamics, physical chemistry, and the Japanese language. The subject matter of these programs places them within the bounds of workplace education, but their complexity extends beyond the notion of workplace literacy.

This study is concerned with programs that offer the more basic levels of instruction defined here as workplace literacy. Whereas literacy connotes reading and writing, the definition used in this study is broader in scope. Considerable public interest is being shown and resources invested in enhancing our national literacy rate (implicitly defined as the proportion of people with adequate reading skills), and a part of that effort is focused on the workplace. However, employers' and workers' needs extend beyond, although they also include, reading and writing to areas of mathematics (including arithmetic computation, measurement, and elementary geometry and statistics), problem solving, communications, and interpersonal skills.

Confining the monograph to workplace literacy programs rather than workplace education is of little practical consequence. The programs observed as part of the Upjohn Institute study and the literature

in the area suggest that workplace literacy comprises most of workplace education.[2]

Workplace literacy programs are often delivered in conjunction with job-specific training. The impetus for the training comes from implementation of a significant change in the workplace. For example, a firm may reorganize its production processes or implement new technology. In the course of making such changes, employers find that their employees have basic skill deficiencies that retard or block effective implementation. Employers respond to this discovery by initiating a program to upgrade basic skills as necessary. Usually coupled with the skills upgrading is the requisite training to achieve the changes that management started out to implement.

Workplace literacy programs are a relatively new phenomenon. Of course, general job training, and even corporate education programs (see Eurich 1985), have long histories. Adult education and general literacy concerns have similarly been around for several years. However, it is only during the last few years that the workplace literacy programs of interest in this study have arisen.

A confluence of factors may explain why companies are now finding a need to provide instruction in basic skills. First of all, virtual revolutions in transportation and communications have resulted in global competition. U.S. firms, which once had comfortable domestic market shares, now have to compete with both domestic and foreign counterparts. Many firms have responded dramatically to these competitive pressures. Such responses have come to be known as the transformation to "high-performance workplaces" and have been well documented.[3] Firms are investing in technology, reorganizing workforces into self-managed teams, and implementing quality control and just-in-time production processes. These transformations require considerable flexibility and adaptability from workers. Employers are finding that some workers lack the basic skills to make the transition, however. Coincident with increasing competitiveness has been the transition into what has been called the information age. Microprocessors and computers have penetrated virtually every aspect of work—from design to production to support services and provision of management information.

Using and coping with computerized operations requires basic literacy and numeracy skills that a significant share of employees simply lack.

On the supply side, another contributing factor to the emergence of workplace literacy programs is the declining quality of traditional forms of education. A sizable share of individuals are leaving the educational system with considerable deficiencies in basic skills. For example, over one-third of first-year postsecondary attendees are taking a remedial or developmental course. Another factor that needs to be taken into account is the increasing diversity of the overall labor force. The Latino share of the U.S. population is growing much more rapidly than either the Caucasian or African American shares. Asian and East European populations are also burgeoning. Many individuals from these ethnic groups enter the labor force without English language skills and must be accommodated through training or other means.

In short, employers are faced more and more often with a workforce that lacks the skills to adapt to necessary changes or to understand written or verbal communication. Many have chosen to attack the problem through literacy programs, and it is these programs that are studied here.

Few studies have systematically assessed workplace literacy programs, which is not surprising given their relative infancy. The lack of scholarly examination is particularly true for programs involving small- and medium-sized businesses. This monograph is intended to provide information about these programs and to contribute to an assessment of their effectiveness. Specifically, the monograph uses case study and survey data evidence to address the following questions:

- What is the extent of need for workplace literacy programs? What share of workers have basic skills difficulties? For which specific skills are workers deficient? What are the characteristics of workers with skill difficulties?
- What is the incidence of workplace literacy programs? What proportion of firms offer them? What are the characteristics of firms that offer programs? Why do firms offer programs? What reasons do firms without programs offer for not having them?
- How are workplace literacy programs characterized? How many workers participate in them? What are the characteristics of the

workers who participate? Who instructs the programs? What sorts of curriculum and instructional approaches are used? How much do they cost? Where are they offered?

- How effective are workplace literacy programs? To what extent do they improve the basic skills functioning of workers? To what extent to they influence firm-level outcomes? To what extent do they enhance the earnings or job stability of program participants?
- Finally, is there a role for public policy in the encouragement or regulation of such programs? What roles, if any, do the federal, state, and local governments play in facilitating workplace literacy programs? What types of assistance can and should governments offer?

The following chapter addresses the theoretical basis for workplace literacy programs and considers the issue of whether or not public support is warranted. The question of interest is the extent to which employers, employees, or society should bear the cost of such programs. Chapter 3 presents a description of a study undertaken in Michigan that is the source of much of the evidence in the rest of the monograph. The fourth chapter begins to relate the empirical evidence about workplace literacy programs and specifically addresses the need for such programs and their incidence in business and industry. It includes a comparison between firms with programs and those without and examines the motivations governing decisions to offer programs or not. In Chapter 5, programs and program participants are described. The chapter includes discussion of curriculum, instructional approach, and cost of offering programs. Chapter 6 turns to evidence about the effectiveness of workplace literacy programs—addressing issues such as the impact on acquisition of basic skills, the impact on workers' attitudes and job performance, and the impact on company outcomes. Finally, Chapter 7 contains a summary of key findings and presents policy recommendations.

NOTES

1. The concepts and analysis of specific and general training are attributed to Gary Becker. See Becker (1975). Ehrenberg and Smith (1985) have an excellent exposition of these concepts as well. Note that the concepts of specific and general training are susceptible to two sources of confusion.

First of all, employer-provided training is not dichotomous, but rather spans a spectrum from specific to general—in almost all instances, some aspects of training will transfer to other jobs, whereas other aspects will not. Second, training that is intended to develop general human capital, such as the workplace literacy programs studied here, may rely pedagogically on very specific job-related contexts.

2. This situation could change over time. If workplace literacy programs and educational reforms were able to enhance significantly the skills of the future labor force, then employers may turn to higher level general training.

3. See Abt Associations (1991), for example.