

An Early Review of the H-1B Skills Training Grant Program

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1. Background on Information Technology (IT) Skills Shortages and the Roles of Education, Training, and H-1B Visas in Addressing Them

While the recent deflation of the stock market bubble has received special attention, the concurrent shakeout in the IT-intensive segment of American business has particular implications for skill needs. It may represent a pause in rising demand for workers with computer skills, a phenomenon that drove the expansion of the H-1B visa program during the 1990s.

The difficulty that many employers said they faced in finding skilled workers in the 1980s led to the creation of the H-1B visa program in the Immigration Act of 1990. Under this provision, up to 65,000 workers could be admitted each year on 3-year visas, renewable for another 3 years. During the mid to late 1990s, firms building and using computer hardware and software expanded their use of the H-1B program. Employers and other representatives of IT-intensive industries were in the forefront of those claiming that not enough U.S. workers possessed the requisite skills and that more workers were needed from abroad. For an analysis of IT workforce issues, see Committee on Workforce Needs in Information Technology, October 2000.¹

The number of available H-1B visas was increased to 115,000 per year for fiscal years 1999 and 2000 as part of the 1998 American Competitiveness and Workforce Investment Act (ACWIA). To help increase the supply of skilled U.S. workers over the long term, and thus lessen dependence on imported workers, Congress also mandated a fee of \$500 per visa, of which 56 percent was earmarked for skill training grants administered by the Department of Labor (DOL). The 115,000 limit on visas was reached about three-fourths of the way into Fiscal Year 1999, and about half-way into Fiscal Year 2000. The visa limit was increased to 195,000 per year for Fiscal Years 2001, 2002 and 2003 as part of the American Competitiveness in the 21st Century Act, passed in October 2000. As of March 7, 2001, the Immigration and Naturalization Service reported that approximately 72,000 worker visas had been approved against the 195,000 ceiling for Fiscal Year 2001, which began on October 1, 2000. This represents a pace about that of Fiscal Year 1999, but recent media reports indicate a slowdown in hiring in the industry, which could mean that the higher visa limit will not be reached. IT-sector firms have been by far the largest users of H-1B visas, with over half of individuals approved for visas coming from India. Another major sector of the economy that has made use of H-1B workers since the start of the program is health care.

U.S. workers and their advocates have argued that employers should make greater efforts to upgrade, train and retain a U.S. labor supply. To help address this concern, DOL in 1999 issued a Request for Proposals to provide training programs using the H-1B funding stream. Additional October 2000

legislation increased the H-1B visa fee from \$500 to \$1,000 and stipulated that 55 percent of the fee was to fund education and training for the occupations most in demand.

DOL awarded the first 43 H-1B skills training grants during Calendar Year 2000. Each grant is for 24 months, and the maximum grant amount is \$3 million, with a total of \$95 million committed. The grants focus on providing technical skill training in information technology and health care occupations to both employed and unemployed workers. Some of the grants are particularly targeted on groups under-represented in high-skill IT jobs, such as women, minorities and individuals with disabilities.

The 1998 legislation required that grantees must be Workforce Investment Boards (WIBs) or operating entities, such as area One-Stop Centers. Matching funds of at least 25 percent of the grant must be provided from non-Federal sources. In order to meet this requirement and, more importantly, to improve the chances for project success, grantees are collaborating and forming partnerships with an array of organizations in their local workforce training communities, employers and their associations, trade unions, and both private and public educational institutions. Grantees and their partners are using one or more training strategies, such as classroom learning on either a term or open entry basis, distance education, condensed versions of academic coursework, employer or industry-based certifications, and work experience programs. Some training is tailored to specific firms, other programs are casting a broader net. In order to get a sense of how these initial programs are doing, DOL asked KRA Corporation (KRA) to study a small number of them. This report is a revised version of the document on which KRA's June 1, 2001, presentation to the H-1B Grantees Conference was based.

2. The H-1B Projects Are In Early Stages of Implementation

Our report is based on field visits to, and examination of materials from, six of the 43 first year grants. Two grants were selected from each of the three rounds of funding. We also attempted to get a geographic spread, as well as including two grants targeted to healthcare workers and four grants targeted to information technology workers. The priority tasks for the site visits included: determining the context in which the project originated; following the project's implementation history; confirming the roles played by the various partners; understanding how participants enter and move through the training process, and how services are delivered; and documenting how any major challenges have been resolved.

This report should be regarded as a snapshot of where the six projects visited were in the Spring of 2001. Because the sample is small and non-random we cannot reliably generalize about the state of all of the 43 projects, but based on this and similar reports KRA has completed for DOL, we believe that some common qualitative elements would be found in a complete examination. Moreover, by benchmarking six grantees' performance at this early date, the remainder of the group can better gauge their own progress and perhaps obtain some ideas on helping their own programs work more smoothly.

The grantees whose projects we visited are (funding round in parentheses):

- The Workplace, Inc., Bridgeport, Connecticut (1)
- Philadelphia Workforce Development Corporation, Inc., Pennsylvania (1)
- Louisville and Jefferson County Workforce Investment Board, Kentucky (2)
- Houston-Galveston Area Council, Gulf Coast Workforce Development Board, Texas (2)
- Kansas City Full Employment Council High Skills Consortium, Missouri (3)
- South Dakota Department of Labor (project centered in Aberdeen, South Dakota) (3)

We are grateful for the cordial reception and cooperation we received during each of the six visits. A summary comparison matrix of the projects is presented in the appendix. Comments and findings from these visits and KRA's review of material obtained in connection with them form the basis for the short descriptions following in sub-sections 2.1 to 2.6. Section 3 highlights various practices we observed that seem to promise good results. The fourth main section looks at some cross-cutting dimensions of grantee performance, while the last section presents some conclusions and suggestions for the second and third round of analyses that DOL is funding.

2.1 The Workplace, Bridgeport, Connecticut

This project is a collaboration, in which the main partners are The Workplace, which operates the One-Stop Center in Bridgeport; Norwalk Community College; Pitney-Bowes, Inc.; and Pepperidge Farms. Pitney-Bowes and Pepperidge Farms are the two lead employers. At present, training is being provided just to incumbent workers at Pepperidge Farms and Pitney-Bowes. The project design calls for extending the training to employees of other firms and to unemployed and displaced workers. Some job openings are expected to materialize as newly trained incumbent workers are promoted. Both technical skills and interpersonal skills training are offered on the employer's site; as additional employers are recruited to the project, it is expected that at least some of them will establish on-site training centers of their own, and other firms will be able to send their employees to centers providing the kind of training they need.

The technical courses currently available for incumbent workers at the lead firms include some modules in manufacturing processes, e.g. demand planning and quality control, modules in information processes, and general accounting. Trainees typically have medium to high levels of skills such as math and English. Once occupational standards have been certified by the National Skill Standards Board (NSSB), both manufacturing and IT training under the grant are to be linked to NSSB criteria. Employers can then feel confident that program graduates actually possess the skill sets needed for productive employment.

The Bridgeport One-Stop Center provides a variety of support services, such as assessment,

counseling, development of individual service plans, individualized job search assistance, and an automated case management system. The case manager also assists customers in developing resumes that can be updated as new training is received and as job duties change.

At Pepperidge Farms, the firm offers classes or workshops in interpersonal areas such as diversity training, presentation skills, and interviewing skills. In general, the current focus for the founding member firms is on helping their workers move up internal career ladders. As more firms are added, and as training is targeted on dislocated and new entrant workers, both the challenges and the potential to upgrade the workforce will increase. Because all participants are incumbent workers at present, both recruitment and placement are taken care of, but both of these functions will assume greater importance as the project broadens its intake and seeks new employers.

2.2 Philadelphia Workforce Development Corporation (PWDC), Philadelphia, Pennsylvania

The PWDC is the grantee for this project, which is operated by Philadelphia Hospital and Health Care District 1199C of the American Federation of State, County and Municipal Employees (AFSCME). Philadelphia Hospital and Health Care District 1199C (1199C) has been providing or financing training ranging from basic skills to registered nurse qualification to its members for over 20 years. A Training and Employment Fund is financed by employer contributions. More recently, the Fund has also received several grants from the Departments of Labor, Education, and Health and Human Services, which have allowed 1199C to enroll non-members in its programs as well.

The goal of 1199C's array of programs is to build a better-functioning career ladder system for area health care workers. For someone climbing the ladder from the bottom rung, a worker first becomes a Certified Nurse Assistant (CNA), then attends the union's Licensed Practical Nurse (LPN) school while working part-time or an appropriate full-time shift, and finally is supported by the training fund and her or his employer in a post-secondary program leading to the Registered Nurse (RN) certification. The most common experience is for a worker to make one move up the ladder, e.g. from CNA to LPN. The H-1B grant is being used both to enroll more students, especially those entering the field, and to provide additional or better support, case management and reimbursement for tuition and related expenses. Many students have training costs paid by their current employers, with a commitment on the students' part to work for the same employer for two years after graduation. Other students enter the program through the welfare-to-work program. Such students typically have lower skill levels and require additional support services compared to those already working in the health care field.

Both technological and organizational changes are helping drive increased demand for more nurses and related personnel with higher levels of skill. The area's hospitals and nursing homes and 1199C see the task as one of developing skills all along the supply chain. Accordingly, the Training Fund provides remedial and preparation classes on an open-entry/exit modular basis to help individuals qualify for the CNA and LPN programs. The first class of LPN students began in March of 2000

and will graduate in September 2001. The experience with and feedback from this class has caused the second cohort, which began in December 2000, to be offered a 20-month course instead of the first cohort's 18 months.

Program administrators told KRA that job openings for graduates at all levels were plentiful, with staff shortages reported by many area hospitals and nursing homes. A final plus for this project is 1199C's long-established reputation in and linkages with the local workforce development community. In order to market its programs, 1199C participates in career fairs organized by other agencies as well as hosting events at its own training center in downtown Philadelphia. Conversations with several participants during the site visit indicated high levels of satisfaction with the program – the students felt that the effort they needed to make was worth it in furthering their careers, and praised the staff as both caring and competent.

2.3 Houston-Galveston Area Council (H-GAC), Gulf Coast Workforce Development Board, Texas

This project is a good example of how H-1B funding can serve as a “critical mass” around which a number of agencies, employers and educational providers can coalesce. The three leading organizations are H-GAC, which operates 33 One-Stop Centers in its 13-county area, the Quality Software Development Institute (QSDI), part of Texas Southern University (TSU), and Call Center Solutions, Inc. (CCSI), a private contractor. Training in software development is provided at QSDI, while H-GAC concentrates on referrals, support services and case management. CCSI handles recruitment of participants, orientation, assessment, case management, job development and placement functions. Additional collaborators include Resource Management Associates, which teaches professional development classes (soft skills), employer groups which advise on course content, and the Houston Community College System, which provides continuing education credit and certification services.

Classes begin at approximately monthly intervals, with two shifts each day: the morning shift attends from 9 am to 4 pm, while the afternoon shift is from 1 pm to 8 pm. During the overlapping 3 hours, the two groups are combined for lectures, guest speakers and professional development classes. The actual software development training is scheduled for the first part of the morning shift and the last part of the afternoon shift. This arrangement provides for more intensive use of the computer lab and allows some flexibility for students who need to work part time. The classes run for 9 months, divided into three 3-month segments. A student can choose to exit and seek employment at the end of either of the first two segments. The curriculum is a condensed version of the course taught in the TSU computer science department, with the first segment concentrating on the fundamentals of software development, the second on applications to different business environments, such as web applications or database management. In the third segment, students work as teams on real world problems, allowing the development of a portfolio of student work that can be reviewed by potential employers. The ability to customize training for specific employers is especially relevant in this segment.

The project appears to be on track to meet its placement, wage and customer satisfaction goals. Some of the promising practices that have helped it to do well so far include:

- A recruitment/application/orientation process that acts as a screen for motivation; individuals have to attend several different meetings, provide appropriate documentation, and have screening interviews to be enrolled in the program. The first two classes combined totaled about 100 students, out of 500 initial applications.
- Downplaying the mathematical requirements and emphasizing the literacy and communication aspects of software development to induce more people to enroll. Women and members of racial/ethnic minority groups with less in the way of math background, in particular may screen themselves out under the impression that the math content of IT jobs is beyond them, but only 8th grade math is required by QSDI.
- The use of fast track training to prepare people for IT jobs in a relatively short period of time (9 months compared to the 2 years needed in the regular college schedule). Such accelerated training is often especially attractive to dislocated workers, who often feel the need to get back into the labor market as soon as possible.
- Learning about the technical skills needs of employers by direct contact with hiring managers rather than solely relying on employers' human resources staff who may not be sufficiently knowledgeable on the technical side. The Houston Area Technical Advisory Council also plays a role by directly advising the program and by helping bring more employers into contact with the program. Program staff reported that placement prospects for trainees are excellent because of this focus on workplace skill needs.

2.4 Kansas City Full Employment Council High Skills Consortium, Missouri

The High Skills Consortium consists of three major groups: The Full Employment Council (FEC), which operates the area One-Stop Centers; the employer partners; and local community colleges and other training providers. In addition to the Consortium partners, a large number of other agencies and organizations are linked to the project. A distinguishing feature of this project is that all participants will either be incumbent workers or workers newly hired by a partner firm who will receive training during the early months on the job. That is, there will be no placement after training. At present, incumbent training is getting started for employees of the three major partner firms in the consortium, Hallmark, Sprint, and H & R Block. The Regional Consortium for Technology and Information Exchange (RCTIE) is conducting a survey of training needs of small, mid-sized and

minority-owned businesses. RCTIE will be the broker for customized training services for smaller companies once these are determined by the survey.

FEC received the grant award on January 10, 2001, about 3 months before KRA's site visit. Council staff has negotiated agreements with the three major employers, and Sprint and Hallmark have begun some training of incumbent workers. H&R Block's peak season is the few months before April 15, so that it had not yet started training. Given FEC's strategy of placing new workers prior to training, recruitment and assessment become key parts of the project strategy. A three-phase selection process will be implemented, at least for the three major employers. One-Stop Center case managers will screen dislocated workers and others entering their centers for essential basic skills, computer skills, and interest in IT training. A second screening will be performed by the High Skills Consortium project manager to determine which individuals to refer to which firm. Employers will then interview candidates and make hiring selections. New hires may receive on-the-job training while waiting for a class to start. A similar selection process to be used in placing workers with smaller employers is being developed by RCTIE.

2.5 South Dakota Department of Labor, Skills Enhancement and Education through Distance Learning (SEED) Project, Aberdeen, South Dakota

The genesis of the SEED project was the difficulty faced by Avera Healthcare Systems in recruiting and retaining staff for its facilities in Aberdeen and 9 other communities in rural northeastern South Dakota. A key component of the project is using distance learning techniques to deliver training to incumbent healthcare workers and other area residents interested in such jobs. Distance learning will be combined with on-site classes and work experience, to provide academic and clinical training to employees studying for Licensed Practical Nurse, Registered Nurse, Bachelor of Science in Nursing, and Medical Specialist occupational certifications. Most training will be provided by Presentation College and Lake Area Technical Institute, local accredited institutions using already developed health careers curricula.

As a third round grantee, work on the project was not very far along at the time of KRA's site visit. Indeed, the newly-hired project director did not come on board until March 19. Training classes are supposed to begin in June. Avera and its partner facilities have already identified a number of current employees who are good candidates for training. Work on the project is actually more advanced than the short time since grant award would suggest, because Avera and its partners had been developing the distance learning strategy for some time before the H-1B grant competition was announced. Under this plan, employee-students will be trained to use computers located in the health care facilities where they work.

While the training providers are located in the northeastern part of the State, interest in the project is Statewide, both in terms of potential training collaboratives in other parts of the state and in terms of health care employers who will likely attempt to recruit graduates. To the extent that graduates move out of the region, the number of trainees will need to be greater than the number of local

openings. In the language of economists, such a process generates external benefits to other areas, by augmenting the supply of human capital throughout the State. The project has already established relations with Statewide employer groups.

2.6 Workforce Investment Board, Louisville-Jefferson County, Kentucky

This project is the exception to the generally excellent performance KRA has observed as implementation unfolds. Briefly, very little has happened in the over six months since this grant was announced. The original proposal was to provide support through individual training accounts to upgrade the skills of 200 incumbent IT workers identified by their employers and basic IT training to an additional 175 participants who want to enter the field.

KRA was told that about 40 potential entrants to IT occupations were recruited by Board staff when the grant was announced last summer, but none were enrolled before earlier project staff left; it was not clear if these individuals were dislocated workers. The current project manager was hired in January 2001, and is attempting to recruit new participants and solicit employer involvement. Partnership agreements have been signed with two neighboring One-Stop agencies, but not with the One-Stop operator in the Louisville area itself. Discussions have been underway between the grantee and ETA, and it is to be hoped progress can resume. Observations and conclusions in the remainder of the paper will thus be based on operations at the first five sites discussed above.

3. Promising Practices

This sub-section will highlight one particular facet of each site's operation that seems to be important in how well the program will do. First however, we want to draw attention to a common important factor across all five operating sites reviewed. That is the combination of committed program staff with strong involvement from employers and unions in the local community. The impetus for several of these projects came from the private sector, which saw the H-1B training grants as a vehicle for helping to deal with staffing problems in generally tight labor markets. From the point of view of the WIB/One-Stop community, the availability of skill training grants is part of the tool kit that needs to be advertised and demonstrated as beneficial to employers, so as to see workforce development as an ally in dealing with skill needs. Other practices include:

- **The Workplace**—A network of on-site skill centers will make it easier to combine hands-on training with classroom instruction. Transportation problems and family time constraints make separately-located classroom facilities less accessible to workers.
- **Philadelphia WDC**—Employer financing in exchange for a commitment to work after training addresses a financing problem that may keep otherwise talented workers from upgrading their skills, and provides employers with some assurance that they will benefit from the training through more-productive employees.

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- **Houston-Galveston Area Council**—The project’s recruitment strategy emphasizes English skills over math skills in software development. The project found that some participants believed that their weaker math background disqualifies them from IT jobs. In fact, the entry requirements are for 10th grade English skills, but only 8th grade math skills.
 - **Kansas City FEC**—Providing training only to those already hired by participating firms gets around post-training placement issues. The approach puts greater stress on pre-hire skills assessment before referral to the hiring firm.
 - **South Dakota SEED**—The project uses distance learning to reach scattered, small numbers of students for whom standard-size classes are not realistic. Workplace training for advancement helps retention as well as recruitment.

4. Cross-cutting Issues From the Sites

As an early snapshot of what is, or is not, happening in the implementation of the H-1B skills training grant program, KRA’s site visits have yielded some observations, which will be discussed in terms of the following dimensions: targeting of participants; targeting of occupations; determining the level and intensity of skills training; obtaining employer buy-in and the collaboration of other members of the community; and, adjusting the program as needed.

4.1 Targeting Participants

Our observations under this heading focus on three elements: training for incumbent workers; attempts to recruit under-represented groups; and the role of skills assessment.

Until fairly recently, Federal employment and training programs did not support training for incumbent workers, but were focused on dislocated and disadvantaged workers. State-financed, customized training programs for incumbents are found in almost all states. For historical background, see Creticos, Duscha and Sheets, 1990.² The H-1B grants do allow for incumbent training and upgrading, and each of the five projects about which we have information makes incumbents a priority group. The targeting of incumbents is a logical step considering the extent to which employers (and unions) have been involved in project planning and implementation. The sites working with just one (South Dakota SEED), two (The Workplace), or three (Kansas City FEC) employers in the early stages of the project are currently training incumbent workers only. Philadelphia and Houston-Galveston, which are working with a wider array of firms, are enrolling dislocated and disadvantaged participants from the start as well as training incumbents.

Recruiting under-represented groups is a common element for the three IT projects, most notably for Houston-Galveston Area Council. IT has been a sector less likely to draw workers who are women and/or African-Americans or Hispanic-Americans. In health care,

of course, women are more than proportionately represented, with minorities especially numerous in the lower rungs of the career ladder.

A third targeting element is the acknowledgement of the need for careful skills assessment in order to determine who can benefit from the training on offer. Philadelphia, Houston and South Dakota provide remedial or pre-vocational classes for individuals who do not fulfill the training criteria when they first apply. Open entry/open exit programs can be individualized to take people from where they are to where they need to be in order to begin training with some reasonable chance of success.

4.2 Targeting Occupations

This dimension is one in which the health care and IT projects need to be discussed separately. The two health care projects are operating in very different labor markets—the densely populated Philadelphia metropolitan area and the sparsely populated northeast corner of South Dakota. Both projects, however, are concerned with issues of retention and upgrading. The core job structure in hospitals and nursing homes has remained relatively fixed (nursing assistant, LPN, RN) even as skill demands within each occupation have increased and workload pressures have reflected constraints imposed by third-party payers. Employers in both areas have chosen to increase investments in the human capital of their respective incumbent workforces, in addition to recruiting new workers.

The three IT projects happen to be in three different periods of implementation, with The Workplace project furthest along, Houston-Galveston in the middle and Kansas City most recently under way. The Workplace and Kansas City share an initial occupational targeting approach of focusing on the internal labor markets of two or three major employers. Houston-Galveston is providing software development training that is, or can be, customized to particular employers mostly during the final three months of the course, but has a more extensive array of employer partners in place. This is not to say that The Workplace or Kansas City will not evolve in the direction of a broader set of occupational choices; it is certainly in their project plans. The point to be made about both the IT and health care projects is that they are paying careful attention to the interaction between the skills participants bring and the skills occupations require.

4.3 Determining the Level and Intensity of Skills Training

Another way of referring to this topic would be “designing appropriate curricula once occupational choices have been made.” By definition, participants enter a program at a level of skill below that at which they would be fully productive in the occupation. The larger this skill gap, the greater is the training task, for two reasons. First, the more, or more sophisticated, the material, the greater the time needed to deliver and comprehend it. Second, the lower the technical skills level from which participants begin, the more likely it is that they do not initially have the study skills to be able to handle the course.

Any training program has to reconcile the range of abilities among its targeted participants with the skill sets it wants them to master and how much time is needed/available to do so.

From the student perspective, the duration and weekly time demands affect his or her work opportunities and the time horizon for qualification. The following provide illustrations of this:

- The Quality Software Development Institute in Houston’s program requires 10th grade reading skills and 8th grade math skills for entry into a nine-month course that runs 7 hours a day, 5 days a week. Such a schedule typically precludes full-time employment.
- The Philadelphia District 1199C program for Licensed Practical Nurses has a duration of 18-20 months, with classes meeting 4-10 p.m. two week days per week plus 7 a.m. – 3 p.m. on both Saturday and Sunday on alternate weekends. This model allows students to maintain their full-time jobs.
- When incumbents are being trained, as in Kansas City, the extent to which training is on “company time” versus student’s non-work time is an issue that can be resolved in different ways.

For both training provider and student then, there are tradeoffs among diverse goals of timeliness, skill level and commitment that have to be reconciled with the hiring needs of employers. It is important that these tradeoffs be addressed up front, realizing that any particular configuration has implications for the kinds of students attracted and for their likelihood of completing the course.

4.4 Obtaining Employer Buy-In and the Collaboration of Other Members of the Community

The five functioning H-1B grant projects we visited are notable for the central role played by employers. In particular, the initial emphasis has been on upgrading already-employed workers, which requires working with firms in a much more detailed way than if a training agency were focusing primarily on marketing its graduates to employers for whom the individuals had never worked. In a tight labor market, retention increases in importance compared to a labor market in which there are many qualified jobseekers. An organization that can make its employees more productive while minimizing turnover will gain a competitive edge.

A second feature of the five projects, which is related to the specifications under which the grants were awarded, is that the grantees, and program operators, where these are different entities, are already ensconced in their local workforce development networks. This should mean that they know, and are known by, their peers in the community. The importance of this kind of credibility cannot be overestimated in securing the cooperation of other agencies. One way in which it is crucial is in the time lags involved in designing and implementing a project. If there are already

Memoranda of Understanding, or informal working agreements, between the grantee and agencies with which it must collaborate, the time needed to customize a relationship concerning the H-1B project will be less and the likelihood of “consummate cooperation,” instead of “perfunctory cooperation,” will be that much greater.³

4.5 Adjusting the Program as Needed

Programs are like species—those that best fit themselves to the environment through evolution will be more likely to survive and thrive. Among the changes needing to be anticipated, going from most general to most specific, are changes in general economic conditions, changes in government policies or regulations, and changes in the industries and employer labor markets targeted by the program.

In a dynamic economy, dislocated workers are always seeking new jobs even when the overall unemployment rate is low, as it has been for the past several years. We now appear to be in a period of uncertainty, if not actual recession, which could alter the level of overall labor demand. The recent surge in IT layoffs could have several effects on the demonstrations, e.g.: (1) more individuals may be interested in upgrading their skills as a way of improving job prospects; (2) a larger number of qualified individuals may be available for teaching jobs that have been hard to fill in a tighter labor market; and (3) employers may feel that they can hire enough experienced workers from the ranks of the dislocated, and reduce their support of the demonstrations. Obviously, the first two possibilities would be favorable developments while the third would be an adverse development.

The major element to be considered in government policy change is the possibility of change in the H-1B visa program itself. To the extent that the use of such visas drops in response to business conditions, the funds available for the skills training grants will also be reduced. The ceiling of 195,000 worker visas per year is scheduled to drop, but could be maintained if employers exhibit strong needs for temporary immigrant workers. (The visa level cannot drop below 65,000 due to U.S. international commitments.)

Program adjustments are likely to be needed to the extent that projects shift from the early focus on incumbent workers to involving other targeted worker groups, and the circle of employers is broadened beyond the initial partners. For the IT projects in particular, rapidly changing technologies mean that the skill sets demanded by employers will not remain stable, even if employer turnover is not a problem, and instructional changes will be needed to provide appropriate training. It is entirely possible that a particular course is relevant only once. Because up-front costs of equipment and curriculum development can be substantial, consortia of projects across areas might be a useful way to spread such costs so that networking among grantees is encouraged for this as well as other reasons.

Shifts in the project's support service mix can also be needed as a result of changes in participants' backgrounds. A higher proportion of unemployed versus incumbent workers could require projects to provide more support services, both monetary and counseling. Similarly, the importance of job development could increase as fewer participants have previous linkages with employer sponsors.

4.6 Are Workers Being Trained to H-1B Visa Holders' Levels

Skill level is an issue of special relevance for the H-1B projects. Rationales for funding these programs include lessening the reliance of employers on importing temporary workers, either in the short run or in the longer run. In the short run, direct substitution of domestic for imported labor would seem to require that domestic workers be trained to the same skill level as the visa workers they replace. In the longer run, it is possible that the skills training grants provide domestic workers with footholds on the lower rungs on the skill ladder, making it feasible for them and their employers to invest more in higher-level training. These outcomes cannot be fully evaluated until firm behavior is surveyed after the grant-funded participants graduate. However, if one standard is taken to be the bachelor's degree level possessed as a minimum by most visa holders working in information technology (IT), the closest approximation of the three IT projects visited is the Houston-Galveston software development training. The two health care projects are providing training at multiple skill levels, of which visa holders are most likely to be at the top, i.e., technicians and registered nurses. Augmenting the supply chain from below is likely to take a number of years.

5. Conclusions and Implications for the H-1B Skills Grant Program

In general, five of the six sites we visited had begun implementing their projects in the first months of their grants with no serious problems. Their ability to get up and running smoothly is in part a reflection of the fact that they were largely based on pre-existing, rather than newly-formed, relationships. Useful guidelines for establishing and sustaining effective working relationships are offered by the National Association of Workforce Boards.⁴

The term "snapshot" has been used to characterize this report, evoking the sense of capturing something in motion. The usefulness of a such a picture depends on both what it has in the frame and the sharpness of its focus. The questions that we ask determine what is in the picture, and our skill at interpreting the answers gives the report its focus.

Our previous experience with workforce development programs means that we focused on some dimensions that we believe to be central to effective implementation. These dimensions were discussed in the preceding sections. There are other areas that may be partly obscured in our current picture, or may be only partly in the frame, which seem worth further study by the two evaluation groups that will be following us. The next few sections discuss these issues, which seem to us to be worthy of additional consideration.

5.1 Assessing the Impact of H-1B Skills Grants on the Workforce Development System

In 1998 and 1999, DOL funded two sets of demonstration programs, the first focused on training dislocated workers for information technology occupations and the second on training for manufacturing technology occupations. KRA is currently in the final stages of its evaluation of these two sets of projects. A major objective of the demonstrations, which is shared with the H-1B training grants, is to determine whether the workforce development system can effectively respond to the skill needs of high-tech employers. The H-1B visa program of importing skilled workers for up to 6 years is one way of responding to the skill needs of such employers. The evolving system of skill certifications, which largely exists outside the formal educational sector, is another kind of response (see Adelman, 2000).⁵ The Workplace, Kansas City and Houston-Galveston IT projects represent efforts on the part of the workforce development system to work with, rather than in parallel to, employers' own skill development systems. All five sites exhibit the importance of developing and maintaining contacts with employers, other training institutions and the governmental agencies tasked with improving the system as a whole. Among the working relationships that seem most useful to foster are: soliciting input from employers on skill needs through advisory meetings, e-mail surveys and plant visits by program staff; identifying and communicating with certifying organizations and developers of skill standards; making sure that One-Stop Center and other employment security agencies are aware of, and working in accord with, provisions that allow dislocated workers to engage in full-time training while collecting unemployment benefits; and developing mentoring and internship programs that provide support and meaningful hands-on experience to trainees.

Because the skill sets needed by employers in the high-tech sector change in response to rapid technological change, workforce development program responsiveness will be under greater stress than has been the case in training for jobs in more traditional sectors. Further work is needed on best practices in curriculum development; in particular attention must be paid to keeping training programs current. The five H-1B projects' early concentration on incumbent workers means that employer linkages to training will be tighter than if enrollees were drawn solely from dislocated workers.

5.2 Assessing the Impact of Training Grants on the Use of H-1B Visas

The objectives of the H-1B skills training grants include reducing the need to import skilled workers from abroad. Funding has been allocated with the expectation that the larger the flow of training grant graduates into the labor market, the less will be the number of visas, holding the general state of the labor market constant. Grantees and potential grantees have expectations as well, having to do with the stability of the funding stream as a source of support for their programs. Given the current and likely future levels of H-1B visa use, and thus of funding, the H-1B skill training demonstration grants can be viewed as being an important part of the skills training landscape for the foreseeable future. The issue then becomes to what extent programs produce graduates who

substitute for workers brought in under H-1B visas. This issue should be addressed in the large-scale evaluation recently awarded by DOL.

5.3 Assessing the Sustainability and Replicability of Successful Demonstrations.

The goal of a demonstration should be to test models that may be put into practice in other parts of the country or in varied labor market circumstances. Sustainability refers to the continued operation of the projects, possibly in modified form, as part of a longer-run approach to skills development. DOL has a phased research plan focused on the H-1B grants. This initial “snapshot” will be followed by a second implementation study that will go into the field later in 2001. A third research contract has recently been awarded for a larger scale, three-year study. This third study will have time to look at what happens to the initial projects after the termination of their grants and track which ones become incorporated into ongoing operations. It is clear that in both IT and health care, skills development problems will not be eliminated by a recession, if one should come, and will become even more crucial as expansion resumes. Grantees that develop ways to address these problems should not have major difficulty in obtaining financial support from private and public sources so that investment in projects now can have long-term payoffs for the organization.

Replicability refers to what will work in different labor markets, and under what conditions. For example, of the two health care projects visited for this report, the 1199C program in Philadelphia operates in an area of substantial unionization, with all organized employers contributing to the training fund, while in South Dakota, Avera Health Care is the major health system operating in the northeast corner of the State. In both circumstances, there is a limited potential for “free riders,” employers who are not paying for training but are able to benefit by hiring away trained workers. The degree of employer financing in these two projects may not be transferable to a non-unionized, multi-employer setting. In the context of DOL’s expectation of funding 50 or so new grants each year under the H-1B funding stream, consideration should be given in future cycles to supporting attempts to replicate successfully operating projects from earlier cycles.

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References

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² Peter A. Creticos, Steve Duscha and Robert G. Sheets, *State-Financed, Customized Training Programs: A Comparative State Survey*. A Report Submitted to the Office of Technology Assessment, United States Congress. September 30, 1990.

³ Oliver E. Williamson, Michael L. Wachter and Jeffrey E. Harris, "Understanding the Employment Relation: The Analysis of Idiosyncratic Exchange," *The Bell Journal of Economics*, 6:1 (Spring 1975): 250-275 (the distinction between consummate and perfunctory cooperation is on p. 266).

⁴ National Association of Workforce Boards, *Workforce Boards in Transition, Special Edition*, 2000.

⁵ Clifford Adelman, *A Parallel Postsecondary Universe: The Certification System in Information Technology*, Office of Educational Research and Improvement, U.S. Department of Education, October 2000.

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Appendix
Program Dimensions, H1-B Grantees

Program Dimensions, H-1B Grantees

Grantee	Delivery Model	Occupational Focus	Participant Skill Levels	Enrollment Difficulties	Open Entry or Term	Soft Skills and other Support Services	Employer Involvement	Partnerships and Linkages	Placement Prospects
The Workplace, Bridgeport, CT (Round1)	Employer-based Certified Skills Centers using National Skill Standards Board standards	Manufacturing technology and information technology, at present concentrated on upgrading incumbent workers.	Medium-high,	Not at present, incumbents are only participants	Customized classes at Norwalk Comm. Coll. or firms	Integrated into curriculum	Pitney-Bowes and Pepperidge Farm are part of collaboration, with CEO involvement	One-Stop network, region Chamb. Of Commerce, Community-based organizations	All incumbent workers to date, backfill jobs expected with promotions
Philadelphia,PA Wrkfrce.Dev. (Dist. 1199C) (Round 1)	Union-operated training facility providing career advancement options for incumbent and new workers in health care	Attempting to strengthen career ladder for healthcare workers. Training for Certified Nurse Assist., Lic. Pract. Nurse and Reg. Nurse, plus basic skills classes to help people qualify	Low - High, varies with level, 7th gr reading/math for LPN	No, strong workplace demand for upgrading	Classes for CNA,LPN,RN open-entry/ exit for basic skills training	Soft skills part of training for welfare to work group, supports available as needed for all	Strong-- many trainees funded by employers with job guaranteed after completion	Union/WDC/ One-Stop links for welfare-to-work, existing collective bargaining partners	Excellent, area hospitals & nursing homes facing staff shortages
Houston- Galveston Area Council, TX (Round 2)	Tex. South.Univ. software institute providing IT skills training, private co's recruit, assess, place and provide employability skills	9-month course in software development for web applications, client services software and database management systems	Medium, 10th grade reading, 8th grade math required	No, over 500 applications yielded 100+ entrants to first 2 classes	3 three-month terms, exit for job search possible after each term	Soft skills integrated into curriculum; some limited funding for transportation	QSDI Consortium, Houston Area Technical Advisory Council on skill needs	Grantee's One-Stop centers help recruit, screen for eligibility	Good, training is focused on specific needs according to hiring managers
Workfrce Inv. Bd. Louisville- Jefferson Co. KY (Round 2)	Training planned through Individual Training Accounts for both incumbent workers and others without IT background	Not yet determined -- no participants have been enrolled as of 4/01	Not yet determined	Recruitment not yet on track	Not determined	Not determined	Employer recruitment just getting under way as of 4/01	Two of three area One-Stops have agreed to participate	Unknown as of 5/01

Grantee	Delivery Model	Occupational Focus	Participant Skill Levels	Enrollment Difficulties	Open Entry or Term	Soft Skills and other Support Services	Employer Involvement	Partnerships and Linkages	Placement Prospects
Kansas City, MO Full Employment Council (Round3)	Initially, IT Training for employees at three major area employers through Full Employment Council (KC One-Stop agency)	Technical support, system analysis and programming, data communication and networks, graphic design	Medium-high, target under-represented groups in IT	Incumbent workers or new hire status to enter training	Customized to specific firms, on-site class + training in work setting	New hires thru One-Stops eligible for WIA support services	Hallmark, Sprint, H&R Block are startup firms, smaller employers to be included	FEC One-Stop network and its partner agencies; Reg. Consort. For Tech./Info. Exchng	Excellent, trainees must be on firm payroll to enter class
South Dakota St. Dept. of Labor, SEED Project (Round 3)	Distance learning for health care workers in smaller communities in NE S. Dakota, plus training in facilities of Avera Healthcare Systems	LPN, RN, BSN, Medical specialist (technician), plus basic skills training as needed prior to entry -- focus on individuals likely to stay in area	Medium	Not anticipated, main target is incumbent upgrading	On-site classes plus distance learning	Dislocated workers eligible for WIA support services	Project lead by Avera Healthcare Systems	Grantee One-Stop network, Lake Area Tech. Institute, Presentation College	Good, Avera expects to hire most grads for its 10 facilities