

# **Developing Effective Management Information Systems to Support Workforce Development Efforts**

Susan Gewirtz, Annie E. Casey Foundation

and

Robert Harrington, Metis Associates

November, 2000

This research brief is the third in a series of updates related to issues and advancement for low-income residents and lessons learned from the Annie E. Casey Foundation's Jobs Initiative.

The authors wish to express their thanks to the Jobs Initiative site directors, Anne St. George (Abt Associates), Kim Huff (Metis Associates), and Ed Hatcher (The Hatcher Group).

## **Introduction**

Workforce policymakers and practitioners dedicated to connecting low-skill people to jobs have long operated in an environment without good data to support management, policy-making, and the development of standards. There are, of course, various reasons for this historical under-investment in good data. At the project level, for example, a program designer might undervalue the usefulness of data or delegate the development of Management Information Systems (MIS) to a “techie” in their organization in order to lighten a workload consumed by programmatic work. Even more likely, the project is under-funded and does not have a qualified staff person to develop an MIS system. At the federal level, the former Job Training Partnership Act required most programs to track participants for only 90 days. In short, a huge gap exists between data-driven policy concerns and our actual ability to assess how well workforce development programs are performing. With the new Workforce Investment Act of 1998 and the pending reauthorization of federal welfare legislation, the need for good data to help us know what works for different populations only becomes more critical.

It is within this context that the AECF Jobs Initiative decided from the outset to create high standards related to collecting quality participant-level data and to using that data to support ongoing self-assessment at the site and national levels and for in-depth cross-site research and evaluation. In their policy brief *Getting Results: Outcomes Management*, Robert Giloth and Bill Phillips note that the Jobs Initiative committed itself to a results-driven framework. Ongoing assessment focuses on critical participant milestones and targets that are set by each site. These milestones/targets -- related to

enrollment, placement, and three, six, nine, and 12-month retention goals -- have driven the development of an MIS that can track their achievement and generate reports useful to local implementers and investors. Collecting and reporting on the data is the first step in a process that requires analysis, interpretation, and that leads to program adaptation and redesigns. The second purpose of a MIS is to help the Foundation, the sites, and the larger workforce development field learn about what works and doesn't work. As of June 2000 -- and after nearly four year of implementation -- the database contains good information on about 10,000 participants and approximately 4,800 placed individuals. This "hard" data, along with such qualitative data as case studies and ethnographic research, will enrich our understanding of what types of strategies to connect low-wage workers to good jobs are likely to succeed.

This paper is the third of a series of policy and practice papers to be disseminated by the Jobs Initiative in an effort to share what we learn as we learn it. These papers are not "how-to guides" but are intended to share lessons learned, raise new and emerging issues, spark innovation, and suggest better practice and policies. Through the investor perspective, this paper will provide an overview of the Jobs Initiative and its experience in investing in data management systems. This paper focuses on quantitative data collected and reported through sites' MIS. Although not emphasized in this brief, we certainly recognize that even good data has its limitations, and that qualitative information is also critical to help implementers and policy makers understand why program elements are effective or ineffective and to tell the stories behind the numbers.

**The Initiative at a Glance.**

The Annie E. Casey Foundation's Jobs Initiative is an eight-year, six-site demonstration effort designed to help low-income residents living in designated neighborhoods find jobs that pay family-supporting wages. The regions funded by the Initiative are: Denver, Milwaukee, New Orleans, Philadelphia, St. Louis, and Seattle. The first three years of Jobs Initiative operations were represented by a "capacity-building phase" and focused on developing and implementing jobs projects that connect inner-city residents to good paying jobs and enable them to reach one-year labor market attachment. The next four years represent a "full implementation phase" and focus on achieving systemic changes to improve the odds that inner city residents in these regions would achieve long-term labor market attachment with opportunities for advancement. During the first phase, a considerable amount of data related to participant characteristics, placement, wages and retention has been collected. During the first three-year period ending March 2000, the six sites collectively enrolled 9,774 people and placed 4,288 in employment. Average hourly wages for these individuals at the point of their placement was \$9.14. On average, JI participants experienced hourly wage gains of approximately \$1.50 from their pre JI employment to their current jobs. For those people who were placed long enough ago to have reached these retention milestones, labor force retention at three, six, and 12 months was confirmed by the sites for 78%, 68% and 54% of participants, respectively. Several projects have demonstrated one-year retention rates above 65%.

**Getting Off to an Early and Quick Start.**

Given the priority placed on achievement of placement and retention targets in the short-run, AECF began investing in an MIS strategy while sites developed their initial Strategic Investment Plans. During this 18-month planning period, the Foundation contracted with the New York-based consulting firm Metis Associates to work with the Foundation, sites, and Abt Associate evaluators to determine an approach to MIS. As described above, the database would have multiple purposes but would be driven by the outcomes framework. We wanted to implement an MIS relatively quickly in order to capture early enrollment and placement data from sites.

We proceeded to look at MIS with five objectives in mind. First, the MIS should promote self-assessment at the site level and at AECF. Second, used in conjunction with clearly defined targets, the MIS would help implementers and investors stay focused on results. Third, it should enable all levels of site implementation staff to participate in continuous improvement through access to data. Fourth, we envisioned that the data would allow AECF and local investors to hold sites accountable for results in a public and transparent way. Finally, the quantitative data would serve as the foundation for a national evaluation of the capacity-building phase. AECF wanted to demonstrate success or failure based upon participant outcomes related to jobs, wages and one-year labor market retention.

The first set of activities involved deciding what data to collect. It was a messy six-month process with the evaluators, MIS consultants and the AECF all proposing what the MIS design should look like. Too many meetings were spent on discussions of “data

warehouses” and connecting our MIS to AFDC, JTPA and other information systems. While connecting to other systems and understanding their data and outcomes is important, sites needed to start with the basics of tracking participants in their own jobs projects. The process became more orderly and productive when we began to focus on the outcomes framework, which dictated that each site be able to track placement and retention milestones for participants. With the newfound clarity, the Foundation and the evaluators determined the terms necessary for management and evaluation.

While we knew enrollment, placement, and one-year retention were the three result areas we would measure, we did not create tightly defined operational terms at this time. Without the operational experience, it was difficult to be exact, or know precisely what all the questions were. (This lack of specificity created additional challenges for sites as they were getting their MIS up and running). After AEFCF and the consultants developed a proposed data dictionary, the next steps included a period of negotiation with site directors to lock in the data variables they would collect. While we wanted a rich data set for measuring results and long-term evaluation, we did not want to create an onerous data collection process for sites. Several sites stressed that they did not want to be perceived as “another government program” with long assessment forms that discourage participants. For example, several sites explained that many participants are reluctant to answer questions related to family income and public assistance.

As the planning phase came ended, Metis formed a working group with site representatives to select a software package that would support participant tracking. The group needed a package that was user-friendly and could be up and running quickly. Four of the sites elected to go with FLX-HR and one site with considerable technical

capacity (Milwaukee) designed their own FileMaker Pro based system. (The final site remained in an extended planning phase and, therefore, postponed choosing a software package.) The decision to go with an off-the-shelf product took into account tradeoffs related to costs, timeliness, and ease of use. AECF was open to site variation in systems, but required that all sites collect specified data and report it out quarterly in the agreed upon format. Funding support was provided to Metis to work with sites and to purchase the necessary software package. Sites also used part of their annual AECF investment to contribute to the necessary purchases. These cost included the customizations needed to support the JI site needs. On average the FLX system cost each site \$6,500 to purchase the package and each site's share of customization costs amounted to \$2,750.

Getting the MIS operational involved steps and missteps. It was important to finalize the data dictionary, design data collection forms and processes, and train local staff on MIS procedures. Some of these efforts occurred prior to actually starting data collection and reporting, but more often much of this designing, training, and clarifying developed, in a trial-and-error fashion. In addition to the data challenges, sites were engaged in the intensive project start-up issues of enrolling, training, and placing people in jobs. Overall, the Jobs Initiative sites developed a centralized approach to database entry and quality assurance. Data collection, however, was conducted in a decentralized way by community-based organizations and training providers at the time of enrollment. Data collected on pen and paper forms were submitted to the JI intermediary for entry into the MIS. One site found that undertaking the data entry function with a partner agency only complicated the process.

Early experience with FLX was mixed since the software package turned out to be more difficult to use than sites had anticipated. Milwaukee with its own in-house expert got off to the quickest start. Reporting in particular presented challenges to sites. Two sites, Denver and Seattle, began placing people in the Fall of 1996 before the data dictionary and FLX systems were fully operational. Metis assisted sites in providing interim reports and then in working with FLX. By October 1997 Seattle and Denver were using the FLX. Philadelphia followed in January 1998, and then St. Louis as they began enrolling and placing JI participants in April 1998. Each of the JI sites had its MIS running within 12 months of their jobs projects becoming operational.

#### **Important Milestones for Developing the MIS**

- Seattle and Denver begin enrolling participants: Fall 1996
- Metis distributes final data dictionary: May 1997
- Metis distributes data collection procedures: June 1997
- Quarterly reporting format finalized: Summer 1997
- Sites clarify enrollment and placement targets: July 1997 – October 1997
- Operational definitions for enrollment, placement and 3, 6, 9, and twelve-month retention distributed to sites from AECF (see attachment 1)  
Spring/Summer 1997
- Two more sites begin enrolling participants: Spring 1997
- Denver submits prototype of quarterly progress (pre FLX): July 1997
- All five operational sites submit quarterly reports (pre FLX): October 1997
- FLX generated reports submitted to AECF: Winter/Spring 1998
- Data analyzed for completeness for each site: January 1999
- Quarterly quality assurance reporting goes into effect: March 1999

## **Ensuring High Quality Data**

While getting the sites' systems operational was challenging, of equal importance was producing and maintaining good participant level data. This meant paying attention to common definitions, instituting data quality standards, and monitoring data compliance. It took us a while to define clearly operational measures, particularly with respect to retention. For sites with a large volume of participants and numerous partners involved in data collection, AECF modifications of terms and data requirements meant retraining of staff and changes in data collection forms. Our final operational definition of retention called for gaps of no more than 30 days in between jobs or the equivalent over the course of a year (see Attachment 2). Special definitions were developed by sites for seasonal jobs such as construction that are based upon yearly income, resuming work in the spring, and participation in apprenticeships.

Beginning in mid-1998, Metis, at the request of AECF, informally reviewed the completeness of data being collected by sites. From this review, we saw that early implementation sites -- Seattle and Denver -- lacked substantial information for participants who enrolled prior to November 1997. During that early period, definitions were not yet clear, forms had not been fully developed, and staff training was not implemented. Between the Fall of 1998 and early 1999, Denver and Seattle went back to clean out this part of their database, a process facilitated by AECF developing clearer standards of what we meant by "good" data. For all sites, we adopted the standard that in all high priority areas, missing data must be below 20% (see attachment 3).

The Foundation made quality of data a key indicator of site progress by 1998.

During 1997, we provided more carrots (TA) than sticks as incentives for sites in this area, but, by the following year, we began to tie the submission of good data to future grant payments. While we believed, and still do, that good data is essential for local self-assessment, and that sites would “naturally” share this perspective, the Foundation began to wield the stick in an effort to maintain high quality data. In fairness to the JI sites, they were struggling with implementation issues related to establishing relationships among partners, changes in welfare policy, and the day-to-day challenges in operating jobs projects. As described in the introduction to this paper, the workforce development field has not been data driven, and the Foundation probably overestimated sites’ and their CBO partners’ capacity in this area. In a strongly worded memo to all JI site directors in September 1998, therefore, we restated the value of data to the Jobs Initiative. “It is important for us to remember that the purpose of the capacity-building phase is to demonstrate that jobs projects can be effective in connecting young adults to good paying jobs that are retained for at least one year. We can only demonstrate that with good data.” The memo also notified sites that future payments would be held up unless the MIS requirements were met and sites engaged in meaningful self-assessment using that data. In addition to this “tough investor” approach, we also asked Metis to work with sites, to provide assistance and training as needed.

The Foundation’s approach seemed to work. Several important steps were taken by early 1999. Metis, at the urging of AECF, implemented a quality assurance procedure with each site tied to each quarterly report. Site directors brought on full-time staff to work on data related issues, ranging from input, to retention reporting, and report writing. Sites also recognized their own-self interest in collecting quality data. The data became

increasingly relevant to sites as numbers of participants grew and questions related to retention emerged. We began to hold cross-site meetings entirely focused on retention issues and progress. The first retention meeting was held in September 1999. At that point the quality of site reports was uneven, some had compiled a rich set of data for the meeting, while others discussed their retention results mostly through qualitative sources. In June 2000, we held our second cross-site retention meeting and all sites shared a rich set of quantitative data that allowed us to ask such questions as: does length of training effect retention achievement; do higher wages lead to longer-term retention; and, how can we better measure advancement? The quality of discussion had improved dramatically since the previous year. It is our hope that by next year's retention meeting, we can better answer some of those questions. So far most sites have focused their self-assessment on monitoring data related to enrollment, training, placement, and retention result and not on using the data for more sophisticated statistical analysis. This might be a next step for several sites with large numbers of placements. By mid-1999, the site databases were all in pretty good shape and able to serve multiple purposes: site self-assessment, AECF reporting, and cross-site evaluation.

Maintaining quality data has become a more routine exercise. Sites and AECF receive a quarterly report from Metis assessing data completeness in three areas: baseline, placement and employer information, and retention. Sites have full-time MIS staff and ensuring data quality is a responsibility at various staff levels. Several sites have demonstrated nearly 100% data completion for their participants. Retention information at the one-year level is the only area that continues to be an issue with a few sites. Sites sometimes have difficulty collecting this information on a timely basis from their partners

and it is an ongoing challenge to maintain contact with participants for a year or more. JI sites are demonstrating initiative both by tracking long-term retention and in figuring out programmatically how to best support low-skilled workers in attaining long-term labor market attachment. Several sites are experimenting with using Unemployment Insurance (UI) data to track participants over the long run. AECF still requires that all sites report on the status of at least 80% of those eligible for one-year retention in order to draw down continued funding. For a few sites, this represents an ongoing hurdle with the “unknown” status hovering around 20%. Other sites have determined how to track down and report on the status of more than 90% of their participants one-year after placement.

(See Attachment 4 for a case study of one sites’ experience in developing its MIS)

### **Lessons Learned**

The next sections attempt to distill and communicate some of the lessons we have learned over the past four years in developing and implementing the Jobs Initiative MIS. It also lays out some of the next steps as we determine the future value-added of our MIS both to our sites and to the field.

Five key lessons have emerged from our steps and missteps in developing what has become an MIS that well-serves the Jobs Initiative nationally and locally. The first two lessons are directed at investors in jobs projects and workforce initiatives, and the last three relate more directly to implementation.

### Investor Lessons

- ***Clearly articulate the purpose of the MIS.*** As described at the beginning of the paper, AECF stated two main purposes for the MIS. It would support 1) ongoing self-assessment at the site and national level and 2) in-depth research and evaluation across sites. But we were not always clear about what that really meant. As described in *Getting Results*, we were trying to uncover how to apply an outcomes framework to the JI while building the MIS to support it. So in the early stages, competition existed among the evaluators, our “outcomes” consultants and the MIS consultants to determine the design. As the Foundation clarified that the MIS needed to support the tracking of participants related to enrollment, placement, and retention, it became easier to identify the necessary infrastructure. Abt Associates then used that framework to propose additional data items that would be needed for the cross-site evaluation.

Defining the purpose of the MIS was an exercise largely external to the sites. While we shared our thinking with sites, solicited their input for the final data dictionary, and gave them the lead in selecting the software package, the MIS structure and requirements were driven by AECF. An open question is: had sites been more involved in defining the purpose of the MIS would they have invested more heavily in it during early implementation? We have two responses to that question. First, AECF needed to establish cross-site measures in its role as national investor. Requiring sites to determine what AECF as the investor needed to measure would have placed an extra burden on them. On the other hand, we should have invested more effort in helping site directors and their implementing

partners to define their own data needs for self-assessment and the types of reports that would be useful to them. Our approach to sites was more like...

“Take our word on this and you will appreciate it later.”

- ***Balance flexibility with high standards and persistence in requiring good data.***

***Figure out your carrots and sticks.*** As described earlier, AECF used a number of approaches to achieving good data across sites. Early on, we framed the discussion and provided sufficient funding and extensive technical assistance. There was considerable play during that first year as we clarified definitions and sites gained experience in using their MIS and working with partners to collect data. We also learned that using and valuing data is not intuitive to program implementers. AECF and site leadership should have paid more attention to helping staff at all levels understand how the data could help them do their jobs better. Also we could have anticipated better the training needs related to data collection and reporting.

After about a year of operational experience, we tightened up on key definitions, particularly those related to retention, and required completeness on a set of critical data elements. As investor, we tied the submission of quality data to payments. At the same time, we worked with our consultants to put in place procedures for a quarterly data review. Now, every quarter we review their data and provide feedback to sites as necessary. Our experience has taught us that it is up to the investor to establish high standards and then hold implementers and consultants to them. At the same time, it can be difficult to say to grantees, “no

data, no money.” It helps if the requirements are clear from the start and are consistently but flexibly enforced.

### **Implementation Lessons**

- ***MIS should be user friendly but recognize that it will still require considerable staff investment.*** During the start-up phase, many of the sites complained that the FLX was too difficult to use, and they could not produce reports in a timely way. The consultants suggested that FLX was not the problem, but rather the right level of staffing was not assigned to the job. After three years of sites working with FLX, it seems clear that: FLX did present some challenges, and, at the same time, that sites initially under-invested in staff to support MIS. Sites made the decision to go with an off-the shelf product because it offered the capacity for a quick start-up. But this decision came with trade-offs; the primary one being it often did not address their needs, even with a round of customization. In many instances, the sites lacked staff with technical expertise, and what staff they did have working on MIS, was usually not integrated with day-to-day operations. By the middle of the capacity-building phase, most sites had figured out the right staffing configuration to support the MIS. In general, sites placing fewer than 500 people per year have done well with one full time MIS manager, supplemented by data entry operators. This is, of course, an important lesson: scale matters and changes the requirements for staffing MIS. Seattle, which places more than 500 individuals per year, generally requires at least one other full-time person plus data entry staff. One-year retention follow-up is the most staff intensive aspect of

maintaining the MIS and it only becomes more intensive as projects scale up the number of placements.

In addition to investing in MIS staff, program leadership must intentionally integrate the use of MIS into program operations. MIS and jobs projects should evolve together, with data used to support program planning and adaptation. As mentioned above, for program staff, analyzing data is not an intuitive process but rather it is a set of skills to be developed. Implementers should also keep in mind that while technical skills are necessary, the MIS requires several other types of staff capacity as well. Programs enrolling, placing, and retaining hundreds of participants each year need staff (or partners) at many levels. Implementers should anticipate the need to: enter data, ensure that retention is being tracked, interact with implementing partners, and report and analyze data. The best “techie” is probably one who can communicate well with management and project level staff.

As described earlier, FLX came with some limitations, but overall the off-the-shelf products did meet many of JI’s initial needs. Several sites have explored other approaches during the past two years but have not yet made a full transition to more customized MIS. There are risks and benefits to be considered in starting an MIS from scratch using IT consultants. Milwaukee, which built their own system from the beginning, had the technical capacity within their own partnership, but most CBO’s and intermediaries lack that type of expertise. For the JI, with its priority on a fast start-up, the off-the-shelf product seemed to make sense for most sites.

- ***Create clear and reasonable operational definitions for key result areas.*** Early on, AEFCF determined that we would measure the success or failure of the capacity-building phase based upon our ability to reach placement and retention goals. It took us a little longer to figure out, communicate, and negotiate with our site directors about clear operational definitions. The lack of initial clarity and changes in operational terms created additional work for site-level staff. Because we are investing in six sites and approximately 30 projects, standard definitions matter a lot. The most important but hardest concept to pin down is labor market retention. While we have ended up with some variation among sites and projects, in general sites measure retention at 3, 6, 9, and twelve-month intervals. Our definition of retention, more conservative than used by most programs, assumes that the person remains at the same job or moves to a better job with only short spells of unemployment in between – this generally means less than 30 days or no more than three months of the 12-month period.

Developing meaningful operational retention definitions requires the following: 1) *clarity about objectives*. The JI goal is to help low-income job seekers achieve lasting connections to the labor market. 2) *balance high standards with flexibility*. The nature of the jobs projects influenced the way we measured the retention milestones. We believe that in providing some flexibility based upon site experiences we encouraged sites to honestly report their retention. 3) *create a system for quality control of the data*. The JI used Metis as our main consultant to verify with sites how measures were being defined and collected.

For example, they met with case managers charged with participant follow-up and would provide training as needed.

- ***Data is power: use it wisely.*** Quality data presents risks as well as benefits to program implementers. If the data shows that a project is not performing well and, for example, has few placements or poor retention performance, then obviously the program risks loss of funding or public support. As described in the introduction, most programs lack data or don't clearly report on what they do know, so an implementer takes on some risks when they step out and honestly report their results. We think it's worth the risks if the goal is to figure out what works and set workforce standards to which the field and public and private funders can base investment decisions.

The use of data by an implementer for self-assessment can also present organizational challenges and opportunities. Data can have a democratizing effect on staff if it is used by staff at all levels to discuss objectively how a project is going. It shows which elements of a program seem to work and which may be stumbling along. On the other hand, depending on how project leadership structures a self-assessment process, data might be used to point blame at individuals rather than to make design changes constructively. The use of data can also accentuate existing racial tensions among staff depending upon who is seen as "controlling" the analysis and distribution. This again argues for training staff at all levels in how to analyze and use the information generated by the MIS. While we are obviously strong advocates of collecting and using quality data, we recognize it should be applied thoughtfully.

Quality data can make the case that effective jobs projects do exist and can well serve disadvantaged populations. Good data can be used to challenge other programs to meet specific standards. Finally it allows us to begin to accurately assess the costs of specific training models for specific populations. At the local level, we hope that good results will drive local workforce funding decisions. And at the national level, it is our belief that quality data would enable the workforce development community to make the case for expanding investment in effective training models.

### **Conclusion and Next Steps**

We believe the Jobs Initiative sites did a remarkable job of balancing the demands of program development and the requirements of MIS development and implementation. They have placed thousands of low-income people in jobs and have the ability to report and describe those results with quantitative data. We think that is a true accomplishment in the field of workforce development.

While the Jobs Initiative sites have made great strides during the past four years in developing quality MIS, there are several issues that need to be pursued. First, we want to assess the value added of the JI database compared to MIS in similar workforce development programs. Even as sites move to the full implementation phase of the JI with its systems reform focus, several sites will continue to collect participant level data but on a larger scale. We may adapt our data collection approach to focus more on advancement and longer-term labor market attachment. Second, we will release two reports this fall describing how we are using the data to

help us assess JI performance. Our “benchmarking” paper will describe our attempt to develop an approach to measuring results across ten jobs projects. We will also release a paper that updates our findings related to retention in the Jobs Initiative. It will describe the learning process AECF and sites have used to analyze these results. Third, we plan to support a benchmarking network that reaches beyond JI jobs projects to include other similar projects. We hope that effort will strengthen our ability to set reasonable standards of cost effectiveness and enable us to influence the workforce policy debate. Finally, we hope this paper and others that follow will spark conversations that will contribute to JI lessons and to the workforce development field more broadly.

## **Attachment 1**

August, 1997

### **CRITICAL MILESTONES DEFINITION OF PRINCIPLES**

Sites should precisely define critical milestones for each project in writing and incorporate them into their version of the Jobs Initiative Procedures Manual. The principles (i.e. AECF minimum standards) for each critical milestone definition are described below. Sites must justify any divergence from basic definitions described here.

**These critical milestone definitions should be included as part of the package of reports that is submitted each quarter.**

#### **Enrollment**

A person is considered “enrolled” when referred to a job related activity, i.e. job readiness, training, or a job, as part of an AECF approved jobs project or prototype (if placements are target of prototypes). It assumes also that the referred person shows up for at least the first day of selected activity. It may follow a formal assessment at which time a person is deemed qualified to participate in a jobs project or following less formal means.

#### **Placement**

A countable placement occurs when a participant acquires a job in a manner consistent with the site’s project or prototype design. It assumes that the person shows up for at least the first day at the job site. It assumes that not all placements count but only those that are consistent with the AECF approved strategy/project/prototype.

#### **Retention**

Retention assumes a person remains at the same job or moves to a “better” job with minimal gaps between any job changing. Time between jobs does not count toward the retention milestone. Sites must specify the following parameters in their definition of retention for each project/prototype:

- duration of job;
- job progression;
- family supporting wages and benefits;
- movement between jobs.

Retention milestones should be tracked at the following intervals (minimum):

3 months;

6 months;

9 months;

12 months.

and every three months until the final project retention target is met.

## Attachment 2

### Current Retention Definition Retention Policy Guidelines

Currently, retention credit assumes a person remains at the same job or moves to a “better” job in a manner that is usually continuous, but may be characterized by infrequent, short-term unemployment spells. Because employment may not always be continuous throughout the post-placement period, measuring retention should include documentation of longitudinal job records. These job history records should be maintained for all eligible participants. Retention attainment should address job quality, job duration, and job progression and should be evaluated for a period of at least one year after the placement date.

Minimally, retention milestones should be credited at the following intervals:

- three months;
- six months;
- nine months; and
- one year.

Minimum standards for retention milestone achievement regarding wage and benefits, job duration and job progression are specified below.

**Wages and benefits.** Participants should only be credited for retention if they are first placed in a full-time job that pays at least \$7.00 per hour with medical benefits. The exceptions are milestone projections that specify a sub-\$7/hr wage target that is succeeded by a distinct milestone that targets the achievement of a \$7/hr wage. Retention is credited when the \$7/hr wage is attained.

**Duration of job.** Retention attainment should be guided by the extent to which the participant is employed for different time intervals. The minimum employment requirements for retention credit for each milestone are:

- for the 3 month milestone term (any six weeks of the total twelve weeks);
- for the 6 month milestone term (any four months of the total six months);
- for the 9 month milestone term (any six months the total of nine months); and
- for the 12 month milestone term (any nine months of the total twelve months).

**Job progression.** Movement from one job to a better job should be reflected either in improved wage and/or benefits that are attained and/or by other characteristics of the job that plausibly support the conclusion that it is a better

job. Criteria that may be used to support determination that the job is a better job include the following:

- increased wage and/or improved benefits relative to the qualifying placement and target placement wage;
- a job that constitutes career advancement (e.g., an apprenticeship);
- a job that enhances long-term retention (e.g., closer to home or child care, better transportation) ; and
- a job that resulted from a voluntary move by the participant.

**Attachment 3 Data Tracked for Quality Control**  
**Data Items Tracked for Quality Control Monitoring**

Collection Point	Data Item
<u>Enrollment</u>	Age:
	Gender
	Ethnic:
	English proficiency (Yes/No)
	Marital status:
	#Children at home:
	Family income during the year pre-enrollment
	Public assistance during the year pre-enrollment
	Highest grade completed
	ABE/ESL (Adult Basic Education or English as Second Language)
	Pre-JI wage of most recent or current job at enrollment
	Transportation mode used to get to previous employment job
	Pre-JI benefits
	Household size:
	Pre-JI weeks worked
	Pre-JI #employers
Pre-JI earnings	
Ever Promoted (Yes/No)	

<u>Placement</u>	Wage
	Hours worked
	Does employer contribute to the health benefit?
	Does the placement job provide family coverage, employee-only coverage or no coverage?
	Employer SIC (standard industrial classification code)
	The number of employees at the employer location
<u>Retention</u>	Unknown retention status at 3-months
	Unknown retention status at 6-months
	Unknown retention status at 9-months
	Unknown retention status at 12-months

## **Attachment 4**

### **An MIS Case Study – Philadelphia Jobs Initiative**

*The following is a case study based upon the experience of the Philadelphia Jobs Initiative in developing its MIS. It was chosen because it faced many of the same issues and challenges as other sites in developing effective MIS. We believe these challenges, iterations, evolutions, and improvements are likely to occur whenever workforce intermediaries and programs commit to integrating the use of data with program development. It is also our hope that by illustrating some of the potential pitfalls, other programs may be able to reduce their learning curves.*

The overarching lesson from the Philadelphia Jobs Initiative is that building an effective MIS takes time. Successful MIS implementations are usually works in progress, growing stronger over time as the organization adapts to changing needs. PJI successfully adapted their MIS to be responsive to a wide range of issues, including technical, staffing, and data collection processes.

#### **Planning – Platform Selection**

During the JI seventeen-month planning period, it was difficult for some sites to focus on MIS and data because they were so engaged with preparing their detailed Strategic Investment Plans (SIP) and associated analyses. PJI was an exception to this tendency. They sought help from Metis early on to research existing packaged software that might prove viable as a platform for their MIS. As early as August 1996, PJI requested and received assistance with review of case management and human resource software products. On-site vendor demonstrations were arranged, and PJI reviewed copies of demonstration software for a number of applications.

The preliminary work of PJI and Metis resulted in a decision in April of 1997 to preview one particular software product – FLX Visual HR - to some of the JI sites. FLX Visual HR is a human resources information system designed for use by medium-sized organizations to manage employee information. Metis believed “the FLX”, as it became known, could work as a “quick start” Jobs Initiative MIS platform because it could quickly be customized to meet JI data management and reporting requirements. Metis wanted to obtain feedback from at least one site before making any further recommendations. Because PJI had made the effort to acquire a baseline understanding of available software, they were able to provide an informed opinion of the FLX’ capabilities relative to other alternatives and cost.

#### **Development – Cross-Site Customization**

PJI participated with the other JI sites in the cross-site MIS conference in May 1997. The conference was devoted to comprehensive review of the FLX and reaching closure on a JI-required data set. The sites agreed to deploy FLX as the cross-site MIS platform. A workgroup staffed with representatives from PJI and other sites developed a software design plan with Metis’ supervision. The group decided how the FLX should

process JI-required data. The group also produced a detailed functional specifications document over the summer. This document was shared with a software development firm selected by the group to make the necessary customizations to the FLX software.

### **Implementation – False Starts and Staffing Up**

A customized, cross-site MIS was completed in early September 1997. Later in September, two PJI staff participated in FLX training with information management staff from other JI sites. Installation of the customized FLX occurred at PJI in early October 1997. For programmatic reasons, PJI did not implement use of its new MIS until early 1998. PJI first attempted a decentralized approach to data entry. There were some technical problems, however, when data was entered by still-untrained staff from the PJI recruitment partner. In their effort to fix this technical problem, the FLX vendor attempted to restore the database to its original state. However, PJI had not yet implemented backup procedures and had to start over with a clean copy of the database and re-enter data for the initial 50 participants.

These early glitches began to awaken PJI to the realities of MIS implementation. PJI realized they would need to focus more on clear policy and procedures and properly trained staff. PJI's director decided to create a centralized process for data collection, and designate staff to manage it. Prior to that point, the director had been trying to supervise the MIS implementation by himself with assistance from temporary staff. When they realized they needed to designate an information manager, a very competent staff member was selected to perform the duties. While a step in the right direction, the position was not treated (funded) as a full-time position within PJI.

### **Data Quality Improvements – A Sustained Effort**

Throughout the first half of 1998, the work of the new staff member stabilized operations. PJI submitted their first automated version of the AECF quarterly reports for the January-March 1998 program quarter. Analysis of PJI data did reveal, however, that its providers were submitting incomplete data. Enrollment questions requesting information about previous employment and public assistance were particularly weak. PJI realized they needed to devote more time to reviewing forms submitted by providers. The information manager initiated a policy of returning forms when they were not complete. PJI instituted periodic meetings with provider staff responsible for forms submission to reinforce the importance of quality data on a regular basis.

These provider meetings revealed that quality assurance efforts around data needed to be sustained and intense. The PJI providers, of course, had other funders with their own unique forms and requirements. PJI had to ensure enough time was devoted to the JI forms without putting undue burden on its partners. Understandably, PJI's actions were sometimes greeted with resistance or with pleas for processes that would not require use of paper forms.

Data completeness issues intensified as placement volume grew, and the need for systematic post-placement follow-up became paramount. The JI emphasis on retention performance made it critical that providers submit timely updates on participants' job

status. As each provider's placements increased so did the likelihood that providers would be late with submission of retention information and that it would be incomplete.

Data quality concerns peaked just as PJI was transitioning to new leadership in early 1999. A formal quality assurance (QA) program implemented by Metis at AECF's request detected that a number of data items had missing rates greater than 20%, including the all-important retention status indicator. PJI was faced with payment delay as a result of the Metis QA report. Adding to the confusion at this time was the departure of PJI's information manager for employment elsewhere.

PJI's new director hired a full-time interim information manager. Concurrently, PJI obtained budget and hiring authority to bring on a permanent full-time information manager, as well as a full-time program associate whose responsibilities included setting the direction for self-assessment activities. The interim information manager worked with Metis to reduce the percent of missing data items to below 20%. He also developed plans and capacity to ensure that missing rates remained below the 20% threshold on an ongoing basis. Data completeness reports were created and administered so that PJI could proactively keep providers on top of their data collection responsibilities.

A permanent information manager eventually was hired in the Spring of 1999. With a full-time data person finally in place, it became possible to develop an ongoing, proactive process for controlling the receipt of data from the provider network. There was more time for individual meetings with specific providers, rather than sole reliance upon periodic meetings with the entire group. One immediate enhancement was a superior set of retention tracking reports. Retention reporting has steadily improved with the percentage of participants with unknown retention status now less than 5% of placed participants.

### **Software Redesign**

Once PJI assumed greater control of data quality, it developed a software redesign plan to simplify data entry operations. One drawback of the FLX was the existence of a large number of data entry screens not relevant to the JI. PJI asked Metis to program an entirely new set of screens to serve as a user-friendly "front-end" data entry tool for the existing database. They implemented the Access-based redesigned software in March 2000, and it has improved the efficiency of data entry tasks.

### **Using the Data**

A key reason for MIS is the ability to produce useful, insightful reports that evaluate performance and inform future decisions and investments. The initial reporting priority for PJI and all the JI sites was timely, accurate production and submission of AECF quarterly reports. Due to the resources required to insure that high quality data were used in creation of the quarterly reports, PJI was unable to focus on other forms of self-assessment until 1999. At this time, PJI took advantage of their data resource to analyze performance beyond AECF's quarterly reporting requirements. For example, they have conducted a thorough analysis comparing wage levels across the four levels of training provided by one of their manufacturing projects. PJI has also customized reports for partners to help them better manage their projects and thus make the data more useful

to them. At an AECF Retention Conference in June 2000, Philadelphia shared an impressive analysis that correlated time spent in training with retention performance.

PJI also develops data to guide future investments. As stated in its Year 2000 Strategic Investment Plan Update: *“PJI increasingly uses its data for not only project assessment but also strategic planning. This capacity is crucial as we adapt our strategies and tactics in response to the evolving employment/labor market and policy landscapes.”* PJI’s MIS should serve them well as the organization prepares to scale up to system reform and full implementation.