

The Annie E. Casey Foundation

A Jobs Initiative Research Brief:

Approaches to Measuring and Tracking Career Advancement



Abt Associates Inc.



Metis Associates

A Jobs Initiative Research Brief: Approaches to Measuring and Tracking Career Advancement

Measuring Career Advancement

We know that one out of four working families does not earn enough to meet its basic financial needs. There is also increasing evidence that wage mobility is decreasing in America, particularly for families at the lower ends of the wage scale. While there is growing attention to these issues, workforce and welfare funding is still tilted toward moving TANF recipients and other job seekers quickly into jobs, with fewer dollars set aside for the skill-based education and training that is needed to move low-skilled workers toward economic success. At the same time, we know that time pressures and multiple demands on families, make it very difficult for incumbent workers to take on additional education and training activities.

A core element of the Jobs Initiative (JI) has been about using data to improve program performance and to inform strategies and policy agendas. All sites have used client-tracking systems based upon placement and retention milestones for program management and reporting, and Abt Associates is engaged in a long-term evaluation of the Initiative. In 1999 and 2001, the Annie E. Casey Foundation (AECF) produced research briefs describing the JI experience in setting targets and collecting and reporting on retention data. This research brief is based upon data collected over an eight-year period on more than 10,000 individuals placed in jobs through the Jobs Initiative. Similar to the retention briefs, it focuses on the data side of career advancement, and the issues and challenges facing workforce providers in setting targets and collecting and reporting data. The brief does not address site strategies to develop and implement career advancement efforts, which will be included in future Abt Associates documentation of the Jobs Initiative.¹ Instead, it examines JI results in terms of wage and income mobility and suggests areas that other workforce providers and policy makers might consider as they seek to measure wage progression as part of an overall advancement strategy.

¹ It is important to point out the constraints and limitations in this research brief. When the Jobs Initiative began a decade ago, its focus was on connecting low-skilled adults to good entry-level jobs, 12-month retention targets, and *opportunities* for career advancement. AECF used performance based-contracts with sites tied to placement and 12-month retention results. Most sites tracked participants in their MIS for 12-month employment retention following the initial job placement.

The brief also describes four different data collection and analysis methods that were used by the JI sites to collect, assemble, and report on employment and wage advancement information:

Participant-level Data in a Management Information System

(MIS): Each of the Jobs Initiative grantees developed the capacity to implement and maintain database and information systems that tracked and reported upon each one of their Jobs Initiative participants, yet also allowed for publishing of aggregated analytical reports.

Secondary Data Sources such as Unemployment Insurance (ES 202 / UI) Data:

The Jobs Initiative made important advances in utilizing administrative data sources to enhance long-term analytical and data verification capacities. In the Jobs Initiative, half the sites used Unemployment Insurance and employer (ES 202) quarterly wage data over the course of the initiative to verify and supplement MIS data collection on JI participants' wage progression and job retention.

Long-Term (12-month) Tracking to Measure Wage

Advancement: The Jobs Initiative's programmatic emphasis on tracking long-term job retention gave AECF and the sites the ability to measure wage growth for participants who achieved employment in the workforce for a year. This retention requirement demonstrates the value of long-term tracking and how participants who achieve 12-month retention can realize wage advancement.

Follow-up Surveys and Sampling Methods: As part of the national evaluation's research efforts, follow-up surveys were conducted on a sample of JI participants to assess how their lives changed 18 and 36 months after enrolling in the Jobs Initiative. Abt Associates conducted three surveys of JI jobs participants²—at enrollment³, at 18-months and at 36-months since enrollment.⁴ Collecting information at three points in time provides an opportunity to understand the length of time needed to measure longer-term outcomes.

² The first two surveys provided information on participants 18 months after enrollment to assess the impact of Jobs Initiative training programs and services, and a better understanding of the longer-term obstacles facing disadvantaged workers for achieving long-term retention. The third 36-month survey focused more on the employment pathways of former JI participants, continuing economic hardships and challenges, and progress made with regard to career advancement and family economic success.

³ The JI sites collected enrollment information during the intake process.

⁴ For the third follow-up survey, approximately three-quarters of Jobs Initiative participants surveyed at 36-months (73%, or 296 respondents) were also interviewed during the second 18-month survey.

Each of these methods is described in the following section. Results are provided to illustrate the value of measuring wage progression and long-term retention as part of an overall advancement strategy.

Defining, Setting and Measuring Advancement Targets

AECF based the Jobs Initiative on an outcomes measurement⁵ system and funding approach in 1995,⁶ which was intended initially as a planning tool for the Jobs Initiative sites and then as both an incentive for, and gauge of, their success. AECF felt it was critical for the sites to develop and maintain detailed records concerning their participants and how they fared in job training activities and in the labor market thereafter. Each Jobs Initiative site collects baseline information⁷ on participants who enroll⁸ in the Jobs Initiative program, as well as participant and secondary contact information to enable participant follow-up after program services, and participant identifiers (e.g., names, dates of birth, Social Security numbers, etc.) to facilitate possible extraction of administrative records, such as UI earnings records and Income Support benefits.⁹ Since 1998 sites have collected this data in their JI MIS and subsequently used it to both track participants as well as measure performance.

This system required the development of common data definitions (e.g., a data dictionary) within and across the JI sites, policy guidelines, standards, and reporting on participant enrollment, placement, and retention milestones. Quarterly employment retention information was collected and reported on placed¹⁰ participants for up to a year after initial placement. It has been supplemented by research on other follow-up¹¹ measures, as will be discussed below in the section on Follow-up Surveys and Sampling Methods.

⁵ Outcomes measurement is a performance management framework that an organization uses to identify appropriate outcomes measures to monitor; develop indicators and data collection procedures to collect accurate data; conduct data analysis and regular reporting of findings in order to understand the organization's and programs' accomplishments; and implement steps toward improving performance and outcomes based on the data.

⁶ The Foundation hired a contractor specializing in outcomes management, the Rensselaerville Institute, soon after launching the Jobs Initiative. Key outcome milestones defined for the sites were employment placement, and three-, six-, nine-, and twelve-month retention. Outcomes funding was intended to maximize the effectiveness of the sites by reimbursing them based directly on whether Jobs Initiative participants successfully achieved key milestones.

⁷ Baseline data includes items such as basic demographic data; employment, compensation and training histories; prior education; public assistance receipt; and family, children, and household status information.

⁸ An individual is considered "enrolled" in a JI program when both parties agree on program participation.

⁹ Participants sign an informed consent statement permitting future collection of administrative data to help verify and augment retention data collected directly from them.

¹⁰ "Placed" participants are individuals who are provided job support services and placed in a job by the workforce development program.

¹¹ "Follow-up" includes tracking of activities and achievements of participants after initial placement in a job or after program completion.

Examining the progression of wage changes of participants by project, site, and industry helped inform the JI sites and the workforce development field about the standards and practices that are essential for realizing advancement for low-income, entry-level workers.

Once placement and retention definitions and their measurement practices were in place, the JI grantees began to think about a definition of job advancement and the different ways that it might be measured. The first and most obvious idea was to track increases in wages as recorded in the follow-up procedures instituted for measuring job retention. As part of the retention follow-up activities, for those participants who were retained, wage information was collected at 3, 6, and 12 months following initial placement. Examining the progression of wage changes of participants by project, site, and industry helped inform the JI sites and the workforce development field about the standards and practices that are essential for realizing advancement for low-income, entry-level workers.

In addition to measuring wage growth and retention, the JI sites also began to define their own set of targets and relevant measures of job advancement for their specific projects. Some of the sites submitted formal advancement targets as part of their grant reporting to the Foundation. These projected targets included the percentage of JI participants who were expected to achieve a percentage wage increase using the placement wage as the starting point. These wages were collected as part of the data collection effort for retention and used various data sources including participant contact, employer records, and state employment earnings data (ES 202/UI).

In addition to measuring wage progression, the measurement of advancement was expanded to include changes in new or existing working conditions that were expected to improve a client's retention statistics. Some of the JI program staff offered that any advancement that did not include the cost of living was not acceptable. While it was generally agreed that cost of living increases were important, such a target was not feasible in all sites.

In the pages that follow, statistics calculated across JI participants show how advancement measures can tell the on-going story of workforce experiences of the JI participants. A few main advancement measures are presented here.

Analyzing the Jobs Initiative Data

The Jobs Initiative's programmatic emphasis on job retention and advancement towards a family-supporting wage influenced data collection policies and procedures that prepared the data for detailed analysis of job information. Wage data were collected and assembled on participants' wages at the time of enrollment, initial placement, and for the current or last known wage. The last wage recorded in the database represents the hourly wage for a JI participant at 3-, 6-, or 12-months since initial placement, based on the last point of contact by JI program staff. This data policy gave AECF and sites the ability to measure wage growth occurring throughout the period of a participant's affiliation with the Initiative. For example, using the consolidated database a comparison of the average last known wage with the average pre-Jobs Initiative wage shows an average increase of 15.8% across all projects. Immediate and longer-term wage advancements of JI participants who were enrolled in larger-scale JI projects are highlighted below.

Pre-JI Wages Compared to Initial Placement Wages: Table 1 shows the extent to which JI participants in each site received an immediate wage advancement upon placement by the JI site. In most cases, placement wages were higher than wages earned prior to participants' experiences in the JI.

Pre-JI Wages Compared to Last Known Wages: Table 2 highlights larger-scale JI projects that show relatively large wage growth from the point of wage at enrollment until the wage level achieved at the end point of post-placement wage tracking.

Wage Advancement of JI Placed Participants Eligible for 12-month Retention: Table 3 highlights hourly wages of JI placements who were eligible and achieved for 12-month retention, compared to eligible JI placements who did not achieve 12-month retention to illustrate the importance of tracking retention over the long term.

Pre-JI Wages Compared to Current or Most Recent Job at 36 Months: Table 4 shows a substantial increase, on average, in JI participants' ¹² hourly wage and weekly earnings for their current or last job at the time of 36-month survey, compared to wages earned prior to participation in JI.

¹² Earnings are reported for participants who were placed in a job, as well as earnings for participants who were not placed in a job, through JI.

Wage Advancement Resulting from Initial Placements

The first example of wage gain associated with Jobs Initiative participation is measured by comparing the average wages of participants at enrollment with the average wage participants earned as a result of their first Jobs Initiative placement. Most participants in the various Job Initiative projects across each JI site experienced immediate wage advancement due to a placement wage that was higher than the current or most recent job they had prior to Jobs Initiative enrollment. Reviewing data consolidated from grantee databases across all Jobs Initiative participants with previous full-time job experience, showed that the average placement wage was \$9.41, 9.5% higher than the average wage the participants earned from their pre-JI involvement. This 9.5% increase actually understates the impact of placement-related wage gains because approximately 10% of JI placements never experienced full-time employment prior to their enrollment in JI, and so their wage gains are not included in this figure.

Table 1 illustrates wage gains achieved through Jobs Initiative placement with a select group of Jobs Initiative's projects that achieved a scale of at least 100 initial Job Initiative placements, and a successful retention performance, indicated by a 1-year retention rate over 50%.

These data show that a very impressive wage increase—between 16 and 29 percent—was achieved through the initial placement in larger-scale projects across all JI sites.¹³ These results further demonstrate that the first step of obtaining a job placement through the JI represented a basic career advancement opportunity for many people. Table 1 also illustrates the positive relationship between long-term retention performance and high initial placement wages relative to corresponding pre-JI wages. These results also illustrate the importance of setting an initial placement wage and job quality standards¹⁴, and collecting pre-JI enrollment and placement wage information to be able to measure advancement at key milestones.

¹³ The Denver site withdrew from the JI in 2001 and their data are not represented in this report.

¹⁴ For example, a family-supporting wage of at least \$7 per hour and employer sponsored health care benefits.

Table 1
Pre-JI Wages Compared to Initial Placement Wages (through 12/31/2004)

Site	Project	Number of Placements	1-Year Retention Rate	Pre-JI Average Wage	Initial Placement Average Wage	% Wage Increase
Milwaukee	Health Care	277	61.7%	\$8.42	\$9.76	15.9%
Milwaukee	Construction	294	55.4%	\$10.51	\$13.57	29.1%
Seattle	Office Occupations	344	68.0%	\$8.62	\$10.37	20.3%
St. Louis	Construction	102	71.88%	\$8.18	\$10.03	22.6%
Philadelphia	PhAME	131	80.15%	\$9.05	\$11.07	22.3%

Post-Placement Wage Advancement

The Initiative’s collection of post-placement job history allows for calculation of ‘last known’ wages for each placed participant. Last known wages represent the wage at the time a placed participant either reached 3-, 6-, or 12-month retention, lost a job and did not return to employment, or lost contact with the Initiative.

Table 2 focuses on a select group of the Initiative’s projects and is similar to Table 1, in that projects achieved a scale of at least 100 initial Job Initiative placements. The far-right column shows the calculation of the percentage wage growth represented by the difference between the average pre-JI wage and the average ‘last known’ wage of each project’s participants.

Table 2 shows that advancement in wages occurs during the initial and post-placement period for most of the larger-scale projects. Also apparent is the extent to which post-placement wage growth varies among projects. Most JI sites tended to track job history for a year after a participant’s job placement date, thereby limiting the extent to which wage growth can be demonstrated. The Seattle Jobs Initiative (SJI) tracked wages and job retention for two years. SJI’s effort to collect a more extensive job history helps explain why SJI is able to show a relatively higher post-placement wage growth compared to the other JI projects.

Table 2
Pre-JI Wages Compared to Last Known Wages

Site	Project	Number of Placements	Retention Rate	Pre-JI Average Wage	Initial Placement Average Wage	"Last Known" Average Wage	% Wage Increase (Pre-JI v. Placement)	% Wage Increase (Pre-JI v. "Last Known")	% Wage Increase (Initial v. "Last Known")
Milwaukee	Health Care	277	54.03%	\$8.11	\$9.76	\$9.76	18.37%	20.3%	1.7%
Milwaukee	Construction	294	55.44%	\$10.51	\$13.57	\$13.98	29.12%	33.0%	3.0%
Seattle	Office Occupations	344	66.35%	\$8.62	\$10.37	\$11.09	20.30%	28.7%	6.9%
St. Louis	Construction	102	71.88%	\$8.18	\$10.03	\$11.55	22.62%	41.2%	15.2%
Philadelphia	PhAME	131	80.15%	\$9.05	\$11.07	\$12.72	22.32%	40.6%	14.9%

A particular focus of the Jobs Initiative has been on improving longer-term (i.e., 12 months or more) retention and advancement of disadvantaged individuals in the labor market. JI's retention requirements go well beyond the traditional retention requirements of other workforce development programs. For instance, publicly funded WFD programs typically require verifying employment retention for 30 to 90 days after the initial job placement.

The hourly wages presented in Table 3 illustrate the link between 12-month retention and wage advancement and, as a result, the importance of tracking wage advancement over the long-term. The table shows that the average hourly wage is greater for JI placements who are eligible and achieve 12-month retention, compared to JI placements who are eligible, but do not achieve 12-month retention. The overall wage increase between initial placement and 12-month retention for JI placements who achieved 12-month retention is approximately 11 percent, compared to roughly one percent for JI placements who were not retained in employment at 12-months.

Table 3
Wage Advancement of JI Placed Participants
Eligible for 12-Month Retention

Example of Post-Enrollment Wage Advancement for JI Participants Eligible for 12-month Retention (N=7,963) ^a As of December 31, 2004 ^b	Pre-JI Average Wage	Initial Placement Average Wage	"Last Known" Average Wage or at 12-Month Retention	Increase Initial Placement v. "Last Known" Wage
Ji Placements Retained at 12-months (N=4,141)	\$8.97	\$9.94	\$11.02	10.9%

JI Placements Not Retained at 12-months (N=3,026)	\$8.55	\$9.51	\$9.60	0.9%
---	--------	--------	--------	------

a Note: Overall Wages for JI placements eligible for 12-month retention includes 'last known' wages for 796 eligible placements whose retention status was unknown at 12-months.

b Wage data was only available for the St. Louis site thru June 2002

This wage increase among JI placements who achieved 12-month retention is not surprising, considering the fact that wages usually increase for individuals annually. Comparatively, the wages for those not retained in employment at 12-months could represent the participant's initial placement wage, or the wage information collected at 3- or 6-months after placement, depending on when the program was able to contact the participant. Nevertheless, this finding demonstrates the importance of tracking wage advancement over the long term in order to determine if participants who stay in the workforce actually do earn higher wages compared to those who do not or cannot continue working.

Tracking wages and retention in the short-term (e.g., 3-6 months) will likely show limited wage advancement for placed participants. However, collecting short-term retention information is still important, because it is a way for staff to maintain contact with participants, and provide any necessary post-placement support services that may help the participant stay employed over the long term.

Secondary Data Sources Such as Unemployment Insurance (ES 202 / UI) Data

The Jobs Initiative sites made good use of administrative data sources to enhance analytical and data verification capacities. In the Jobs Initiative, half the sites use Unemployment Insurance and employer (ES 202) quarterly wage data to verify and supplement MIS data collection on wage progression and job retention. This data is a helpful resource for follow-up of placed participants who are difficult to locate, and can also be used to track those who are not placed in a job through the program (a subgroup not typically tracked by workforce development programs). Where sites encounter challenges trying to collect long-term employment data, accessing secondary data from UI and other administrative sources allows an organization to collect pre- and post-placement employment information with fewer staff resources. However, if an organization is able to secure access to UI and employer data, it must also have the technical staff who can incorporate the data into the MIS and analyze the data.

The contents of ES 202 / UI data files provided by state agencies typically include a unique participant identifier, an encrypted employer identifier, a quarter report indicator, and the quarterly earnings paid by an employer. Some state agencies also collect, and can sometimes provide, an employer's industry code (4-digit Standard Industry Code).

The Seattle Jobs Initiative had the most success accessing and using ES 202 and UI data. They were permitted access to Washington state's ES 202 / UI data which allowed them to use the data to collect new employment and earnings information, and to confirm employment wage data previously collected. Since SJI was an agency within the city of Seattle, accessing the data was fairly simple. Given this rich data source, SJI was able to follow up with their participants for a total of two years, thereby extending the time period for employment advancement measurement.

Other JI sites, which were not city agencies or where the state agency had strict data policies about sharing Employer and Unemployment Insurance information, had a more difficult time gaining access to quarterly earnings data. Even when agreements were made with local entities to access the data, the data received were often incomplete or non-existent. In Milwaukee, for example, a list of names was provided to the state agency, and the agency provided paper records back to MJI for the individuals on the list. Milwaukee attempted to use the paper records to fill in information on what had happened to the clients with whom they

The uncertainty about the quality and reliability of ES 202 / UI information underscores the distinct value of an organization's MIS. An organization's MIS can provide more detailed information about the progress and quality of a participant's employment experience.

had lost contact. The data received was not in electronic format and, therefore, very resource-intensive to sort out and compile. Additionally, the information was not always accurate or reliable for tracking an individual's entire job history.

These two efforts demonstrate two opposite experiences with using ES 202 / UI information to track long-term advancement. ES 202 / UI data is not always accessible, timely¹⁵, detailed, or consistent enough to replace MIS data collected from participants or employers. However, UI data from some state agencies can provide reliable information to organizations, and can provide data that gives a historical perspective about the earnings and employment retention experience of **all** of its enrolled participants – those placed as well as those not placed by an organization.

The uncertainty about the quality and reliability of ES 202 / UI information underscores the distinct value of an organization's MIS. An organization's MIS can provide more detailed information about the progress and quality of a participant's employment experience. For instance, organizations can collect data on hourly wages, determine whether they meet the standard of being a family supporting wage, and whether their wages are increasing over time. Quality job indicators, such as the number of hours worked per week, health care, training, and work support benefits, as well as the job's opportunity for career advancement, should also be collected. Additionally, if employer names are collected, an organization may also be able to attribute employment and career advancement outcomes to its programs, provided that the organization has an ongoing training, placement, and post-placement relationship with the employer.

Follow-up Surveys and Sampling Method to Measure Long-term (3 years) Advancement

Conducting follow-up surveys on a sample of participants is another approach to collecting advancement information. As part of the national evaluation's research efforts for the Jobs Initiative, follow-up surveys have been conducted every year and a half on a sample of JI participants who were either placed in employment or not (e.g., 'non-placed' participants) by the Jobs Initiative programs. These follow-up surveys were conducted to assess how the lives of all JI participants changed 18 or 36 months after enrollment. Abt Associates conducted three surveys of JI jobs participants.

¹⁵ Depending on the state, procurement of ES 202 / UI earnings data can take 1 to 2 quarters to obtain after it has been submitted to the Department of Labor by employers. This data access lag prevents reporting on current program activity on a timely basis.

Collecting information at three points in time provides an opportunity to understand the length of time and information needed to measure longer-term advancement outcomes.

Tables 4 and 5 illustrate when the Jobs Initiative programs began to see participant gains in terms of employment and earnings, particularly within certain industries. These results also illustrate, however, that after initial placement, wage progression occurs incrementally. These findings suggest the importance of collecting other types of advancement information, such as education and asset accumulation.¹⁶

Table 4
Follow-up Survey Results for Long-Term Wage Advancement

Participant Employment Experience If Working Since Enrollment From JI Longitudinal Sample (N=283) Weighted Percentages	Employment Experience at Pre-JI Enrollment	Employment Experience at 36-Month Survey	Changes in Employment Experience (Pre-JI Enrollment v. 36-Month Survey)	Changes in Employment Experience (18-Month v. 36-Month Surveys)
Average Hourly Wage	\$8.23	\$10.03	\$1.80 (21.9%)	\$0.25 (2.6%)
Average Weekly Earnings	\$289.78	\$379.45	\$89.67 (30.9%)	\$5.92 (1.6%)
Total	283 (100%)	283 (100%)	283 (100%)	283 (100%)

Consistent with the wage advancement results presented in Table 2, the longer the duration of measurement between pre-enrollment and post-enrollment wages, the more likely the percentage of average wage increase will be greater. As Table 3 illustrates, the overall wage increase between pre-JI enrollment and 36-months is approximately 22 percent compared to 15.8 percent between pre-JI and the ‘last known’ wage in Table 2 (e.g., between 3- and 12-months since enrollment in JI). Earnings advancement in Table 1 illustrated how JI participants received immediate wage advancement upon placement by Jobs Initiative programs. Comparing weekly earnings or hourly wage progression between 18- and 36-months since enrollment yields a more incremental wage growth of approximately 2 to 3 percent. The results in Table 3 indicate that wage progression can be incremental after the first job obtained since enrollment for placed and non-placed participants alike.

¹⁶ Abt Associates is completing other analyses of the 36-month participant survey discuss other data, such as educational attainment and asset accumulation information, that can be collected by programs to measure longer-term advancement (e.g., 36mo. after enrollment). Collectively these earnings, employment, educational, and asset data provide a more complete picture of the different ways participants can advance in their lives over the long-term.

Table 5 illustrates the importance of collecting more detailed information about participants' employment after enrollment. If an organization only collects wage or hours worked to measure advancement after enrollment, then it becomes more difficult to assess how participants progress in employment. However, as Table 5 shows, collecting additional information, such as the Standard Industry Code (SIC) provides important insights about how participants are advancing in employment in certain industries, and whether they are beginning to achieve a family-supporting wages.

Table 5
Follow-up Survey Results for Long-Term Wage Advancement by SIC

Example of Post-Enrollment Wage Advancement by SIC at 36-month Survey for Participants If Working Since Enrollment From Jobs Initiative Longitudinal Sample (N=283) Weighted Percentages	Pre-JI Average Wage	Average Wage 36-Months After Enrollment	Wage Increase (Enrollment v. 36-Months After)
Construction (n=17)	\$12.35	\$18.13	46.8%
Transportation/Communication (n=20)	\$9.14	\$11.59	26.8%
Health Services (n=34)	\$7.76	\$9.54	22.9%
Business Services (n=27)	\$7.43	\$8.94	20.3%
Manufacturing/Publishing (n=44)	\$8.96	\$10.60	18.3%
Retail /Trade (n=29)	\$7.94	\$9.06	14.1%
Other Services (n=22)	\$7.07	\$7.85	11.0%

The results from the 36-month survey indicate the importance of collecting and tracking the characteristics of the job (e.g., industry, benefits, job title) as well as earning information for participants at the point of enrollment, for the first job since enrollment, and annually post-enrollment until career path or family-supporting wage goals are achieved. In addition, collecting information about hours, weeks worked, and job benefits (e.g., health care, retirement, or work supports) can provide useful information about the quality of the job.

The results from these different methods of data collection and advancement measures suggest that it is important to collect job earnings and job quality characteristics on participants at key points of their involvement with the program: for the job just prior to enrollment, for the first job after enrollment, 6 and 12-months post-initial placement, and annually thereafter.

Lessons for the Field

Collection of participants' job histories and other valid and reliable indicators of career advancement require a commitment of resources that, at first, may seem daunting. However, with careful planning and monitoring, and an investment in information technology infrastructure with adequate staffing, valid and reliable data can be collected and analyzed for internal and external assessment. Eight years of Jobs Initiative experience with post-placement data collection has helped identify several key factors that contribute to effective collection and use of advancement information.

Start Early: Define Long-Term, Uniform and Precise Data Collection Policies As Early As Possible

The beginning of the program is the best time for establishing the expectations for the data collection effort, which need to be clearly stated and executable with the resources available to the organization. Data collection is easiest in the early stages of program participation (e.g., initial assessment or training); however, once participants become employed or are referred to partners for additional education or services, they become less available and require more resources to locate. Data collection for career advancement is especially challenging because advancing participants are on the move: moving from one job to another, receiving promotions, or attending school for higher-level degrees or training.

Data collection is more meaningful when guided by policies and data dictionaries¹⁷ that clarify what data is to be collected and who will collect it during what time period. Involvement of program staff in the development of the MIS is critical. Program and other non-technical-staff typically participate in collecting and entering data and using the results, so capacity building must occur at all levels. It is also essential for management to provide staff an understanding of why the data are needed, and how the data will benefit staff in their work and program operations. Staff's input, and management's communication about the importance of the data, as a tool for self-assessment and course correction, will lead to higher levels of staff 'buy-in' and collection of reliable data. To insure a successful outcome, a commitment from the organization's leadership to devote time, money, and staff resources to the MIS on an ongoing basis is needed.

¹⁷ A data dictionary contains a list of all files in the database, the number of records in each file, and the names and types of each field.

AECF learned the value of developing very precise retention policies after the first year of its capacity building. During the first year of capacity building, the retention policy and the details about how and why the data were needed were not clearly stated, which affected the quality and quantity of data collected by the JI sites. This lack of understanding about the policy and its implementation created the need for an improved policy that stipulated exactly what data was to be collected, when it was to be collected, and who would collect it. AECF set minimum guidelines for JI sites to follow in their data collection efforts. Sites were required to develop their own local retention and advancement policies and submit them for review by AECF. While the sites were free to collect additional data, all local policies had to meet the minimum requirements set by AECF.

AECF provided some criteria to help guide the sites in determining whether an individual had advanced in his or her job. The following criteria could be used to determine whether an individual's employment situation had advanced or improved¹⁸:

- An 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.

Investigate the Data Sources and Collection Methods that Meet Your Organization's Needs and Available Resources

The Jobs Initiative tapped three basic data sources and related data collection methods to assemble information useful to advancement measurement. Depending on a workforce development program's size, model, and budget, one or more of these methods may be customized to the unique objectives of the organization.

Participant-level Data into a Management Information System (MIS):

This approach implies collecting data for each participant and maintaining contact with them to build the participant-specific job history. This data collection approach is greatly facilitated by a program

¹⁸ Source: Job Initiative's Retention Policy Guidelines.

model that provides significant post-placement services. Participant receipt of post-placement services makes it easier to maintain contact and record their job history on a periodic basis. In addition to development of even the most basic system involves an initial investment of resources and ongoing financial support. Time and resources are also needed to train staff. Some of staff's time will also be devoted to tracking placements during the post-placement period.

Secondary Data Sources Such as Unemployment Insurance (ES 202 / UI) Data: While the Jobs Initiative made important advances in utilizing administrative data sources to enhance analytical and data verification capacities, these administrative sources have their limitations. Some states are less cooperative in sharing of these data. Washington is a state willing to share its UI data and the Seattle Jobs Initiative took full advantage of that to supplement the job history acquired and recorded on their information system. One cannot assume the validity and reliability of the UI data--especially at the individual level—which may have significant errors due to poor record keeping and poor reporting.

Follow-up Surveys and Sampling Methods: Useful workforce development information can be obtained by use of data acquired and assembled through surveys of a representative sample of the entire participant population to measure the gains achieved by participants. Surveys guided by best practice sampling methods ensures that data is complete and of high quality. These data ensure high levels of confidence in the findings that are obtained. In order to conduct ongoing assessment of clients, and inform necessary program course corrections, an organization will still need to maintain an MIS. However, if an organization is interested in learning about the advancement of its participants beyond the year after enrollment, it may want to conduct follow-up surveys on a sample of participants in the second or third year after enrollment.

A Long-Term Engagement and Investment Strategy Is Necessary to Measure Advancement

As noted above, data collection is easiest in the early stages of program participation, and becomes more challenging after training or initial placement. Organizations will need to develop strategies and incentives to keep former participants and employers engaged with its case managers and support staff in order to collect the requisite advancement information over the long-term. Many workforce organizations have come up with some innovative strategies, such as offering monthly transportation passes,

paying financial incentives, or having annual alumnae celebrations to keep clients engaged with their organization.

Collection of advancement information also requires ongoing investment in an organization's MIS. The initial investment in MIS development includes an outlay of funds to purchase the hardware, software, customize the system, and to train personnel. Once the MIS has been developed, the organization will need to budget funds for staffing, training, database development, and upgrades on an ongoing basis. Therefore, it is not reasonable for an organization to expect MIS expenses to decrease after the initial investment. Rather, expenses will be constant or increase as the organization's needs develop from usage. Management and board members need to be willing to invest in technology and training over the long-term, and devise a viable investment strategy.