

# Best Practices in Large Scale Events

## Evaluation: Planning, Data Collection, Analysis and Interpretation

### Section I: Introduction

Each year the National Aeronautics and Space Administration (NASA) sponsors a variety of public outreach events to share information with educators, students, and the general public. These events are designed to increase interest in and awareness of the mission and goals of NASA. Outreach events range in size from relatively small family science nights at a local school to large-scale mission and celestial event celebrations involving hundreds to thousands of members of the general public. Ideally, such events are assessed to determine whether the intended objectives were met, with evaluation methods and results made available to guide future events planning and evaluation.

**Large-scale events are attended by more than 1,000 visitors.**

This report was generated by reviewing reports from large-scale events, but the best practices included can be pertinent for all event organizers and evaluators regardless of event size. Following evaluation best practices will allow event organizers to demonstrate outputs, outcomes, and impacts related to their events.

Said impacts can be examined through informal or formal evaluation, the latter consisting of systematic collection and analysis of data to assess the strengths and weaknesses of an event, program, policy, or organization (Norad, 2012). As such, evaluation can be used to determine the extent to which a public outreach event achieves intended outcomes as well as identify lessons learned for futures events.

### Objectives

This guide is offered to help practitioners examine how the evaluation process can be an integral—and valuable—element of event planning and to foster the inclusion of best practices. It provides information for planning and conducting event evaluations, outlining how evaluation can be integrated at each stage of event planning and implementation. Specifically, this document offers information related to: (1) planning the evaluation, (2) collecting data, (3) analyzing and interpreting data, and (4) sharing evaluation results. Tips and suggestions for situations in which retaining a professional evaluator is not an option are included. The final section of the report summarizes best practices as documented in journals and evaluation reports.

## Section 2: Planning for Large Scale Event Evaluations

When planning an event, it is beneficial to consider how the event will be evaluated from the start. It helps clarify event goals and align the evaluation plan so that evaluative information is useful to both event planners and organizers of future events. The best way to ensure this is to plan event implementation and evaluation simultaneously (Sanders, 1994; Taylor-Powell, Steele, & Douglass, 2006). A professional evaluator can be a great asset, and ideally he or she is included as early as possible, to ask clarifying questions about event activities, participants, and intended outcomes; determine appropriate times and methods for gathering information; and plan for providing results in a timeframe appropriate for making midcourse corrections or decisions based on overall outcomes. If your budget does not allow for a trained evaluator, it is prudent practice to task one of the event planners with these duties; this guide should be a helpful resource.

**Key Consideration:**  
Plan for both implementation and evaluation of the event at the same time.

### Establishing the Purpose of Event Evaluation

There are many reasons to conduct an evaluation: (1) strengthen specific aspects of the event (for instance, informing recruitment approaches or the types of presenters that are more likely to appeal to intended audiences); (2) identify weaknesses and facilitate the determination of alternate courses of action; and (3) provide event personnel with learning opportunities (for example, measuring event impact on participants). A key question for event planners and evaluators should relate to the main purpose of the event itself: “What do we hope our event will offer our constituents. What are our goals for event evaluation? How will we assess our impact?” Responses to these questions can help guide the evaluation plan. Is the evaluation effort intended to identify areas for improvement (such as scientist trainings that need tweaking—necessitating a “formative” evaluation; see below), determine overall quality or value of the event (requiring a “summative” evaluation; see below), or both (indicating a “mixed methods” evaluation)? Figure 1 provides some of the most common reasons for conducting an evaluation:

**Figure 1. Common reasons to conduct an evaluation**

- Learn more about the population the event is reaching.
- Understand perceptions of the event.
- Determine how different aspects of the event are working.
- Identify areas of the event that need improvement.
- Measure the extent to which the event achieved its goals.
- Identify unanticipated outcomes that may or may not be desirable.

Source: Sanders, 1994; Taylor-Powell et al., 2006

## Evaluation Approaches

Once the purpose(s) for conducting an evaluation has been identified, evaluation approaches or designs can be considered. There are two fundamental ways to think about evaluating large-scale events; which of these to use emerges from decisions regarding evaluation purpose.<sup>1</sup> The first focuses on describing the event and what is actually happening: **descriptive research**. Descriptive research allows for such activities as the characterization of an event, examining who is participating in the event, and preliminary assessments of whether the event is occurring as intended. These designs can be part of what are referred to as formative evaluations (considered “formative” because they are constructive—informing event planning and processes so that changes can be made to increase chances of success). The other approach dives deeper to explore why outcomes are occurring or whether something has an effect: **explanatory evaluation**.<sup>2</sup> Explanatory evaluation designs are necessary to assess impacts (Sanders, 1994; Taylor-Powell et al., 2006) and are often used in what are referred to as summative evaluations (considered “summative” because they examine overall, cumulative effects). In many cases, descriptive and explanatory (or formative and summative) approaches are combined in a mixed-methods approach.

## Evaluation Questions

The purpose of the evaluation ought to drive the approach, which in turn ought to drive the evaluation questions. Evaluation questions need to be specific to the event and relevant to the overall event goals, measurable, and possible to answer in the allotted time and budget (Research Councils UK, 2011). For example, if the goal of the event is to build participant skills in locating an object that can be viewed in the night sky, a more specific evaluation question might be “Does the audience know how to find Mars in the night sky?” The goals of the event provide an understanding of what organizers intend the event to accomplish, such as knowledge gains among participants; changes in their attitudes, values, and interests; or the creation of a project and dissemination of information to the public (Friedman, 2008). Specific evaluation questions should be developed that, when answered, will allow for a determination

### Kirkpatrick’s Model:

- 1) Reactions (how the participants felt after the event)
- 2) Learning (changes in knowledge as a result of the event)
- 3) Behavior (extent to which participants use what they learn)
- 4) Results (overall effects on the larger environment as a result in the changes in behavior)

---

<sup>1</sup> Validation, or testing an explanation, is an infrequent facet of evaluation and is not discussed here. Evaluations can also include an exploratory approach in which the evaluator seeks to gain familiarity with a topic, the existing literature in an area, or client needs.

<sup>2</sup> Some texts refer to this category as “experimental” research; however, because “explanatory” is a more encompassing term—and does not imply a particular design—we have elected to use “explanatory” herein.

of whether the event met the goals.

*Using theoretical frameworks to guide planning.* Theoretical frameworks and models can serve as a foundation and guide for planning an evaluation, including the construction of relevant evaluation questions. One widely used framework is Kirkpatrick's (1998) four-level model.<sup>3</sup> The four levels are arranged hierarchically, from simple to more complex; success at higher levels depends upon success at lower levels.

**Guskey's Model:**

- 1) Reactions and satisfaction
- 2) Changes in knowledge, skills or attitudes
- 3) Organizational support / characteristics that can affect participants' implementation of new knowledge and skills
- 4) Use of new knowledge or skills
- 5) Lasting impacts, in particular on learning outcomes

Another theoretical framework that could be used to guide decisions about evaluation and help craft relevant evaluation questions is Guskey's (1999, 2000, 2002) five-level model for evaluating professional development in education—a model that has subsequently been used to evaluate myriad projects and programs. Translated to event evaluation, the model addresses questions of what happens as a result of attending an event and, to a lesser

extent, why various outcomes are observed (Guskey, 1999).

Evaluation questions for an event could be drafted for levels that are aligned to the intended outcomes of the event (for instance, an event may not intend to impact participants' learning outcomes, so the evaluator would not include a question related to this level). Overall, it's important to know what questions to ask and what kind of information answers to those questions will provide. For example, some event planners want to know if the event draws a different audience from that of the general populace. In this case, collected demographic information from the audience can be compared to census data for that area to perhaps reveal that the event is attracting a higher than would be expected number of minority participants. Ong's (2012) report for Polar Science Weekend includes the event's evaluation questions aligned to the overall goals of the event.

Guides that might be helpful when planning event evaluation include *Evaluation: Practical Guidelines, a Guide for Evaluating Public Engagement Activities* (Research Councils UK, 2011), *The 2010 User-Friendly Handbook for Project Evaluation* (Frechtling, 2010), and *Framework for Evaluating Impacts of Informal Science Education Projects: Report from a National Science Foundation Workshop* (Friedman, 2008).

During this stage it is also important to identify intended audiences and key stakeholders. Key stakeholders should be offered the opportunity to engage in evaluation discussions to ensure

---

<sup>3</sup> Kirkpatrick and other theorists have proposed the possibility of a fifth level focused on return on investment; this level is not discussed.

their perspectives are represented. Program staff may be able to recommend or nominate individuals with sufficient knowledge and/or influence who represent larger stakeholder groups and can possibly serve as liaisons to their respective communities (Sanders, 1994; Taylor-Powell et al., 2006)—their feedback on evaluation questions and proposed data collection activities and timeline can help identify issues that are important to the groups they represent and potentially help the evaluator(s) avoid unanticipated events (for instance, attempting to interview participants during a time when potential interviewees are unavailable).

## Section 3: Planning for and Collecting Event Evaluation Data

Once evaluation questions have been drafted, the person charged with evaluation tasks can identify preliminary data needed to answer the questions and draft a plan for how the data can be collected.

### Determining the Type of Data to Collect

The evaluation questions along with the available resources and type of event will inform the type of data to collect. Data collection methods must be a fit for the evaluation questions. In broad brush terms, data can either be **quantitative** or **qualitative**. Most often, both types of data are collected to provide a more complete picture (Bailey & Slater, 2005). For example, information about the number of people attending an event, length of visit at the event, and ratings on a survey can be used to show event scale and reactions to the event—this can be seen most clearly in the museum event evaluations (See the event profiles for Life Science Research Weekend and Polar Science Weekend in Appendix B). In contrast, focus group, interview, and observation data, as well as open-ended responses on surveys, can be used to examine perceptions, demonstrate changes in attitudes, or contextualize the event (this can be seen most clearly in the festival evaluations, such as the Science Festival Alliance evaluation in Appendix B). Knowing what specific data are needed and from whom—grounded in the evaluation questions—will shape the data collection plans for the event.

Additionally, decisions on the structure and data collection delivery medium should be made during evaluation planning. For example, the evaluator(s) might need to determine whether surveys will be administered online or via paper; whether one-on-one or group interviews (focus groups) are preferable (as well as whether interview protocols for these data collection methods should be structured, semi-structured, or simply guided by a list of topics); whether focus groups will be audio-recorded; whether observation protocols will be completed by hand or directly entered into a device (laptop, smartphone, tablet); and /or whether interviews should be face-to-face, via telephone, or via web-based platform.

Decisions about data collection methods are important—the methods used can impact the validity of the data (for instance, participants may be more forthcoming in a one-on-one interview

than in a focus group) as well as effort to analyze the data (for instance, returned paper surveys will need to be accurately entered into a database for later analysis as opposed to the collection of survey data online with responses automatically loaded into a database; analysis is addressed later). Sound data collection instruments are a hallmark of a good evaluation; properly planning for data collection will facilitate improved evaluation.

Data collection can be carried out using a variety of data collection methods. Figure 2 provides an overview and brief description of the most common data collection methods.

### Figure 2: Common data collection methods

- **Extant Data:** Data available from sources that inform an evaluation question. Examples include project records, sign-in sheets, and registration forms.
- **Focus Groups:** Interview data collected in a group setting with event attendees, often using a set of guiding questions.
- **Interviews:** Information collected through a one-on-one conversation with an event attendee.
- **Observations:** Information collected through monitoring attendees as they participate in the event.
- **Survey:** A data collection tool that asks respondents to report information, such as demographic information or their opinions and perceptions.

Source: Sanders, 1994; Taylor-Powell et al., 2006

Once appropriate methods of data collection have been selected, the actual data collection instruments must be identified or created. Although it is possible to find and modify existing instruments, it is often the case that there are few instruments that address the specific goals of a given event. In these cases, data collection instruments will need to be drafted. For information on creating data collection instruments, readers should review books such as *How to Measure Attitudes* (Henerson, Morris, & Fitz-Gibbon, 1987) or consult resources such as the Center For Disease Control and Prevention's tip sheets:

- Surveys: <http://www.cdc.gov/healthyyouth/evaluation/pdf/brief14.pdf>
- Examining questionnaire items: <http://www.cdc.gov/healthyyouth/evaluation/pdf/brief15.pdf>
- Interviews: <http://www.cdc.gov/healthyyouth/evaluation/pdf/brief17.pdf>
- Focus groups: <http://www.cdc.gov/healthyyouth/evaluation/pdf/brief13.pdf>
- Observations: <http://www.cdc.gov/healthyyouth/evaluation/pdf/brief16.pdf>

Once drafted, evaluation instruments should be shared with key stakeholders for feedback (Sanders, 1994; Taylor-Powell et al., 2006). Key stakeholders can provide feedback by suggesting alternative question phrasing or important topics that ought to be covered. Following the finalization of data collection instruments, data collection can commence.<sup>4</sup> The following section explains how to manage data collection and increase participant response rates.

## Managing Data Collection

Organizing the data collected *during* the evaluation will make this information more easily accessible later, during data analysis. It is beneficial to work with the data collection team to establish procedures for receiving and handling raw data—such as numbering surveys—and to design a tracking log to monitor data received. Establishing clear procedures and processes for data entry, organization, and storage will help support later analysis. Complex evaluations may require a database with appropriate structures for each data source (Sanders, 1994; Taylor-Powell et al., 2006); online survey software programs can sometimes ease the burden of creating a database since respondent data are entered into a database upon survey completion.

If data are being collected via interview or focus group, data collectors should be properly trained in how to ask questions and take notes during interviews or discussions (this type of training is described in each of the Life Science Research Weekend and Polar Science Weekend event profiles). In most cases, it will be important that interviewers or focus group facilitators ask the same questions and use the same prompts (Frechtling, 2010) so that the quality and validity of the data are not compromised.

**Key Consideration:**  
Ensure that all data collectors are properly trained and understand the data collection procedures.

**Key Consideration:**  
Work to ensure that the number and kind of respondents are representative of the total event attendees.

## Increasing Participant Response Rates

Low survey response rates can compromise the quality and validity of the data. The higher the response rate, the more confident one can be in the data collected. A response rate is calculated by dividing the number of completed surveys or questionnaires by the total number of people who were asked to respond (in the case of large-scale events, the denominator will

---

<sup>4</sup> Prior to data collection, be sure to let potential participants or respondents know the purpose of the data collection efforts and how their data will be used. Many universities and research organizations have requirements for securing informed consent from evaluation participants—these requirements are in place to protect respondents and to ensure the integrity of evaluation practices.

often be the number of people who attended an event—however, in some cases an evaluator may elect to sample from among the respondents). Achieving high response rates (over 80%) should be a goal; however, response rates for large-scale events are often lower (depending on the data collection methods and feasible follow-up strategies). Figure 3 suggests practical strategies for improving response rates.

### Figure 3: Ways to improve response rates

- Make sure people know about the survey
- Appeal to people’s helping tendencies by asking them to provide their input
- Make sure people see that the importance of the topic (e.g., make sure they know that their input is important, and point out their personal connection to the topic)
- Make the survey or questionnaire attractive and easy to complete
- If possible, provide incentives (tokens of appreciation)
- If the survey is paper, provide paid postage for the return
- Use a combination of survey or questionnaire modes (telephone, mail, internet)
- Say “Thank You!”

Source: Dillman, Smyth, & Christian, 2009.

## Section 4: Analysis and Interpretation of Data

Once data have been collected, they must be analyzed and interpreted to be of use. This section provides information about how to prepare and then analyze the data as well as strategies for data interpretation.

### Preparing Data for Analysis

Raw data need to be cleaned and verified prior to analysis. This ensures that the data are complete (for example, incomplete responses can be eliminated) and accurate (for example, duplicate responses should be eliminated). The quality of data prior to analysis has a direct impact on the quality of subsequent analyses. Figure 4 contains best practices when preparing data for analysis.

#### Figure 4: Best practices in data preparation

- Clearly label each piece of data with a code (survey software will often do this automatically).
- Check for completeness, legibility, missing data, and extra responses.
- Check for out-of-range responses, missing data, and other issues for electronically collected data.
- Log the preliminary cleaning, being sure to note any changes/corrections made for each case.

Source: Sanders, 1994; Taylor-Powell et al., 2006.

## Data Analysis and Interpretation

The process of analysis results in answers to the evaluation questions. Ideally, decisions about how data will be analyzed, and how it will be grouped and displayed will be written in a data analysis plan prior to the process of data analysis begins (Sanders, 1994; Taylor-Powell et al., 2006). It is natural to form explanations and interpretations about data as they are studied in the context of a particular evaluation question. For example, interpretation of higher attendance rates as compared to last year may be because another popular event was held at the same time or because communication about the event was more strategic than last year.

### Data Analysis Strategies to Make Sense of Data

Quantitative data analysis focuses on summarizing numerical data, generally via statistical analyses. Although more complex analysis techniques can be used, it is not uncommon for large-scale event evaluation data to be summarized using simple strategies. The following tip sheet provides an overview of the major steps to simple quantitative (descriptive) analysis:

<http://www.cdc.gov/healthyyouth/evaluation/pdf/brief20.pdf>

Qualitative data analysis refers to the process and procedures used to make sense of descriptive data gathered through interviews, focus groups, open-ended survey questions, or observations. In most qualitative analysis descriptive information is interpreted and common themes in the attendee responses are examined. Qualitative data analysis can be conducted using readily available software such as Microsoft Word or Excel. Tips for conducting qualitative data analysis can be found here:

<http://www.cdc.gov/healthyyouth/evaluation/pdf/brief19.pdf>

Examples of both of these types of analytic strategies can be seen in the Science Festival Alliance event profiles.

## Linking Analyzed Data to Event Goals and Evaluation Questions

Data analysis typically results in preliminary answers to each of the evaluation questions. Making sense of the findings can be fairly straightforward or extremely complicated. It is a good practice to revisit the evaluation questions to ensure each has been answered (and develop a plan for addressing any that remain unanswered). Each of the evaluation questions should have evidence that supports the findings related to the question. Review any unusual, unexpected, or contradictory findings, and determine possible explanations. Keep in mind that data may come from multiple sources that address an evaluation question (survey and interview data, for instance). Evaluation theorists continue to debate the most appropriate ways to consider a variety of sources of evidence to arrive at defensible solutions—at the point of analysis, the role of evaluator is much like that of a judge who needs to consider myriad evidence to reach a verdict. Finally, identify any potential limitations of the data. Some other strategies to link data and evaluation questions are presented in Figure 5.

### Figure 5: Strategies to link data analysis and evaluation questions

- Group findings from different sources according to evaluation goals.
- Create basic, appropriate data displays/summaries (e.g., tables, graphs, word clouds) to summarize findings.
- Examine data to assess similarities and differences in findings across sources, groups (e.g., teachers in different language programs).

Source: Sanders, 1994; Taylor-Powell et al., 2006

## Section 5: Sharing the Results

Once the event is complete and evaluation data synthesized into results, it is important to share the results. Disseminating findings has several purposes: improving the current event; improving your future events; and enabling other individuals and organizations the opportunity to apply what was learned to their own future events. These “lessons learned” are presented as recommendations in the written reports reviewed. This section provides information about reporting the findings of the evaluation, refining and finalizing the evaluation, and sharing the results with other audiences.

### Reporting Evaluation Findings

After data have been analyzed and interpreted, the information needs to be shared with others to be of use. This sharing often occurs during informal conversations and as presentations during team meetings [see Torres, Preskill, & Piontek (2005) for communication and reporting strategies]. Sometimes a written report is developed based on the findings. Regardless of format, it is important to consider the audience (e.g., peers, funders, other stakeholders) and tailor the information to meet the needs of audience. It is also vital to share the information in an appropriate format, for example as a presentation to stakeholders or as a formal document to the event planning committee (Sanders, 1994; Taylor-Powell et al., 2006). Sometimes it is necessary to create several shorter, targeted summaries that focus on specific questions or stakeholder needs (Torres and her colleagues also provide information on crafting summaries). It is always helpful to include accurate and easily comprehensible displays of data (e.g., tables, graphs, charts, word clouds, illustrations, maps). For example see the Science Festival Alliance 2013 report: Three years of evaluation in twelve pages. Figure 6 presents information that evaluators frequently provide in informal and formal reports.

#### Figure 6: Typical components of evaluation presentations

- **Introduction:** Provides the background context to the event and the evaluation as well as information about the purpose and objectives of the report.
- **Findings:** Provides the results of data analysis and could include graphs and tables to summarize the data.
- **Conclusions and Recommendations:** Provides a summary of the interpretations that can be made from the data (i.e., the meaning of the data), a summary of the key successes, challenges, and lessons learned from the evaluation, and recommendations for future events and evaluations.

Source: Joint Committee, 1994; Taylor-Powell et al., 2006.

## Refining and finalizing the evaluation

It is important to share the first draft of the evaluation findings with key stakeholders to give them a chance to review the preliminary findings, conclusions, and recommendations to check for accuracy and validity as well as to make sure that the report meets stakeholders' needs. For example, the Polar Science Weekend and Life Science Research Weekend evaluations revealed that the scientists were benefitting greatly from the pre-event workshops that helped them design their interactions with the public (Ong, 2012). An exemplar of how an evaluation was used to inform a workshop can be found in the Polar Science Weekend 2012 report beginning on page 36. Once feedback from key stakeholders is received, conclusions and recommendation can be finalized for future events (Sanders, 1994; Taylor-Powell et al., 2006).

## Sharing the results with other audiences

Sharing the evaluation findings with other audiences should include consideration of appropriate distribution channels (e.g., journal articles, webinars, and/or websites where the public blog and comment on the results of the evaluation). Results can also be shared at conferences through paper and poster presentations as well as through forum discussions with other event organizers. The Science Festival Alliance event profile has examples of how they have utilized different reporting structures based on audience. Feedback and further discussion with key audiences can assist the organizer of the event in gaining insight on possible improvements (Sanders, 1994; Taylor-Powell et al., 2006). This will also help to ensure that other people can learn from the evaluation findings and consider these when planning their own events.

## References

- Bailey, J. M., & Slater, T. F. (2005). Finding the forest amid the trees: Tools for evaluating astronomy education and public outreach projects. *Astronomy Education Review*, 3(2), 47-60.
- Dillman, D.A., Smyth, J.D., & Christian, L.M. (2009). *Internet, mail, and mixed-mode survey: The tailored design method* (3rd ed.). Hoboken, NJ: John Wiley & Sons.
- Frechtling, J. (2010). *The 2010 user-friendly handbook for project evaluation*. Arlington, VA: National Science Foundation.
- Friedman, A. (Ed.) (2008). *Framework for evaluating impacts of informal science education projects: Report from a National Science Foundation workshop*. Arlington, VA: National Science Foundation.
- Guskey, T. R. (1999, April). *New perspectives on evaluating professional development*. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec, Canada.

- Guskey, T. R. (2000). *Evaluating professional development*. Thousand Oaks, CA: Sage.
- Guskey, T. R. (2002, March). Redesigning professional development: Does it make a difference? *Educational Leadership*, 59(6), 45-51.
- Henerson, M. E. Morris, L L., & Fitz-Gibbon, C. T. (1987). *How to measure attitudes*. Newbury Park, CA: Sage.
- Institute of Education Sciences & National Science Foundation. (2013) *Common guidelines for Education research and development: A report from the Institute of Education Sciences*. Retrieved from <http://www.nsf.gov/pubs/2013/nsf13126/nsf13126.pdf>
- Kirkpatrick, D. L. (1998). *Evaluating training programs: The four levels* (2nd ed.). San Francisco, CA: Berrett-Koehler.
- Norad. (2012). *What is evaluation?* Retrieved from <http://www.norad.no/en/evaluation/what-is-evaluation>
- Research Councils UK. (2011). *Evaluation: Practical guidelines – A guide for evaluating public engagement activities*. Swindon, England: Research Councils UK.
- Sanders, J. R. (1994). *The program evaluation standards: how to assess evaluations of educational programs* (2nd ed.). Thousand Oaks, Calif.: Sage.
- Taylor-Powell, E., Steele, S., & Douglass, M. (2006). *Planning a program evaluation: Worksheet (G3658-1W Program Development and Evaluation)*. Madison, WI: University of Wisconsin-Extension, Cooperative Extension Publications.
- Torres, R. T., Preskill, H. S., & Piontek, M. E. (2005). *Evaluation strategies for communicating and reporting: Enhancing learning in organizations* (2<sup>nd</sup> ed). Thousand Oaks, CA: Sage.

This publication was developed under a contract from the Lunar and Planetary Institute. However, its contents do not necessarily represent the policy of the Lunar and Planetary Institute and you should not assume endorsement by the federal government.

© 2014 McREL

Reproduction of this document is permitted with McREL cited as the source.

McREL International

4601 DTC Boulevard, Suite 500 • Denver, CO 80237 • 303.337.0990 • fax 303.337.3005

[info@mcrel.org](mailto:info@mcrel.org) • [www.mcrel.org](http://www.mcrel.org)

McREL is an equal employment opportunity/affirmative action employer.