EVALUATING OUTCOMES AND IMPACTS OF THE
MUNICIPAL FORESTRY INSTITUTE LEADERSHIP EDUCATION PROGRAM

A Dissertation
Presented to
The Faculty of the Education Department
Carson-Newman University

In Partial Fulfillment
Of the
Requirements for the Degree
Doctor of Education
By
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March, 20, 2017
Dissertation Approval

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March 20, 2017
Abstract

The Municipal Forestry Institute (MFI) is a leadership education course attended by over 400 people during its first ten years of existence. The course has never undergone a rigorous program evaluation to determine the outcomes and impacts of the instruction on its participants, their organizations, or their communities. This research used Kirkpatrick’s Level 3 (Behavior) and Level 4 (Results) program evaluation approach as the theoretical framework, and Kellogg’s Logic Model and Black and Ernest’s adaptation of the Grove et. al EvaluLEAD approach as its conceptual frameworks. A three-prong qualitative data collection method was used, with a focus group, telephone interviews, and an online survey to gather data. Participants reported substantial personal and professional growth and leadership outcomes on an individual and organizational level, but less of an impact on a societal/community level. An increase in leadership knowledge, increased confidence, and an expanded professional network were the three most common outcomes of the MFI. This research unearthed observable and measurable evidence about what happened to participants as a result of attending MFI, and collected opinions and captures stories about MFI outcomes and impacts that helped people advance their careers and their organizations.
Acknowledgements

I’ve never been very conventional. Not many foresters specialize in urban forestry. Not many urban foresters spend their time thinking about non-tree topics like leadership. Not many 50-something year olds go back to grad school to get a doctorate. Not many foresters get a Doctorate in education. But quite conventionally, I certainly didn’t complete this journey alone. So of course many thanks are in order….in fact, two pages worth!

To my dissertation committee, Dr. P. Mark Taylor, Dr. A. Scott Reed, Dr. Claire Adams, and Dr. Paul Percy: thank you for your insights and input in making this research the best it could be. In particular, thanks to Dr. Taylor who always asks people what they want to be when they grow up. I figure now is as good as any to give an answer. Dr. Taylor, the answer is: “a celebrity chef on the Food Network”. But I’ve been so busy writing for you that I haven’t found time to pursue that one yet.

To my Oregon State University colleagues, in particular Dr. Anita Azarenko, Dr. A. Scott Reed, Dr. Paul Doescher, Dr. Jenna Tilt, Dr. Troy Hall, and Dr. Bruce Shindler: thank you for your support, insights, and encouragement over the years. I literally couldn’t have done this without you. To my OSU Ecampus colleagues, particularly Shannon Riggs, Lisa Templeton, and Dave King: thank you for helping me to use online learning as a real-life example for so many of those graduate school class papers.

To Scott Reed (yes, you do get three mentions on this page), thank you for years of mentorship and not so subtle hints that I really should be getting a Doctorate. It seems like a lifetime ago when we met back in 1991 and I’ve appreciated your support and advice ever since. I’m glad that I finally took your advice despite all my years of resistance.
To Elizabeth Jones, my favorite professional editor and walking grammar reference: thank you for three years worth of answers to writing questions and one really long proofreading job. I can’t begin to tell you how proud I am of you.

To all of my fellow MFI teaching cadre members past and present, but in particular Andy Hillman, Walt Warriner, Owen Croy, Jerri LaHaie, Dr. Melanie Kirk Mitchell, Keith Cline, Al Zelaya, Steve Shurtz, Dana Karcher, and George Gonzalez among many others: your dedication to leadership and learning continues to amaze me and inspire me. Thank you for allowing me to be a part of a great team. You should be proud of these results that highlight your very significant achievements.

To the MFI graduates: thank you to those of you who participated in this research, sharing your thoughts, insights, stories, and personal perspectives. I’m truly amazed at the power of the MFI experience, and your accomplishments and achievements are rewarding to watch.

Finally, and certainly above all others, I acknowledge and dedicate this work to my best friend and wife, Joyce, who not only puts up with my schemes and crazy ideas, but who also agreed to work one extra year beyond what she planned in order to put me through grad school. I love you and I can’t thank you enough, even after almost 36 years of marriage, but I hope to continue trying to find ways to thank you for at least 36 more.
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Chapter 1: Introduction

Context of this Study

The option for an employee to attend a training course based on the concept of leadership or leadership development is a continuing education opportunity found in many professional disciplines. Leadership is a subject that is universal to all professions, and leadership principles are highly transferrable among professions, disciplines, and academic subjects. What is the value in providing advanced training such as leadership skills to employees? Aguinis and Kraiger (2009) conducted a literature review of employee training and development studies in the first decade of the current millennium and found widespread evidence that training produces clear benefits for individuals, teams, organizations, and society. Attendance at leadership trainings can result in significant personal and professional growth for course participants. Personal growth is achieved by broadening a leader’s perspectives, by increasing their self-confidence, and by giving them a clearer sense of self-purpose. Professional growth is often realized through learning innovative approaches to human resource or program management strategies, and by participation in expanded leadership roles (Black & Earnest, 2009).

Although leadership courses abound, the evaluation of such courses is not always a regular part of course design (Eseryel, 2002). When evaluation is conducted, it is often limited to gauging participant satisfaction and learning, because evaluation at these levels can be obtained immediately upon conclusion of the course. Deeper level evaluations attempting to ascertain what participants actually did with the information they learned are usually more elusive, mainly because once the educational sessions are complete, course organizers do not always stay in contact with participants. Nonetheless, demand for program evaluation has been growing as sending organizations and funding agencies are increasingly demanding accountability for how
program funds have been used and exactly what the funded programs have produced (Newcomer, Hatry, & Wholey, 2015). Black and Earnest (2009) observed that the lack of research evaluating the outcomes of leadership development programs, coupled with the lack of a suitable evaluation instrument for such programs, has generated many calls for increased emphasis in this area.

**Research Problem**

In the field of urban forestry, the primary leadership training available to professionals is the Municipal Forestry Institute, also known as MFI. First offered in 2006, this annual course has been completed by over 500 participants. The Society of Municipal Arborists, a non-profit professional organization, organizes the program. It consists of a 6-week online module (requiring approximately one hour per week), followed by an intensive one-week face-to-face session that is held in a conference-style retreat setting somewhere in the U.S. To-date, the program has only been minimally evaluated. Anecdotal evidence suggests the program is both popular and effective (Jackson, 2007), however only one evaluation study has been completed using MFI graduates as the research population, and even then it was so early in the program that it could only be conducted using a small segment of the MFI graduates (Kirk, 2009). While the MFI instructional team has used a real-time continuous improvement model for assessing satisfaction and learning during the MFI courses, post-course evaluations have not been regularly conducted. Accordingly, a more comprehensive analysis of the outcomes and impacts of the course on its participants has also never been attempted. Such an analysis would be useful to not only document the value of the course, but also demonstrate its merit and worth to its organizers, instructors, sponsors, and even to potential future attendees.
Purpose of this Study

The purpose of this study is to conduct an outcome and impact evaluation of the Municipal Forestry Institute (MFI) leadership course. Using Kirkpatrick’s Four Level framework for program evaluation as the theoretical framework, and both Kellogg’s Logic Model and the EvaluLEAD model for assessing individual, organizational, and community/societal outcomes and impacts, the study will determine exactly what difference attending MFI made in the personal and professional lives of its participants. Subsequent analysis will explore the impact on the participants’ organizations and communities as well.

Rationale for this Study

MFI is advertised as an unparalleled training experience within the urban forestry profession and participant testimonials back up this claim, however no data exists to demonstrate exactly how successful the program has been. The MFI instructional cadre regularly receives positive feedback from MFI graduates about the impact the course has had on them, yet there is no available data that 1) validates positive impacts and outcomes of attending the course, or that 2) could be used to bolster a case statement for additional sponsorship and support. This study evaluates MFI by determining and documenting the impacts and outcomes of the course on the participants’ personal and professional lives, while also adding to the currently limited body of knowledge regarding evaluation of leadership development programs. It will also help the MFI cadre strengthen their case for funding, sponsorships, the continued presentation of the program, and perhaps the creation of a second level of leadership training for current MFI graduates. The program organizers would like to attract more sponsors to make it affordable to more participants, and to make a more compelling case to potential participants. Therefore, data and observations generated from a study of the outcomes and impacts of MFI on its past participants
could make a significant difference in the future success and growth of MFI. Consequently, the rationale for this study is that this leadership program has never been rigorously evaluated, and such an evaluation would have value for the course organizers, instructors, and sponsors.

**The Researcher**

The researcher conducting this study is not an objective bystander; but rather has a significant connection to both the subject matter and the course, having served as the curriculum chair of the leadership course in question and as one of the original organizers of it. This volunteer leadership role has provided great insights and anecdotal evidence regarding the effect of the course on its participants, and this research offers an opportunity to formally describe the nature of that benefit.

**Theoretical and Conceptual Frameworks**

This study uses Kirkpatrick’s Four Level framework of program evaluation (focusing on levels 3 and 4) as the theoretical framework (Kirkpatrick, 1996). It uses Black & Earnest’s (2009) adaptation of the Grove, Kibel and Haas (2005) EvaluLEAD model of leadership evaluation, and Kellogg’s (2002) Logic Model as the conceptual frameworks, focusing on the individual, organizational, and societal/community outcomes.

**Research Questions**

This study uses the aforementioned leadership evaluation frameworks to conduct an assessment of the program outcomes and impacts as reported by the MFI graduates. Ultimately, this study does not actually evaluate the MFI program itself in terms of content or what participants specifically learned from the curriculum, but rather it attempts to answer the overarching question: what difference did it make that an individual attended the MFI? Rather than focusing on what people learned and how satisfied they were with the curriculum, this study
examines the outcomes and impacts of course attendance. As mentioned, this study uses Kirkpatrick’s Levels 3 and 4 to measure behavior and results observed and realized by the MFI leadership course graduates, based on Black and Earnest’s (2009) adaptation of the Grove, Kibel and Haas (2005) EvaluLEAD model and Kellogg’s (2002) logic model elements of outcomes and impacts. Based on these program evaluation frameworks pertinent to leadership development programs, this study focuses on three questions:

1. How did the MFI course influence the participants’ thoughts, beliefs, and perspectives to cause outcomes in their personal and professional lives?
2. What organizational outcomes resulted from participants’ attendance at MFI?
3. What were the impacts of attending MFI over the longer term and in the larger societal/community context?

The individual influence and outcome question (#1) -reflects Kirkpatrick’s Level 3 measuring behavior change and reflects the Black and Earnest (2009) model’s Evocative form of inquiry, which seeks to collect opinions, capture stories, and encourage reflection in order to document feelings, insights, and changes in values, vision, or self-awareness. In the context of this study, influence is a defined type of outcome related to how the course influenced the individual’s thoughts and beliefs. The outcome research question (#2) deals with Kirkpatrick’s Level 3 to measure behavior or actions taken as a result of attendance at MFI and Kirkpatrick’s Level 4 to measure results or outcomes on the participants’ organization. The impact question (#3) is based on the Black and Earnest (2009) Societal/Community domain and the model’s Evidential form of inquiry, which seeks observable and measurable evidence of broader results beyond the individual and organization. The impact question also draws on Kellogg’s logical model to determine longer-term benefits to attending the program.
Limitations and Delimitations

Limitations of this study include participant accessibility and desire to participate. Of the nearly 500 MFI graduates from 2006-2015, at least two people are deceased, more than a dozen have left the urban forestry profession, and several dozen have retired, moved or changed email addresses and their current contact information is not available to the MFI teaching cadre. There were 435 valid email addresses attainable, based on an annual MFI alumni newsletter database. It is unknown how many MFI graduates would participate in this study, since it is voluntary, and offers no incentives or rewards for providing a response. Faded memories and even response-shift bias are possible in this research. However, there was no incentive for participants to provide exaggerated or untruthful responses.

Another limitation relates to the assessment of organizational outcomes. Kellogg (2002) observes that while it is not uncommon for individually focused leadership programs to ask participants what impact their learning has had for the organization where they work, a thorough assessment of organizational outcomes requires that there be some additional assessments with other people in organizations to learn about effects on the organization that may be correlated with a leader’s participation in the program; and more substantively, a longitudinal study that tracks impact over time. A research design that incorporates these elements was not possible with this research study. Consequently, this research focuses on the self-reported responses of the individual participants and does not attempt to gather opinions of other subjects.

Delimitations of this study include that it is limited to MFI graduates, and did not contain a control group of non-MFI participants in the urban forestry profession who could be surveyed about their own professional development and leadership achievements and behaviors in the absence of attending this specific course. A second delimitation is that satisfaction and learning
facets (Kirkpatrick’s Levels 1 and 2) of the course were not requested. In a retreat setting such as the one MFI uses, satisfaction is tied to a variety of factors, including quality of teaching, quality of facilities (including food), and participants’ own frames of reference. Satisfaction surveys typically take place at the end of, or immediately after, a training course. The MFI cadre has used a continuous evaluation model to gauge satisfaction daily during the event. Since this is a longer-term study where participants are anywhere from one to eleven years beyond their MFI experience, this study did not attempt to address Kirkpatrick’s Level 1 evaluation of participant satisfaction. Kirkpatrick’s Level 2 (learning) relates to the participants’ mastery of the course content, and does not explore the outcome and impact of that learning. Consequently, this study does not assess the course itself in terms of what participants learned either. Finally, several authors (Grove, Kibel, & Haas, 2005; Russon & Reinelt, 2004, McLean & Moss, 2003) have recognized the difficulty of establishing program causality in the case of such complex concepts as leadership effectiveness and program evaluation; hence this study focuses on the concept of influence rather than causality.

Definitions of Terms

For the purposes of this research, standard definitions of operational terms are used, drawn from common usage and from the relevant literature regarding program evaluation. For example, these terms include influences, outcomes and impacts, which are terms that can have different meanings to different people, or for different contexts. In this study, the definitions of influences, outcomes and impacts used are drawn specifically through the lens of educational program evaluation. For the purposes of this study, the following terms apply:

**Program Evaluation.** The term evaluation means the systematic investigation of the merit, worth, or significance of a programmatic effort. The term program is used to describe the
object or effort that is being evaluated, in this case, an educational course offering. There are at least four generally accepted reasons to conduct a program evaluation: to gain insights, to improve how things are done in the future, to determine what the effects of the program are, and to affect those who participate in it.

**Leadership Program.** A leadership program, sometimes referred to as a leadership development program, is an educational course designed to further the knowledge, skills, and abilities of an individual to exercise leadership in their employment or organizational contexts. Leadership programs are often characterized by lectures, discussions, group exercises, role-play activities, personal reflection time, and networking opportunities.

**Influence.** For the purpose of this study, influence is defined as the ability to cause beneficial, desirable, and measureable actions or change. In the context of program evaluation, the influence a program has on an individual relates to changes in thoughts, feelings, values, or perspectives about either the course content or their individual relationship to it.

**Outcomes.** In the context of program evaluation, outcomes are defined as changes in attitudes, behavior, knowledge, skills, status, actions, or an increased level of functioning resulting from participating in a leadership course. Outcomes may be realized in personal, professional, and organizational contexts. Outcomes may be short-term (1-3 years) or long-term (4-6 years) (Kellogg, 2002). Outcomes may take place in various contexts, such as individual, organizational, and societal/community levels (Grove, Kibel & Haas, 2005).

**Individual Outcomes.** Outcomes realized on an individual level involve assessing the participants’ perception of their personal growth and development as measured by variables of self-confidence, emotional intelligence, interpersonal skills, creative thinking and problem
solving as a result of having attended the leadership course. Individual outcomes also relate to the actions people may have taken as a result of attending a course.

**Organizational Outcomes.** Outcomes related to the participants’ organization are based on how the person has applied what they learned in the program within their organizational structure. These outcomes are measured by variables such as creativity, dealing with change, innovation, or application of new leadership skills.

**Societal/Community Outcomes.** The outcomes in the realm of community and society assess the participants’ perception of how they have used their influence beyond their personal and organizational settings. These contexts might include forming new collaborations with other individuals or organizations, volunteer service in the non-profit sector, increased leadership roles in non-work settings, or increased appreciation of cultural differences, equity, and diversity.

**Impact.** In its simplest definition, impact is about making a difference, so when there is action or activity that leads to change, impact is the measure of that change in a context that may be individual, local, or even global (Chandler, 2014). Impact can refer to a long-term change that results from participating in a leadership course, and it can also be a measure of program effectiveness in achieving its overall or ultimate goals. At a broad scale, impact is distinct from outcome in terms of its spread beyond those immediately involved in the program (Kellogg, 2002). Impact evaluation pertains to the longer-term, deeper changes that have resulted from a program, such as the results expected 7-10 years after an activity is underway. Impact is concerned with the future change a program is working to create (Kellogg, 2002).
Chapter 2: Literature Review

Measuring the outcomes and impacts of a continuing education leadership program on the personal and professional lives of its participants requires that some form of a systematic evaluation process be applied. This chapter provides a literature review that explores program evaluation in general, and the evaluation of leadership development programs in detail. Both subjects have extensive histories and research studies from which to draw. Next, a specific review of research regarding outcomes and impacts of leadership programs is provided in order to provide context to the educational program being evaluated in this dissertation research.

Program Evaluation

Program evaluation is a practical and academic subject with a long history; people have been evaluating educational programs as long as classes have been taught. However, both academics and practitioners have never agreed on a singular uniform definition, approach, model, or method for program evaluation. As Scriven (1996) observed, "evaluation is a very young discipline - although it is a very old practice" (p. 395). Newcomer, Hatry, and Wholey (2015) noted that “program evaluation is the application of systematic methods to address questions about program operations and results” (p. 5). Stufflebeam (2001), in an article cataloging 22 different approaches to program evaluation, defined the term as “a study designed and conducted to assist some audience to assess an object’s merit and worth” (p. 11). Program evaluation is a valuable learning strategy for enhancing knowledge about the underlying effectiveness of programs and usefulness of their results (Newcomer, Hatry, & Wholey, 2015).

Program evaluation as a distinct field of professional practice draws its existence from two realizations. First, there is never enough money to do all the things that that people believe need doing. Second, even if there were enough funding, it takes more than money to solve
complex problems (Kellogg, 1998). Since not everything can be done, there must be a mechanism for determining which things are worth doing with the time and funds available, and ultimately this is the value and importance of program evaluation (Kellogg, 1998). Program evaluation specific to educational courses is relevant to answering questions about whether or not a curriculum is achieving its intended aim, determining what the participants are doing with the information learned, and measuring the impact that the course had beyond the participants. Specific goals for evaluation of educational courses and training programs typically involve multiple methods and purposes, including evaluation of student learning, evaluation of instructional materials, transfer of training, outcome assessment, and return on investment (Eseryel, 2002).

Although many positive outcomes are associated with conducting program evaluations, it is nevertheless a challenging endeavor for course organizers (Steele, et al., 2016). Despite its importance, there is evidence that evaluations of training programs are often inconsistent or even missing (Eseryel, 2002). Training departments with limited budgets often just assume that programs are effective and put dollars that should go into evaluation into the next program (Kruse, 2002). Studies of why evaluations are not always completed have found that barriers to program evaluation included insufficient funding, low organizational priority for long-term evaluations, and lack of knowledge about how to properly conduct evaluations (Russon & Reinelt, 2004, Kellogg, 2002, Stufflebeam, 2001). Torres and Preskill (2001) argued that evaluation should play an expanded and grounded role in any successful learning organization. Design, consistent application or use, and follow-through appear to be the three key determining factors in the success or failure of educational program evaluation efforts described in the literature.
A distinction must be drawn between program effectiveness and program evaluation. Program effectiveness would measure how effective an educational program was at meeting its intended purpose. For example, did the teaching methods employed effectively convey the material in a manner that resulted in the learner gaining a mastery of the material, or at least an increased knowledge or skill level? Conversely, program evaluation might evaluate how effective the program was, but would also include measures to determine the worth or value of the program to its participants (Alvarez, Salas, & Garofano, 2004). Program effectiveness is typically more narrowly drawn to an assessment of whether or not the curriculum met its stated goals by measuring whether the participants learned what the instructors taught. The promise of evaluation is derived from determining what works and what does not work in an effort to promote continuous improvement (Kaufman, Keller, & Watkins, 1996).

**Program Evaluation Approaches, Frameworks, Methods, and Models**

As further evidence of the lack of widespread uniform acceptance of any single program evaluation mechanism, various mechanisms are routinely described as approaches, frameworks, methods, and models, with these terms usually being synonymous and often being used interchangeably. Likewise, the content of program evaluation approaches, frameworks, methods, and models vary greatly. Some are more comprehensive than others, while some focus on specific aspects of evaluation at the expense of others. Stufflebeam (2001) provided an assessment of 22 different evaluation approaches in an effort to determine the strengths and weaknesses of each, and to describe whether, when, and how each is best applied. A key finding of this research was that every model, method, framework or approach has its strengths and weaknesses, and program evaluators should strive for a consistently high level of integrity in uses of the various approaches (Stufflebeam, 2001). This view was reinforced by Newcomer,
Hatry, and Wholey (2015), who suggested that a careful analysis of a program and the socio-political context in which it operates is a critical precursor to planning any type of program evaluation, and ultimately to its success.

The reason there are so many different evaluation approaches appears to relate in part to the context of the evaluation, the measurements used, and the desired focus of the process. The following evaluation approaches, methods, models, or frameworks were chosen for inclusion in this literature review because they contain a focus, in whole or in part, on the concepts of outcomes and impacts. Were this research focusing on different elements, other methods or models would have been appropriate for inclusion.

**Kirkpatrick’s Four Level Evaluation Framework.** The most influential theoretical framework for evaluating training courses originated with Donald Kirkpatrick, who in writing for the *Journal for the American Society of Training Directors* in 1959, first proposed the following four-level assessment criterion (Eseryel, 2002):

a. **Level 1, Reactions:** what are the feelings and reactions of the learner to the course material that was presented? To what extent is the learner satisfied with the material that was taught and how it was taught?

b. **Level 2, Learning:** to what extent did the learner master the educational content of the course? Are there signs of a change in attitude, belief, or opinion, where this is a result of the learning?

c. **Level 3, Behavior:** is the learner demonstrating changed behavior in the skill or knowledge areas covered by the course material, and is there evidence at a later date of transfer to the workplace of these skills or knowledge?
d. Level 4, Results: to what degree has the learner’s organization been positively impacted by the learner’s application of the training, knowledge and skills in the workplace?

Kirkpatrick felt that his framework was widely adapted because it was simple and practical, despite the fact that other scholars criticized it for those same reasons (Kirkpatrick, 1996). Nonetheless, Kirkpatrick’s framework remains a standard for the evaluation of training and education courses in the public, private, and non-profit sectors (Kellogg, 1998).

While most program evaluators embraced Kirkpatrick’s framework, some also felt compelled to put their own marks on it. Scriven (1996) built upon Kirkpatrick’s foundation and introduced the terms “formative evaluation” and “summative evaluation” to define the curriculum evaluations imposed before or after the development of a curriculum. Formative evaluation takes place during the development of a program and is intended for internal purpose. Summative evaluation is defined as the evaluation conducted after the program is complete, and is intended for external audiences (Scriven, 1996). Kaufman, Keller, and Watkins (1996) proposed “Kirkpatrick Plus,” adding a fifth level involving a societal component. This fifth level of evaluation asked if the education provided benefited society as well as the individual. Also in the mid-1990s, Phillips and Phillips (2007) suggested adding their own fifth level to Kirkpatrick’s approach, but their contribution was to calculate the return on investment (ROI) generated by training. The fact that many authors, researchers, and evaluators decided to tinker with Kirkpatrick’s approach shows that while it was widely used, people thought it could be improved upon over time. Lacking any standardized approach to program evaluation, or even an entity to promote or enforce such an approach, Kirkpatrick’s framework became the de-facto standard approach for many evaluations.
Echoing the problems of program evaluation in general, the use of Kirkpatrick’s Four Level framework, however popular it and its subsequent variations have been, has still been inconsistent or incomplete. In a survey of training and evaluation specialists who used Kirkpatrick’s Four Level framework, Carnevale (1990) found that while nearly 100 percent conducted level 1 satisfaction evaluations, the responses for the other three levels fell off dramatically, to 25 percent for levels 2 and 4, and only 10 percent for level 3 evaluations. The litany of reasons for organizations failing to conduct the more advanced levels of evaluations mirror those of evaluations in general, and includes lack of confidence, lack of training in evaluation practices, and lack of an organizational culture that supports evaluation efforts (Wang & Wilcox, 2006).

Why are Level 3 and 4 evaluations specifically less common than the others in Kirkpatrick’s framework? Organizational, social and economic constraints greatly influence not only data collection, but also the very outcomes on the results (and to some extent behavioral) levels of the four level model (Praslova, 2010). Evaluations focusing on Kirkpatrick’s Level 1 are typical in many courses, because participants are often asked to answer a satisfaction survey at the end of a course while they are still in the room. Some of these post-event surveys also ask level 2 questions to gauge what people learned. Getting deeper into the level 2 realm usually involves some variety of pre- and post-testing with questions specifically tied to learning objectives (Kruse, 2002). In many courses, instructors rarely have interaction with learners beyond the instance of completing the course. Consequently, in a distant post-course evaluation, a reflective pre- and post-testing method must be used, where learners reflect on what they knew before they completed the course, and compare it with what they know after the course. Level 3 (Behavior) and level 4 (Results) evaluations are more rare because they require post-course
interactions with the learner that are not always easy to obtain, are more time consuming, and require more complex data analysis (Shelton & Alliger, 1993). Additionally, measures of levels 3 (Behavior) and 4 (Results) are best administered after a defined amount of time passes after course completion, and may be best served with the scientific use of a control group (Kruse, 2002), another variable that is not always easy to achieve in a timely and cost-effective manner.

**Holton’s Evaluation Research and Measurement Model.** Holton (1996) argued that Kirkpatrick’s Four Level framework was not a proper model because it lacked a research foundation, and functioned more like a taxonomy of outcomes or a classification scheme. Proposing his own model consisting of three primary outcome measures (learning, individual performance, and organizational results), Holton and others suggested that there was no correlation between reactions and learning, thus no need to include that level (Holton, 1996). Holton’s was actually one of three subsequent training evaluation models that did not propose relationships between reactions and the other evaluation measures, arguing that positive reactions to training are not a predictor of learning (Alvarez, Salas, & Garofano, 2004). Kirkpatrick, in replying to Holton’s criticisms, stated that he never called his four-level approach a “model” at all, but rather a “framework,” and while he did not object to others calling it a model or to it being referred to as “a taxonomy,” he did object to it being labeled as “flawed” (Kirkpatrick, 1996b). In fact, Kirkpatrick opined that as long as training professionals found his framework useful, he did not care what it was called (Kirkpatrick, 1996). The passage of time shows that Kirkpatrick’s framework has been much more widely adopted than Holton’s model has been. In fact, a full test of Holton’s model was not even possible subsequent to it being proposed because tools to measure the constructs in the model did not exist (Holton, 2005). The model was later updated, but has still not been widely used, nor has it been validated.
Kraiger’s Decision Based Evaluation. An evaluation model developed by Kraiger (2002) emphasized three multidimensional target areas for evaluation design and measurement: 1) training content and design (including design, delivery, and validity of training), 2) changes in learners (including affective, cognitive, and behavioral aspects) and 3) organizational payoffs (such as job climate, job performance, and results). The model frames decisions about how to measure training impact based on the intended purpose for the evaluation—such as decision making, marketing, and providing feedback to participants, instructors, or course designers. The model also emphasizes tailoring evaluation measures to the needs and sophistication of the intended audiences (Kraiger, 2002). Like Kirkpatrick’s framework, Kraiger’s model considered change in attitude as an outcome deserving of independent attention because of the variety of possible affective outcomes produced by training, such as increases in self-efficacy, motivation, and organizational commitment (Alvarez, Salas, & Garofano, 2004).

Integrated Model of Training Evaluation and Effectiveness (IMTEE). Building upon the previous work of Kirkpatrick, Holton, and Kraiger, a new model was proposed by Alvarez, Salas, and Garofano (2004) based on a 20-year analytical review of empirical research studies in program evaluation. The IMTEE model was constructed using elements or variables taken from the previous three models or frameworks with the intent of improving upon those versions. The main objective of this research was to identify the individual, training, and organizational variables that are empirically related to evaluation and effectiveness. As a result, this model takes a slightly different approach, being grounded in the recognition that while program effectiveness and program evaluation are fundamentally two separate concepts, they are significantly related and as such can best be assessed together. Evaluation measures used in the model relating to post-training attitudes were cognitive learning, training performance, and transfer performance.
Training effectiveness variables used in the model relating to post-training attitudes were pre-training self-efficacy, experience, post-training mastery orientation, learning principles, and post-training interventions (Alvarez, Salas, & Graofano, 2004). One nuance to the IMTEE model is that behavioral criteria are used to evaluate the training itself, in order to describe the extent to which the training is producing the targeted behavioral outcomes, as opposed to focusing on the participant behavior directly (Steele, et al., 2016).

**Leadership Program Course Evaluation**

An emerging trend within program evaluation in the last 20 years is an increased focus on the evaluation of one distinct type of educational training sessions, those on the topic of leadership development, largely due to a dearth of literature on the subject (Black & Earnest, 2009). The content and context of leadership program evaluation is varied and inconsistent (Dinh et al., 2013, Black & Earnest, 2009), which has also generated additional calls for more research in this area.

Even the term leadership is defined in many ways by many different researchers and scholars. For example, leadership is defined as “the art of mobilizing others to want to struggle for shared aspirations” (Kouzes & Posner, 1995, p. 30). Leadership means enabling others to face challenges, achieve results and create the positive future that people envision (LeMay & Ellis, 2008). A common thread of leadership definitions involves terms such as inspiration, vision, competence and interpersonal skills. Leadership in organizations is increasingly important as a key indicator for successfully achieving goals; however, researchers and practitioners know little about the relationship between leadership development and actual performance (Gentry, et al., 2013). While leadership can be viewed as primarily an individual capacity to lead, it can also be viewed as a process in community with others (Kellogg, 2002).
A leadership program can be defined as a structured educational process in which participants learn to apply leadership practices to address the challenges they face in their job or profession. An effective leadership program not only teaches participants new skills, it also enhances their knowledge of leadership topics and shows them new ways of working collaboratively together (LeMay & Ellis, 2008, Carter & Rudd, 2000). Leadership development has been described as “the expansion of a person's capacity to be effective in leadership roles and processes” (Van Velsor & McCauley, 2004, p. 2). An increase in a participant’s leadership capacity is a product of an expansion of one's frame of reference or personal perspective and surrounding environment (Orvis & Ratwani, 2010). Since individuals may exercise leadership skills in a variety of settings, each of these points are germane.

The evaluation of leadership programs can be difficult because leadership programs are typically designed to produce intangible rather than just tangible results, such as increased leadership capacity exhibited by the participants (Martineau & Hannum, 2004). Russon and Reinelt (2004) suggested that there is a great deal of knowledge available about how leadership programs affect individual participants in terms of skills, capacities, and knowledge gained as a result of a leadership training. However, there is less information known about the mastery of leadership over time and about the process of developing as a leader (Russon & Reinelt, 2004). Martineau and Hannum (2004) suggested that evaluation strategies applied to leadership programs should measure more than just the participant’s perception of the program outcomes. The lack of a uniform leadership evaluation model or framework coupled with inconsistent application of evaluation processes being used has inadvertently resulted a wide array of studies, each managing slightly different things in slightly different ways, unsurprisingly with slightly different results.
Fortunately, meta-analysis studies in the field of leadership program course evaluation have shed some light on these issues. In a first-of-its-kind study, the W.K. Kellogg Foundation authored a review of 55 leadership development programs across employment sectors to evaluate their outcomes and impacts (Kellogg, 2002). This scan examined desired and unintended outcomes, approaches to evaluation, data collection methods for evaluation, and data sources. A key finding of this scan was that there were often trade-offs when deciding which evaluation mechanism to use for leadership programs (Russon & Reinelt, 2004). Similarly, Collins and Holton (2004) researched 83 studies from 1982 to 2001 to determine the effectiveness of leadership courses in participants’ enhancement of performance, knowledge, and expertise at the individual, team or group, and organizational level. The methods behind these studies involved taking program evaluation approaches, frameworks, methods, and models and applying them to one or more leadership courses.

**Leadership Evaluation Approaches, Frameworks, Methods, and Models**

Multiple mechanisms to evaluate leadership development programs are available, even if they are not widely used. As is the case with program evaluation in general, leadership program evaluation mechanisms are routinely described as approaches, frameworks, methods, and models, with these terms often being synonymous and being used interchangeably. Four of these mechanisms pertinent to this study are Logic Models, EvaluLEAD, Theory of Change, and Return on Investment. The following paragraphs briefly summarize each of these:

**Logic Model.** The W.K. Kellogg Foundation has been prominent among many proponents advocating using logic models in leadership training evaluation, assessing both outcomes and impact (Black & Earnest, 2009). Kellogg’s work centered on logic models as a systematic way to analyze inputs necessary to produce desired outcomes and impacts of a
leadership program (Kellogg, 2002). Though logic models were first conceptualized more than 50 years ago, Kellogg mainstreamed the use of them for leadership training. Logic models are a mechanism used to apply program theory in a concrete way. Consisting of five or so boxes arranged linearly, (usually inputs, activities, outputs, outcomes, and impacts), logic models provide a framework for organizations to focus on outcomes and impacts rather than just on activities (Weiss, 1997). In a logic model, “outcomes are the specific changes in attitudes, behavior, knowledge, skills, status, or level of functioning expected to result from program activities. Outcomes may be short-term (1-3 years) or long-term (4-6 years). Impact refers to the results expected 7-10 years after an activity is underway – the future social change a program is working to create” (Kellogg, 2002, pg. 8). Many organizations and funding agencies now require proposals for projects and programs to include a logic model or describe a program theory in recognition of its value not only as a tool for planning and management, but also for evaluation (Rogers & Weiss, 2007). Having a logic model in place at the beginning of a program evaluation is an important step because it can be a focusing mechanism for the evaluation and the measurement of key variables or performance indicators (McLaughlin & Jordan, 2004).

Theory of Change. Theory-based evaluations have received considerable attention in the last 30 years. Weiss (1997) observed that if a theory based evaluation can show the series of micro-steps that lead from inputs to outcomes, then causal attribution for all practical purposes seemed to be within reach. Subsequently, Watkins, Lysø, and deMarrais (2011) presented an evaluation model based on a Theory of Change approach that identifies critical incidents of new behavior and explores changes at individual and organizational levels. In an application of this model, graduates of a leadership program were asked to look back to identify personal changes that had occurred that could be at least partially attributed to the leadership program,
organizational impacts including examples of participants’ mentoring others on what they learned, and continued gains from the network created through attendance at the course (Watkins, Lysø, & deMarrais 2011).

**Return on Investment.** As noted earlier, in the mid-1990s, Phillips and Phillips (2007) were the first to suggest adding a fifth level to Kirkpatrick’s approach to calculate the return on investment (ROI) generated by training. Other researchers have observed that the idea behind ROI calculations is to make sound decisions about leadership training using the same approach that leads an organization to incur cost for an anticipated benefit, just as they would for any other investment (Avolio, Avey & Quisenberry, 2010). Bennington and Laffoley (2012) argued that with today’s challenging economy, organization training budgets are receiving more scrutiny than ever before, so evaluations administered immediately after a program are no longer enough because they do not provide enough solid evidence to justify the investment in their programs. This is particularly the case in leadership development programs, where the development of intangible skills such as increased leadership capacity is a desired outcome. This created the need to establish robust measures that capture ROI so that even the most critical of reviewers can see the value of training programs to an organization (Bennington & Laffoley, 2012). While this is clearly a desired goal, other studies have found that only a mere 8% of organizations actually evaluate the value of training initiatives (Palmer, 2010). Phillips' ROI methodology incorporated a net benefits over total costs calculation to determine ROI, taking into account the entire cost of a leadership development course with a fixed beginning and end date (Avolio, Avey & Quisenberry, 2010). While this evaluation model does focus on an outcome, it is more narrowly tailored to the financial outcomes given its use of cost-benefit analysis as a driver rather than personal and professional growth on their own merits.
**EvaluLEAD.** The EvaluLEAD methodology is designed to assist in the exploration and documentation of a leadership development program’s complex results. The methodology recognizes that, as an increasing number of graduates exit from any given leadership development program and start exercising their new knowledge insights, there is a corresponding increase in the quantity, quality, variety, and duration of outputs, outcomes, and impacts whose emergence the program may have helped influence (Grove, Kibel, & Haas, 2005). Though originally developed for social services and public health and welfare uses, the EvaluLEAD method is general enough to have broad applicability across many contexts and academic disciplines. The EvaluLEAD framework assumes that systematic evaluations of leadership programs will likely lead to findings that could not be foreseen based on the individuality of the participants (Grove, Kibel & Haas, 2005). Therefore, program developers, sponsors, and stakeholders will be able to use the data to be better informed about the program’s effects, and future versions of the program will produce better results. As with other models or frameworks, EvaluLEAD has been challenged by other scholars. Clarke (2012) argued that EvaluLEAD is less of a theoretical model and is better described as a methodology that advocates evaluating four parameters of leadership training and development. These are identified as 1) context (including the purposes and assumptions surrounding leadership); 2) result types (i.e., the different forms or depth of change required, 3) domains (the three levels at which results are expected to occur); and 4) forms of inquiry (the different approaches to collecting data and assumptions underpinning them) used in the evaluation (Clarke, 2012).

EvaluLEAD is a useful tool that explores outcomes on the individual, organizational, and community level domains, and one which Black and Earnest (2009) expanded into an EvaluLEAD Conceptual Model for use in evaluating a specific leadership course. This
The various approaches, frameworks, methods and models to leadership program evaluation take into account many different contexts and purposes of evaluation. Since this study was primarily concerned with those approaches, frameworks, methods, and models that focus on outcomes and impacts, the many studies that summarize other purposes (such as curriculum effectiveness or participant learning and satisfaction) are not summarized here.
Leadership Program Evaluation Outcomes and Impacts

There are a number of studies that have explored leadership course evaluation in terms of the outcomes and impacts on the course participants. In most of the studies, a series of outcome categories emerged, with a common thread being that the individual, the organization, and the societal/community were the three main domains of impact where outcomes were observed. Between 1950 and 1990, the W.K. Kellogg Foundation undertook a series of new community leadership initiatives, primarily aimed at rural communities across the U.S. (Russon & Reinelt, 2004). In a scan of 55 such programs (Kellogg, 2002), 14 different outcome categories were identified as common threads among the programs studied across these individual, organizational, and societal/community categories. This study revealed a great deal of individual level outcomes, but at the organizational level, Kellogg found that fewer leadership programs evaluated the outcome of organizational capacity as a measure of leadership program effectiveness, and in fact, for most programs, organizational outcomes were of a secondary concern to the outcomes realized by the individual participants (Kellogg, 2002). Community or societal leadership outcomes were found to be among the most difficult to evaluate, primarily because leadership programs did not benchmark the community’s leadership capacity at the outset so it was difficult to determine what impact the program had. Related to this is the fact that many leadership programs lacked well-articulated theories of change, so it was difficult to know what outcomes to assess in the short-term, and there was little capacity to track it for the long-term (Kellogg, 2002).

Another study that aligns with these outcome categories came from Black and Earnest (2009), who conducted an online survey of 262 community leadership development program alumni in which participants were asked to self-assess the outcomes of their leadership program
experience. Applying the EvaluLEAD model to one of the Kellogg-funded programs, the researchers also documented 14 different outcomes of the program with five individual categories, five organizational categories, and four societal/community categories (Black & Earnest, 2009). Conclusions from the study indicated that the program generated significant positive outcomes on the individual and organizational levels, but fewer outcomes on the community level (Black & Earnest, 2009). A study of school superintendents by McCauley and Hughes-James (1994) found outcomes in the realms of self-awareness, habits and behaviors, perspectives, relationships, and focus, all appearing at individual, organizational, and collaborative levels.

Individual, Organizational, and Societal/Community Outcomes

As noted, a common theme found in many leadership program evaluations is the three domains of outcomes occurring at the individual, organization, and societal/community level, though the specific outcomes found in each study tend to vary. The 14 categories summarized in the Kellogg (2002) scan of 55 leadership programs appears to be the most comprehensive framework for characterizing outcomes, and one in which the outcome categories from the other studies integrate with in a logical manner. Here is a summary of these categories:

**Individual Domain.** At the individual domain, the most common outcome categories were described as:

*Changes in Knowledge, Skills, Attitudes, and Perceptions.* Changes in attitudes and perceptions and the acquisition of new leadership knowledge and skills are common themes of leadership program evaluations. While these outcomes were widely captured by Kellogg’s leadership program evaluations, it was more difficult to assess exactly how new knowledge, skills, attitudes and perceptions were deepened and applied over time, since this requires
longitudinal evaluations and an evaluation framework that articulates stages of competency or mastery (Kellogg, 2002). Black and Earnest (2009) focused on interpersonal skills and organizational skills as measures of personal growth. The strength of these individual outcomes varied by individuals, but all participants reported some level of change (Black & Earnest, 2009).

**Changes in Behavior.** Behavior change as a result of personal growth is manifested in the areas of self-confidence, creative thinking, and modeling behavior (Black & Earnest, 2009). Another study of a leadership program for educators found four types of behavior change: reflective thinking, planning and organization, working with others, and personal life (McCauley & Hughes-James, 1994). However, behavior change is often not an immediate outcome because it takes time for the change to be recognized and valued by others. Fewer program evaluations in Kellogg’s scan captured changes in leadership behavior on the part of individual participants. Retrospective stories that are captured sometime after the program is completed were an effective way of documenting changes in leadership behavior (Kellogg, 2002).

**Changes in Values and Beliefs.** An impact of leadership programs that is difficult to fully appreciate during the course of a program, but which did Kellogg frequently report anecdotally post-program is the transformation people experience in how they apply leadership (Kellogg, 2002). This factor includes how much they value the concept of leadership and how much effort they are willing to apply in their own lives to advance it. Perceptions of personal power, increased self-confidence, and more awareness of cultural factors were other reported outcomes (Black & Earnest, 2009).

**Leadership Paths.** The leadership path that program participants pursue upon leaving the program and how their program experiences affect the subsequent choices they make was a key learning indicator from many evaluations (Kellogg, 2002). An individual’s specific leadership
path might look like a career ladder, assuming a volunteer leadership role in a professional society, or a commitment to a new leadership philosophy. McLean and Moss (2003) studied a Canadian national leadership program and found that a majority of participants believed that they advanced their knowledge, skills, and networks through participating in the program, and that most were able to provide specific examples of their learning and how their leadership path changed as a result.

**Relationships.** Some of the most powerful and enduring outcomes of leadership programs were the relationships that are formed between participants in the program, a product of what many courses would call “networking” (Kellogg, 2002). Changes in the amount and depth of interactions with other organizations were observed in a study of school superintendents (McCauley & Hughes-James, 1994), who reported improved relationship abilities formed as a result of a leadership development program.

**Organizational Domain.** Organization refers to the agency, institution, organization, or company environment in which the participant is employed. In the organizational domain, the following three outcome categories were evident:

**Enhancing Organizational Leadership Capacity.** The evaluation of organizational capacity sought to document both the contribution that the course participant was making to the organization and the ways in which the organization is supporting the professional development of the participant (Kellogg, 2002). Chazdon and Lott (2009) found a clear progression from development of knowledge, skills and attitudes following participation in leadership educational programs, to individual behavioral outcomes, and ultimately to results involving tangible improvements in communities and organizations as evidence of enhanced leadership capacity on the part of a participant.
Program Innovation and Expansion. Several of the 55 leadership programs in Kellogg’s scan identified the development and implementation of new programs as an important outcome. Though a further assessment of the longer-term impact of these efforts was not often conducted, evaluations documented increased organizational capacities by exploring their use of various change strategies, and the effectiveness with which they were able to apply those strategies (Kellogg, 2002). Aguinis and Kraiger (2009) observed that many studies and meta-analytic reviews provide support for improved performance related to innovation, adaptive expertise, and cross-cultural adjustment.

Changes in Organizational Functioning. Some programs evaluated outcomes along multiple organizational dimensions, including whether the participant’s organization has refocused its priorities, become more efficient, or changed some organizational process. Other issues that were explored were changes in capacity for strategic planning, human resource development and financial management (Kellogg, 2002). Grove, Kibel and Haas (2004) included implementing a new program, a new organizational strategy, or creating a totally new organizational direction as evidence of this change.

Societal/Community Domain. In the societal/community domain, leadership outcomes are among the most difficult to evaluate by Kellogg (2002), primarily because leadership programs did not benchmark the community’s leadership capacity at the outset so it was difficult to determine what impact the program had. Related to this is the fact that many leadership programs lacked well-articulated theories of change so it was difficult to know what outcomes to assess in the short-term, and there was little capacity to track it for the long term. In the societal/community domain, the following categories were identified:
Broadening Leadership Participation. Many programs had a stated goal of broadening leadership participation by engaging a more diverse set of leaders and stimulating participants to want to take a greater leadership role (Kellogg, 2002). In a study of a leadership program in the Mississippi Delta region, researchers found that while there was a great divide among the races related to inequalities and injustices, the program successfully broke down racial barriers and misunderstandings while improving understanding of cultural and diversity differences (Clark & Gong, 2011).

Collaboration. Enhanced collaborative leadership was a key desired outcome of many leadership programs (Kellogg, 2002). The context of this category could be creating new collaborations, strengthening existing collaborations, or diversifying collaborative efforts. Grove, Kibel and Haas (2004) refer to the results of this collaboration as being a progression from involvement in a community, to implementation of a new program, to fundamental change.

Developing Future Leaders in a Field. A number of leadership programs were found to be intentionally broadening and strengthening the capacity of future leaders in their fields, as measured by increased connection with current leaders in the field, publications and presentations, or assuming leadership positions within professional organizations or other non-profit groups (Kellogg, 2002). A study of agricultural leaders in New Jersey found that after attending a leadership development course, 28 of 63 alumni held leadership positions in local or statewide organizations (Diem & Nikola, 2005).

Replication of Leadership Programs. Another measure of success for programs that have an interest in developing their field’s leadership capacity is the replication of leadership programs in other contexts, which builds the leadership capacity of the field. Program replication was not viewed as a short-term outcome measure and thus required time to measure and
demonstrate outcome achievement (Kellogg, 2002). In a study of a Florida leadership development program that interviewed not only participants but also participants’ spouses and work associates, it was found that the program had not only enriched the professional lives of the attendees but also their personal lives (Carter & Rudd, 2000).

**Connections and Networking.** An important outcome of leadership programs designed to build the leadership capacity of people in a specific field are the relationships that are developed with others in the program and with experts in the field. The networks that are developed as a result of participation in the leadership course open doors for emerging leaders. The full impact of these relationships and networks was not well documented, but there was considerable anecdotal evidence about their value and importance (Kellogg, 2002). Multiple studies of leadership programs revealed that the courses had provided enhanced networking opportunities for the participants (Carter & Rudd, 2000, Diem & Nikola, 2005, Watkins, Lysø, & deMarrais, 2011). Some leadership development programs have a strong cohort based approach, while others stimulate peer relationships through the use of learning clusters or group exercises designed to build a collegial environment.

**Policy Knowledge.** Some leadership programs valued development of policy expertise beyond the participant’s specific organizational context as a desired outcome. This outcome was measured by participants’ involvement in presentations at meetings, hearings and other venues where policy issues are addressed, new publications, and increased media coverage (Kellogg, 2002). Researchers examining a Minnesota community leadership development program found that participants had become more involved in community decision-making and policy-making since completing the program (Chazdon & Lott, 2009).
Applied Research Involving Leadership Evaluation

Multiple other research studies that successfully analyzed the outcome and impact of different leadership courses do exist. Each of these uses a different model and methodological design. The subject of this dissertation, the Municipal Forestry Institute, has been the topic of one previous program evaluation study. When specifically surveying participants of the MFI course from the first class year, Kirk (2009) found high levels of satisfaction and learning among the participants. This analysis found overwhelmingly positive impacts that the training had on the participants’ positions, careers, and personal lives (Kirk, 2009). Westley (2005) explored the ways in which leadership training impacted participants in a natural resources leadership program over time in order to 1) provide the course leaders with evaluative information for continuous improvement, 2) identify the effective elements of the leadership training to assist course designers, trainers, and facilitators, and 3) assist future consumers of leadership training in choosing a quality leadership program. These study results demonstrated that participants found the course effective, determined that it met their expectations, and that the acquired leadership competencies were used in a variety of settings both inside and outside of the workplace (Westley, 2005).

Chazdon and Lott (2009) conducted an analysis of several related leadership courses in Minnesota to describe both individual outcomes and community impacts. These results showed a clear progression from development of knowledge, skills and attitudes following participation in leadership courses to individual behavioral outcomes and ultimately to results, such as tangible improvements in communities and organizations (Chazdon & Lott, 2009). Similarly, a mixed methods study by Clark and Gong (2011) in Mississippi found that the participation in a leadership program significantly influenced the leadership competencies and documented ten
themes of impact related to changes visible after leadership program attendance. These themes of change ranged from better understanding of cultural and diversity differences, to better networking and collaborative opportunities, to promotions and better jobs, and ultimately to a better understanding of how leadership impacts community change (Clark & Gong, 2011).

Given the popularity of Kirkpatrick’s Four-level framework, it has often been used as a theoretical framework for leadership course evaluation. As previously mentioned however, significant exploration of Kirkpatrick’s Levels 3 and 4 are less common. One study that applied the Kirkpatrick evaluation framework to a national leadership development program was completed by McLean and Moss (2003) in Canada, who found that the Kirkpatrick based evaluation of this program was not able to conclusively demonstrate that behavior changes and resulting impacts on organizations and communities took place as a result of the program.

Summary

This literature review reveals that while there are many approaches, frameworks, methods, and models for program evaluation and leadership program evaluation, no “one-size-fits-all approach” has risen to prominence. There are at least four general purposes for which an organization might conduct an evaluation: to gain insight, to improve how things get done, to determine what the effects of the program are, and to affect those who participate in it (Milstein & Wetterhall, 2000). With respect to evaluating program influences, outcomes and impacts, Kirkpatrick’s Four Level framework, specifically levels 3 and 4, Kellogg’s Logic Model with its focus on outcomes, and the EvaluLEAD framework with its focus on individual, organizational, and societal/community outcomes all hold the most promise for use in this research. For the Municipal Forestry Institute, questions of outcomes and impacts generated by this leadership course can prove valuable to the organizers as they to document proof of its value to participants.
Chapter 3: Methodology

Description of Qualitative Research

In light of this literature view, research questions can be drawn relative to the use of multiple program evaluation approaches or frameworks for a specific leadership course. This study uses three of these leadership evaluation frameworks to conduct an assessment of the program outcomes and impacts as reported by the MFI graduates. Recall that this study did not propose to evaluate the MFI program itself, but rather it attempted to answer a broad question: what difference did it make that an individual attended the MFI? The value of leadership program evaluation lies in understanding not merely what participants learned, but also what outcomes were realized by participants as a result of attending and what greater impact the course had beyond the individual and the sending organization. Evaluation also justifies the money and effort agencies and organizations put into sending people to the course.

Leadership research has traditionally been a field dominated by a single kind of data gathering instrument, the self-administered questionnaire (Bryman, 2004), often with a quantitative design. Patton (1999) pointed out that a quantitative approach can often mask real differences among participants, but qualitative approaches can better capture processes, variations, and individual differences in experiences and outcomes. Quantitative research on leadership has been characterized by a tendency towards an input–output model in which the researcher is focused on the impacts of leadership itself or on the factors that influence how leaders behave (Bryman, 2004). Within the field of leadership research, there is a growing interest in the use of qualitative research to seek answers to questions about culture and meaning of experiences (Parry et al., 2014). Grove, Kibel and Haas (2005) advocated using both evidential and evocative approaches to leadership program evaluation. Evidential inquiry seeks
to capture the facts of what is occurring, while evocative inquiry seeks to obtain viewpoints and feedback (Grove, Kibel & Haas, 2005). Conger (1998) argued that leadership involves multiple levels of phenomena and possesses a dynamic character, both elements better addressed with qualitative rather than quantitative methodologies. Conger proposed that quantitative research alone cannot produce a good understanding of leadership, given “the extreme and enduring complexity of the leadership phenomenon itself” (Conger, 1998, p. 108).

**Description of Specific Research Approach**

This study used a retrospective, descriptive survey research design to determine the outcomes and impacts related to participant attendance at the Municipal Forestry Institute course during the first ten offerings of the course, from 2006 through 2015. The specific approach of the research used elements of three different program evaluation frameworks to describe the influences, outcomes and impacts this training had on its participants. A qualitative method was used primarily because of the significant value in capturing personal insights and experiences.

Qualitative inquiry allows the researcher to not only use open-ended questions to put observation into words, but to also use an open-ended strategy for obtaining data, meaning that participants can elaborate on their accounts and not be restricted to pre-existing categories (Elliott & Timulak, 2005). Martineau and Hannum (2004) suggested that program evaluation techniques should measure more than just the participant’s perceptions of the program itself by including a degree of change analysis in their own lives. A qualitative approach is well suited to capturing this type of experiential data. According to Elliot and Timulak (2005), there are three key aspects typical of the data collection in descriptive/interpretive qualitative research. First, despite the fact that data collection in qualitative research generally does not use pre-existing categories for sorting the data, it still always has a distinct focus. Second, qualitative interviews
deliberately give power to respondents, in the sense that they virtually become co-researchers as the interviewer tries to empower respondents to take the lead and to point out important insights as they see them. Third, a triangulation strategy is often used whereby data is gathered by multiple methods, which can yield a richer, more balanced picture (Elliott & Timulak, 2005).

Description of Study Participants and Setting

The population surveyed for this research consists of the graduates of ten MFI classes from 2006 through 2015. There were 471 graduates of MFI during this period as noted by the alumni list generated by the course sponsor, the Society of Municipal Arborists. The alumni list contains as many current email addresses as possible, and is updated each summer for the purposes of mailing out an annual alumni newsletter. According to the 2015 MFI alumni list, two graduates were deceased, and nearly 40 were either retired or have moved out of the urban forestry profession and did not provide the course organizers with an updated email address. Therefore, the total accessible population for this study was 435 graduates. Since this entire population had never been studied before, a census or total population study was used rather than a sampling technique. Because this research involved a program evaluation, sampling would have eliminated some success stories that could justify the existence of the program in the eyes of supervisors who might send employees to the course in the future, and to funders who want to see the results of their investment.

As a descriptive rather than an experimental study, it was not feasible to use a control population because the study was evaluating the contributions the leadership course made to the participants’ lives, careers, and community, not whether course attendance created more outcomes and impacts than not attending the course. Additionally, due to the personalized nature of attending a leadership course, the results varied by individual experience. The fact that
everyone starts at a different place in terms of their leadership interest, ability, and aptitude makes comparison among people difficult. As a result, this study gauged an individual’s personal and professional growth compared to their self-reported level prior to attending the course, rather than comparing one participant to another.

Data Collection Procedures

Based on the literature review and academic study by the researcher, it was clear that there was no single uniform instrument available to measure outcomes and impacts of leadership development programs. However there are multiple models and frameworks available to help evaluate this information. The researcher developed survey research instruments used in this study, field tested them, and then administered the survey to the population. The EvaluLEAD framework identifies evidential and evocative as two distinct forms of inquiry. Evidential inquiry can be characterized by quantifiable data, including evidence that is observable and measurable, documenting hard evidence of what is happening to people, organizations, and communities. Evocative inquiry is designed to collect opinions, capture stories, and measure changes in values, vision, and self-awareness (Grove, Kibel & Haas, 2005). Based on these framework elements, a focus group, interviews, and an online survey were deemed the most logical methods of inquiry.

Focus Group. A focus group was used to both obtain qualitative data and to help form the online survey instrument, a link to which was later emailed to the entire population. Nassar-McMillan and Borders (2002) observed that focus groups can effectively assist researchers in both formulating questions and in gathering initial data. The focus group was not randomly selected. The participant focus group for this study was a convenience sample of MFI graduates who self-selected themselves based on attendance at a national conference in the fall of 2016. Given the geographic diversity of the population, it was not practical to physically convene focus
groups of randomly selected MFI graduates for data gathering. The national conference at which the focus group session was held is the largest concentration of the target population in one place in any given year, often with as many as 50 MFI graduates in attendance. Descriptive and pattern coding techniques were used to manage the data collected from the focus group session.

**Interviews.** A random sample of MFI graduates who did not attend the focus group were interviewed over the phone as an additional method of gathering qualitative data for this research. Interview questions are the same as the participant focus group questions. Data saturation was reached with 18 interviews.

**Survey Instrument.** The third data collection method consisted of an online survey open to the entire population. The survey contained sections for demographics, outcomes, and impacts. The outcome questions aligned with Kirkpatrick’s Level 3 (Behavior) and Kellogg’s outcome level. The EvaluLEAD framework further stratifies the outcome results into three domains: Individual level outcomes, Organizational level outcomes, and Societal/Community level outcomes. The impact questions aligned with Kirkpatrick’s Level 4 (Results) and Kellogg’s impact level. The questions varied in tone and type. For example, respondents were asked to reflect on their knowledge or behavior before attending MFI and rate themselves accordingly using a Likert-type scale. Open-ended questions were used in order to capture individual stories and experiences because they add richness to the study (Dillman, Smyth, & Christian, 2014).

The survey instrument was field-tested using randomly selected 2016 MFI graduates who are not part of the research study. Since this research examined only the 2006-2015 classes, the 2016 class of 40 graduates was a logical candidate for testing the survey instrument because they have attended the course, although not enough time may have passed for them to be able to report outcomes and impacts. The online survey data collection was conducted through the use
of the Qualtrics™ survey research tool through an account maintained by the researcher at Oregon State University.

**Ethical Considerations**

The Institutional Review Boards of both Carson-Newman University and Oregon State University reviewed this research proposal for use of human subjects. Each respondent was asked to consent to involvement in the study prior to participation. Data from this study will be kept confidential, and participants will remain anonymous unless they reveal identifiable characteristics in the data. Even then, steps will be taken to maintain confidentiality. The researcher has completed all federally required training for use of human subjects. It is expected that since the participants are voluntarily participating in this study and that it is in some way connected to their employment, there is minimal risk to the participants.

**Data Analysis**

Data transcribed from focus group tapes and interview notes were coded using content analysis procedures and analyzed using descriptor counts and frequencies procedures. The Qualtrics™ software generated descriptive statistics and frequencies of survey data for the entire population responding. The data collected in this research was analyzed using a computer-assisted data analysis tool, NVivo™ software. Tools like these are valuable in helping the researcher achieve an accurate and transparent picture of the data while also providing an audit of the data analysis process as a whole (Welsh, 2002). This is a form of inductive content analysis, which allows the researcher to identify trends and cross-reference information in a multitude of ways. Instead of merely condensing information, this analysis seeks to add depth to the data as well.
Chapter 4: Results

In this Chapter, data obtained from the three collection methods are described using themes and subthemes that emerged from data analysis. The qualitative nature of this research reflects an emphasis on an illuminative study that provides insight to the subject being observed. The data collected yielded a detailed and information-rich glimpse at participants’ personal perspectives and lived experiences associated with the MFI leadership course. The findings described in this chapter are a result of a detailed inductive analysis conducted by the researcher, immersed in the details and specifics of the data in an effort to ascertain patterns and themes about the participant experiences.

Demographics

The focus group consisted of 10 MFI graduates who were attending a national urban forestry conference, thus this was deemed a convenience sample. The 10 randomly selected (from among the total of 39 MFI graduates who were among the 561 conference attendees) represented 7 out of the 10 MFI classes, and the focus group participants were 50% male and 50% female.

The interview group consisted of 18 MFI graduates who were randomly selected from among the 435 graduates with valid email addresses. This group of graduates represented 9 of the 10 MFI classes, and was 22% female and 78% male.

The online survey respondents totaled 181 people, or 42% of the total graduate population available. Invitations to participate in the online survey were sent to all 435 graduates, including the people who were part of the focus group and the interviews. The respondents represented all 10 MFI classes from 2006 through 2015 as illustrated in Table 4.1.
Table 4.1

*Survey Response Rates by Class Year*

<table>
<thead>
<tr>
<th>Class Year</th>
<th>Number in Class With Valid Email Addresses</th>
<th>Number of Survey Respondents</th>
<th>Percentage of Eligible Graduates who responded</th>
<th>Percentage of Total Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>63</td>
<td>22</td>
<td>34.92%</td>
<td>12.15%</td>
</tr>
<tr>
<td>2007</td>
<td>51</td>
<td>24</td>
<td>47.06%</td>
<td>13.26%</td>
</tr>
<tr>
<td>2008</td>
<td>67</td>
<td>23</td>
<td>34.33%</td>
<td>12.71%</td>
</tr>
<tr>
<td>2009</td>
<td>40</td>
<td>9</td>
<td>22.50%</td>
<td>4.97%</td>
</tr>
<tr>
<td>2010</td>
<td>27</td>
<td>9</td>
<td>33.33%</td>
<td>4.97%</td>
</tr>
<tr>
<td>2011</td>
<td>26</td>
<td>8</td>
<td>30.77%</td>
<td>4.42%</td>
</tr>
<tr>
<td>2012</td>
<td>32</td>
<td>18</td>
<td>56.25%</td>
<td>9.94%</td>
</tr>
<tr>
<td>2013</td>
<td>28</td>
<td>16</td>
<td>57.14%</td>
<td>8.84%</td>
</tr>
<tr>
<td>2014</td>
<td>43</td>
<td>22</td>
<td>51.16%</td>
<td>12.15%</td>
</tr>
<tr>
<td>2015</td>
<td>58</td>
<td>30</td>
<td>51.72%</td>
<td>16.57%</td>
</tr>
<tr>
<td></td>
<td>435</td>
<td>181</td>
<td>41.61%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Survey respondents were 70% male and 29% female, with 1% preferring not to answer. The years of experience reported by respondents during the time they attended MFI ranged from 1 to 35 years, with a mean of 11 years. Most of the MFI graduates are employed in the same position they worked in during the time they attended MFI. Figure 4.1 describes graduates’ employment.

![Current Employment Status of Survey Respondents](image)

*Figure 4.1: Current Employment Status of Survey Respondents*
Themes and Sub-Themes

Initial coding of focus group and interview transcripts along with open-ended responses from survey questions revealed 34 distinct words, terms, or phrases. These were grouped by the research questions of influence, outcomes, and impacts, each with its own set of subcategories or themes. Under the Influences question, codes can be grouped under three themes: Change of Perspective Impacts, Personal Life Influences, and Professional Life Influences. These themes all relate to impacts of the course on the thought processes of the respondents and the results attributed to the MFI course. Under the Outcome results, codes can be grouped under two themes: Leadership Outcomes, and Job/Career Outcomes.

Note that there is an overlapping connection between these categories developed by the researcher. For example, a participant might report being inspired under the Influence results, and might also report having taken a specific action such as applying for a new job with greater leadership responsibilities under the Outcome results. The Influence results deal with thoughts, feelings, attitudes or perceptions, while the Outcome data relates to behaviors or actions taken based on those results. Impact data deal with behaviors or actions taken based on those results in a societal/community context. The themes and sub-themes are presented in Table 4.2.

Table 4.2

<table>
<thead>
<tr>
<th>Themes</th>
<th>Change of Perspective</th>
<th>Personal Life Influences</th>
<th>Professional Life Influences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-themes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Confidence</td>
<td>• Greater awareness</td>
<td>• Direction</td>
</tr>
<tr>
<td></td>
<td>• Empowering</td>
<td>• Better understanding</td>
<td>• Professionalism</td>
</tr>
<tr>
<td></td>
<td>• Encouraged or</td>
<td>• Renewed vision or</td>
<td>• Resources or tools</td>
</tr>
<tr>
<td></td>
<td>• Enthused</td>
<td>• rejuvenated</td>
<td>• acquisition</td>
</tr>
<tr>
<td></td>
<td>• Inspiration</td>
<td>• Reinforced</td>
<td>• Serving</td>
</tr>
<tr>
<td></td>
<td>• Motivation</td>
<td>• Purposeful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Perspective</td>
<td>• Sense of responsibility</td>
<td></td>
</tr>
</tbody>
</table>
Two additional sets of data that don’t rise to the level of a theme will be reported at the end of this chapter. Nothing or Minimal Influence, Outcomes, or Impacts, represents data obtained that the MFI course did not make a recognizable difference in the personal or professional lives of the attendees. Unexpected Benefits represents data that the researcher found unique or applications of course material beyond the expectations of the MFI instructional team.

**Influence on Personal and Professional Lives**

As noted in a previous chapter, for the purposes of this research, influence is an individual-based impact based on a characteristic or attribute that might later be acted upon. For example, a participant might report feeling inspired or reinvigorated, and this is clearly an individual level outcome. In this study, the term influence is used to denote the specific type of outcome that is intrinsic, meaning it isn’t always accompanied by a specific action. During the data analysis phase of this research, it became clear that attending the MFI course had influenced participants, and this influence was realized in their personal lives, their professional lives, or both. Therefore, this category of results encompasses three distinct themes, Change of Perspective, Personal Life Influences, and Professional Life Influences. Each of these themes is presented in the following section, supported by testimonies in the participants’ own words, and supported by survey data describing specific examples of these influences.
**Change of Perspective.** The theme of “change of perspective” encompasses a large portion of data that reflected participants’ observations and belief that MFI had an impact on how they viewed themselves, their jobs, and their careers. In this theme are six sub-themes pertaining to how MFI influenced their ways of thinking, their self-perception, or their self-awareness. Table 4.3 provides comments illustrative of this point.

Table 4.3

*Theme - Change of Perspective*

<table>
<thead>
<tr>
<th>Subthemes</th>
<th>Comments Illustrative of this Point</th>
</tr>
</thead>
</table>
| Confidence              | “I think it gave me more of the confidence to move forward and deal with people whether it was the conflicts or having that, that conversation you need to have whether it's managing your staff or dealing with your supervisors and stuff like that.”  
“I think it gave me the confidence just to lead in my organization.”  
“…Going through the MFI program…it just gave me a lot of confidence.”                                                                                                                                                                                                                       |
| Empowerment             | “I personally felt more empowered and confident in my decision-making.”  
“It was a whole other level of self-improvement and it may have spurred me toward pursuing a masters which I began less than six months after MFI”  
“I think the biggest thing that MFI did for me other than share a huge amount of knowledge in a short amount of time is that you left with a little bit more confidence than you went in with and much more excited about urban forestry when you left. So you got all this knowledge but you also got this aura of can do spirit.” |
| Encouraged/Enthused     | “I became more self-confident but even more than that, more excited about urban forestry, the whole program and ways I could improve my own work ethic.”  
“I feel that MFI prepared me to accept leadership roles with enthusiasm and confidence that I can take on a leadership role.”  
“MFI re-kindled the flame in me as to the vital importance of the work we do and what we represent. I came away from MFI significantly energized and enthused and it was reflected in my daily performance.” |
| Inspiration             | “MFI inspired me to go for more.”  
“MFI did cement my desire to be more involved in the urban forestry community.”                                                                                                                                                                                                                     |
| Motivation              | “After MFI I was a different person at work…more motivated to do the job I was hired for and also to come up with new programs to get others excited about trees and parks.”                                                                                                                                                                                                 |
"(MFI) is in the back of my mind from time to time and gives a bit of extra motivation to not be complacent."
"(MFI) also motivated me to continue networking with professionals, and working together with them and other organizations."

**Perspective**

"MFI provided fresh perspectives and instilled confidence which allowed me to feel more comfortable expanding my network, extending my abilities and increasing my role in leadership and decision making."
"Attending MFI opened my eyes to leadership abilities that I didn't realize I had."
"The MFI experience is like nothing I have ever done in my life or career, it has forever changed my perspective."

**Personal Life Influences.** The second theme evident in the qualitative data analysis for the Influence on Personal and Professional Lives category is “Personal Life Influences.” The six sub-themes again pertain to intellectual changes or growth factors that describe ways how MFI influenced their ways of thinking, their self-perception, or their self-awareness, but in the context of personal growth. Included in this category are intrinsic concepts that participants reported applying in their personal lives as well as their professional ones. For example, if a participant reported that he came away from MFI being more “purposeful,” this is a characteristic that may not be solely limited to employment context. Table 4.4 lists these subthemes and provides comments illustrative of these concepts.

Table 4.4

<table>
<thead>
<tr>
<th>Theme - Personal Life Influences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subthemes</strong></td>
</tr>
</tbody>
</table>
| Greater awareness | “The affect it had on me and my career was simply that it made me more aware of the lack of training for most of the forestry community."
| | “It has opened my eyes to a lot of other necessary training programs, like I got TRAQ certified a few months later.”
| | “(MFI) helped me expand my horizon on what is possible for me to achieve.”
| Better understanding | “I think it gave me a better understanding of including stake holders from the community in the management program.”
| | “It gave me a better understanding of my role as an urban forester and how to relate better to the community.” |
“It definitely helped me to um, network a lot better, um, also to understand a little uh bigger-picture of what municipal forestry is about.”

Renewed vision or rejuvenated

“I was at a point in my career where I've transitioned into more leadership roles and so it was just a great time to reemphasize those things that I've learned over time and have them in the forefront as I took on new role.”

“That's what I remember the most…is that I was having a really hard time here and I was ready to give up and I got this boost from MFI that kept me going.”

“MFI helped me to refocus and reenergize my efforts to be a better all-around employee and urban forestry professional.”

Reinforced

“It's reinforced that I'm on the right track…that my training previously had been good.”

“Mainly [MFI] reinforced what I had read and experienced and gave me additional tools to achieve my career and educational goals.”

“It fine-tuned skills that I already had, and developed those I didn't.”

Purposeful

 “[I have] a lot more purposeful intent about professional development, and, whereas before I would occasionally read a book on talent management or professional growth, that wasn't very purpose-driven, and after MFI, I specifically each year will identify some books at the beginning of the year that I want to read.”

“In general, I would say that I'm more confident, more purposeful, and just a little bolder.”

“I think it taught be a lot with my program planning, and being more purposeful and looking at things at the beginning of the year and saying, "What do we want to accomplish?""

Sense of responsibility

“The difference that it made in my career was because I'm a little bit older, I could have started that downhill municipal slide where you kind of stop and ride it out. And I am riding up right now, full bore moving it on so I don't know if I would have stopped but I was surely thinking about it. So I think it just gave me a sense of responsibility that I am a leader and I didn't have a right to stop.”

“It brought about awareness of the professional responsibilities in the urban forest field, and what it takes to develop the knowledge and skills to serve as a leader.”

**Professional Life Influences.** The final theme in the category of Influence on Personal and Professional Lives is “Professional Life Influences.” Under four sub-themes, respondents reported that MFI gave them a new sense of direction or professionalism, provided them with new resources and tools, and spurred them on to a sense of service approach to their job or profession. Table 4.5 lists these subthemes, supported by comments illustrative of these points.
Table 4.5

Theme - Professional Life Influences

<table>
<thead>
<tr>
<th>Subthemes</th>
<th>Comments Illustrative of this Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professionalism</td>
<td>“I think it helped us take it more to a professional level and to help promote those programs.”</td>
</tr>
<tr>
<td></td>
<td>“The course taught me a lot about being professional.”</td>
</tr>
<tr>
<td></td>
<td>“You know, bring those changes around and sort of just bring more of a professional atmosphere for everyone.”</td>
</tr>
<tr>
<td>Resources or tools acquisition</td>
<td>“We all kind of came back with that same message, that having that ability and having those tools in your tool box - talking points, elevator speech and so on, should be readily available. So that's definitely an outcome for us from MFI.”</td>
</tr>
<tr>
<td></td>
<td>“MFI helped me realize that I was not alone in dealing with complicated urban forestry issues as a city arborist for a large municipality. It provided me with resources to solve problems and more confidence to make difficult decisions.”</td>
</tr>
<tr>
<td></td>
<td>“MFI showed me what it is to work in urban forestry and how complex it is. I was given the tools to that made it easier to navigate my career in urban forestry and move the forestry program in my city forward.”</td>
</tr>
<tr>
<td>Direction</td>
<td>“I had read several of the Good to Great type books but didn't really have any direction to focus for any of it and so MFI gave that kind of a direction focus by putting it into modules.”</td>
</tr>
<tr>
<td></td>
<td>“I had a better sense of where I could direct our city to move towards. Overall it made me a better urban forester with new horizons to strive for.”</td>
</tr>
<tr>
<td></td>
<td>“I attended MFI at the beginning of my career in urban forestry, and it was incredibly influential in my decision to continue in the field.”</td>
</tr>
<tr>
<td>Serving</td>
<td>“For me, the board experience - serving on the SMA Board. That definitely probably won't have happened without MFI.”</td>
</tr>
<tr>
<td></td>
<td>“MFI made me committed to get involved with a leadership position with our state community forestry association. The association provided a scholarship for me to attend MFI and I felt an obligation to give back.”</td>
</tr>
<tr>
<td></td>
<td>“I think it gave me, like a lot of you, I had the confidence to be more involved … I actually became the president…I don't think I would have done that if I hadn't had the [MFI] training.”</td>
</tr>
</tbody>
</table>

Data obtained from the online survey of MFI graduates reinforces the observations reported regarding these three themes. For example, Table 4.6 describes a series of statements where MFI graduates reported how MFI influenced them. These statements reflect a mixture of personal and professional contexts.
Table 4.6

Participant-Reported Change as Influenced by MFI Attendance

Thinking about how you were before attending MFI versus after attending MFI, how would you say that MFI influenced the following?

<table>
<thead>
<tr>
<th>Change Area</th>
<th>Did not change</th>
<th>Changed a little</th>
<th>Changed Some</th>
<th>Changed a great deal</th>
<th>Changed significantly</th>
<th>Total n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased my openness to new ideas/perspectives</td>
<td>5%</td>
<td>13%</td>
<td>39%</td>
<td>31%</td>
<td>12%</td>
<td>166</td>
</tr>
<tr>
<td>Improved my Self-confidence</td>
<td>9%</td>
<td>21%</td>
<td>65%</td>
<td>51%</td>
<td>20%</td>
<td>166</td>
</tr>
<tr>
<td>Improved Self-awareness</td>
<td>8%</td>
<td>11%</td>
<td>38%</td>
<td>35%</td>
<td>8%</td>
<td>165</td>
</tr>
<tr>
<td>Improved my creative thinking or problem solving abilities</td>
<td>8%</td>
<td>12%</td>
<td>39%</td>
<td>31%</td>
<td>10%</td>
<td>165</td>
</tr>
<tr>
<td>Increased my comfort level with public speaking</td>
<td>14%</td>
<td>17%</td>
<td>38%</td>
<td>23%</td>
<td>8%</td>
<td>166</td>
</tr>
<tr>
<td>Ignited a greater interest in taking on leadership roles</td>
<td>11%</td>
<td>11%</td>
<td>27%</td>
<td>36%</td>
<td>15%</td>
<td>166</td>
</tr>
<tr>
<td>Made me want to learn even more to improve myself</td>
<td>7%</td>
<td>11%</td>
<td>20%</td>
<td>43%</td>
<td>20%</td>
<td>167</td>
</tr>
<tr>
<td>Made me a better decision-maker</td>
<td>10%</td>
<td>15%</td>
<td>35%</td>
<td>34%</td>
<td>5%</td>
<td>164</td>
</tr>
<tr>
<td>Expanded the size of my professional network</td>
<td>3%</td>
<td>9%</td>
<td>30%</td>
<td>36%</td>
<td>22%</td>
<td>166</td>
</tr>
<tr>
<td>Expanded the diversity of my professional network</td>
<td>8%</td>
<td>14%</td>
<td>34%</td>
<td>29%</td>
<td>15%</td>
<td>166</td>
</tr>
<tr>
<td>Increased my interest or involvement in my local community</td>
<td>18%</td>
<td>14%</td>
<td>33%</td>
<td>23%</td>
<td>12%</td>
<td>165</td>
</tr>
<tr>
<td>Total n=</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
</tbody>
</table>

Participants were also asked to engage in a reflective study of their own situations as influenced by their MFI attendance. Table 4.7 displays their level of agreement or disagreement with a series of statements designed to ascertain what they felt they gained from attending MFI on a personal or professional level.
Table 4.7

Participants’ Reflections of MFI Influence on Personal or Professional Lives

<table>
<thead>
<tr>
<th>As a result of attending the MFI course, I:</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total n =</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved my leadership skills</td>
<td>17%</td>
<td>45%</td>
<td>25%</td>
<td>11%</td>
<td>0%</td>
<td>1%</td>
<td>0.6%</td>
<td>166</td>
</tr>
<tr>
<td>Improved my strategic thinking skills</td>
<td>16%</td>
<td>45%</td>
<td>28%</td>
<td>7%</td>
<td>1%</td>
<td>2%</td>
<td>0.6%</td>
<td>166</td>
</tr>
<tr>
<td>Improved my communications skills</td>
<td>13%</td>
<td>44%</td>
<td>28%</td>
<td>11%</td>
<td>1%</td>
<td>2%</td>
<td>0.6%</td>
<td>166</td>
</tr>
<tr>
<td>Improved my collaboration skills</td>
<td>13%</td>
<td>48%</td>
<td>26%</td>
<td>8%</td>
<td>1%</td>
<td>2%</td>
<td>0.6%</td>
<td>165</td>
</tr>
<tr>
<td>Expanded my concept of what is possible</td>
<td>27%</td>
<td>40%</td>
<td>21%</td>
<td>7%</td>
<td>1%</td>
<td>3%</td>
<td>1.2%</td>
<td>166</td>
</tr>
<tr>
<td>to achieve in my career</td>
<td>44%</td>
<td>67</td>
<td>35</td>
<td>12</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Significantly changed my outlook on my</td>
<td>16%</td>
<td>31%</td>
<td>25%</td>
<td>17%</td>
<td>3%</td>
<td>7%</td>
<td>0.6%</td>
<td>166</td>
</tr>
<tr>
<td>job or career</td>
<td>27%</td>
<td>52</td>
<td>42</td>
<td>28</td>
<td>5</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Found insights that helped change the</td>
<td>9%</td>
<td>25%</td>
<td>29%</td>
<td>23%</td>
<td>5%</td>
<td>7%</td>
<td>2.4%</td>
<td>166</td>
</tr>
<tr>
<td>direction of my career</td>
<td>15%</td>
<td>41</td>
<td>48</td>
<td>39</td>
<td>8</td>
<td>11</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Was energized to take a more active</td>
<td>24%</td>
<td>37%</td>
<td>30%</td>
<td>6%</td>
<td>1%</td>
<td>2%</td>
<td>0.6%</td>
<td>166</td>
</tr>
<tr>
<td>leadership approach to my job</td>
<td>40%</td>
<td>62</td>
<td>49</td>
<td>10</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Experienced a profound shift in viewpoint, career, or vision</td>
<td>7%</td>
<td>27%</td>
<td>31%</td>
<td>24%</td>
<td>4%</td>
<td>6%</td>
<td>1.2%</td>
<td>166</td>
</tr>
<tr>
<td>Experienced significant personal growth</td>
<td>12%</td>
<td>30%</td>
<td>34%</td>
<td>17%</td>
<td>1%</td>
<td>6%</td>
<td>0.6%</td>
<td>164</td>
</tr>
<tr>
<td>Experienced significant professional</td>
<td>18%</td>
<td>34%</td>
<td>27%</td>
<td>14%</td>
<td>1%</td>
<td>5%</td>
<td>0.6%</td>
<td>164</td>
</tr>
<tr>
<td>growth</td>
<td>30%</td>
<td>55</td>
<td>45</td>
<td>23</td>
<td>2</td>
<td>8</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Transformed how I see leadership, and</td>
<td>14%</td>
<td>33%</td>
<td>32%</td>
<td>16%</td>
<td>2%</td>
<td>3%</td>
<td>0.6%</td>
<td>165</td>
</tr>
<tr>
<td>how I exercise it</td>
<td>23%</td>
<td>55</td>
<td>52</td>
<td>26</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Was able to think about and discover</td>
<td>13%</td>
<td>33%</td>
<td>31%</td>
<td>17%</td>
<td>2%</td>
<td>4%</td>
<td>1.8%</td>
<td>165</td>
</tr>
<tr>
<td>new leadership paths for my career</td>
<td>21%</td>
<td>54</td>
<td>51</td>
<td>28</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>166</td>
</tr>
<tr>
<td>Was able to get &quot;unstuck&quot; from a work</td>
<td>7%</td>
<td>20%</td>
<td>22%</td>
<td>36%</td>
<td>4%</td>
<td>10%</td>
<td>1.8%</td>
<td>166</td>
</tr>
<tr>
<td>situation that was problematic</td>
<td>12%</td>
<td>33</td>
<td>36</td>
<td>60</td>
<td>6</td>
<td>16</td>
<td>3</td>
<td>166</td>
</tr>
</tbody>
</table>
Participants were also asked about their post-MFI decisions that reflected this personal or professional growth. This data reflects the individual outcomes triggered in whole or in part by attendance at MFI. Figure 4.2 summarizes this data.

**Figure 4.2: Post-MFI Personal or Professional Growth Decisions (n = 131)**

**Outcomes in Individual and Organizational Contexts**

A second category of themes relates to Outcomes within Individual and Organizational Contexts. The “individual” focus of this category differs from the previous Influence on Personal and Professional Lives in that under this categorization, individuals took an action based on how the MFI course influenced them. For example, under the Professional Life Influences from the previous category, participants may have reported that MFI gave them a heightened sense of professionalism. Under this category they may have acted upon that sense by seeking out opportunities to have a greater influence on peers in the workplace. The two themes under this category are Leadership Outcomes and Job and Career Outcomes.
Leadership Outcomes. Since the MFI is fundamentally a leadership development course, it isn’t surprising that multiple sub-themes arose from the data analysis having to do with difference facets of leadership. Among the eight sub-themes emerging are concepts like effectiveness and innovation, and well as practical actions such as goal refinement and strategic direction. Table 4.8 lists these subthemes, supported by comments illustrative of these points.

Table 4.8

<table>
<thead>
<tr>
<th>Theme - Leadership Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subthemes</td>
</tr>
<tr>
<td>Effectiveness</td>
</tr>
<tr>
<td>Goals</td>
</tr>
<tr>
<td>Raising the bar</td>
</tr>
<tr>
<td>Innovation</td>
</tr>
</tbody>
</table>
you have an idea or passion on subject and don't give in when it gets tough.”
“Every urban forester or city planner should take this class. It will not only
broaden your horizons but it will also help you develop programs that you
hadn't thought of before.”

Leverage
“[MFI] taught me how to leverage my knowledge for the benefit of my city.”
“I chose to adopt lateral leadership strategies discussed at MFI. This has
enabled me to leverage my program's resources with those of the City and the
community.”

Strategic
“I feel like I'm much more strategic in my approach to getting things done.”
“I was challenged at MFI to think bigger and be strategic in personal and
professional endeavors.”
“One of the major things I learned as a result of MFI was to look at ways of
diversifying our funding streams, which is something that we have spent the
last 20 months doing. It has resulted in significant changes to the program -
hopefully for the better!”

Multiplicity
“We were able to incorporate some of the themes and concepts that came out
of MFI to people in an industry to people who wouldn't necessarily be going
there on a regular basis, but kind of changed some the ways that we provided
workshops based on what we learned there.”
“I immediately came back and analyzed the personalities of all of my co-
workers to better communicate with… our team.”
“I encouraged others to follow this path to better the tree programs and had one
individual become a Municipal Forester who is now the Director of Parks
Maintenance.”

**Job and Career Outcomes.** The second and final theme in the Outcomes in Individual
and Organizational Contexts category that emerged is Job and Career Outcomes. Within this
category are sub-themes that relate to outcomes realized by the MFI participants that apply
directly to their job or career. These sub-themes reveal specific actions or changes in approach
participants reported taking, such as the application of specific skills or course concepts learned
at MFI. Table 4.9 lists these subthemes, supported by comments illustrative of these points.
Table 4.9

*Theme - Job and Career Outcomes*

<table>
<thead>
<tr>
<th>Subthemes</th>
<th>Comments Illustrative of this Point</th>
</tr>
</thead>
</table>
| Balanced        | “I think if you come away with more confidence, which I did, maybe not sufficiently to do the next chores that I need to do, but with more confidence than I had. Everything, your life is more balanced because you're not so worried you’re not so keyed up so you actually wind up being healthier.”  
“I think it made me a little better well rounded municipal forester.” |  
| Caused to act   | “It [MFI] did spur me to complete an urban forest management plan for the city, which was then adopted miraculously within months.”  
“I think the biggest thing would be in how I manage relationships in more straightforward manner.”  
“The results of that report were adopted by the state and (the) legislature passed laws based on that – it was a direct result of the training that I had at the MFI.” |  
| Collaboration   | “The city forester went to MFI at the same time I did, and it does seem to me that there was a lot more awareness about the particular coordination that was needed with volunteer groups and the volunteer community.”  
“The cohort of graduates from MFI within the organization now is probably um close to a dozen. So…I think it gives us like a cohesive and, kind of more worldly view of forestry in general across the country and u we're able to collaborate on what we've learned and um you know bring that into hold within our organization.”  
“MFI helped me in understanding different viewpoints of people I am collaborating with and how to use those ideas and opinions together to come up with the best solution.” |  
| Moved forward   | “I attended with a partner from [my city] and we were in the process of developing a private-municipal partnership and I think that we would have moved forward with that program but I think MFI and especially the two of us attending together gave us some strengths that came easier.”  
“It made me realize how the city I worked for was so behind times. I had a better sense of where I could direct our city to move towards. Overall it made me a better urban forester with new horizons to strive for.” |  
| Communication   | “My position revolves around community outreach, so all of the communities that I have worked with…have benefitted from the communications skills that I developed, the media training, and, just the interpersonal development that I obtained from MFI.”  
“Better awareness dealing with the public and press…or responding to requests for information from the press...That's something… covered in depth at MFI and that's helped a number of us communicate better.” |  
| skills          |                                                                                                                                                                                                                                   |
The outcomes under this theme are supported by survey results where respondents reported their agreement or disagreement with a series of statements about how they applied the MFI concepts or knowledge within their organizational context. Central to analyzing the outcomes of MFI is exploring what concrete steps that graduates took to improve their leadership effectiveness within the organization that sent them to the course. Table 4.10 presents this data.

Table 4.10

Organizational Impacts of MFI Attendance

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Some-what agree</th>
<th>Neither agree nor disagree</th>
<th>Some-what disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a result of MFI, I took a more active leadership approach to my job</td>
<td>20%</td>
<td>38%</td>
<td>22%</td>
<td>14%</td>
<td>0.6%</td>
<td>4%</td>
<td>0.61%</td>
<td>164</td>
</tr>
<tr>
<td>My attendance at MFI helped improve the organization I work for</td>
<td>20%</td>
<td>37%</td>
<td>27%</td>
<td>13%</td>
<td>0%</td>
<td>2%</td>
<td>0.61%</td>
<td>164</td>
</tr>
<tr>
<td>My attendance at MFI resulted in my organization creating new programs or initiatives</td>
<td>12%</td>
<td>28%</td>
<td>20%</td>
<td>29%</td>
<td>2.4%</td>
<td>9%</td>
<td>0.61%</td>
<td>164</td>
</tr>
<tr>
<td>As a result of MFI, my organization became more efficient</td>
<td>9%</td>
<td>27%</td>
<td>23%</td>
<td>30%</td>
<td>1.8%</td>
<td>7%</td>
<td>1.83%</td>
<td>164</td>
</tr>
<tr>
<td>As a result of MFI, my organization refocused some priorities</td>
<td>8%</td>
<td>21%</td>
<td>32%</td>
<td>28%</td>
<td>1.8%</td>
<td>7%</td>
<td>1.21%</td>
<td>165</td>
</tr>
</tbody>
</table>

A second data element related to this category explored what steps MFI graduates took that benefited both the organizations they work for and their overall careers within the urban forestry profession. In a survey question, respondents were asked to identify which, if any, of a number of steps they had taken related to attainment of leadership positions or application of leadership concepts. Figure 4.3 summarizes this data.
The third and final category of data obtained in this research relates to Impact in a Societal/Community Context. This category reveals the impact of the MFI course beyond the individual and organizational contexts and reflects the broader long-term value of the program.

**Networking.** The sole theme of this category is Networking, where respondents reported how MFI has increased their professional networks. Four sub-themes found under this theme relate to various aspects of connecting with colleagues and feeling a part of a profession. Table 4.11 lists these subthemes, supported by comments illustrative of these points.

**Table 4.11**

<table>
<thead>
<tr>
<th>Theme – Networking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subthemes</strong></td>
</tr>
<tr>
<td>Expanded Network</td>
</tr>
<tr>
<td>Sense of community</td>
</tr>
<tr>
<td>Shared experiences</td>
</tr>
<tr>
<td>Support</td>
</tr>
</tbody>
</table>

The outcomes realized under this theme are supported by survey results where respondents reported their agreement or disagreement with a series of statements related to how they applied the MFI concepts or knowledge specifically within a greater societal/community context. Respondents were asked about a series of specific actions that relate to how MFI skills and concepts may have been applied beyond their organization, such as in the community, civic organizations, or professional organizations. Table 4.12 presents these findings.
Table 4.12

**Societal/Community Outcomes Reported by MFI Graduates**

<table>
<thead>
<tr>
<th>As a result of attending the MFI course, I</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Total n =</th>
</tr>
</thead>
<tbody>
<tr>
<td>I took a more active leadership role in a community group or cause</td>
<td>11% 26%</td>
<td>23% 29%</td>
<td>2.4% 7%</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>I broadened the external stakeholders my organization interacts with</td>
<td>13% 31%</td>
<td>28% 20%</td>
<td>1.8% 4%</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>I increased my connection to other leaders in my field</td>
<td>25% 38%</td>
<td>30% 4%</td>
<td>0.6% 2%</td>
<td>0.6%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>I have an improved view of cultural and diversity differences</td>
<td>7% 33%</td>
<td>25% 25%</td>
<td>4.2% 5%</td>
<td>1.8%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>I created new collaborations, strengthened existing collaborations, or diversified collaborative efforts in my city, state/province, or region</td>
<td>17% 41%</td>
<td>22% 15%</td>
<td>3.0% 2%</td>
<td>0.6%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>I started mentoring someone outside of my own organization</td>
<td>8% 24%</td>
<td>17% 32%</td>
<td>4.9% 12%</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td>165</td>
</tr>
<tr>
<td>I taught some of the concepts I learned at MFI to other people</td>
<td>18% 40%</td>
<td>28% 10%</td>
<td>0% 3%</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
<td>165</td>
</tr>
<tr>
<td>I have an expanded network of colleagues that I feel I can call upon for help</td>
<td>23% 40%</td>
<td>25% 10%</td>
<td>0% 2%</td>
<td>0.6%</td>
<td></td>
<td></td>
<td></td>
<td>165</td>
</tr>
<tr>
<td>I focus more on policy and less on operations than I did before MFI</td>
<td>13% 23%</td>
<td>25% 23%</td>
<td>6.0% 7%</td>
<td>2.4%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
<tr>
<td>I have used my connections made at MFI to help solve a problem, address an issue, or gain a work efficiency</td>
<td>13% 28%</td>
<td>26% 21%</td>
<td>4.8% 6%</td>
<td>1.2%</td>
<td></td>
<td></td>
<td></td>
<td>166</td>
</tr>
</tbody>
</table>
Additional Findings

Emerging from the data analysis were two distinct sets of data that bear mentioning.

Minimal Influences, Outcomes, and Impacts represents data reported by respondents that the influence, outcomes, and impacts of the MFI course on their personal or professional lives were negligible or non-existent. Unexpected Benefits reflects a few unique pieces of data that don’t deal directly with course content, but which respondents nonetheless attributed to their MFI experience. Table 4.13 presents participant comments illustrative of these points.

Table 4.13

Additional Data Not Categorized in a Theme

<table>
<thead>
<tr>
<th>Topic</th>
<th>Comments Illustrative of this Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal Influence, Outcomes,</td>
<td>“This is a hard one for me to really pin anything down because I left five months after attending uh MFI, so I really didn't see how it helped or had a positive outcome for the organization I was working for.”</td>
</tr>
<tr>
<td>Impacts</td>
<td>“I'm not sure I've seen anything (outcomes) to speak of… I didn't see a change in my business… I guess I'm just going to go back to it really didn't affect my business much if at all, but I think it's a great program.”</td>
</tr>
<tr>
<td></td>
<td>“As for making a difference in my professional or personal life, I was already a driven individual who was thinking on the big picture scale, this did not make a profound impact on that, just allowed me to exercise my skills a bit more.”</td>
</tr>
<tr>
<td></td>
<td>“Career wise, this program did not have a great impact on where I was then and where I am today.”</td>
</tr>
<tr>
<td></td>
<td>“I enjoyed MFI, but did not find the experience enlightening or beneficial to my business.”</td>
</tr>
<tr>
<td>Unexpected Benefits</td>
<td>“In a moment of crisis, I relied on MFI as the only training I had to help me see myself through a traumatic event while providing necessary leadership and support for my staff. The event was a bizarre and catastrophic accident…. investigations, a funeral, lots of stress &amp; grief for myself and fellow crewmembers (followed). The MFI experience gave me strength/knowledge to help us all through it.”</td>
</tr>
<tr>
<td></td>
<td>“Writing down your goals and checking off your list, I have definitely transferred that from work all, like when you start doing that at work, it bleeds into your personal life too…Sometimes I think my husband looks at me and is amazed. I've never been financially focused and he's just like &quot;wow, she's getting this.&quot; So, that has very much helped me, even now, balance out.”</td>
</tr>
</tbody>
</table>
Summary

The three most commonly used words or phrases emerging from the MFI research data are Leadership, Confidence, and Networking. Although these three concepts are well represented throughout the themes and subthemes mentioned in this chapter, the frequency with which they appear within the data and the intensity of the respondents’ perspectives on these three concepts make it clear that these are ultimately the three main results of the MFI course. They are also concepts that seem to transcend the individual, organizational, and societal/community contexts. Comments illustrative of this point are reflected in Table 4.14.

Table 4.14

Summary of Leadership, Confidence, and Networking

<table>
<thead>
<tr>
<th>Concept</th>
<th>Comments Illustrative of this Point</th>
</tr>
</thead>
</table>
| Leadership  | “Attending MFI opened my eyes to leadership abilities that I didn't realize I had; I am now much more comfortable with stepping up in a group of professionals and facilitating next steps.”  
“I used the general leadership and management principles taught at MFI throughout my work as they are applicable to many situations in life and work.”  
“It made me truly understand leadership is NOT about promotions. It's so much more than that. It helped show me the leader I am in my everyday work and how to expand upon that. I also didn't expect the impact it would have in my personal life. MFI help push me to become civically involved in my community.”  
“Faced with lackluster leadership within my own department, I chose to adopt lateral leadership strategies discussed at MFI.” |
| Confidence  | “It gave me more confidence as well as to see how things are going in different places and to kind of lead my organization more in a way that I might not have had the personal confidence to do before that.”  
“I think if you come away with more confidence, which I did, maybe not sufficiently to do the next chores that I need to do, but with more confidence than I had.”  
“[After MFI] I was more likely to bring an issue forward rather than waiting for someone else to or thinking well that's my issue that's not an issue that needs to be brought forward. It gave me the confidence to say, no this is important and you’re going listen to me.”  
“I think the biggest thing that MFI did for me other than share a huge amount of knowledge in a short amount of time is that um you left with a little bit more confidence than what - than you went in with.” |
Networking
“As far as in my professional life, it definitely helped me to network a lot better.”
“And I still talk to a lot of the people I graduated with and keep in touch with them. And we all consult on things and I think that's the important thing, having that link that I can talk to somebody in Texas and also somebody in New York and - and it's just - it's really opened up my eyes that it - it's more than just my little community.”
“Since attending MFI I have been able to network and make contacts in other departments within the municipality that I work for.”
“MFI provided me the opportunity to meet and interact with a few individuals that were strangers, but I now consider to be true friends.”
“The professional connections I made during the MFI training have helped to improve my confidence and gave me a country/worldwide network that I can exchange ideas with.”

The three data collection methods used in this research study unearthed a virtual treasure trove of comments and insights that the MFI instructional team should find useful in the coming years. The next chapter will discuss the implications of these results.
Chapter 5: Discussion

In the previous chapter, research results from the three data collection methods used in the program evaluation of MFI were presented. The results show substantial outcomes and impacts at each of the domains addressed: the individual, organizational, and societal/community outcomes. This chapter discusses the MFI research results and explores the meaning of this data overall, and specifically in the context of the program evaluation and leadership evaluation models and frameworks presented in Chapters 1 and 2.

Implications of the Data

The purpose of this research was to conduct an outcome and impact evaluation of an educational program, the Municipal Forestry Institute. A qualitative approach and three data collection methods resulted in research that was both rich in observable and measurable data and full of stories, reflections, and instances of positive change. As such, the intent of the evaluation was fulfilled. Leadership program outcomes were observed across all three domains (Individual, Organizational, and Societal/Community) and show results that are both broad and deep in terms of describing how MFI graduates were influenced by the course and what they have done with the information they learned. The data contained in the previous chapter reveals examples of personal and professional growth, the exercise of leadership principles in multiple contexts, and the application of course concepts in a variety of settings and circumstances.

As is common with qualitative research, the main research questions evolved over the course of the study. Prior to data collection, a set of three main research questions were formulated, however after reviewing the data, the inductive analysis process produced slight revisions to the questions based on the patterns found in the data. Nonetheless, the three revised questions are best reviewed through the lenses of the program evaluation frameworks.
**Kellogg’s Categories of Program Outcomes**

How does MFI stack up in terms of outcomes and impacts of other leadership education programs? Revisiting the fourteen categories summarized by Kellogg (2002) mentioned in Chapter 2 of this dissertation provides a useful departure point for discussing the implications of the results obtained by this research.

**Individual Domain.** Based on this research, it is clear that the MFI course is having considerable influence and producing outcomes in the lives of the individual participants who complete the course. These outcomes can be divided into two subcategories: 1) personal attributes reflecting changes in attitudes or perspectives, and 2) specific actions taken by the participants as a result of this personal or professional growth. While Kellogg’s research doesn’t make this specific distinction, this research does. The following items compare Kellogg’s individual categories with results from the MFI study.

*Changes in Knowledge, Skills, Attitudes, and Perceptions.* This is an area in which MFI excels. The data reveals significant personal and professional growth in concepts such as inspiration, motivation, and reinvigoration. What Kellogg refers to as “perceptions” in this category is more closely aligned with what MFI participants referred to as a change in “perspective.” A recurring theme of the qualitative responses was the notion of gaining a new perspective, being reinvigorated or challenged to try or learn new things, and gaining skills in content areas such as public speaking, leadership, or personality type analysis. As Table 4.6 indicates, survey respondents indicated that MFI significantly or greatly improved their self-awareness (43%), made them want to learn even more to improve themselves (62%), made them a better decision-maker (40%), increased their openness to new perspectives (43%) and improved their self-confidence (37%).
Changes in Behavior. As with the previous indicator, MFI influenced substantial and measurable changes in behavior among its graduates. Respondents indicated positive change in the areas of taking leadership responsibility, exerting a greater influence on peers, and becoming more strategic in their work. As Table 4.7 reveals, 90% of respondents were energized to take a more active leadership approach to their job, and 49% were able to get “unstuck” from a problematic situation at work. Based on their experiences at MFI, 80% of respondents reported that they created new collaborations or strengthened or diversified collaborations (Table 4.12).

Changes in Values and Beliefs. This research did not include a deep-dive into the subject of values and beliefs. However, the findings do reveal some personal growth measures that support this category. Respondents reported that they had Greater Awareness or a Better Understanding of a variety of situations, or that they were more purposeful or purpose-driven. For example from Table 4.12, 62% reported an improved view of cultural and diversity differences. Additionally, 79% said that MFI transformed how they see leadership and exercise it (Table 4.7), which is a transformation that requires changes in values and beliefs.

Leadership Paths. Figure 4.3 describes personal growth outcomes that pertain to the participants’ leadership paths. For example, 38% applied for a promotion within their own organization, 31% applied for a higher level job in another organization, 41% assumed a leadership role in a local, state, or national non-profit organization, and 34% assumed a leadership role in a professional society. Furthermore, 76% were able to discover new leadership paths for their career (Table 4.7).

Relationships. As indicated in the previous chapter, respondents reported significant expansion in their collaborations and their networks both in their own organizations and beyond. These observations are reflected in participants’ statements about their Expanded Network and
Shared Experiences. As Table 4.12 reveals, 94% reported that they increased their connection to other leaders in the field, and 88% said they gained an expanded network of colleagues they can call on for help.

**Organizational Domain.** Whereas Kellogg’s (2002) leadership scan found less of an organizational impact than an individual one, the MFI results show equally great influences in the individual and organizational domains. This should not be surprising considering that for the vast majority of MFI participants, their employing organizations were the ones paying for their time, tuition, and expenses to attend the course. Consequently, a significant organizational impact should reasonably and logically be expected.

*Enhancing Organizational Leadership Capacity.* A stated goal of the MFI leadership course is to help grow new leaders for the field of urban forestry so it stands to reason that this particular category would be one of MFI’s strengths. Respondents reported that MFI increased their leadership capacity in the context of goal setting, strategic direction, and effectiveness (Table 4.8). Overall, MFI participants agreed that the course transformed how they saw leadership and exercised it (89%). Survey data reveals that 45% of respondents reported applying for jobs that involved a greater leadership role, and 43% decided to seek out additional leadership courses (Figure 4.2).

*Program Innovation and Expansion.* This is another area in which the MFI program excels. Participants reported being inspired to try new things or to “raise the bar” of achievement, and being given tools to develop new programs or attempt innovations. This is supported by survey data in Table 4.7, where 88% agreed that MFI expanded their concept of what was possible to achieve in their career, and in Figure 4.3, which shows 52% of respondents started a new program or initiative within their organization after attending MFI. These high
scores can be attributed in part to participants being exposed to new ideas from other MFI graduates attending the class in the same year.

*Changes in Organizational Functioning.* Participants reported that MFI improved the effectiveness of their organization, resulted in refined goals, and helped their organization be more strategic. From Table 4.12, 67% reported using connections made at MFI to help solve a problem, resolve an issue, or gain efficiency at work. Additional organizational outcomes from the survey are summarized in Table 4.10, where 84% agreed that MFI helped improve their organization, 62% agreed that their MFI attendance caused their organization to refocus some priorities, and 58% said their organization became more efficient.

*Societal/Community Domain.* Just as in the Kellogg (2002) scan of 55 leadership programs, it is in this final category that MFI produces the least impact. It was clear from the interviews that this was the least understood domain in terms of participants’ responses. However, there are still some significant impacts generated by the MFI program, particularly in the areas of Collaboration, Developing Future Leaders in a Field, and Connections and Networking.

*Broadening Leadership Participation.* Limited MFI data is available to judge this particular category. In Table 4.12, 49% reported that they started mentoring someone outside their own organization and 72% of respondents reported that they had broadened the external stakeholders their organization interacts with as a result of attending MFI.

*Collaboration.* The fact that MFI gets high marks for fostering collaboration should come as no surprise since this is one of the four main themes of the course. Participants reported strengthening of their collaborative efforts, particularly when someone else from their organization, their community, or a collaborating organization attended the course at the same
time they did. This is supported by data from Table 4.7, which revels that 79% agreed that MFI improved their collaborative skills, and from Table 4.12, where 88% said they had started, strengthened, or diversified collaborative efforts.

*Developing Future Leaders in a Field.* This outcome category summarizes the entire intent of the MFI course. Multiple data sources already cited illustrate that MFI is having a significant impact on creating new leaders for urban forestry. This is perhaps nowhere more evident than on the Board of Directors for the Society of Municipal Arborists, the sponsoring organization for MFI. The current composition of the board shows that six of the eight seats are held by MFI graduates.

Replication of Leadership Programs. Many of the interviewees and focus group members commented that they had taught something they learned at MFI to someone else in their organization, or even their family. Comments illustrative of this point are found under the “Multiplicity” code found in Table 4.8. An influencer of this category would be the factor of mentorship, and as seen in Figure 4.3, which shows that 58% of the respondents reported that they started mentoring other professionals as a result of MFI. Furthermore, 86% taught some of the concepts learned at MFI to other people (Table 4.12).

Connections and Networking. As mentioned in the preceding chapter, it is in this category that MFI absolutely excels. The terms “network” or “networking” pervade the data from this study. The Relationship category from the Individual Domain contains additional frequency counts supporting this point.

Policy Knowledge. While this research did not specifically explore the policy knowledge concept, it is clear that there is an impact. Several participants mentioned that as a result of MFI, they had shifted their focus from an operational role to a policy role, or from a technical role to a
more managerial role. In fact, 62% reported that they focus more on policy and less on
operations than before they attended MFI (Table 4.12). While the MFI curriculum does discuss
policy in the context of leadership, developing or advancing knowledge of policy development or
implementation is not a stated learning objective within the MFI curriculum.

Based on these findings and this categorization, it is evident from this research that if the
Kellogg Foundation were to replicate its scan of leadership programs in 2017 and included MFI
as one of the programs studied, the course would compare favorably in many of these categories.
Based on these observations, it is worth revisiting the theoretical and conceptual frameworks
underpinning this research.

Kirkpatrick’s Levels 3 and 4

In the research design, this project applied the Kirkpatrick’s Level 3 and Level 4 program
evaluation methods to the MFI course as its theoretical framework. The findings of this research
clearly demonstrate that there has been behavior change and results from the course as follows:

Behavior. Kirkpatrick’s Level 3 gauges if the learner demonstrates changed behavior in
the skill or knowledge areas covered by the course material, and if there is evidence at a later
date of transfer to the workplace of these skills or knowledge. Based on the findings of this
research, MFI is producing significant personal and professional growth in the lives of its
participants. There are four main themes to the MFI curriculum, covering leadership, strategic
thinking and planning, collaboration, and communications. Results from Table 4.7 illustrate that
MFI improved participants’ leadership skills (87%), improved their strategic thinking skills
(89%), improved their collaborative skills (79%), and improved their communications skills
(85%). The fact that these improvement levels are so high for all four of the MFI themes
illustrates the effectiveness of the curriculum in producing this changed behavior.
**Results.** Kirkpatrick’s Level 4 assesses the degree that the learners’ organizations have been positively impacted by the learners' application of the training, knowledge and skills in the workplace. Again, based on the data, the achievement is significant. Organizational results of MFI are found in the actions taken by the graduates to strengthen existing programs, create new collaborations, apply for positions with more leadership responsibilities, and a host of other beneficial strategic outcomes.

**EvaluLEAD Model**

Black and Earnest’s (2009) adaptation of the Grove, Kibel and Haas (2005) EvaluLEAD model served as the conceptual framework for this research. The following chapter summarizes the findings through the lens of this model.

**Domains Where Program Results Occur.** The research data shows strong results in the Individual and Organizational domains, and lesser impact in the Societal/Community domain.

**Leadership Program Outcomes.** Of the nine leadership program outcomes from the model (Figure 2.1), it is evident that MFI has created measurable outcomes in seven of the nine. The two that MFI does not appear to have impacted are “Totally New Organizational Directions” and “Fundamental Socio-Political Reforms.” For the most part, these two shortcomings are not surprising given that MFI does not aim to produce these particular outcomes. For the remainder, the program is having significant impact.

**Types of Program Results.** The EvaluLEAD model funnels these nine outcomes into three categories: Episodic, Developmental, and Transformative. Not surprisingly, MFI demonstrates specific measurable results in the Episodic category with changes or actions caused by the program, and the Developmental category, with changes taking place over time. The program area where the MFI course is producing limited results is in the Transformative
category, where fundamental shifts occur. Some respondents did characterize MFI as being a transformative experience for them personally, and organizationally, but it remains to be seen if that is happening on a broader scale across the profession.

**Forms of Inquiry.** This research employed both the Evocative and the Evidential forms of inquiry from the EvaluLEAD model. The MFI research unearthed observable and measurable evidence about what happened to people as a result of attending MFI, and collected opinions and captured stories about MFI outcomes and impacts.

**Answering the Research Questions**

Circling back to the research questions for this project, it is evident that the MFI course has been successful in producing new leaders and creating positive outcomes and impacts on the lives, organizations, and communities of the MFI participants. This section specifically addresses the three research questions:

1. **How did the MFI course influence the participants’ thoughts, beliefs, and perspectives to cause outcomes in their personal and professional lives?** The answer, based on the results of the research, including the perspectives of the participants in their own words, is a substantial positive impact. From the stories provided by the participants to the reflections and opinions provided by the survey respondents, MFI is clearly a positive force for advancing leadership knowledge, skills, and intent in its attendees.

2. **What organizational outcomes resulted from participants’ attendance at MFI?** As the tables in the Results chapter indicate, the outcomes are both broad and deep. Although several participants reported that they faced organizational resistance to change when returning home after MFI, most found some way to put the principles into practice. Comparatively, organizational achievement is on par with individual achievement as an
MFI outcome. Most participants were able to relate multiple actions that they took in their work environment that were based on things that they learned by attending MFI. Many of the respondents mentioned that their organization had been sending additional people to attend MFI after having a positive experience seeing graduates come back and apply the concepts in the workplace.

3. What were the impacts of attending MFI over the longer term and on the larger societal/community context? While the impacts of MFI have been substantial at the individual and organizational levels, the societal/community impacts are mixed. Clearly MFI is having an impact on the urban forestry profession and on the Society of Municipal Arborists. But in particular with the interviews, it was evident that participants struggled to come up with an answer of how MFI had a broader impact beyond themselves and their organization, except for networking and feeling part of the larger profession. A few participants were able to cite an increased level of civic-engagement, but not nearly on the same level as the other two domains. For example, only 35% said that MFI has a great or significant impact on their involvement in their local community. On an open-ended survey question answered only by graduates from courses held between five and ten year ago, respondents didn’t ascertain that there was much difference in the short (1-5 years) and long (greater than 5 up to 10 years) term. As mentioned, part of this may be attributed to the fact that several participants had trouble remembering specifics about the MFI course because it was so far back in their mental rear-view mirror.

In summary, this evaluation of the MFI course reveals that the course is having measurable and substantial outcomes on its attendees, and the organizations that are sending participants are receiving significant returns on that investment of time and resources. A broader impact on the
profession shows promise, but is not fully realized at this time. Thus the first two research questions are answered thoroughly, while the third question can only be addressed on a partial basis, albeit one that shows promise for future impact.

**Researcher Reflections**

This research represents the most rigorous evaluation of the MFI to date. As a teacher and researcher, I am not an unbiased party to this analysis. Having served as the curriculum chair of the MFI for nine of the ten years covered by this study, I certainly have a vested interest in the outcome as well as an intellectual curiosity about it. The MFI teaching cadre has known anecdotally, from the very first year of the course, that MFI was something special. Consequently, it is very gratifying to be able to statistically validate what we have verbally heard from the participants over all these years.

The findings in this chapter are not surprising, as the data confirms a great deal of what the teaching team has heard anecdotally over the years. However, several things stand out. First, I believe the entire teaching cadre underestimated the effect that MFI would have on individuals. We set out to make more leaders for the profession. We achieved that, but we also ended up making better people, too. Second, the camaraderie created by the MFI was primarily thought of as focusing on a network of professionals, but the network of friendships that has also been created has equaled the professional one. More than one survey participant mentioned that they had gained lifelong friends from MFI. And third, the level of confidence and empowerment reported by the participants far exceeds the intent to which the teachers have instructed. While this research didn’t interview the instructors, I’m fairly confident in saying that MFI has positively impacted them as well. Finally, this research tangibly demonstrated for me the importance of leadership program evaluation, and the usefulness of the evaluation tools tested.
**Recommendations for Future Research**

The findings and recommendations from this study bring up other ideas for future research, including:

1. **Regularly scheduled evaluation:** The MFI would benefit from a recurring, regularly scheduled evaluation plan. It was clear from some of the respondents of this study that too much time had elapsed between this study and the year they had taken the course, making it difficult to accurately measure impact and introducing the potential for respondent bias. Several reported that they couldn’t remember exactly what year they attended, and while they could remember that the course was beneficial, they struggled remembering what parts of it were most meaningful to them.

2. **Longitudinal Cohort Study:** One possible future research path would involve taking one MFI class and studying it repeatedly at regular intervals over a specified period of time, such as several times in a decade. This could provide insightful information about how leadership skills and concepts are applied over time, and might describe the lasting effects of MFI on its participants.

3. **Control Group Study:** Another option for research would be to find a group that hasn’t taken MFI and compare them with a class of MFI graduates. This comparison could quantify the value of MFI versus no leadership training. This could also allow for causality research that might explain any cause-and-effect relationships among portions of the MFI curriculum.

4. **360 Degree-Style Peer Input Study:** To more comprehensively evaluate the MFI, a 360-degree feedback system in which participants could receive feedback from the people around them could be employed. Under this type of process, a MFI graduate would be a
party to the research as far as self-assessment of how their leadership improved after attending MFI; plus the graduate’s manager, peers, and direct report employees (if applicable) could also be surveyed. This system would allow a broader evaluation of MFI because it would include evaluation from more than one perspective.

5. Single Characteristic Studies: Is MFI more applicable to people in the public sector versus the non-profit sector? Do people in California or Maine report greater achievement levels than people in Wisconsin or Florida? Is MFI more impactful for people new in their careers versus mid-career professionals? If so, why? This type of question where one or more characteristics (employer type, geography, career longevity, etc.) is studied more in-depth could be of great value to the MFI instructional team. Results from studies like these could help tailor the course to meet the specific needs of attendees.

As more and more individuals are added to the ranks of MFI graduates, the population should become more diverse in many ways and varying research methods might provide a multitude of different insights on the effectiveness of the program.

While this research was conducted with a qualitative approach, the nature and subject of this research would also lend itself to a mixed methods approach. The point of this qualitative research study was to establish a baseline of evaluation data for MFI and to explore the outcomes and impact that MFI had on its participants as well as the broader impact of the program itself. In future research, it seems logical to take the next step of actually comparing outcomes and impacts among MFI class years, or among all MFI graduates. This type of study will require both qualitative and quantitative approaches, and would likely necessitate some form of pre-test conducted at the beginning of future MFI sessions. An approach like this could yield additional findings that strengthen the case statement for the program.
Conclusion

In summary, this research demonstrated that as a successful leadership education course, MFI is producing substantial and relevant outcomes in the lives of the course participants, having positive outcomes on and benefits for the organizations that are sending people to the course, and in a more limited manner, is having a positive impact on the profession and society. The theoretical and conceptual frameworks used were demonstrated to be appropriate tools to measure the outcomes and impacts of the MFI course.

Some of the most pertinent and poignant conclusions about the influences, outcomes, and impacts of MFI can be found in the words of the course participants themselves, such as those listed here in Table 5.1, providing a personal testimony of the value of the program. This type of data reinforces the findings and conclusions that the course is successful in producing its desired outcomes and impacts.

Table 5.1

*MFI Participant Testimonies*

<table>
<thead>
<tr>
<th>Participant Testimonies</th>
</tr>
</thead>
<tbody>
<tr>
<td>“MFI was a great experience that every urban forester should experience.”</td>
</tr>
<tr>
<td>“I am committed to advocating for others from my organization to go to MFI, and have succeeded in helping to send one person each year from my city!”</td>
</tr>
<tr>
<td>“MFI was a unique opportunity to gather with like-minded people, and freely discuss the challenges and perspectives in our current careers.”</td>
</tr>
<tr>
<td>“MFI introduced me to a network of passionate, welcoming people who are excited to share their experience and expertise with new people and I felt and continue to feel supported by this community as I grow in my role as an urban forester.”</td>
</tr>
<tr>
<td>“It kick-started me back into seeing what the future could hold for me.”</td>
</tr>
<tr>
<td>“MFI helped me collaborate better throughout my career. MFI helped me embrace change in professional and personal life.”</td>
</tr>
<tr>
<td>“Attending MFI was one of those life experiences that has made me a stronger individual both personally and professionally.”</td>
</tr>
</tbody>
</table>
“I also met a lot of good people, and have kept in contact with several of them. Overall, MFI was the best U&CF professional development course I have taken to date.”

“I've been impressed at how effective MFI was at producing a network that continues to grow. It goes beyond the people that you met in your cohort and there is a kinship with other classes.”

“The professional connections I made during the MFI training have helped to improve my confidence and gave me a country/world wide network that I can exchange ideas with.”

“MFI was one of the best overall experiences I've have professionally. It continues to benefit me personally also as most of the lessons are life lessons, not just to be applied at work.”

“On a personal level, MFI helped me be a better version of me.”

Testimonies like that are not only the truest reflection of a successful leadership education program evaluation, they are also the best endorsement of MFI that its organizers could have ever dreamed and hoped for when they created the course over a decade ago.
References


*Advances in Developing Human Resources, 7*(1), 37-54. doi:

10.1177/1523422304272080


Appendix A
Participant Consent Form

Project Title:
Evaluating outcomes and impacts of the Municipal Forestry Institute leadership education course

Purpose:
You are being asked to take part in a research study. The purpose of this research study is to document the outcomes and impacts of attendance at the Municipal Forestry Institute. Your responses will be aggregated with those of your fellow MFI graduates, however your open-ended responses may be used verbatim as testimony to the overall impact of the program.

Activities:
The study activity includes an online survey. You will be asked to answer several questions about yourself. Some questions will provide a list of possible responses and you will choose the one that best describes you. Other questions will ask you to write in your response. All MFI graduates from 2006-2015 have been invited to complete the online survey.

Time:
The survey will each take about 15-30 minutes to complete.

Confidentiality:
Your participation in this study is confidential. Aggregate data may be shared with the Society of Municipal Arborists, the US Forest Service, and other urban forestry organizations.

Voluntary Participation:
Participation in this study is voluntary. You may skip any question you do not feel comfortable answering.

Study contacts:
If you have any questions about this research project, please contact: Paul Ries at paul.ries@oregonstate.edu. If you have questions about your rights or welfare as a participant, please contact the Oregon State University Institutional Review Board (IRB) Office, at (541) 737-8008 or by email at IRB@oregonstate.edu

Consent:
I hereby consent to participate in this study.
Appendix B
Recruitment Emails

Focus Group

Hello MFI Graduate,

I am conducting a research study on the outcomes and impacts of the Municipal Forestry Institute on its participants. You have been randomly selected from a group of MFI graduates attending next week’s Partners in Community Forestry conference in Indianapolis, IN. I would like to invite you to attend a one hour focus group to share your MFI experiences. Your participation in this research is completely voluntary, and you will be asked to sign a consent form before participating. There is no monetary award for participating in this research.

The focus group will be held from 7:15 to 8:15 am on Wednesday November 16th at the Partners in Community Forestry Conference location, prior to the PCF session starting at 8:30 am. This will give you a brief time to get coffee or breakfast from the exhibit hall before or afterwards.

If you would like to participate in this focus group, please RSVP with a response email to confirm your spot. If you would prefer not to participate, please respond via email as well so that your slot can be offered to the next available person on the list.

If you have questions, please feel free to contact me.

Thanks for your consideration.

Paul

Telephone Interviews

Dear MFI Alumnus:

You have been randomly selected to participate in a telephone interview regarding your experiences since completing the Municipal Forestry Institute course. This research will help us understand the outcomes and impact of MFI on your personal and professional lives, the organization you work for, and the communities in which you live or volunteer. This interview should take 10-20 minutes, and there are only four open-ended questions. To insure the integrity of the data collection, these interviews will be audio recorded.

You will also be receiving an email asking you to participate in an online survey regarding MFI - that survey is being sent to all MFI alumni from the 2006-2015 classes. However, the interviews mentioned in this email are only being conducted with a smaller random sample of alumni.

If you are willing to be interviewed, and these terms are acceptable, please reply to this email with a preferred date, time period (adjust for your own time zone if needed), and the phone
number that I can call you at. Once we confirm a time, I will provide you with additional information.

Here are the initial interview dates/times:

Wednesday November 30, between 8 am and 4 pm Pacific Time
Monday December 5, between 10:30 am and 4 pm, Pacific Time
Thursday December 15, between 8 am and 12 noon, Pacific Time

If none of these initial dates work for you, let me know what alternative dates might be acceptable.

If you would prefer not to participate in this part of the study, please reply to this email with that request and I will remove your name from the list.

If you have any questions, please don't hesitate to contact me.

Thanks for your consideration.

Paul

**Online Survey**

Hello MFI Graduates from 2006-2015

You are being invited to participate in a research study that aims to document the outcomes and impacts of attending the Municipal Forestry Institute. The link below directs you to an online survey containing questions about your MFI experience. This survey is not about what you learned at MFI, or if you were satisfied with your MFI experience, but rather is seeks to identify what you did with the knowledge you gained through attending MFI.

This survey will help the Society of Municipal Arborists and the MFI sponsors gauge the impact of the course on you, the participants.

Your participation in this research study is completely voluntary, and you will not be compensated personally for your participation. All efforts will be made to keep the survey data anonymous and confidential. Consequently, you are asked NOT to provide identifying information in your responses.

If you have any questions about this research study, please contact me at paul.ries@oregonstate.edu or 541-737-3197.

Thanks for your time and consideration.

Paul Ries
Follow this link to the Survey:
${l://SurveyLink?d=Take the survey}
Or copy and paste the URL below into your internet browser:
${l://SurveyURL}
Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}
Appendix C
Participant Questions

Focus Group and Interview Questions

1. After your experience attending the Municipal Forestry Institute course, what outcomes have you observed in your personal or professional life that you can attribute in whole or in part to attending the MFI?

2. After attending MFI, what outcomes have you observed in your organization, agency, or company that you can attribute in whole or in part to attending the MFI?

3. After attending MFI, what outcomes have you observed in your community or greater society roles that you can attribute in whole or in part to attending the MFI?

4. Overall, describe the impact that attending MFI made on you or your career.

Online Survey

Q1 Participant Consent Form: I hereby consent to participate in this study.
Yes (1)
No (2)
If No Is Selected, Then Skip To End of Survey

Q2 [Editor’s Note: Question 2 was dropped from the final draft survey but the survey questions were not renumbered, not there was no question 2]

Q3 Please indicate the year that you attended MFI.
2006 (1)
2007 (2)
2008 (3)
2009 (4)
2010 (5)
2011 (6)
2012 (7)
2013 (8)
2014 (9)
2015 (10)

Q4 Please indicate your gender.
Male (1)
Female (2)
Prefer not to answer (3)
Q5 Please indicate the state or province where you were employed when you attended MFI. Use the two digit postal code. If you are from outside of North America, please put OT for Other.

Q6 How many years work or volunteer experience in urban forestry did you have when you attended MFI? Please use exact whole numbers, not a range.

Q7 Please choose the best answer that describes your current employment situation. Compared to when you attended MFI, are you currently:
  Employed in the same position you were in when you attended MFI (1)
  Employed in a different position in the same organization or agency (2)
  Employed in a different organization, agency, or company (3)
  Retired (4)
  No longer working/volunteering in the urban forestry field (5)

Q8 This section asks you about the impact that MFI had on you as an individual, either personally, professionally, or both. Thinking about how you were before attending MFI versus after attending MFI, on a scale of 1 to 5 for each item, how would you say that MFI influenced the following:

<table>
<thead>
<tr>
<th>Increased my openness to new ideas/perspectives (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved my Self-confidence (2)</td>
</tr>
<tr>
<td>Improved Self-awareness (3)</td>
</tr>
<tr>
<td>Expanded the size of my professional network (4)</td>
</tr>
<tr>
<td>Expanded the diversity of my professional network (5)</td>
</tr>
<tr>
<td>Improved my creative thinking or problem solving abilities (6)</td>
</tr>
<tr>
<td>Increased my comfort level with public speaking (7)</td>
</tr>
<tr>
<td>Ignited a greater interest in taking on leadership roles (8)</td>
</tr>
<tr>
<td>Made me a better decision-maker (9)</td>
</tr>
<tr>
<td>Increased my interest or involvement in my local community (10)</td>
</tr>
<tr>
<td>Made me want to learn even more to improve myself (11)</td>
</tr>
</tbody>
</table>

Q9 Please indicate your level of agreement or disagreement with the following statements. As a result of attending the MFI course, I

<table>
<thead>
<tr>
<th>Improved my leadership skills (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved my strategic thinking skills (2)</td>
</tr>
<tr>
<td>Improved my communications skills (3)</td>
</tr>
<tr>
<td>Improved my collaboration skills (4)</td>
</tr>
<tr>
<td>Expanded my concept of what is possible to achieve in my career (5)</td>
</tr>
<tr>
<td>Significantly changed my outlook on my job or career (6)</td>
</tr>
<tr>
<td>Found insights that helped change the direction of my career (7)</td>
</tr>
<tr>
<td>Was energized to take a more active leadership approach to my job (8)</td>
</tr>
<tr>
<td>Experienced a profound shift in viewpoint, career, or vision (9)</td>
</tr>
<tr>
<td>Experienced significant personal growth (10)</td>
</tr>
<tr>
<td>Experienced significant professional growth (11)</td>
</tr>
<tr>
<td>Transformed how I see leadership, and how I exercise it (12)</td>
</tr>
<tr>
<td>Was able to think about and discover new leadership paths for my career (13)</td>
</tr>
<tr>
<td>Was able to get &quot;unstuck&quot; from a work situation that was problematic (14)</td>
</tr>
</tbody>
</table>

Q10 Which of the following items, if any, did you do after leaving MFI, which you would attribute at least in part to your MFI experience?
Decided to seek out additional leadership courses (1)
Decided to apply for higher-level jobs that involved a greater leadership role (2)
Went back to school for additional education (3)
Was elected or appointed to a leadership position in a non-profit organization (4)
Was elected or appointed to a leadership position in a governmental agency (5)
Joined a citizen advisory body such as a Tree Board or Planning Commission (6)
Q11 In this open-ended question, please sum up what you have done with what you have learned at MFI? How did MFI make a difference in your personal or professional life?

Q13 After attending MFI, which of the following items have you done related to the organization in which you work? (check all that apply)
- Applied for a promotion to a higher position in your organization (1)
- Applied for a higher level position in another organization (2)
- Obtained a promotion in your current organization or another organization (3)
- Assumed a leadership role in a local, state, or national non-profit organization (4)
- Assumed a leadership role in a local, state, or national professional society (5)
- Started mentoring other professionals (6)
- Sought out a mentor for myself within the profession (7)
- Started a new program or initiative within your organization (8)

Q14 Please indicate your level of agreement or disagreement with the following statements:

<table>
<thead>
<tr>
<th></th>
<th>Strongly agree (1)</th>
<th>Agree (2)</th>
<th>Some what agree (3)</th>
<th>Neither agree nor disagree (4)</th>
<th>Some what disagree (5)</th>
<th>Disagree (6)</th>
<th>Strongly disagree (7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>As a result of MFI, I took a more active leadership approach to my job (1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My attendance at MFI helped improve the organization I work for (2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>My attendance at MFI resulted in my organization creating new programs or initiatives (3)</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>As a result of MFI, my organization became more efficient (4)</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As a result of MFI, my organization refocused some priorities (5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Q15 Please answer the following questions in the context of how MFI influenced you beyond your personal and professional lives, and the organization you work for. Please indicate your level of agreement or disagreement with the following statements. As a result of attending the MFI course, I:

| I took a more active leadership role in a community group or cause (1) | Strongly agree (1) | Agree (2) | Some what agree (3) | Neither agree nor disagree (4) | Some what disagree (5) | Disagree (6) | Strongly disagree (7) |
| I broadened the external stakeholders my organization interacts with (2) | | | | | | | |
| I increased my connection to other leaders in my field (3) | | | | | | | |
| I have an improved view of cultural and diversity differences (4) | | | | | | | |
| I created new collaborations, strengthened existing collaborations, or diversified collaborative efforts in my city, state/province, or region (5) | | | | | | | |
| I started mentoring someone outside of my own organization (6) | | | | | | | |
| I taught some of the concepts I learned at MFI to other people (7) | | | | | | | |
| I have an expanded network of colleagues that I feel I can call upon for help (8) | | | | | | | |
| I focus more on policy and less on operations than I did before MFI (9) | | | | | | | |
| I have used my connections made at MFI to help solve a problem, address an issue, or gain a work efficiency (10) | | | | | | | |
Display This Question:
If Please indicate the year that you attended MFI. 2006 Is Selected
Or Please indicate the year that you attended MFI. 2007 Is Selected
Or Please indicate the year that you attended MFI. 2008 Is Selected
Or Please indicate the year that you attended MFI. 2009 Is Selected
Or Please indicate the year that you attended MFI. 2010 Is Selected
Or Please indicate the year that you attended MFI. 2011 Is Selected

Q14 If you in attended the MFI class in 2006, 2007, 2008, 2009, 2010 and 2011 (ie, it has been more than 5 years since you attended MFI), is there any difference in how MFI impacted you over the long term (more than 5 years) versus the short term (the first 5 years after attending MFI)? Please write a brief description of your experience in the short term and the longer term.

Q15 Please add any other comments in this open-ended question box about how MFI has impacted you and your career. Thanks for your participation in this research.